UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-K

(Mark One)
☒ ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended December 31, 2021

☐ TRANSITION REPORT UNDER SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the transition period from _____ to _____

Commission File Number: 001-36728

ADMA BIOLOGICS, INC.

(Exact Name of Registrant as Specified in Its Charter)

Delaware	**56-2590442**
(State or Other Jurisdiction of Incorporation or Organization)	(I.R.S. Employer Identification No.)
465 State Route 17, Ramsey, New Jersey	**07446**
(Address of Principal Executive Offices)	(Zip Code)

Registrant's telephone number, including area code: **(201) 478-5552**
Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol	Name of each exchange on which registered
Common stock, par value $0.0001 per share	ADMA	**Nasdaq Global Market**
Preferred Share Purchase Right	-	**Nasdaq Global Market**

Securities registered pursuant to Section 12(g) of the Act: **None**

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☐ No ☒

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Act. Yes ☐ No ☒

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act. (Check one):

Large Accelerated Filer	☐	Accelerated Filer	☐
Non-accelerated Filer	☒	Smaller Reporting Company	☒
		Emerging Growth Company	☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act ☐

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. Yes ☐ No ☒

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes ☐ No ☒

The aggregate market value of the registrant's common stock held by non-affiliates was $173,220,302 as of June 30, 2021 (the last business day of the registrant's most recently completed second fiscal quarter), based on a total of 108,262,689 shares of common stock held by non-affiliates and a closing price of $1.60 as reported on the Nasdaq Global Market on June 30, 2021.

As of March 18, 2022, there were 195,920,353 shares of the issuer's common stock outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the ADMA Biologics, Inc. definitive proxy statement to be filed pursuant to Regulation 14A within 120 days after the end of the fiscal year are incorporated by reference into Part III of this Annual Report on Form 10-K and certain documents are incorporated by reference into Part IV.

Special Note Regarding Forward-Looking Statements

Some of the information in this Annual Report on Form 10-K contains "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, as amended (the "Securities Act") and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and such forward-looking statements involve risks and uncertainties. These forward-looking statements include, but are not limited to, statements about our plans, objectives, representations and contentions that are not historical facts and typically are identified by use of terms such as "may," "should," "could," "would," "expect," "plan," "anticipate," "believe," "estimate," "predict," "potential," "project," "continue," or the negative thereof, or other variations or comparable terminology, although some forward-looking statements are expressed differently. The forward-looking statements included herein represent management's current judgment and expectations, but our actual results, events and performance could differ materially from those in the forward-looking statements. These statements include statements about:

- our ability to manufacture BIVIGAM and ASCENIV on a commercial scale and further commercialize these products as a result of their approval by the U.S. Food and Drug Administration (the "FDA") in 2019;
- our plans to develop, manufacture, market, launch and expand our commercial infrastructure and commercialize our current and future products and the success of such efforts;
- the safety, efficacy and expected timing of and our ability to obtain and maintain regulatory approvals for our current products and product candidates, and the labeling or nature of any such approvals;
- the achievement of or expected timing, progress and results of clinical development, clinical trials and potential regulatory approvals for our product candidates;
- our dependence upon our third-party customers and vendors and their compliance with applicable regulatory requirements;
- our belief that we have addressed the delays experienced with final drug product Good Manufacturing Practices ("GMP") release testing by our third-party vendors by adding additional release testing laboratories to our FDA-approved consortium listed in our drug approval documents;
- our ability to obtain adequate quantities of FDA-approved plasma with proper specifications;
- our plans to increase our supplies of source plasma, which include plasma collection center expansion, our ability to obtain and maintain regulatory compliance and receive FDA approvals of new plasma collection centers and reliance on third-party supply agreements as well as any extensions to such agreements;
- the potential indications for our products and product candidates;
- potential investigational new product applications;
- the acceptability of any of our products, including BIVIGAM, ASCENIV and Nabi-HB, for any purpose, including FDA-approved indications, by physicians, patients or payers;
- our plans to evaluate the clinical and regulatory paths to grow the ASCENIV franchise through expanded FDA-approved uses;
- Federal, state and local regulatory and business review processes and timing by such governmental and regulatory agencies of our business and regulatory submissions;

- concurrence by the FDA with our conclusions concerning our products and product candidates;
- the comparability of results of our hyperimmune and immune globulin ("IG") products to other comparably run hyperimmune and immune globulin clinical trials;
- the potential for ASCENIV and BIVIGAM to provide meaningful clinical improvement for patients living with Primary Immune Deficiency Disease or Primary Humoral Immunodeficiency Disease ("PIDD" or "PI") or other immune deficiencies or any other condition for which the products may be prescribed or evaluated;
- our ability to market and promote Nabi-HB in a highly competitive environment with increasing competition from other antiviral therapies and to generate meaningful revenues from this product;
- our intellectual property position and the defense thereof, including our expectations regarding the scope of patent protection with respect to ASCENIV or other future pipeline product candidates;
- our manufacturing capabilities, third-party contractor capabilities and vertical integration strategy;
- our plans related to the expansion and efficiencies of our manufacturing capacity, yield improvements, supply-chain robustness, in-house fill-finish capabilities, distribution and other collaborative agreements and the success of such endeavors;
- our estimates regarding revenues, expenses, capital requirements, timing to profitability and positive cash flows and the need for and availability of additional financing;
- possible or likely reimbursement levels for our currently marketed products;
- estimates regarding market size, projected growth and sales of our existing products as well as our expectations of market acceptance of ASCENIV and BIVIGAM;
- effects of the coronavirus COVID-19 pandemic on our business, financial condition, liquidity and results of operations, and our ability to continue operations in the same manner as previously conducted prior to the macroeconomic effects of the COVID-19 pandemic;
- future domestic and global economic conditions, including, but not limited to, supply chain constraints, inflationary pressures or performance; and
- expectations for future capital requirements.

In addition to the foregoing, you should also consider carefully the statements under the section entitled "Risk Factors" and other sections of this Annual Report on Form 10-K, which address additional factors that could cause our actual results to differ from those set forth in the forward-looking statements. We undertake no obligation to release publicly any updates or revisions to any forward-looking statements contained herein to reflect any change in our expectations or any changes in events, conditions or circumstances on which any such statement is based, except as required by law.

This Annual Report on Form 10-K includes our trademarks, trade names and service marks, such as "BIVIGAM®," "ASCENIV™" and "Nabi-HB®," which are protected under applicable intellectual property laws and are the property of ADMA Biologics, Inc., or its subsidiaries. Solely for convenience, trademarks, trade names and service marks referred to in this Annual Report may appear without the ® or ™ symbols, but the absence of such references are not intended to indicate, in any way, that we will not assert, to the fullest extent under applicable law, our rights or the right of the applicable licensor to these trademarks, trade names and service marks. We do not intend our use or display of other parties' trademarks, trade names or service marks to imply, and such use or display should not be construed to imply, a relationship with, or endorsement or sponsorship of us by, these other parties.

PART I

Item 1. Business

Unless the context otherwise requires, references in this Business section to "ADMA," "ADMA Biologics," the "Company," "we," "us" and "our" refer to ADMA Biologics, Inc., a Delaware corporation, as well as its wholly-owned and indirectly-owned subsidiaries, ADMA Plasma Biologics, Inc., a Delaware corporation, ADMA BioCenters Georgia Inc., a Delaware corporation ("ADMA BioCenters") and ADMA BioManufacturing, LLC, a Delaware limited liability company ("ADMA BioManufacturing").

Overview

We are an end-to-end commercial biopharmaceutical company dedicated to manufacturing, marketing and developing specialty plasma-derived biologics for the treatment of immunodeficient patients at risk for infection and others at risk for certain infectious diseases. Our targeted patient populations include immune-compromised individuals who suffer from an underlying immune deficiency disorder or who may be immune-suppressed for medical reasons.

We currently have three products with U.S. Food and Drug Administration (the "FDA") approval, all of which are currently marketed and commercially available: (i) BIVIGAM (Immune Globulin Intravenous, Human), an Intravenous Immune Globulin ("IVIG") product indicated for the treatment of Primary Humoral Immunodeficiency ("PI"), also known as Primary Immunodeficiency Disease ("PIDD"), and for which we received FDA approval on May 9, 2019 and commenced commercial sales in August 2019; (ii) ASCENIV (Immune Globulin Intravenous, Human – slra 10% Liquid), an IVIG product indicated for the treatment of PI, for which we received FDA approval on April 1, 2019 and commenced first commercial sales in October 2019; and (iii) Nabi-HB (Hepatitis B Immune Globulin, Human), which is indicated for the treatment of acute exposure to blood containing HBsAg and other listed exposures to Hepatitis B. We seek to develop a pipeline of plasma-derived therapeutics, including a product based on our most recently approved patent application under U.S. Patent No. 10,259,865 related to methods of treatment and prevention of *S. pneumonia* infection for an immunoglobulin manufactured to contain standardized antibodies to numerous serotypes of *S. pneumoniae*. Our products and product candidates are intended to be used by physician specialists focused on caring for immune-compromised patients with or at risk for certain infectious diseases.

We manufacture these products at our FDA-licensed, plasma fractionation and purification facility located in Boca Raton, Florida with a peak annual processing capability of up to 600,000 liters (the "Boca Facility"). Based on current production yields, our ongoing supply chain enhancements and capacity expansion initiatives, we believe this facility has the potential to produce sufficient quantities of our immune globulin ("IG") products representing more than $250 million in annual revenue beginning in 2024 and potentially in excess of $300 million of annual revenue thereafter, as well as achieving profitability during the first quarter of 2024, as we ramp-up production over the next two to four years.

Through our ADMA BioCenters subsidiary, we currently operate FDA-licensed source plasma collection facilities in the U.S. This business unit, which we refer to as our Plasma Collection Centers business segment, provides us with a portion of our blood plasma for the manufacture of our products and product candidates, and also allows us to sell certain quantities of source plasma to customers for further manufacturing. As a part of our planned supply chain robustness initiative, we have opened five new plasma collection centers during the past 18 months, and we now have ten plasma collection centers in various stages of approval and development, including six that are operational and collecting plasma. With respect to our operational plasma collection centers, five plasma collection centers currently hold FDA licenses. In addition, one of our FDA-approved plasma collection centers also has approvals from the Korean Ministry of Food and Drug Safety ("MFDS"), as well as FDA approval to operate a Hepatitis B immunization program. After giving effect to the progress we made in 2020 and 2021 with our plasma collection network expansion, we believe we remain on track to achieve our goal of having 10 plasma collection centers licensed by the FDA by the end of 2023. A typical plasma collection center, such as those operated by ADMA BioCenters, can collect approximately 30,000 to 50,000 liters of source plasma annually, which may be sold for different prices depending upon the type of plasma, quantity of purchase and market conditions at the time of sale. Plasma collected from ADMA BioCenters' facilities that is not used to manufacture our products or product candidates is sold to third-party customers in the U.S. and in other locations outside the U.S. where we are approved under supply agreements or in the open "spot" market.

We sell plasma-derived intermediate fractions to certain customers, which are generated as part of our FDA-approved manufacturing process for IG and IVIG products. In January 2020, we announced our entry into a five-year manufacturing and supply agreement to produce and sell these intermediate by-products, which are used as the starting raw material to produce other plasma-derived biologics. In addition, from time to time we provide contract manufacturing and testing services for certain third-party clients. We also provide laboratory contracting services to certain customers and anticipate providing contract filling, labeling and packing services in light of the recent FDA approval of our in-house fill-finish capabilities.

Our Products

BIVIGAM

BIVIGAM is a plasma-derived IVIG that contains a broad range of antibodies similar to those found in normal human plasma. These antibodies are directed against bacteria and viruses, and help to protect PI patients against serious infections. BIVIGAM is a purified, sterile, ready-to-use preparation of concentrated human Immunoglobulin G antibodies indicated for the treatment of PI, a group of genetic disorders. This includes, but is not limited to, the humoral immune defect in common variable immunodeficiency, X-linked agammaglobulinemia, congenital agammaglobulinemia, Wiskott-Aldrich syndrome and severe combined immunodeficiency. These PIs are a group of genetic disorders. Based on recent estimates, these disorders are no longer considered to be very rare, with as many as one in every 1,200 people in the United States having some form of PI.

On May 9, 2019, the FDA approved the Prior Approval Supplement (the "PAS") for the use of our IVIG manufacturing process, thereby enabling us to re-launch and commercialize this product in the United States. We resumed production of BIVIGAM during the fourth quarter of 2017 and commercial production is ongoing, using our FDA-approved IVIG manufacturing process under U.S. Department of Health and Human Services ("HHS") License No. 2019. The commercial re-launch and first commercial sales for this product commenced in August of 2019.

On April 28, 2021, we announced that the FDA granted approval for our expanded plasma pool production scale process, allowing for a 4,400-liter plasma pool for the manufacture of our BIVIGAM IVIG product. This increased IVIG plasma pool scale, which allows us to produce BIVIGAM at an expanded capacity utilizing the same equipment, release testing assays and labor force, has begun to have a favorable impact on our gross margins and operating results, beginning in the third quarter of 2021.

ASCENIV

ASCENIV is a plasma-derived IVIG that contains naturally occurring polyclonal antibodies, which are proteins that are used by the body's immune system to neutralize microbes, such as bacteria and viruses, and prevent against infection and disease. We manufacture ASCENIV under HHS License No. 2019 using a process known as fractionation. The Centers for Medicare and Medicaid Services ("CMS") has issued a permanent, product-specific-J-code for ASCENIV. Under the Healthcare Common Procedure Coding System ("HCPCS"), the J-code (J1554) became effective April 1, 2021. As part of our proprietary manufacturing process for ASCENIV, we leverage our unique, patented plasma donor screening methodology and tailored plasma pooling design, which blends normal source plasma and plasma from donors tested to have high levels of neutralizing antibody titers to respiratory syncytial virus ("RSV") using our proprietary microneutralization testing assay. We are able to identify the high titer or "hyperimmune" plasma that meets our internal and required specifications for ASCENIV with our patented testing methods and assay. This type of high titer plasma is typically found in less than 10% of the total donor collection samples we test.

ASCENIV is approved for the treatment of Primary Immune Deficiency Disorder ("PIDD"), a class of inherited genetic disorders that causes a deficient or absent immune system in adults and adolescents (12 to 17 years of age). Our pivotal Phase 3 clinical trial in 59 PIDD patients met the primary endpoint of no Serious Bacterial Infections reported during 12 months of treatment. Secondary efficacy endpoints further demonstrated the benefits of ASCENIV in the low incidence of infection, therapeutic antibiotic use, days missed from work/school/daycare and unscheduled medical visits and hospitalizations. We believe this clinical data together with the FDA approval for the treatment of PIDD better positions ADMA to further evaluate ASCENIV in immune-compromised patients infected with or at-risk for RSV infection or potentially other respiratory viral pathogens. Due to the COVID-19 pandemic, our plans have been delayed. In the future however, we may elect to work with the FDA and the immunology and infectious disease community to potentially design an appropriate clinical trial to evaluate the use of ASCENIV in this patient population. Commercial sales of ASCENIV commenced in October of 2019 and the product is currently available to U.S.-based healthcare professionals for prescription and use in U.S.-based patients.

Nabi-HB

Nabi-HB is a hyperimmune globulin that is rich in antibodies to the Hepatitis B virus. Nabi-HB is a purified human polyclonal antibody product collected from plasma donors who have been previously vaccinated with a Hepatitis B vaccine. Nabi-HB is indicated for the treatment of acute exposure to blood containing HBsAg, prenatal exposure of infants born to HBsAg-positive mothers, sexual exposure to HBsAg-positive persons and household exposure to persons with acute Hepatitis B virus infection in specific, listed settings. Hepatitis B is a potentially life-threatening liver infection caused by the Hepatitis B virus. It is a major global health problem. It can cause chronic infection and puts people at high risk of death from cirrhosis and liver cancer. Nabi-HB has a well-documented record of long-term safety and effectiveness since its initial market introduction. The FDA approved Nabi-HB on March 24, 1999. Production of Nabi-HB at the Boca Facility has continued under our leadership since the third quarter of 2017. In early 2018, we received authorization from the FDA for the release of our first commercial batch of Nabi-HB for commercial distribution in the U.S. and we continue to manufacture Nabi-HB under HHS License No. 2019.

Evaluation of ASCENIV in PIDD Patients

PIDD or PI, a genetic disorder that causes a deficient or absent immune system, is caused by hereditary or genetic defects and can affect anyone regardless of age or gender. PIDD patients are more vulnerable to infections and more likely to suffer complications from these infections. IVIG is a plasma-derived product that is used to prevent serious infections in patients with PIDD. It is comprised of polyclonal antibodies, which are proteins produced by B-cells that are used by the body's immune system to neutralize foreign objects such as bacteria and viruses. It is estimated that there are about 250,000 diagnosed PIDD patients in the U.S., approximately half of whom are treated with IVIG regularly. As reported in industry journals, the U.S. sales of immune and hyperimmune globulin products for all its uses were reported to be approximately $9.5 billion in 2020 and are expected to reach approximately $17 billion by 2027 based upon an anticipated compounded annual growth rate of approximately 9%.

ASCENIV, formerly known as RI-002, contains polyclonal antibodies against various infectious agents, such as streptococcus pneumoniae, H. influenza type B, CMV, measles and tetanus, including standardized antibodies against RSV. RSV is a common respiratory virus that often presents during the winter months. Nearly all children will have been infected with RSV by three years of age; however, the immune systems of most healthy children prevent significant morbidity and mortality. Conversely, in patients who are immune-compromised, such as those with PIDD or who have undergone a hematopoietic stem cell or solid organ transplant and may be on immunosuppressive drugs or chemotherapy, RSV infection can be associated with significant morbidity and mortality. Immune-compromised patients historically have a 5% to 15% rate of RSV infection, and, if left untreated, lower respiratory tract RSV infections in immune-compromised patients can result in a mortality rate of up to 40% of infected patients. In hematopoietic stem cell transplant ("HSCT") patients, a subset of the immune-compromised patient population with approximately 25,000 transplants being performed annually in the U.S., it is estimated that about 25% of patients treated with the current standard of care (aerosolized Ribavirin) will progress to Lower Respiratory Tract Infection ("LRTI") while 41% of patients untreated with the current standard of care will progress to LRTI.

The RI-002 pivotal Phase III clinical trial was conducted as a single arm study in which patients were treated approximately once per month for a period of 12 months plus 90 days for follow up. Fifty-nine patients were enrolled in nine treatment centers in the U.S. The pivotal Phase III primary endpoint followed published FDA industry guidance, which provides for a reduction in the incidence of serious infections to less than one per year in each subject receiving IVIG. The secondary outcome was safety and included other pharmacokinetic ("PK") data collection points including antibody titers for certain agents, including RSV antibody levels at various time points after infusion.

RI-002 demonstrated positive results in the Phase III study in patients with PIDD, meeting its primary endpoint of no SBIs reported. RI-002 was administered in a total of 793 infusions with zero serious adverse events to 59 patients in nine treatment centers throughout the U.S. These results, included in our Biologics License Application ("BLA"), exceed the requirement specified by FDA guidance of ≤ 1 SBI per patient-year.

On February 22, 2015, at the 2015 American Academy of Allergy, Asthma & Immunology Annual Meeting, scientific investigators reported on the secondary outcomes that included: a total of 93 days, or 1.66 days per patient per year lost from work or school due to infection; one hospitalization due to an infection of only five days duration in the entire study and Immune Globulin ("IgG") trough levels above those required by the FDA for IVIG products. Additionally, there was a marked increase in all of the measured specific anti-pathogen antibodies in PK subjects (n=31). The mean of maximum fold increases in specific antibody levels after infusion of RI-002 ranged from 1.9 fold (S. pneumonia type 19A) to 5.3 fold (RSV), which were statistically significant fold increases from the pathogen's specific measured baselines. The safety profile of ASCENIV is comparable to that of other immunoglobulins.

Evaluation of ASCENIV in RSV-Infected Patients

RSV is a common virus that ordinarily leads to mild, cold-like symptoms in healthy adults and children. In high-risk groups, such as the PIDD population and other immune-compromised populations, RSV can lead to a more serious infection and may even cause death. The polyclonal antibodies that are present in ASCENIV are expected to prevent infections in immune-compromised patients.

In October 2019, we announced the successful treatment of ASCENIV in two children suffering with RSV through our compassionate use program. The two immunocompromised children admitted to the Mayo Clinic each were diagnosed with T-cell lymphoblastic lymphoma. Both patients were undergoing delayed intensification chemotherapy and each were diagnosed with RSV Lower Respiratory Tract Infection ("LRTI"). Both children were treated with ASCENIV™ under an emergency United States Food and Drug Administration ("FDA") Investigational New Drug protocol.

We previously conducted a randomized, double-blind, placebo-controlled Phase II clinical trial to evaluate RI-001, RI-002's predecessor product candidate, in immune-compromised, RSV-infected patients. This trial was conducted with 21 patients in the U.S., Canada, Australia, and New Zealand. The Phase II dose-ranging trial demonstrated a statistically significant improvement in the change from baseline RSV titers to day 18 in the high dose and low dose treatment groups when compared with placebo ($p=0.0043$ and $p=0.0268$, respectively). The mean fold increase for high dose was 9.24 (95% CI 4.07, 21.02) and the observed mean fold increase for low dose was 4.85 (95% CI 2.22, 10.59). The mean fold change for placebo treated patients was 1.42 (95% CI 0.64, 3.17). In addition, more patients in the high dose (85.7%) and low dose (42.9%) groups experienced greater than a four-fold increase from baseline to day 18 in RSV titer levels compared to placebo (0%). There were no serious drug-related adverse events reported during the trial.

From April 2009 through February 2011, RI-001 was also administered to 15 compassionate use patients where physicians requested access to the product for treating their patients with documented lower respiratory tract RSV infections due to the fact that these patients had failed conventional therapeutic interventions. Serum samples were obtained from 13 patients. Samples showed that patients demonstrated a four-fold or greater rise in RSV antibody titers from baseline. Serum samples were not obtained from two patients that received Palivizumab. All 11 surviving patients received RI-001 within an average of 4.4 days after the onset of the diagnosis of RSV. The drug was well-tolerated in all 15 patients and there were no reports of serious adverse events attributable to RI-001. Data from our Phase II clinical trial, compassionate use experience and data obtained from the evaluation of RI-002 in the infected cotton rat animal model has been presented at various conferences the past several years.

Based on these results, we may elect to evaluate ASCENIV for the treatment of RSV or other respiratory viral pathogens in immunocompromised patients or other appropriate patient populations.

Plasma Collection Operations

ADMA BioCenters has a total of ten source plasma collection facilities in various stages of operations or development. We are actively operating and collecting plasma at six source plasma collection facilities located in the U.S., five of which have an FDA license (of which one facility has received approvals from MFDS and FDA approval to implement a Hepatitis B immunization program), while a BLA for one of our other facilities is pending FDA approval. In addition to our six currently operational plasma collection facilities, we have four additional plasma collection facilities that are under various stages of construction and development. Source plasma that is collected from our FDA-licensed facilities provides us with a portion of our blood plasma for the manufacture of our products and product candidates. After giving effect to the progress we made in 2020 and 2021 with our plasma collection network expansion, we believe we remain on track to achieve our goal of having 10 plasma collection centers licensed by the FDA by the end of 2023. A typical plasma collection center, such as those operated by ADMA BioCenters, can collect approximately 30,000 to 50,000 liters of source plasma annually, which may be sold for different prices depending upon the type of plasma, quantity of purchase, and market conditions at the time of sale. Plasma collected from ADMA BioCenters' facilities that is not used to manufacture our products or product candidates are sold to third-party customers in the U.S. and other international locations where we are approved under supply agreements or in the open "spot" market.

Acquisition Transaction with Biotest Pharmaceuticals Corporation

On June 6, 2017, we completed the acquisition of certain assets (the "Biotest Assets") of the Therapy Business Unit ("BTBU") of BPC Plasma, Inc. (formerly Biotest Pharmaceuticals Corporation ("BPC"), together with Biotest AG, "Biotest"), which included two FDA-licensed products, Nabi-HB and BIVIGAM, and the Boca Facility (the "Biotest Transaction"). BTBU had previously been our third-party contract manufacturer. Immediately following the acquisition, the Biotest Assets were contributed into ADMA BioManufacturing.

Upon the completion of the Biotest Transaction, we gained control over the regulatory, quality, general operations and drug substance manufacturing process at the Boca Facility. In April 2018, we completed an FDA inspection and as a result of the inspection, our Boca Facility's regulatory compliance status improved from Official Action Indicated ("OAI") to Voluntary Action Indicated ("VAI"), allowing us to submit regulatory applications to the FDA for review. During the second quarter of 2019, we received FDA approval of the respective submissions for both ASCENIV and BIVIGAM, and the transfer of the BIVIGAM and Nabi-HB licenses from BPC to us was completed on July 2, 2019.

Our Strategy

Our goal is to be a leader in manufacturing, marketing and developing specialized, targeted, plasma-derived therapeutics that are intended to extend and enhance the lives of individuals who are naturally or medically immune-compromised. The key elements of our strategy for achieving this goal are as follows:

- **Continue to expand the commercial production of our IG products, as well as the commercial presence, penetration and sales of BIVIGAM and ASCENIV for the treatment of patients with PI**. Subject to the continuing restrictions surrounding COVID-19, we continue to enhance our recruiting initiatives and expand our existing specialty commercial sales force and commercial-facing organization to market BIVIGAM and ASCENIV to appropriate sites of care including home healthcare infusion facilities, hospitals, physician offices/clinics and other specialty treatment and infusion center organizations. We also anticipate staffing our Company with additional personnel for patient support, medical affairs, quality assurance, quality control, inventory management, regulatory affairs, scientific affairs production and third-party reimbursement. We currently use and may continue to partner with a network of national distributors to fulfill orders for BIVIGAM and ASCENIV. We have implemented and continue to implement virtual customer engagement programs to adapt and change with the current restrictions in place due to COVID-19, as well as continue with our in-person presence with customers and healthcare professionals and attend appropriate trade-related and scientific medical conferences as COVID-19 restrictions ease in various geographic regions of the country.

- **Increase marketing efforts around Nabi-HB.** Subject to the restrictions surrounding COVID-19, we plan to increase our marketing efforts and attend relevant virtual or in-person medical conferences during 2022, raising awareness of the risks associated with Hepatitis B and the benefits and efficacy of Nabi-HB in its indicated populations. We have published and may continue to publish scientific data supporting the use of Nabi-HB in at-risk and appropriate patient populations.

- **Expand ASCENIV's FDA-approved uses**. Having received approval by the FDA for ASCENIV as a treatment for PIDD, we may elect to evaluate the clinical and regulatory paths to grow the ASCENIV franchise through expanded FDA-approved uses. We believe that there may be patient populations beyond PIDD that could potentially derive clinical benefit from ASCENIV, some of which may potentially be eligible for orphan status. We plan to leverage our previously conducted randomized, double-blind, placebo-controlled Phase II clinical trial evaluating RI-001, RI-002's predecessor product candidate, in immune-compromised, RSV-infected patients to explore ASCENIV for the treatment of RSV or other potential respiratory viral pathogens, as well as in other patient populations we may believe are appropriate.

- **Improve the Boca Facility's operating efficiencies and gross margins.** During 2022, we plan to execute on the capacity optimization efforts we put in place during 2021 to increase the Boca Facility's manufacturing capacity throughput, look for operating efficiencies and gross margin improvements. We also plan to strengthen our supply chain capabilities to potentially unlock efficiencies, improve production yields and provide more control and visibility for timing of commercial product releases for all of our FDA-approved commercial products. During 2021, we received FDA approvals for our 4,400L expanded IVIG production scale, as well as our in-house fill-finish and related operations production line using our aseptic filling machine.

- **Expand and develop our pipeline with additional specialty plasma and/or hyperimmune immunoglobulin products**. Our core competency is in the development, manufacturing, testing and commercialization of plasma-derived therapeutics. We believe there are a number of under-addressed medical conditions for which plasma-derived therapeutics may be beneficial. Utilizing our intellectual property patents, which include our proprietary testing assay and other standardization methods and technologies, we have identified potential new product candidates that we may advance into preclinical activities.

- **Develop and expand our plasma collection center network**. We plan on expanding our plasma collection network with the goal of having 10 FDA-licensed plasma collection facilities operating in the U.S. by the end of 2023 as we seek to achieve plasma supply self-sufficiency over the next few years and prepare for production ramp-up and growth to capitalize on the global growing IVIG and source plasma markets, including obtaining FDA licenses for each new plasma collection center and regulatory approval in additional jurisdictions.

- **Secure new supply contracts for potential contract manufacturing organization ("CMO") opportunities.** We are exploring new potential CMO, contract testing and business development opportunities, which include fill-finish capabilities, with our multi-faceted revenue generation platform, while continuing to fulfill our newly secured, long-term CMO supply agreement to produce and sell plasma-derived intermediate fractions.

Primary Immunodeficiency Disease

PIDD is a class of hereditary disorders characterized by defects in the immune system, due to either a lack of necessary antibodies or a failure of these antibodies to function properly. According to the World Health Organization, there are over 150 different presentations of PIDD. As patients suffering from PIDD lack a properly functioning immune system, they typically receive monthly, outpatient infusions of IVIG therapy. Without this exogenous antibody immune support, these patients would be susceptible to a wide variety of infectious diseases. PIDD has an estimated prevalence of 1:1,200 in the U.S., or approximately 250,000 people. Industry reports indicate the U.S. market for IG in 2020 was $9.5 billion and is expected to grow to $17 billion by 2027 based upon a compounded annual growth rate of 9%.

As most patients with PIDD present with infections, the differential diagnosis and initial investigations for an underlying immune defect are typically guided by the clinical presentation. In subjects with PIDD, individual infections are not necessarily more severe than those that occur in a normal host. Rather, the clinical features suggestive of an immune defect may be the recurring and/or chronic nature of infections with common pathogens that may result in end organ damage, such as bronchiectasis. In addition, subjects with PIDD will often respond poorly to standard antimicrobial therapy or they may have repeated infections with the same pathogen. The virulence of the infecting organism should also be considered, and a subject's immune competence should be questioned when invasive infections are caused by low virulence or opportunistic pathogens. For example, infection with the opportunistic pathogens Pneumocystis jiroveci (previously Pneumocystis carinii) or atypical mycobacteria should prompt an investigation for underlying immunodeficiency. Typical clinical presentations for subjects with PIDD are:

- antibody deficiency and recurrent bacterial infections;
- T-lymphocyte deficiency and opportunistic infections;
- other lymphocyte defects causing opportunistic infections;
- neutrophil defects causing immunodeficiency; and
- complement deficiencies.

PIDD can present at any age from birth to adulthood, posing a considerable challenge for the practicing physician to know when and how to evaluate a subject for a possible immune defect. Subjects with marked antibody deficiencies are generally dependent on IVIG therapy for survival. Benefits of adequate IVIG therapy in subjects not able to produce antibodies normally include a reduction in the severity and frequency of infections, prevention of chronic lung disease and prevention of enteroviral meningoencephalitis. Several immune globulin products have already been approved by the FDA.

Plasma - Background, Composition and Manufacturing

Human blood contains a number of components including:

- Red blood cells – Used to carry oxygen from the lungs to the body;
- White blood cells – Used by the immune system to fight infection;
- Platelets – Used for blood clotting; and
- Plasma – Used to carry the aforementioned components throughout the body and provide support in clotting and immunity.

Plasma is the most abundant blood component, representing approximately 55% of total blood volume. Plasma, which is 90% water, is rich in proteins used by the human body for blood clotting and fighting infection. These proteins account for approximately 7% of plasma's volume. As plasma contains these valuable proteins, plasma collection and the manufacturing of human plasma-derived therapeutics provide therapeutic benefits for ill patients.

In order to produce plasma-derived therapeutics that can be administered to ill patients, raw material plasma must be collected from human donors and then manufactured into specialized products. Plasma is collected from healthy donors at FDA-licensed plasma donation centers. To ensure safety of the collected plasma, all plasma donations are tested using FDA-approved methods of Nucleic Acid Testing for various infectious diseases, such as HIV or HCV.

Plasma is collected using a process known as "plasmapheresis." During plasmapheresis, a donor's blood is drawn into a specialized medical device that separates the plasma component through centrifugation, and then returns the other blood components back into the donor's bloodstream. Plasmapheresis is performed utilizing an FDA-approved, automated device with a sterile, self-contained collection kit. The plasma that is collected is known as "normal source plasma." There are over 900 plasma donation centers in the U.S. As noted in a variety of plasma industry trade reports and related conferences, approximately 45 million liters of source plasma were collected in the U.S. in 2019. In the U.S., a donor may donate plasma a maximum of two times during any seven-day period, with at least two days in between donations. Plasma donation centers in the U.S. typically pay donors $50 to $150 per donation and some donors with rare or high antibody levels can be paid more.

In order to isolate the desired therapeutic elements in normal source plasma, it must initially go through the fractionation process. The process of fractionation was invented in the 1940's by E.J. Cohn and is referred to as the Cohn method or cold ethanol fractionation. First, the source plasma undergoes a process called pooling, in which the individual plasma donations are combined into a pooling tank. Second, the Cohn fractionation method, which is a combination of time, temperature, pH, alcohol concentration and centrifugation, is used to separate the desired plasma protein components, or "fractions." After fractionation, the separated proteins are then re-suspended and are treated with a solvent detergent treatment process for viral inactivation. Next, other forms of filtration, such as nanofiltration, are performed as an additional viral removal and viral reduction step. Finally, with the various components separated and purified, the bulk product is formulated and filled into final, finished vials. During these various steps of manufacturing, each lot is reviewed and tested for potency and purity prior to being approved for release. The biologics manufacturing process is time consuming and complex. The time for collection, manufacturing and release of a batch of IG is estimated at 7 to 12 months, which is not unique to just ADMA as other fractionators report similar production timelines.

The proteins in human plasma fall into four categories: albumin (60% of protein volume), immune globulins (15% of protein volume), coagulation factors (1% of protein volume), and other proteins (24% of protein volume) such as alpha-1 proteinase inhibitor, C1 esterase inhibitor, fibrin sealants and fibrinogen. Many of the other proteins in plasma have yet to be developed into commercial therapies. In the U.S., not only are the plasma collection centers subject to FDA licensure, but each plasma protein product that is derived and fractionated from plasma must undergo an approval process with FDA's Center for Biologics Evaluation and Research ("CBER").

Immune Globulins

In June 2008, the FDA published the FDA Guidance for Industry outlining the regulatory pathway for the approval of IVIG for the treatment of PIDD *(Guidance for Industry: Safety, Efficacy, and Pharmacokinetic Studies to Support Marketing of Immune Globulin Intravenous (Human) as Replacement Therapy for Primary Humoral Immunodeficiency)*.

Immune globulins can be administered in three ways: intramuscularly, intravenously or subcutaneously. IVIG principally contains antibodies and, as such, provides passive immunization for individuals who are immune-deficient or who have been exposed to various infectious agents. IVIG is used therapeutically in a variety of immunological diseases/deficiencies, such as PIDD, idiopathic thrombocytopenic purpura, Guillain-Barré syndrome, Kawasaki disease, bone marrow transplant, and chronic inflammatory demyelinating polyneuropathy. We are aware that other companies are also evaluating IVIG in a clinical trial for the treatment of Alzheimer's disease. Additionally, IVIG is also used as therapy in a variety of other diseases that do not involve primary or secondary immune deficiencies, such as multiple sclerosis, skin disease, and asthma. These latter uses are referred to as "off-label" or evidence-based uses because the FDA has not approved their use in these indications and promotion of such uses is not permitted by FDA unless a BLA or BLA supplement with additional data is approved. Among the various IVIG products, there are only 14 labeled indications approved by the FDA. However, medical literature identifies at least 150 evidence-based uses for IVIG, of which approximately 60 are currently included on lists of reimbursable uses by Medicare and other healthcare plans. This provides opportunities for new product development and submissions to potentially expand the label for our existing products.

There are two types of immune globulins; standard and hyperimmune. The difference between standard immune globulins and hyperimmune globulins is that the latter are manufactured using plasma obtained from donors who have elevated amounts (high-titers) of specific antibodies. These high-titer products can be used to treat and prevent diseases that present those specific antigens that are reactive with the high-titer antibodies. Hyperimmune products currently available include Hepatitis B, tetanus, rabies, CMV and RhoD immune globulins.

As reported in industry journals, the U.S. sales of immune and hyperimmune globulin products for all its uses were reported to be approximately $9.5 billion in 2020 and are expected to reach approximately $17 billion in 2027 based upon an anticipated compounded annual growth rate of approximately 9%. IVIG products are used to treat primary immune deficiencies, certain autoimmune diseases, and other illnesses for immune-compromised patients and certain neuropathy indications. New research and data, secondary immune deficiencies, additional labeled indications, an aging population and emerging countries with new markets are all adding to the worldwide demand and growth of IVIG utilization.

Manufacturing and Supply of Our Products

In order to produce plasma-derived therapeutics that can be administered to patients, raw material plasma is collected from healthy donors at plasma collection facilities licensed by the FDA. When stored under proper conditions, this plasma may have a shelf-life of up to 10 years. Source plasma is collected at any one of over 900 FDA-licensed donation centers located throughout the U.S., using a process known as automated plasmapheresis. This sterile, self-contained, automated process separates red blood cells and other cellular components in the blood, which are then returned to the donor. Source plasma obtained by plasmapheresis is tested and must be negative for antibodies to human immunodeficiency virus types 1 and 2 (HIV-1/2), HBsAg and Hepatitis C virus ("HCV"), using FDA-approved serological test procedures.

After receipt of the source plasma, the frozen plasma is thawed and pooled and goes through the fractionation process. This process is referred to as the Cohn method or cold ethanol method of fractionation. During cold ethanol fractionation, classes of proteins are precipitated and removed by centrifugation or filtration. The fractionation process includes the following steps; precipitation and absorption, depth filtration, centrifugation and chromatography. Because of the human origin of the raw material and the thousands of donations required in the fractionation process, a significant risk associated with plasma products is the transmission of blood-borne infectious pathogens. These purification processes have the potential to reduce the viral load. The manufacturing process also utilizes a multistep viral removal/inactivation system, which further increases the safety of the products. The following manufacturing processes have been validated for their capability to eliminate or inactivate viruses: precipitation during cold ethanol fractionation, solvent/detergent treatment and nanofiltration. We incorporate these processes into the manufacturing process, which ensures that our products comply with the requirements of the FDA and are safe and efficacious.

Once our drug-substance is produced in the Boca Facility, the product is further processed by certain third- party fill-finish providers as well as through labeling, packaging and DSCSA serialization requirements. The end-to-end production cycle can take approximately seven to 12 months for a batch of FDA released drug product. During 2020, we successfully implemented several manufacturing and supply chain enhancements, including the purchase and installation of a new aseptic filling machine and the manufacturing of four conformance batches of BIVIGAM at an increased scale. These initiatives are designed to reduce operating costs, improve margins and provide for faster production cycle turnaround time, ultimately providing increased control and independence from third-party vendors and contractors. ADMA submitted the appropriate applications to the FDA during the fourth quarter of 2020 and received FDA approval for both the increased production scale and the in-house fill-finish line, including utilization of the Vanrx filling machine, during the second half of 2021.

ADMA BioCenters operates five FDA-licensed source plasma collection facilities located in the U.S. which provides us with a portion of our blood plasma for the manufacture of our current products and product candidates. We also have one other plasma collection facility where we currently collect plasma for which a BLA is pending with the FDA. In addition, we have four additional plasma collection facilities that are under various stages of construction and development. After giving effect to the progress we made in 2020 and 2021 with our plasma collection network expansion, we believe we remain on track to achieve our goal of having 10 FDA-approved plasma collection centers by the end of 2023. In addition, we intend to enter into additional third-party contracts to procure normal source and high-titer plasma.

Pursuant to the terms of a plasma purchase agreement with BPC, dated as of November 17, 2011 (the "2011 Plasma Purchase Agreement"), we have agreed to purchase from BPC an annual minimum volume of source plasma containing antibodies to RSV to be used in the manufacture of ASCENIV. We must purchase a to-be-determined and agreed upon annual minimum volume from BPC, but may also collect high-titer RSV plasma from up to five wholly-owned ADMA plasma collection facilities. During 2015, we amended the 2011 Plasma Purchase Agreement with BPC to allow us the ability to collect our raw material RSV high-titer plasma from other third-party collection organizations, thus allowing us to expand our reach for raw material supply for ASCENIV. Unless terminated earlier, the 2011 Plasma Purchase Agreement expires in June 2027, after which it may be renewed for two additional five-year periods if agreed to by the parties. As part of the closing of the Biotest Transaction, we amended the 2011 Plasma Purchase Agreement to extend the initial term through the ten-year anniversary of the closing date of the Biotest Transaction. On December 10, 2018, BPC assigned its rights and obligations under the 2011 Plasma Purchase Agreement to Grifols Worldwide Operations Limited ("Grifols") as its successor-in-interest, effective January 1, 2019.

On June 6, 2017, we entered into a Plasma Supply Agreement with BPC pursuant to which BPC supplies, on an exclusive basis subject to certain exceptions, to ADMA BioManufacturing an annual minimum volume of hyperimmune plasma that contain antibodies to the hepatitis B virus for the manufacture of Nabi-HB. The Plasma Supply Agreement has a 10-year term. On July 19, 2018, we entered into an amendment to the Plasma Supply Agreement with BPC to provide, among other things, that in the event BPC elects not to supply in excess of ADMA BioManufacturing's specified amount of Hepatitis B plasma and ADMA BioManufacturing is unable to secure Hepatitis B plasma from a third party at a price which is within a low double digit percentage of the price which ADMA BioManufacturing pays to BPC, then BPC shall reimburse ADMA BioManufacturing for the difference in price ADMA BioManufacturing incurs. On December 10, 2018, BPC assigned its rights and obligations under the Plasma Supply Agreement to Grifols, effective January 1, 2019.

On June 6, 2017, we entered into a Plasma Purchase Agreement with BPC (the "2017 Plasma Purchase Agreement"), pursuant to which ADMA BioManufacturing purchases normal source plasma from BPC at agreed upon annual quantities and prices. The 2017 Plasma Purchase Agreement has an initial term of five years after which the 2017 Plasma Purchase Agreement may be renewed for two additional terms of two years each upon the mutual written consent of the parties. On July 19, 2018, we entered into an amendment to the 2017 Plasma Purchase Agreement with BPC to, among other things, provide agreed upon amounts of normal source plasma to be supplied by BPC to ADMA BioManufacturing in calendar year 2019 at a specified price per liter, provided that ADMA BioManufacturing delivers a valid purchase order to BPC. Additionally, pursuant to the amendment to the 2017 Plasma Purchase Agreement, BPC agrees that, for calendar years 2020 and 2021, it shall supply no less than a high double-digit percentage of ADMA BioManufacturing's requested NSP amounts, provided that such requested normal source plasma amounts are within an agreed range, at a price per liter to be mutually determined. Furthermore, pursuant to the amendment to the 2017 Plasma Purchase Agreement, in the event BPC fails to supply ADMA BioManufacturing with at least a high double-digit percentage of ADMA BioManufacturing's requested normal source plasma amounts, BPC shall promptly reimburse ADMA BioManufacturing the difference in price ADMA BioManufacturing incurs due to BPC's election not to supply NSP to ADMA BioManufacturing in such amounts as requested. On December 10, 2018, BPC assigned its rights and obligations under the Plasma Purchase Agreement to Grifols, effective January 1, 2019.

Effective as of May 12, 2021, the Company and Grifols amended the foregoing 2017 Plasma Purchase Agreement whereby, among other things, the term of the agreement was extended through December 31, 2022, while certain historical provisions were deleted. In order to maintain a reliable supply of raw material plasma thereafter, the Company has executed additional agreements with multiple third-party suppliers of NSP to supplement the 2017 Plasma Purchase Agreement, and the Company has also increased its number of planned plasma collection center buildouts and is continuing to increase its plasma collection capabilities at its ADMA BioCenters plasma collection centers business segment.

Sales and Commercialization of Our Products

Currently, BIVIGAM, ASCENIV and Nabi-HB are sold primarily through independent distributors, drug wholesalers acting as sales agents, specialty pharmacies servicing both acute and ambulatory infusion centers and the home health infusion setting and other alternate site providers. In the U.S., independent distributors or third-party drug wholesalers ship our products through their distribution centers. These centers are generally stocked with adequate inventories to facilitate prompt customer service. Sales and distribution methods include frequent contact by sales and customer service representatives, automated communications via various electronic purchasing systems, circulation of catalogs and merchandising bulletins, direct-mail campaigns, trade publication presence and advertising.

We market and sell our products through our specialty sales force, distribution relationships and other customary industry methods. We focus our efforts specifically on the easily identifiable treatment centers which specialize in the care and management of immune compromised individuals. We estimate that there are approximately 500 leading specialty programs in the U.S. which have significant patient populations for PIDD, suitable for treatment with ASCENIV. We are in the process of expanding our current specialty sales force consisting of account managers, medical science liaisons and other normal and customary scientific, medical and detail representatives. Our management and Board have substantial prior direct marketing, sales and distribution experience with plasma-derived drugs, specialty immune globulins and other biological products. As is customary in the plasma products industry, we may also use a network of national distribution organizations that have specialty divisions that focus on plasma products to fulfill orders for ASCENIV.

Subject to restrictions surrounding the COVID-19 pandemic, commercialization efforts to generate increased market awareness for Nabi-HB include attending and presenting at medical conferences, as well as sponsoring medical education symposiums. We have also hired a small, specialty sales force to market BIVIGAM and ASCENIV to hospitals, physician offices/clinics, and other specialty treatment organizations as applicable. In addition, we have been staffing our Company with additional personnel for patient support, medical affairs, quality assurance, regulatory affairs, scientific affairs, third-party reimbursement, inventory and logistics, human resources and financial and operational management. We may also use a network of national and regional distributors to assist with order fulfillment for BIVIGAM and ASCENIV for use by healthcare professionals and hospitals

Pursuant to our Manufacturing, Supply and License Agreement effective as of January 21, 2017, we granted Biotest an exclusive license to market and sell ASCENIV in Europe and in selected countries in North Africa and the Middle East (the "Territory"), to have access to our testing services for testing of BPC's plasma samples using our proprietary RSV assay, and to reference (but not access) our proprietary information for the purpose of Biotest seeking regulatory approval for ASCENIV in the Territory. As consideration for the license, Biotest provided us with certain services at no charge and also compensated us with cash payments upon the completion of certain milestones. Biotest was also obligated to pay us an adjustable royalty based on a percentage of revenues from the sale of ASCENIV in the Territory for 20 years from the date of first commercial sale.

Major Customers

For the year ended December 31, 2021, four customers, BioCARE, Inc. ("BioCare"), Reliance Life Sciences Pvt Limited ("Reliance"), AmerisourceBergen Corporation ("AmerisourceBergen) and Priority Healthcare Distribution, Inc. ("Curascript"), represented an aggregate of 81% of our consolidated revenues.

Competition

The plasma products industry is highly competitive. We face, and will continue to face, intense competition from both U.S. based and foreign producers of plasma products, some of which have lower cost structures, greater access to capital, greater resources for research and development, and sophisticated marketing capabilities.

These competitors may include but are not limited to: CSL Behring, Grifols Biologicals, Takeda, Octapharma, Kedrion and BPL. There are four producers of plasma-derived products in the U.S. consisting of: CSL Behring, Grifols Biologicals, Takeda and ADMA Biologics. In addition to competition from other large worldwide plasma products providers, we face competition in local areas from smaller entities. In Europe, where the industry is highly regulated and healthcare systems vary from country to country, local companies may have greater knowledge of local healthcare systems, more established infrastructures and existing regulatory approvals or a better understanding of the local regulatory process, allowing them to market their products more quickly. Moreover, plasma therapy generally faces competition from non-plasma products and other courses of treatments. For example, recombinant Factor VIII products compete with plasma-derived products in the treatment of Hemophilia A.

New technologies are being developed by biotech and pharmaceutical companies which may impact physician prescription and patient usage of IVIG. One such recently approved FDA therapy is an FcRn inhibitor (neonatal Fc receptor, IgG receptor) which is a protein in humans responsible for maintaining IgG levels. This recently FDA approved FcRn is for the treatment of generalized Myasthenia Gravis that may impact a subset of overall general IVIG usage. Other such FcRn potential targeted indications in development that may disrupt general IVIG usage may include but are not limited to: Chronic Inflammatory Demyelinating Polyradiculoneuropathy ("CIDP"), a rare type of autoimmune disorder, Immune Thrombocytopenic Purpura ("ITP"), a blood disorder characterized by a decrease in the number of platelets in the blood and Pemphigus Vulgaris ("PV"), a rare type of autoimmune disorder.

Intellectual Property

We rely on a combination of patents, patent applications, copyrights and trademarks, as well as contracts, such as confidentiality, material data transfer, license and invention assignment agreements, to protect our intellectual property rights. We also rely upon trade secret laws to protect unpatented know-how and advancing technological innovation.

We have intellectual property (patents, know-how, etc.) related to our immunotherapeutic compositions, manufacturing processes, immunotherapeutic treatment, and related methods and formulations.

Patents related to our immune globulin product ASCENIV include U.S. Patent No. 9,107,906, which covers compositions comprising pooled plasma, as well as immunoglobulin prepared therefrom, that contains a standardized, elevated titer of RSV neutralizing antibodies and elevated levels of antibodies specific for one or more other respiratory pathogens, as well as methods of making and using the compositions. U.S. Patent Nos. 9,714,283, 9,815,886, 9,969,793 and 10,683,343, encompassing immunotherapeutic compositions and immunotherapeutic methods proprietary to us, also relate to ASCENIV. Corresponding foreign patents and patent applications also pertain to this technology.

We also hold intellectual property, including patents and patent applications, related to immunotherapeutic compositions and immunotherapeutic methods for the treatment and prevention of *S. pneumonia* infection. U.S. Patent Nos. 10,259,865 and 11,084,870 pertain to various aspects of this technology. Additional U.S. and numerous corresponding foreign patent applications also relate to this technology.

We continue to prepare, file, and prosecute patent applications to provide broad and strong protection of our proprietary rights, including applications focused on existing and future products.

We rely on a combination of patents, trademarks, trade secrets and nondisclosure and non-competition agreements to protect our proprietary intellectual property and will continue to do so. We also seek to enhance and ensure our competitive position through a variety of means, including our unique and proprietary plasma donor selection criteria, our proprietary formulation methodology for plasma pooling and the proprietary reagents, controls, testing standards, standard operating procedures and methods we use in our anti-RSV microneutralization assay. While we intend to defend against threats to our intellectual property, litigation can be costly and there can be no assurance that our patents will be enforced or that our trade secret policies and practices or other agreements will adequately protect our intellectual property. We seek to preserve the integrity and confidentiality of our data and trade secrets by maintaining physical security of our premises and physical and electronic security of our information technology systems. These processes, systems, and/or security measures may be breached, and we may not have adequate remedies as a result of any such breaches. Third parties may also own or could obtain patents that may require us to negotiate licenses to conduct our business, and there can be no assurance that the required licenses would be available on reasonable terms or at all.

In addition, our trade secrets may otherwise become known or be independently discovered by competitors. We also seek to protect our proprietary technology and processes, in part, by confidentiality agreements with our employees, consultants, scientific advisors and contractors. Although we rely, in part, on confidentiality, nondisclosure and non-competition agreements with employees, consultants and other parties with access to our proprietary information to protect our trade secrets, proprietary technology, processes and other proprietary rights, there can be no assurance that these agreements or any other security measures related to such trade secrets, proprietary technology, processes and proprietary rights will be adequate, will not be breached, that we will have adequate remedies for any breach, that others will not independently develop substantially equivalent proprietary information or that third parties will not otherwise gain access to our trade secrets or proprietary knowledge. To the extent that our consultants, contractors or collaborators use intellectual property owned by others in their work for us, disputes may arise as to the rights in related or resulting know-how and inventions.

We currently hold multiple trademarks, including but not limited to ASCENIV, BIVIGAM and Nabi-HB. We have spent considerable resources registering these trademarks and building brand awareness and equity of the ADMA Biologics trade name, which has been used in commerce since 2006. We expect to maintain and defend our various trademarks to the fullest extent possible.

Government Regulation and Product Approval

The FDA and comparable regulatory agencies in state and local jurisdictions and in foreign countries impose substantial requirements upon, among other things, the testing (preclinical and clinical), quality control, research, development, approval and post-approval monitoring and reporting, manufacturing, labeling, storage, recordkeeping, advertising, promotion, import, export, marketing sales and distribution of our products and product candidates. If we do not comply with applicable requirements, we may be fined, the government may refuse to approve our marketing applications or allow us to manufacture or market our products and we may be criminally prosecuted. These requirements are continually evolving. By example, in light of the COVID-19 pandemic, the FDA has issued a number of guidance documents to assist companies navigating pre-commercialization, commercialization, manufacturing and development concerns raised by COVID-19 and with respect to products intended for COVID-19. We and our manufacturers may also be subject to regulations under other federal, state and local laws.

U.S. Government Regulation

Our current and anticipated future product candidates are considered "biologics" under the FDA regulatory framework. The FDA's regulatory authority for the approval of biologics resides in the Public Health Service Act (the "PHS Act"). However, biologics are also subject to regulation under the Federal Food, Drug and Cosmetic Act (the "FDCA") because most biological products also meet the FDCA's definition of "drugs." Most pharmaceuticals or "conventional drugs" consist of pure chemical substances and their structures are known. Most biologics, however, are complex mixtures that are not easily identified or characterized. Biological products differ from conventional drugs in that they tend to be heat-sensitive and susceptible to microbial contamination. This requires sterile processes to be applied from initial manufacturing steps. In the U.S., the FDA regulates biologic products under the FDCA, the PHS Act, related federal regulations under Title 21 of the Code of Federal Regulations (CFR), as well as other federal, state, and local statutes and regulations. The process required by the FDA before our product candidates may be marketed in the U.S. generally involves the following (although the FDA is given wide discretion to impose different or more stringent requirements on a case-by-case basis):

- completion of extensive preclinical laboratory tests, preclinical animal studies and formulation studies performed in accordance with the FDA's Good Laboratory Practice ("GLP") regulations and other applicable laws and regulations;
- submission to the FDA of an Investigational New Drug ("IND") application which must become effective before clinical trials may begin;
- obtaining approval by an Institutional Review Board ("IRB") at each clinical site before a clinical trial may be initiated at that site;
- performance of adequate and well-controlled clinical trials meeting FDA requirements, commonly referred to as Good Clinical Practices ("GCP"), and other additional requirements for the protection of human research subjects and to establish the safety and efficacy of the product candidate for each proposed indication;
- manufacturing (through an FDA-approved facility) of product in accordance with the FDA's current Good Manufacturing Practices ("cGMP") to be used in the clinical trials and providing manufacturing information needed in regulatory filings;
- submission of a BLA to the FDA for marketing approval that includes substantial evidence of safety, purity and potency from results of clinical trials; the results of preclinical testing; detailed information about the chemistry, manufacturing, and controls ("CMC") and proposed labeling and packaging for the product candidate;
- satisfactory completion of an FDA pre-approval inspection of the manufacturing facilities at which the product candidate is produced, and potentially other involved facilities as well, to assess compliance with cGMP regulations and other applicable regulations;
- satisfactory completion of potential FDA inspections of the preclinical study and clinical trial sites that generate the data in support of the BLA and;
- FDA review and approval of a BLA prior to any commercial marketing, sale or shipment of the product, including agreement on post-marketing commitments.

The testing, review and approval process requires substantial time, effort and financial resources, and we cannot be certain that any approvals for our product candidates will be granted on a timely basis, if at all. We may encounter difficulties or unanticipated costs in our efforts to secure necessary governmental approvals, which could delay or preclude us from marketing our product candidates. In addition, the FDA may limit the indications for use or place other conditions on any approvals that could restrict the commercial application of the products.

Pre-Clinical Studies

Prior to commencing the first clinical trial at a United States investigational site, we must submit manufacturing and analytical data, pre-clinical data from studies conducted in accordance with GLPs, and clinical trial plans, among other information, to the FDA as part of an IND application. Subject to certain exceptions, an IND becomes effective 30 days after receipt by the FDA, unless the FDA, within the 30-day time period, issues a clinical hold to delay a proposed clinical investigation due to concerns or questions about the product or the conduct of the clinical trial, including concerns that human research subjects will be exposed to unreasonable health risks. In such a case, the IND sponsor and the FDA must resolve any outstanding concerns before the clinical trial can begin. Clinical holds also may be imposed by the FDA at any time before or during trials due to safety concerns or non-compliance.

Our submission of an IND, or those of our collaboration partners, may not result in the FDA allowance to commence a clinical trial. A separate submission to an existing IND must also be made for each successive clinical trial conducted during product development. The FDA must also approve certain changes to an existing IND, such as certain manufacturing changes. Further, an independent institutional review board ("IRB") duly constituted to meet FDA requirements for each medical center proposing to conduct the clinical trial must review and approve the plan for any clinical trial before it commences at that center and it must monitor the safety of the study and study subjects until completed. The FDA, the IRB or the sponsor may suspend a clinical trial at any time on various grounds, including a finding that the subjects or patients are being exposed to an unacceptable health risk. Clinical testing also must satisfy extensive GCP requirements and regulations for informed consent, and must be conducted with product meeting cGMPs.

Clinical Trials

For purposes of BLA submission and approval, clinical trials are typically conducted in the following three sequential phases, which may overlap (although additional or different trials may be required by the FDA as well):

- Phase I clinical trials are initially conducted in a limited population to test the product candidate for safety, dose tolerance, absorption, metabolism, distribution and excretion in healthy humans or, on occasion, in patients, such as cancer patients.

- Phase II clinical trials are generally conducted in a larger but limited patient population to identify possible adverse effects and safety risks, to determine the efficacy of the product candidate for specific targeted indications and to determine tolerance and optimal dosage. Multiple Phase II clinical trials may be conducted by the sponsor to obtain information prior to beginning larger and more expensive Phase III clinical trials.

- Phase III trials are conducted to establish the overall risk/benefit profile of the product. Certain Phase III clinical trials are referred to as pivotal trials. Phase III clinical trials aim to provide substantial evidence of reproducibility of clinical efficacy and safety results for approval and to further test for safety in an expanded and diverse patient population at multiple, geographically dispersed clinical trial sites.

In addition, under the Pediatric Research Equity Act of 2003, a BLA or supplement for a new active ingredient, new indication, new dosage form, new dosing regimen, or new route of administration must contain data that is adequate to assess the safety and effectiveness of the drug for the claimed indications in all relevant pediatric subpopulations, and to support dosing and administration for each pediatric subpopulation for which the product is safe and effective, unless the applicant has obtained a waiver or deferral. In 2012, the Food and Drug Administration Safety and Innovation Act amended the FDCA to require that a sponsor who is planning to submit such an application submit an initial Pediatric Study Plan ("PSP") within 60 days of an end-of-phase 2 meeting or as may be agreed between the sponsor and the FDA. The FDA may, on its own initiative or at the request of the applicant, grant deferrals for submission of data or full or partial waivers. The FDA and the sponsor must reach agreement on the PSP.

In some cases, the FDA may condition continued approval of a BLA on the sponsor's agreement to conduct additional clinical trials, or other commitments. Such post-approval studies are typically referred to as Phase IV studies, which are used to gain additional experience from the treatment of patients in the intended therapeutic indication, particularly for long-term safety follow-up.

During all phases of clinical development, regulatory agencies require extensive monitoring and auditing of all clinical activities, clinical data and clinical trial investigators. Annual progress reports detailing the results of the clinical trials must be submitted to the FDA. Written IND safety reports must be promptly submitted to the FDA and the investigators for: serious and unexpected adverse events; any findings from other studies, tests in laboratory animals or in vitro testing and other sources that suggest a significant risk for human subjects; or any clinically important increase in the rate of a serious suspected adverse reaction over that listed in the protocol or investigator brochure. The sponsor must submit an IND safety report within 15 calendar days after the sponsor determines that the information qualifies for reporting. The sponsor also must notify the FDA of any unexpected fatal or life-threatening suspected adverse reaction within seven calendar days after the sponsor's initial receipt of the information. Phase I, Phase II and Phase III clinical trials might not be completed successfully within any specified period, if at all. The FDA or the sponsor may suspend a clinical trial at any time on various grounds, including a finding that the research subjects or patients are being exposed to an unacceptable health risk. Similarly, an IRB can suspend or terminate approval of a clinical trial at its institution if the clinical trial is not being conducted in accordance with the IRB's requirements or if the biological product has been associated with unexpected serious harm to patients.

In limited circumstances, the FDA also permits the administration of investigational biological products to patients under its expanded access regulatory authorities. Under the FDA's expanded access authority, provided certain qualifying criteria are met, patients who are not able to participate in a clinical trial may be eligible for accessing investigational products, including through individual compassionate or emergency use in concert with their requesting physician.

Concurrent with clinical trials, companies usually complete additional preclinical studies, animal studies, develop additional information about the physical characteristics of the biological product candidate and finalize a process for manufacturing the product in commercial quantities in accordance with cGMP requirements. To help reduce the risk of the introduction of adventitious agents with use of biological products, the PHS Act emphasizes the importance of manufacturing controls for products whose attributes cannot be precisely defined. The manufacturing process must be capable of consistently producing quality batches of the product candidate and, among other things, the sponsor must develop methods for testing the identity, strength, quality, potency and purity of the final biological product. Additionally, appropriate packaging must be selected and tested, and stability studies must be conducted to demonstrate that the biological product candidate does not undergo unacceptable deterioration over its shelf life.

Biologics License Applications

The results of product candidate development, preclinical testing and clinical trials, together with, among other things, detailed information on the manufacture and composition of the product and proposed labeling, and the payment of a user fee, are submitted to the FDA as part of a BLA. Under the Prescription Drug User Fee Act ("PDUFA"), the fees payable to the FDA for reviewing an original BLA, as well as annual program fees for approved products can be substantial, subject to certain limited deferrals, waivers and reductions that may be available.

Following submission, the FDA has 60 days to review all BLAs to determine if they are substantially complete before it accepts them for filing. The FDA may refuse to file a BLA that it deems incomplete or not reviewable at the time of submission, in which case the BLA will have to be updated and resubmitted. The FDA may also request additional information to be submitted in a very short time frame before accepting a BLA for filing.

If the FDA accepts the application for filing, the FDA reviews the BLA to determine, among other things, whether the proposed product is safe, pure, and potent for its intended use, and whether the product is being manufactured in compliance with cGMP. During its review of a BLA, the FDA may refer the application for novel product candidates or products that present difficult questions to an advisory committee of experts for their review, evaluation and recommendation as to whether the application should be approved, which information is taken into consideration along with the FDA's own review findings. The FDA's PDUFA review goal is to review 90% of priority BLAs within six months of filing and 90% of standard applications within 10 months of filing, but the FDA can and frequently does extend this review timeline to consider certain later-submitted information or information intended to clarify or supplement an initial submission. The FDA may not complete its review or approve a BLA within these established goal review times. Moreover, this review period may change as the PDUFA statute must be reauthorized by Congress by September 2022.

Before approving a marketing application, the FDA typically will inspect the facility or facilities where the product is manufactured, referred to as a Pre-Approval Inspection, as well as one or more clinical trial sites. The FDA will not approve a product candidate unless cGMP compliance is satisfactory. During its review of a BLA, the FDA may refer the application to an advisory committee of experts for their review, evaluation and recommendation as to whether the application should be approved, which information is taken into consideration along with the FDA's own review findings.

After the FDA conducts its in-depth review of the application and after the inspection of the manufacturing facilities and clinical trial sites, the FDA issues either an approval letter or a Complete Response Letter ("CRL"). A CRL generally outlines the deficiencies in the submission and may also require additional clinical or other data, including one or more additional pivotal Phase III clinical trials. Even if such requested data are submitted, the FDA may ultimately decide that the BLA does not satisfy the criteria for approval and issue a denial of the BLA. Data from clinical trials are not always conclusive and the FDA may interpret data differently than we do. If the FDA's evaluations of the BLA and the clinical and manufacturing procedures and facilities are favorable, the FDA may issue an approval letter. If the evaluations are not favorable the FDA will issue a CRL, which may contain the conditions that must be met in order to secure final approval of the BLA. If a CRL is issued, a company has up to twelve months to resubmit or withdraw the BLA, unless the FDA allows for an extension as requested by a sponsor. If a CRL is issued, resubmissions for original applications and supplements of different types are subject to varying agency review procedures and review timing goals. For example, upon the resubmission of an original BLA application or efficacy supplement, CBER will classify the resubmission as either Class 1 (triggering a two-month review goal for the FDA) or Class 2 (triggering a six-month review goal for the FDA) depending on the circumstances. CBER also includes specific goals for review of manufacturing and labeling supplements, though in practice, FDA reviews may take longer than the stated goals.

If and when the items identified in a CRL have been resolved to the FDA's satisfaction, the FDA will issue an approval letter, authorizing commercial marketing of the product for certain indications. The FDA may withdraw product approval if ongoing regulatory requirements are not met or if safety problems occur after the product reaches the market. In addition, the FDA may require testing, including Phase IV post-approval clinical trials, and surveillance programs to monitor the effect of approved products that have been commercialized, and the FDA has the power to prevent or limit further marketing of a product based on the results of these post-marketing programs.

Even if the FDA approves a product, it may limit the approved indications or populations for use of the product, require that contraindications, warnings, or precautions be included in the product labeling, including a boxed warning, require testing and surveillance programs to monitor the product after commercialization, or impose other conditions, including distribution restrictions or other risk management mechanisms under a Risk Evaluation and Mitigation Strategy ("REMS"). If the FDA concludes a REMS is needed, the sponsor of the BLA must submit a proposed REMS; the FDA will not approve the BLA without a REMS, if required. A REMS could include medication guides, physician communication plans or elements to assure safe use, such as restricted distribution methods, patient registries and other risk minimization tools. Any of these limitations on approval or marketing can materially affect the potential market and profitability of the product. The FDA may also not approve label statements that are necessary for successful commercialization and marketing. Products may be marketed only for the FDA-approved indications and in accordance with the FDA-approved label. The FDA does not allow drugs to be promoted for "off-label" uses – that is, uses that are not described in the product's approved labeling and that differ from those that were approved by the FDA. Furthermore, the FDA generally limits approved uses to those studied in clinical trials. If there are any modifications to the product, including changes in indications, other labeling changes, or manufacturing processes or facilities, we may be required to submit and obtain FDA approval of a new BLA or BLA supplement, which may require us to develop additional data or conduct additional preclinical studies and clinical trials, and/or require additional manufacturing data.

Satisfaction of the FDA regulations and approval requirements or similar requirements of foreign regulatory agencies typically takes many years, and the actual time required may vary substantially based upon the type, complexity and novelty of the product or disease. Typically, if a product candidate is intended to treat a chronic disease, as was the case with ASCENIV, safety and efficacy data must be gathered over an extended period of time. Government regulation may delay or prevent marketing of product candidates for a considerable period of time and impose costly procedures upon our activities. The FDA or any other regulatory agency may not grant approvals for any changes on a timely basis, or at all. Even if a product candidate receives regulatory approval, the approval may be significantly limited to specific disease states, patient populations and dosages. Further, even after regulatory approval is obtained, later discovery of previously unknown problems with a product may result in restrictions on the product or even complete withdrawal of the product from the market. Delays in obtaining, or failures to obtain, regulatory approvals for any of our product candidates would harm our business. In addition, we cannot predict what adverse governmental regulations may arise from future U.S. or foreign governmental action.

Post-Approval Regulatory Requirements

After regulatory approval is obtained, biological drug products are subject to extensive and continuing regulation by the FDA, and the FDA may impose a number of post-approval requirements as a condition of approval of an application. For example, as a condition of approval of a BLA, the FDA may require post-marketing testing and surveillance to monitor the product's safety or efficacy. In addition, holders of an approved BLA are required to keep extensive records (including certain electronic records and signature requirements), submit annual reports, report certain adverse reactions and production problems to the FDA, provide updated safety and efficacy information, and comply with requirements concerning advertising and promotional labeling for their products. After approval, most changes to the approved product, such as adding new indications or other labeling claims, are subject to prior FDA review and approval. There also are annual user fee requirements for any marketed products, as well as new application fees for supplemental applications with clinical data. BLA holders must comply with other regulatory requirements, including submitting annual reports, reporting information about adverse drug experiences, and maintaining certain records. The FDA may withdraw a product approval if compliance with regulatory requirements is not maintained or if problems occur after the product reaches the market. Later discovery of previously unknown problems with a product, including adverse events of unanticipated severity or frequency, problems with manufacturing processes or failure to comply with regulatory requirements, may result in restrictions on the product or even complete withdrawal of the product from the market. Failure to comply with the statutory and regulatory requirements can subject a manufacturer to possible legal or regulatory action, such as refusal to approve pending applications, license suspension or revocation, withdraw approval of a BLA, imposition of a clinical hold or termination of clinical trials, warning letters, untitled letters, suspension of manufacturing, sales or use, product seizures or recalls, import restrictions, injunctive action or possible fines and other penalties. We cannot be certain that we or our present or future third-party manufacturers or suppliers will be able to comply with the cGMP regulations and other ongoing FDA regulatory requirements.

Manufacturers must continue to comply with cGMP requirements, which are extensive and require considerable time, resources and ongoing investment to ensure compliance. In addition, changes to the manufacturing process generally require prior FDA approval before being implemented. Other types of changes to the approved product, such as adding new indications and additional labeling claims, are also subject to further FDA review and approval. Certain manufacturing deviations and unexpected manufacturing events must be investigated, corrected, and reported to FDA.

Manufacturers and certain other entities involved in the manufacturing and distribution of approved products are required to register their establishments with the FDA and certain state agencies, list the manufactured products to the FDA, and are subject to periodic unannounced inspections by the FDA and certain state agencies for compliance with cGMP and other laws. The cGMP requirements apply to all stages of the manufacturing process, including the production, processing, sterilization, packaging, labeling, storage and shipment of the product. Manufacturers must establish validated systems to ensure that products meet specifications and regulatory standards, and test each product batch or lot prior to its release. The information that must be submitted to FDA regarding manufactured products was expanded through the Coronavirus Aid, Relief, and Economic Security ("CARES") Act to include the volume of drugs produced during the prior year. For biologics products subject to lot release, for each product lot the applicant must submit materials related to that lot to the FDA prior to that lot being released for distribution.

Changes to the manufacturing process are strictly regulated and often require prior FDA approval before being implemented. FDA regulations also require investigation and correction of any deviations from cGMP and impose reporting and documentation requirements upon the sponsor and any third-party manufacturers that the sponsor may decide to use. Accordingly, manufacturers must continue to expend time, money, and effort towards production and quality control to maintain cGMP compliance.

The commercial distribution of prescription drugs (including biological drug products) is subject to the Drug Supply Chain Security Act ("DSCSA"), which regulates the distribution of the products at the federal level, and sets certain standards for federal or state registration and compliance of entities in the supply chain (manufacturers and repackagers, wholesale distributors, third-party logistics providers, and dispensers). The DSCSA preempts previously enacted state pedigree laws and the pedigree requirements of the Prescription Drug Marketing Act ("PDMA"). Trading partners within the drug supply chain must now ensure certain product tracing requirements are met, and are required to exchange transaction information, transaction history, and transaction statements. Further, the DSCSA limits the distribution of prescription pharmaceutical products and imposes requirements to ensure overall accountability and security in the drug supply chain. The distribution of product samples continues to be regulated under the PDMA.

FDA post-approval requirements are continually evolving. For example, in March 2020, the U.S. Congress passed the Coronavirus Aid, Relief, and Economic Security Act, or CARES Act, which includes various provisions regarding FDA drug shortage and manufacturing volume reporting requirements, as well as provisions regarding supply chain security, such as risk management plan requirements, and the promotion of supply chain redundancy and domestic manufacturing. As part of the CARES Act implementation, the FDA recently issued a guidance on the reporting of the volume of drugs produced, which reporting will require additional administrative efforts by drug manufacturers.

Advertising and Promotion

The FDA closely regulates the post-approval marketing and promotion of products, including standards and regulations for direct-to-consumer advertising, off-label promotion, industry-sponsored scientific and educational activities and promotional activities involving the Internet. A product cannot be promoted before it is approved. After approval, product promotion can include only those claims relating to safety and effectiveness that are consistent with the labeling approved by the FDA. Healthcare providers are permitted to prescribe drugs for "off-label" uses - that is uses not approved by the FDA and not described in the product's labeling because the FDA does not regulate the practice of medicine. However, FDA regulations impose restrictions on manufacturers' communications regarding off-label uses. Broadly speaking, a manufacturer may not promote a drug for off-label use, but under certain conditions may engage in non-promotional, balanced, scientific communication regarding off-label use. Failure to comply with applicable FDA requirements and restrictions in this area may subject a company to adverse publicity and enforcement action by the FDA, the Department of Justice, or the Office of the Inspector General of the Department of Health and Human Services, as well as state authorities. This could subject a company to a range of penalties that could have a significant commercial impact, including civil and criminal fines and agreements that materially restrict the manner in which a company promotes or distributes a drug.

From time to time, legislation is drafted, introduced and passed in Congress that could significantly change the statutory provisions governing the approval, manufacturing and marketing of products regulated by the FDA. In addition to new legislation, FDA and other agency regulations, guidance, and policies are often revised or reinterpreted in ways that may significantly affect our business and our product candidates. It is impossible, especially in light of the recent change to the U.S. administration, to predict whether further legislative or FDA regulation or other regulatory policy changes will be enacted or implemented and what the impact of such changes, if any, may be. It is possible that certain prior regulatory requirements may be postponed or frozen.

Regulation of ADMA BioCenters

With some limited exceptions, all blood and blood product collection and manufacturing centers which engage in interstate commerce must be licensed by and registered with the FDA, and must be commercially distributed blood products with the agency. In order to achieve licensure, the organization must submit a BLA three months after the center's first donor collection and undergo a 12-month pre-licensure inspection. ADMA BioCenters has completed these requirements and holds an FDA license for five of its existing plasma collection facilities. In order to maintain an FDA license, each such facility operated by ADMA BioCenters will be inspected at least every two years and must meet certain regulatory requirements. ADMA BioCenters is also required to submit annual reports to the FDA, as well as reports of fatalities related to blood and blood component collection or transfusion. Establishments must also comply with FDA's regulatory standards which include a variety of requirements related to, among other areas, cGMPs, deviation investigation and reporting, donor screening and product testing, as well as product labeling. Facilities must further ensure that all tests and equipment that are used are appropriate for their intended use, which may include FDA clearance and/or approval of the applicable test or equipment.

Blood plasma collection and manufacturing centers are also subject to the Clinical Laboratory Improvement Amendments, state licensure and compliance with industry standards such as the International Quality Plasma Program. Compliance with state and industry standards is verified by means of routine inspection. State requirements may differ significantly from federal requirements, which may complicate compliance efforts. We believe that our existing ADMA BioCenters facilities are currently in compliance with state and industry standards. Delays in obtaining, or failures to maintain, regulatory approvals for any facilities operated by ADMA BioCenters would harm our business. In addition, we cannot predict what adverse federal and state regulations and industry standards may arise in the future.

Foreign Regulation

In addition to regulations in the U.S., if we choose to pursue clinical development and commercialization in the European Union, we will be subject to a variety of foreign regulations governing clinical trials and commercial sales and distribution of any future product. Whether or not we obtain FDA approval for a product, we must obtain approval by the comparable regulatory authorities of foreign countries before we can commence clinical trials or marketing of the product in those countries. The approval process varies from country to country, and the time may be longer or shorter than that required for FDA approval. The requirements governing the conduct of clinical trials, product licensing, pricing and reimbursement vary greatly from country to country.

Under European Union regulatory systems, marketing authorizations may be submitted either under a centralized, decentralized or national or mutual recognition procedure. The centralized procedure provides for the grant of a single marketing authorization that is valid for all European Union member states. The decentralized procedure provides for approval by one or more "concerned" member states based on an assessment of an application performed by one member state, known as the "reference" member state. Under the decentralized approval procedure, an applicant submits an application, or dossier, and related materials to the reference member state and concerned member states. The reference member state prepares a draft assessment report and drafts of the related materials within 120 days after receipt of a valid application. Within 90 days of receiving the reference member state's assessment report, each concerned member state must decide whether to approve the assessment report and related materials. If a member state does not recognize the marketing authorization, the disputed points are eventually referred to the European Commission, whose decision is binding on all member states. In addition to the centralized procedure and the decentralized procedure, it may also be possible to obtain a marketing authorization for one single member state through a national procedure. The mutual recognition procedure provides for mutual recognition of national approval decisions. Under this procedure, the holder of a national marketing authorization may submit an application to the remaining member states. Within 90 days of receiving the applications and assessment report, each member state must decide whether to recognize approval, refuse it or request additional information.

Pharmaceutical Pricing and Reimbursement of Our Products

All sales in the U.S. of BIVIGAM, ASCENIV and Nabi-HB depend in part upon the availability of reimbursement from third-party payers. Third-party payers include government health programs, managed care providers, private health insurers and other organizations. BIVIGAM and Nabi-HB are reimbursed or purchased under several government programs, including Medicaid, Medicare Parts B and D, the 340B/Public Health Service program, and pursuant to an existing contract with the Department of Veterans Affairs. Medicaid is a joint state and federal government health plan that provides covered outpatient prescription drugs for low-income individuals. Under Medicaid, drug manufacturers pay rebates to the states based on utilization data provided by the states. CMS has issued a permanent, product-specific-J-code for ASCENIV. Under the HCPCS, the J-code (J1554) became effective April 1, 2021.

Significant uncertainties exist as to the coverage and reimbursement status of our current products as well as any products for which we may obtain regulatory approval. In the U.S., sales of BIVIGAM, ASCENIV and Nabi-HB, as well as any products for which we may receive regulatory approval for commercial sale will depend in part on the availability of coverage and reimbursement from third-party payers. Third-party payers include government authorities, managed care providers, private health insurers and other organizations. No uniform policy of coverage and reimbursement for drug products exists. Accordingly, decisions regarding the extent of coverage and amount of reimbursement to be provided for any of our products will be made on a payor-by-payor basis. As a result, the coverage determination process is often a time-consuming and costly process that will require us to provide scientific and clinical support for the use of our products to each payor separately, with no assurance that coverage and adequate reimbursement will be obtained. The process for determining whether a payer will provide coverage for a drug product may be separate from the process for setting the reimbursement rate that the payer will pay for the drug product. Third-party payers may limit coverage to specific drug products on an approved list, or formulary, which might not include all of the FDA-approved drugs for a particular indication. Moreover, a payer's decision to provide coverage for a drug product does not imply that an adequate reimbursement rate will be approved. Adequate third-party reimbursement may not be available to enable us to maintain price levels sufficient to realize an appropriate return on our investment in product development.

Third-party payers are increasingly challenging the price and examining the medical necessity and cost-effectiveness of medical products and services, in addition to their safety and efficacy. In order to obtain coverage and reimbursement for our current products and any product that might be approved for sale, we may need to conduct expensive pharmacoeconomic studies in order to demonstrate the medical necessity and cost-effectiveness of any products, in addition to the costs required to obtain regulatory approvals. Our current products and product candidates may not be considered medically necessary or cost-effective. If third-party payers do not consider a product to be cost-effective compared to other available therapies, they may not cover the product after approval as a benefit under their plans or, if they do, the level of payment may not be sufficient to allow a company to sell its products at a profit.

The U.S. government and state legislatures have shown significant interest in implementing cost containment programs to limit the growth of government-paid healthcare costs, including price controls, limitations on coverage, increased rebates, restrictions on reimbursement and requirements for substitution of generic products for branded prescription drugs. For example, the Patient Protection and Affordable Care Act ("ACA") and the companion Healthcare and Education Reconciliation Act (which together are referred to as the "Healthcare Reform Law") contains provisions that may reduce the profitability of drug products, including, for example, increased rebates for drugs reimbursed by Medicaid programs, extension of Medicaid rebates to Medicaid managed care plans, mandatory discounts for certain Medicare Part D beneficiaries and annual fees based on pharmaceutical companies' share of sales to federal healthcare programs. We have addressed additional reforms related to government pricing programs that could be relevant to our products below. These and any additional healthcare reform measures could further constrain our business or limit the amounts that federal and state governments will pay for healthcare products and services, which could result in additional pricing pressures. Adoption of government controls and measures, and tightening of restrictive policies in jurisdictions with existing controls and measures, could limit payments for pharmaceuticals.

The marketability of our current products and any products for which we receive regulatory approval for commercial sale may suffer if the government and third-party payers fail to provide adequate coverage and reimbursement. In addition, the emphasis on cost containment measures in the U.S. has increased and we expect will continue to increase the pressure on pharmaceutical pricing. Coverage policies and third-party reimbursement rates may change at any time. Even if favorable coverage and reimbursement status is attained for one or more products for which we receive regulatory approval, less favorable coverage policies and reimbursement rates may be implemented in the future.

Government Price Reporting

Manufacturers participate in, and have certain price reporting obligations under, the Medicaid Drug Rebate Program, state Medicaid supplemental rebate program(s), and other governmental pricing programs. For calendar quarters beginning January 1, 2022, manufacturers will be required to report the average sales price for certain drugs under the Medicare program regardless of whether the manufacturer participates in the Medicaid Drug Rebate Program. Previously, this reporting obligation extended only to manufacturers participating in the Medicaid Drug Rebate Program. Under this Program, manufacturers are required to pay a rebate to each state Medicaid program for covered outpatient drugs that are dispensed to Medicaid beneficiaries and paid for by a state Medicaid program as a condition of having federal funds being made available for their drugs under Medicaid and Part B of the Medicare program.

Medicaid is a joint federal and state program that is administered by the states for low-income and disabled beneficiaries. Medicaid rebates are based on pricing data reported by manufacturers on a monthly and quarterly basis to the CMS, the federal agency that administers the Medicaid and Medicare programs. These data include the average manufacturer price and, in the case of innovator products, the best price for each drug, which, in general, represents the lowest price available from the manufacturer to any entity in the U.S. in any pricing structure, calculated to include all sales and associated rebates, discounts, and other price concessions. The amount of the rebate is adjusted upward if the average manufacturer price increases more than inflation (measured by reference to the Consumer Price Index - Urban). Currently, the rebate is capped at 100 percent of the average manufacturer price, but, effective January 1, 2024, this cap on the rebate will be removed, and our rebate liability could increase accordingly.

If a manufacturer becomes aware that its reporting for a prior quarter was incorrect, or has changed as a result of recalculating the pricing data, the manufacturer is obligated to resubmit the corrected data for up to three years after those data originally were due, which revisions could affect rebate liability for prior quarters. The federal Patient Protection and ACA made significant changes to the Medicaid Drug Rebate Program, and CMS issued a final regulation, which became effective on April 1, 2016, to implement the changes to the Medicaid Drug Rebate Program under the ACA. On December 21, 2020, CMS issued a final rule that modified Medicaid Drug Rebate Program regulations to permit reporting multiple best price figures with regard to value-based purchasing arrangements (beginning in 2022); provided definitions for “line extension,” “new formulation,” and related terms with the practical effect of expanding the scope of drugs considered to be line extensions (beginning in 2022); and revised best price and average manufacturer price exclusions of manufacturer-sponsored patient benefit programs, particularly regarding potential inapplicability of such exclusions in the context of pharmacy benefit manager “accumulator” programs (beginning in 2023).

Medicare is a federal program that is administered by the federal government that covers individuals age 65 and over or that are disabled as well as those with certain health conditions. Medicare Part B generally covers drugs that must be administered by physicians or other health care practitioners, among others. Medicare Part B generally pays for such drugs under a payment methodology based on the average sales price of the drugs. Manufacturers are required to report average sales price information to CMS on a quarterly basis. The manufacturer-submitted information is used by CMS to calculate Medicare payment rates.

Congress could enact additional changes that affect our overall rebate liability and the information manufacturers report to the government as part of price reporting calculations. For example, Congress is considering a Medicare Part B inflation rebate, under which manufacturers would owe additional rebates if the average sales price of a drug were to increase faster than the pace of inflation.

Civil monetary penalties can be applied if a manufacturer is (1) found to have knowingly submitted any false pricing or other information to the government, (2) found to have made a misrepresentation in the reporting of our average sales price, or (3) fails to submit the required data on a timely basis. Such conduct also could be grounds for CMS to terminate a Medicaid Drug Rebate Program agreement, in which case federal payments may not be available under Medicaid or Medicare Part B for the manufacturer’s covered outpatient drugs.

Federal law requires that any company that participates in the Medicaid Drug Rebate Program also participate in the Public Health Service’s 340B drug pricing program (the “340B program”) in order for federal funds to be available for the manufacturer’s drugs under Medicaid and Medicare Part B. The 340B program, which is administered by the Health Resources and Services Administration, or HRSA, requires participating manufacturers to agree to charge statutorily defined covered entities no more than the 340B “ceiling price” for the manufacturer’s covered outpatient drugs. Covered entities include hospitals that serve a disproportionate share of financially needy patients, community health clinics, and other entities that receive certain types of grants under the Public Health Service Act. The ACA expanded the list of covered entities to include certain free-standing cancer hospitals, critical access hospitals, rural referral centers, and sole community hospitals, but exempts “orphan drugs” from the ceiling price requirements for these covered entities. The 340B ceiling price is calculated using a statutory formula, which is based on the average manufacturer price and Medicaid rebate amount for the covered outpatient drug as calculated under the Medicaid Drug Rebate Program. In general, products subject to Medicaid price reporting and rebate liability are also subject to the 340B ceiling price calculation and discount requirement.

HRSA issued a final regulation regarding the calculation of the 340B ceiling price and the imposition of civil monetary penalties on manufacturers that knowingly and intentionally overcharge covered entities, which became effective on January 1, 2019. It is currently unclear how HRSA will apply its enforcement authority under this regulation. Any charge by HRSA that a manufacturer has violated the requirements of the regulation could result in civil monetary penalties. Moreover, under a final regulation effective January 13, 2021, HRSA established a new administrative dispute resolution ("ADR") process for claims by covered entities that a manufacturer has engaged in overcharging, and by manufacturers that a covered entity violated the prohibitions against diversion or duplicate discounts. Such claims are to be resolved through an ADR panel of government officials rendering a decision that can be appealed to a federal court. An ADR proceeding could subject a manufacturer to onerous procedural requirements and could result in additional liability. HRSA also implemented a price reporting system under which manufacturers are required to report 340B ceiling prices on a quarterly basis to HRSA, which then publishes those prices to 340B covered entities. In addition, legislation could be passed, that would further expand the 340B program to additional covered entities, or participating manufacturers could be required to agree to provide 340B discounted pricing on drugs used in an inpatient setting.

In order to be eligible to have their products paid for with federal funds under the Medicaid and Medicare Part B programs and purchased by certain federal agencies (VA, Department of Defense ("DoD"), Coast Guard, and Public Health Service ("PHS")) and grantees, manufacturers must participate in the U.S. Department of Veterans Affairs ("VA") Federal Supply Schedule ("FSS") pricing program. Prices for innovator drugs purchased by the VA, DoD, Coast Guard, and PHS are subject to a cap (known as the "Federal Ceiling Price") equal to 76% of the annual non-federal average manufacturer price ("non-FAMP") minus, if applicable, an additional discount. The additional discount applies if non-FAMP increases more than inflation (measured by reference to the Consumer Price Index – Urban ("CPIU")). In addition, in the second and subsequent year, the price also is capped at prior year FSS contract plus CPIU. Manufacturers must also participate in the Tricare Retail Pharmacy Program, under which they pay quarterly rebates to DoD for prescriptions of innovator drugs dispensed to Tricare beneficiaries through Tricare Retail network pharmacies. The governing statute provides for civil monetary penalties for failure to provide information timely or for knowing submission of false information to the government.

Medicare Part D generally provides coverage to enrolled Medicare patients for self-administered drugs (*i.e.*, drugs that are not administered by a physician). Medicare Part D is administered by private prescription drug plans approved by the U.S. government and, subject to detailed program rules and government oversight, each drug plan establishes its own Medicare Part D formulary for prescription drug coverage and pricing, which the drug plan may modify from time to time. The prescription drug plans negotiate pricing with manufacturers and pharmacies, and may condition formulary placement on the availability of manufacturer rebates. In addition, manufacturers are required to provide to CMS a 70% discount on brand name prescription drugs utilized by Medicare Part D beneficiaries when those beneficiaries are in the coverage gap phase of the Part D benefit design. Civil monetary penalties can be applied if a manufacturer fails to provide these discounts in the amount of 125 percent of the discount that was due. Congress could enact legislation that sunsets this discount program and replaces it with a new manufacturer discount program. Congress further could enact a Medicare Part D inflation rebate, under which manufacturers would owe additional rebates if the average manufacturer price of a drug were to increase faster than the pace of inflation.

Congress also could enact a drug price negotiation program under which the prices for certain high Medicare spend single source drugs would be capped by reference to the non-federal average manufacturer price. This or any other legislative change could impact the market conditions for our products. We further expect continued scrutiny on government price reporting from Congress, agencies, and other bodies.

Group health plans, health insurance issuers, health maintenance organizations, other healthcare payors, and pharmacy benefit managers in the United States are adopting more aggressive utilization management techniques and are increasingly requiring significant discounts and rebates from manufacturers as a condition to including products on formulary with favorable coverage and cost-sharing. These payors may not cover or adequately reimburse for use of our products or may do so at levels that disadvantage them relative to competitive products. Outside the United States, within the EU, our products are paid for by a variety of payors, with governments being the primary source of payment. Government health authorities in the EU determine or influence reimbursement of products, and set prices or otherwise regulate pricing. Negotiating prices with governmental authorities can delay commercialization of our products. Governments may use a variety of cost-containment measures to control the cost of products, including price cuts, mandatory rebates, value-based pricing, and reference pricing (*i.e.*, referencing prices in other countries or prices of competitive products and using those reference prices to set a price). Budgetary pressures in many EU countries are continuing to cause governments to consider or implement various cost-containment measures, such as price freezes, increased price cuts and rebates, and expanded generic substitution and patient cost-sharing. Recently, several states also have enacted or are considering legislation intended to make drug prices more transparent and deter significant price increases that impose reporting requirements on biopharmaceutical companies. These laws may affect our future sales, marketing, and other promotional activities by imposing administrative and compliance burdens. Such laws also typically impose significant civil monetary penalties for each instance of reporting noncompliance that can quickly aggregate into the millions of dollars.

U.S. Healthcare Reform

The containment of healthcare costs has become a priority of federal and state governments, and the prices of drugs have been a focus in this effort. Changes in government legislation or regulation and changes in private third-party payors' policies toward reimbursement for our products, if successfully developed and approved, may reduce reimbursement of our products' costs to physicians, pharmacies, patients, and distributors. The U.S. government, state legislatures and foreign governments have shown significant interest in implementing cost-containment programs, including price controls, payment of rebates, restrictions on reimbursement and requirements for substitution of generic products. Adoption of price controls and cost-containment measures, and adoption of more restrictive policies in jurisdictions with existing controls and measures, could limit our net revenue and results for products, if any, we commercialize in the future.

The pricing and reimbursement environment for our products may change in the future and become more challenging due to state and federal healthcare reform measures. The American Recovery and Reinvestment Act of 2009, or ARRA, for example, allocated new federal funding to compare the effectiveness of different treatments for the same condition. The plan for the research was published in 2012 by the Department of Health and Human Services, the Agency for Healthcare Research and Quality and the National Institutes for Health, and periodic reports on the status of the research and related expenditures are made to Congress. Although ARRA does not mandate the use of the results of comparative effectiveness studies for reimbursement purposes, it is not clear what effect, if any, the research will have on the sales of any products for which we receive marketing approval or on the reimbursement policies of public and private payors. It is possible that comparative effectiveness research demonstrating benefits in a competitor's product could adversely affect the sales of any product for which we receive marketing approval. For example, if third-party payors find our products not to be cost-effective compared to other available therapies, they may not cover our products after approval as a benefit under their plans or, if they do, the level of payment may not be sufficient to allow us to sell our products on a profitable basis.

The ACA is a sweeping measure intended to expand healthcare coverage within the U.S., primarily through the imposition of health insurance mandates on employers and individuals, the provision of subsidies to eligible individuals enrolled in plans offered on the health insurance exchanges, and the expansion of the Medicaid program. This law has substantially changed the way healthcare is financed by both governmental and private insurers and has significantly impacted the pharmaceutical industry. Changes that may affect our business include those governing enrollment in federal healthcare programs, reimbursement changes, benefits for patients within a coverage gap in the Medicare Part D prescription drug program (commonly known as the "donut hole"), rules regarding prescription drug benefits under the health insurance exchanges, changes to the Medicaid Drug Rebate Program, expansion of the Public Health Service Act's 340B drug pricing program, or 340B program, and fraud and abuse enforcement. These changes have impacted previously existing government healthcare programs and have resulted in the development of new programs, including Medicare payment for performance initiatives and improvements to the Medicare physician quality reporting system and feedback program.

One of the goals of ACA was to expand coverage for the uninsured while at the same time containing overall healthcare costs. With regard to pharmaceutical products, among other things, the ACA increased minimum rebates a manufacturer must pay under the Medicaid Drug Rebate Program and extended manufacturers' Medicaid rebate liability to drugs dispensed to individuals who are enrolled in Medicaid managed care organizations. The ACA also requires manufacturers of drugs, devices, biologics, and medical supplies for which payment is available under Medicare, Medicaid or the Children's Health Insurance Program (with certain exceptions) to report annually to CMS information related to certain direct or indirect payments and other transfers of value to U.S.-licensed physicians and teaching hospitals, as well as ownership and investment interests held in the company by physicians and their immediate family members. Beginning in 2022 with respect to 2021 data, applicable manufacturers also will be required to report information regarding payments and transfers of value provided to physician assistants, nurse practitioners, clinical nurse specialists, certified nurse anesthetists, and certified nurse-midwives. Failure to submit required information may result in civil monetary penalties of $1,000 to $10,000 for each payment or ownership interest that is not timely, accurately, or completely reported (annual maximum of $150,000), and $10,000 to $100,000 for each knowing failure to report (annual maximum of $1 million) (for an aggregate annual maximum of $1,150,000).

Some states have elected not to expand their Medicaid programs by raising the income limit to 133% of the federal poverty level, as is permitted under the ACA. For each state that does not choose to expand its Medicaid program, there may be fewer insured patients overall, which could impact sales of our products that are approved and that we successfully commercialize, and our business and financial condition. Where Medicaid patients receive insurance coverage under any of the new options made available through the ACA, the possibility exists that manufacturers may be required to pay Medicaid rebates on drugs used under these circumstances, a decision that could impact manufacturer revenues.

Certain provisions of the ACA have been subject to judicial challenges as well as efforts to modify them or to alter their interpretation or implementation. For example, Congress eliminated, starting January 1, 2019, the tax penalty for not complying with the ACA's individual mandate to carry health insurance. Further, the Bipartisan Budget Act of 2018, among other things, amended the Medicare statute to reduce the coverage gap in most Medicare drugs plans, commonly known as the "donut hole," by raising the required manufacturer point-of-sale discount from 50% to 70% off the negotiated price effective as of January 1, 2019. Additional legislative changes, regulatory changes, and judicial challenges related to the ACA remain possible, but the nature and extent of such potential changes or challenges are uncertain at this time. It is unclear how the ACA and its implementation, as well as efforts to modify or invalidate the ACA, or portions thereof, or its implementation, will affect our business, financial condition and results of operations. It is possible that the ACA, as currently enacted or as it may be amended in the future, and other healthcare reform measures that may be adopted in the future could have a material adverse effect on our industry generally and on our ability to maintain or increase sales of our products or product candidates for which we receive regulatory approval or to successfully commercialize our products and product candidates.

Other legislative changes relating to reimbursement have been adopted in the U.S. since the ACA was enacted. For example, on August 2, 2011, the Budget Control Act of 2011, among other things, created the Joint Select Committee on Deficit Reduction to recommend to Congress proposals for spending reductions. The Joint Select Committee did not achieve a targeted deficit reduction, which triggered the legislation's automatic reductions. In concert with subsequent legislation, this has resulted in aggregate reductions to Medicare payments to providers of, on average, 2% per fiscal year through 2031 (with the exception of a temporary suspension from May 1, 2020 through March 31, 2022, due to the COVID-19 pandemic). The law provides for 1% Medicare sequestration in the second quarter of 2022 and allows the full 2% sequestration thereafter until 2031. As long as these cuts remain in effect, they could adversely impact payment for any products we may commercialize in the future. We expect that additional federal healthcare reform measures will be adopted in the future, any of which could limit the amounts that federal and state governments will pay for healthcare products and services, and in turn could significantly reduce the projected value of certain development projects and reduce our profitability.

Additional legislative changes, regulatory changes, or guidance could be adopted, which may impact the marketing approvals and reimbursement for our product candidates. For example, there has been increasing legislative, regulatory, and enforcement interest in the United States with respect to drug pricing practices. There have been several Congressional inquiries and proposed and enacted federal and state legislation and regulatory initiatives designed to, among other things, bring more transparency to product pricing, evaluate the relationship between pricing and manufacturer patient assistance and support programs, potentially permit government negotiation of Medicare pricing with manufacturers relative to certain international prices paid, and reform government healthcare program reimbursement methodologies for drug products. If healthcare policies or reforms intended to curb healthcare costs are adopted or if we experience negative publicity with respect to pricing of our products or the pricing of pharmaceutical drugs generally, the prices that we charge for any approved products may be limited, our commercial opportunity may be limited and/or our revenues from sales of our products may be negatively impacted.

It is possible that the ACA, as currently enacted or may be amended in the future, as well as other healthcare reform measures that may be adopted in the future, may result in additional reductions in Medicare and other healthcare funding, more rigorous coverage criteria and new payment methodologies and in additional downward pressure on coverage and payment and the price that we receive for any approved product. Any reduction in reimbursement from Medicare or other government programs may result in a similar reduction in payments from private payors. The implementation of cost containment measures or other healthcare reforms may prevent us from being able to generate revenue, attain profitability or commercialize our products. We cannot be sure whether additional legislative changes will be enacted in the United States or outside of the United States, or whether regulatory changes, guidance or interpretations will be changed, or what the impact of such changes on the marketing approvals of our product candidates, if any, may be.

Anti-Fraud and Abuse Laws

We are also subject to numerous fraud and abuse laws and regulations globally. In the U.S., there are a variety of federal and state laws restricting certain marketing practices in the pharmaceutical industry pertaining to healthcare fraud and abuse, including anti-kickback laws and false claims laws. Our sales, marketing, patient support and medical activities may be subject to scrutiny under these laws. The U.S. federal healthcare program Anti-Kickback Statute prohibits, among other things, knowingly and willfully offering, paying, soliciting or receiving anything of value to induce (or in return for) the referral of business, including the purchase, recommendation or prescription of a particular drug reimbursable under Medicare, Medicaid or other federally financed healthcare programs. The statute has been interpreted to apply to arrangements between pharmaceutical companies on one hand and patients, prescribers, purchasers and formulary managers on the other. Although there are a number of statutory exemptions and regulatory safe harbors protecting certain common manufacturer business arrangements and activities from prosecution and administrative sanction, the exemptions and safe harbors are drawn narrowly and are subject to regulatory revision or changes in interpretation by the U.S. Department of Justice, or DOJ, and the Office of Inspector General of the U.S. Department of Health and Human Services, or OIG. Recent regulations eliminate the discount safe harbor protection for manufacturer rebates paid directly, or indirectly through a pharmacy benefit manager (“PBM”) to Medicare Part D or Medicare Advantage plans, effective January 1, 2026. Practices or arrangements that involve remuneration may be subject to scrutiny if they do not qualify for an exemption or safe harbor. Violations of the federal Anti-Kickback Statute may be established without providing specific intent to violate the statute, and may be punishable by civil, criminal, and administrative fines and penalties, damages, imprisonment, and/or exclusion from participation in federal healthcare programs.

The federal civil False Claims Act prohibits, among other things, any person from knowingly presenting, or causing to be presented, a false or fraudulent claim for payment of federal funds, or knowingly making, or causing to be made, a false statement to get a false claim paid, or knowingly and improperly avoiding, decreasing or concealing an obligation to pay money to the federal government. A claim resulting from a violation of the federal Anti-Kickback Statute constitutes a false or fraudulent claim. The False Claims Act also permits a private individual acting as a “whistleblower” to bring actions on behalf of themselves and the federal government alleging violations of the statute and to share in any monetary recovery. Violations of the False Claims Act may result in significant financial penalties (including mandatory penalties on a per claim or statement basis), treble damages and exclusion from participation in federal health care programs.

Pharmaceutical companies are subject to other federal false claim and statements laws, some of which extend to non-government health benefit programs. For example, the healthcare fraud provisions under the Health Insurance Portability and Accountability Act of 1996 and its implementing regulations, or HIPAA, impose criminal liability for, among other things, knowingly and willfully executing, or attempting to execute, a scheme to defraud any health care benefit program, including private third party payors, or falsifying or covering up a material fact or making any materially false or fraudulent statement in connection with the delivery of or payment for health care benefits, items or services. Violations of HIPAA fraud provisions may result in criminal, civil and administrative penalties, fines and damages, including exclusion from participation in federal healthcare programs.

The majority of states have adopted analogous laws and regulations, including state anti-kickback and false claims laws, that may apply to our business practices, including but not limited to, research, distribution, sales and marketing arrangements and claims involving healthcare items or services reimbursed by any third-party payer, including private insurers. Other states have adopted laws that, among other things, require pharmaceutical companies to comply with the pharmaceutical industry's voluntary compliance guidelines and the relevant compliance guidance promulgated by the U.S. federal government, or otherwise restrict payments that may be made to healthcare providers and other potential referral sources, and state laws and regulations that require drug manufacturers to file reports relating to pricing and marketing information, which requires tracking gifts and other remuneration and items of value provided to healthcare professionals and entities. In addition, some states have laws requiring pharmaceutical sales representatives to be registered or licensed, and still others impose limits on co-pay assistance that pharmaceutical companies can offer to patients.

The Physician Payment Sunshine Act requires tracking of certain payments and transfers of value to U.S.-licensed physicians and teaching hospitals and ownership interests held by physicians and their families, and reporting to the federal government and public disclosure by the federal government of this data. Beginning in 2022 with respect to 2021 data, reporting will also be required of information regarding payments and transfers of value provided to physician assistants, nurse practitioners, clinical nurse specialists, certified nurse anesthetists, and certified nurse-midwives.

Data Protection and Privacy

Throughout the clinical trial process, we may obtain the private health information of our trial subjects. There are a number of state, federal and international laws protecting the privacy and security of health information and personal data. The Healthcare Information Portability and Accountability Act ("HIPAA") imposes privacy, security, breach reporting obligations, and mandatory contractual terms on covered entity health care providers, health plans, and health care clearinghouses, as well as their "business associates" – certain persons or covered entities that create, receive, maintain, or transmit protected health information in connection with providing a specified service or performing a function on behalf of a covered entity. We could potentially be subject to criminal penalties if we, our affiliates, or our agents knowingly use or disclose individually identifiable health information maintained by a HIPAA-covered entity in a manner that is not authorized or permitted by HIPAA.

Even when HIPAA does not apply, according to the Federal Trade Commission ("FTC"), failing to take appropriate steps to keep consumers' personal information secure, or failing to provide a level of security commensurate to promises made to individual about the security of their personal information (such as in a privacy notice) may constitute unfair or deceptive acts or practices in violation of Section 5(a) of the Federal Trade Commission Act ("FTC Act"). The FTC expects a company's data security measures to be reasonable and appropriate in light of the sensitivity and volume of consumer information it holds, the size and complexity of its business, and the cost of available tools to improve security and reduce vulnerabilities. Individually identifiable health information is considered sensitive data that merits stronger safeguards. The FTC's guidance for appropriately securing consumers' personal information is similar to what is required by the HIPAA Security Rule. Enforcement by the FTC under the FTC Act can result in civil penalties or enforcement actions.

Most states have laws requiring notification of affected individuals and state regulators (breach notification laws) in the event of a breach of personal information, which is a broader class of information than the health information protected by HIPAA. Many state laws impose significant data security requirements, such as encryption or mandatory contractual terms to ensure ongoing protection of personal information. Additionally, in California, the California Consumer Privacy Act ("CCPA") establishes certain requirements for data use and sharing transparency and creates new data privacy rights for California residents. The CCPA and its implementing regulations have already been amended multiple times since their enactment. In November 2020, California voters approved the California Privacy Rights Act ("CPRA") ballot initiative which introduced significant amendments to the CCPA and established and funded a dedicated California privacy regulator, the California Privacy Protection Agency ("CPPA"). The amendments introduced by the CPRA go into effect on January 1, 2023, and new implementing regulations are expected to be introduced by the CPPA. Failure to comply with the CCPA may result in, among other things, significant civil penalties and injunctive relief, or statutory or actual damages. In addition, California residents have the right to bring a private right of action in connection with certain types of incidents. These claims may result in significant liability and damages.

Activities outside of the U.S. implicate local and national data protection standards, impose additional compliance requirements and generate additional risks of enforcement for non-compliance. The European Union's General Data Protection Regulation ("GDPR"), which imposes fines of up to EUR 20 million or 4% of the annual global revenue of a noncompliant company, whichever is greater, and other data protection, privacy and similar national, state/provincial and local laws may also restrict the access, use and disclosure of patient health information abroad. We may be required to expend significant capital and other resources to ensure ongoing compliance with applicable privacy and data security laws, to protect against security breaches and hackers, or to alleviate problems caused by such breaches. Compliance with these laws is difficult, constantly evolving, time consuming, and requires a flexible privacy framework and substantial resources. Compliance efforts will likely be an increasing and substantial cost in the future.

Environmental, Social and Governance ("ESG")

Our Corporate Code of Ethics ensures employee adherence to strive to conserve resources and reduce water consumption and emissions through recycling and other energy conservation measures. Employees are responsible to promptly report any known or suspected violations of environmental laws or any events that may result in a discharge or emissions of hazardous materials. We manufacture, market and develop specialty plasma-derived products for the prevention and treatment of infectious diseases in the immune compromised and other patients at risk for infection, and, as such, we consider our environmental impact to be low. These activities do not include either industrial production or distribution, and therefore do not use raw materials. Therefore, there are no significant releases into the environment or greenhouse gas emissions from our manufacturing emissions. Further, our activities do not produce any particular noise nuisance for staff or neighboring tenants or residents as well as wildlife surrounding our facilities and offices. Annual electricity and water consumption are monitored and factored into our sustainable resource practices.

Waste Management Policy

Our waste management's mission is to identify and mitigate risks and hazards with the aim of achieving zero incidents, zero injuries, and zero spills or environmental harm. We are dedicated to the safe handling and management of all non-hazardous and hazardous materials, and all employees are responsible for appropriate waste management.

We are dedicated to high environmental standards and expect all employees to be familiar with and comply with the contents of this policy. We are committed to providing a safe and healthy work environment. We comply with all applicable laws, regulations, and requirements associated with our environmental obligations and impact. We are committed to the continual improvement of all environmental impacts associated with our operations. We are committed to the prevention of pollution in all aspects of our business activities, as well as a sustainable approach to the development and provision of our products and services.

Social

We actively sponsor and participate in industry-related charitable events on a local and national level and encourage our employees to actively participate and volunteer their time and participation. We actively support and fund initiatives designed to improve the communities in which we operate and our employees and stakeholders reside.

Governance

We pursue fair employment practices in every aspect of our business. We strive to ensure and are extremely proud that our board of directors and employee base is diverse and consists of individuals of varying gender, origin, sexual orientation and backgrounds with various and relevant career experience, relevant technical skills, education, industry knowledge and experience and possess local or community ties.

Employees

As of December 31, 2021, we had a total of 527 employees, all of whom are full-time. Over the course of the next year, we anticipate hiring additional full-time employees devoted to compliance, production, quality assurance, quality control, plasma collection and processing, sales and marketing, medical and scientific affairs, general and administrative, as well as hiring additional staff as part of the build-out of our plasma collection centers as appropriate. We use Clinical Research Organizations ("CROs"), third parties and consultants to perform our post-marketing commitment clinical studies and other process and/or analytical development projects to augment our in-house capabilities and staff.

Corporate Information

ADMA Biologics, Inc. was founded on June 24, 2004 as a New Jersey corporation and re-incorporated in Delaware on July 16, 2007. We operate through our wholly-owned subsidiaries ADMA Plasma Biologics, ADMA BioManufacturing and ADMA BioCenters. ADMA BioManufacturing was formed in January 2017 to facilitate the acquisition of BTBU. ADMA BioCenters is the Company's source plasma collection business which operates in the U.S. Each operational ADMA plasma collection center, once approved, will have a license with the FDA and may obtain additional certifications from other regulatory agencies.

We maintain our headquarters at 465 State Route 17, Ramsey, NJ 07446. Our telephone number is (201) 478-5552. Our Florida campus is located at 5800 Park of Commerce Boulevard, Northwest, Boca Raton, FL 33487. The Florida telephone number is (561) 989-5800. We maintain a website at www.admabiologics.com; however, the information on, or that can be accessed through, our website is not part of this Annual Report on Form 10-K. This Annual Report and all of our filings under the Exchange Act, including copies of Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, and any amendments to those reports, are available free of charge through our website on the date we file those materials with, or furnish them to, the U.S. Securities and Exchange Commission (the "SEC"). Such filings are also available to the public on the SEC's website at www.sec.gov.

Item 1A. Risk Factors

Summary of Risk Factors

Below is a summary of the principal factors that make an investment in our common stock speculative or risky. This summary does not address all of the risks that we face. Additional discussion of the risks summarized in this risk factor summary, and other risks that we face, can be found below under the heading "Risk Factors" and should be carefully considered, together with other information in this Form 10-K and our other filings with the SEC, before making an investment decision regarding our common stock.

- We have a history of losses and we may, in the future, need to raise additional capital to operate our business, which may not be available on favorable terms, if at all.
- We are currently not profitable and may never become profitable.
- The COVID-19 pandemic and efforts to reduce its spread has significantly affected worldwide economic conditions, and could have a material adverse impact on our business, liquidity, financial condition and results of operations, as well as a change to the overall market size and potential for our products.
- We contract with third parties for the filling, packaging, testing and labeling of the drug substance we manufacture. This reliance on third parties carries the risk that the services upon which we rely may not be performed in a timely manner or according to our specifications, which could delay the availability of our finished drug product and could adversely affect our commercialization efforts and our revenues.
- The estimates of market opportunity and forecasts of market and revenue growth included in our filings may prove to be inaccurate, and even if the markets in which we compete achieve the forecasted growth, our business could fail to grow at similar rates, if at all.
- Both of our business segments and our facilities are subject to periodic inspections by the FDA, which, depending on the outcome of such inspections, could result in certain FDA actions, including the issuance of observations, notices, citations or warning letters.
- Business interruptions could adversely affect our business.
- If we are unsuccessful in obtaining regulatory approval for any of our product candidates or if any of our product candidates do not provide positive results, we may be required to delay or abandon development of such product, which would have a material adverse impact on our business.
- Although we have received approval from the FDA to market ASCENIV as a treatment for PIDD, our ability to market or seek approval for ASCENIV for alternative indications could be limited and FDA could require clinical trials beyond what we may deem to be reasonable. Unless additional clinical trials are successfully conducted and the FDA approves a BLA or other required submission for review, we may not be authorized to market ASCENIV for any other indication.

- With the approval to market ASCENIV, BIVIGAM and Nabi-HB, there can be no assurance that we will be successful in further developing and expanding commercial operations or balancing our research and development activities with our commercialization activities.

- We depend on third-party researchers, developers and vendors to develop, manufacture, supply materials for or test our products and product candidates, and such parties are outside of our control.

- We may be unable to successfully expand our manufacturing processes to fulfill demand for our products or increase our production capabilities through the addition of new equipment, including if we do not obtain requisite approval from the FDA.

- Our products, and any additional products for which we may obtain marketing approval in the future, could be subject to post-marketing restrictions or withdrawal from the market and we could be subject to substantial penalties if we fail to comply with regulatory requirements or if we experience unanticipated problems with our products following approval.

- Historically, a few customers have accounted for a significant amount of our total revenue and accounts receivable and the loss of any of these customers could have a material adverse effect on our business, results of operations and financial condition.

- Issues with product quality and compliance could have a material adverse effect upon our business, subject us to regulatory actions and cause a loss of customer confidence in us or our products.

- If physicians, payers and patients do not accept and use our current products or our future product candidates, our ability to generate revenue from these products will be materially impaired.

- Our long-term success may depend on our ability to supplement our existing product portfolio through new product development or the in-license or acquisition of other new products, product candidates and label expansion of existing products, and if our business development efforts are not successful, our ability to achieve profitability may be adversely impacted.

- Our ADMA BioCenters operations collect information from donors in the U.S. that subjects us to consumer and health privacy laws, which could create enforcement and litigation exposure if we fail to meet their requirements.

- Our senior credit facility with Hayfin Services LLP (“Hayfin”) is subject to acceleration in specified circumstances, which may result in Hayfin taking possession and disposing of any collateral.

- If we are unable to protect our patents, trade secrets or other proprietary rights, if our patents are challenged or if our provisional patent applications do not get approved, our competitiveness and business prospects may be materially damaged.

- Cyberattacks and other security breaches could compromise our proprietary and confidential information, which could harm our business and reputation.

- Our ability to continue to produce safe and effective products depends on the safety of our plasma supply, testing by third parties and the timing of receiving the testing results, and manufacturing processes against transmittable diseases.

- We could become supply-constrained and our financial performance would suffer if we cannot obtain adequate quantities of FDA-approved source plasma with proper specifications or other necessary raw materials.

- We require additional funding and may be unable to raise capital in the future, which would force us to delay, curtail or eliminate one or more of our research and development programs or potentially modify our ongoing operations, commercialization efforts and expansion plans, as well as impact the overall business plan for the organization.

- The market price of our common stock may be volatile and may fluctuate in a way that is disproportionate to our operating performance.

Risk Factors

Described below are various risks and uncertainties that may affect our business. These risks and uncertainties are not the only ones we face. You should recognize that other significant risks and uncertainties may arise in the future, which we cannot foresee at this time. Also, the risks that we now foresee might affect us to a greater or different degree than expected. Certain risks and uncertainties, including ones that we currently deem immaterial or that are similar to those faced by other companies in our industry or business in general, may also affect our business. If any of the risks described below actually occur, our business, financial condition or results of operations could be materially and adversely affected. You should carefully consider the following risk factors and the section entitled "Special Note Regarding Forward-Looking Statements" before you decide to invest in our securities.

Risks Relating to our Business

To date, we have a history of losses and have historically needed to raise, and in the future may be required to raise, additional capital to operate our business.

Our long-term liquidity depends upon our ability to grow our commercial programs, expand our commercial operations at the Boca Facility, improve our supply-chain capabilities, improve production yields, provide more control and visibility for timing of commercial product releases, continue to build out our commercial infrastructure and meet our ongoing obligations. In addition, our end-to-end production cycle from procurement of raw materials to commercial release of finished product can take between seven and 12 months or potentially longer, requiring substantial investments in raw material plasma and other manufacturing materials.

We currently anticipate, based upon our projected revenue and expenditures, that our current cash, cash equivalents and accounts receivable, including the proceeds received and expected to be received from the refinancing of our senior credit facility and the amount of remaining funds available under the distribution agreement for the sale of our common stock (see "Liquidity and Capital Resources"), will be sufficient to fund our operations, as currently conducted, into the first quarter of 2024, at which time we believe we will begin to generate positive cash flow from operations. This time frame may change based upon how quickly we are able to execute on our commercialization efforts and operational initiatives and whether or not the assumptions underlying our projected revenues and expenses are correct. We are also continuing to evaluate a variety of strategic and financing alternatives through our ongoing engagement with Morgan Stanley as a financial advisor. We anticipate that we will not be able to generate a sufficient amount of product revenue to achieve profitability until the beginning of 2024. If we are unable to raise additional capital if needed, we may have to delay, curtail or eliminate our commercialization efforts as well as product development activities. Even if we are able to raise additional capital, such equity or debt financings may only be available on unattractive terms, resulting in significant dilution of stockholders' interests and, in such event, the value and potential future market price of our common stock may decline. In addition, if we raise additional funds through license arrangements or through the disposition of any of our assets, it may be necessary to relinquish potentially valuable rights to our product candidates or assets or grant licenses on terms that are not favorable to us.

Historically, the major source of our cash has been from proceeds from various public and private offerings of our common stock. The actual amount of cash that we will need is subject to many factors. There can be no assurances that additional financing will be available if needed or that management will be able to obtain financing on terms acceptable to us or that we will become profitable and generate positive operating cash flow.

We are currently not profitable and may never become profitable.

We have a history of losses and expect to incur substantial losses and negative operating cash flows into fiscal 2023, and we may never achieve or maintain profitability. For the years ended December 31, 2021 and 2020, we incurred net losses of $71.6 million and $75.7 million, respectively. From our inception in 2004 through December 31, 2021, we have incurred an accumulated deficit of $412.1 million. We expect that we will not be able to generate a sufficient amount of product revenue to achieve profitability until the beginning of 2024 and, as a result, we may need to continue to finance our operations through additional equity or debt financings or corporate collaboration and licensing agreements. We also expect to continue to incur significant operating and capital expenditures and anticipate that our operating expenses will increase substantially in the foreseeable future as we:

- expand commercialization and marketing efforts;

- implement additional internal systems, controls and infrastructure;
- hire additional personnel;
- expand and build out our plasma center network; and
- expand production capacity at the Boca Facility.

As a result, we will need to generate significant revenues in order to achieve and maintain profitability. We may not be able to generate these revenues or achieve profitability in the future.

The COVID-19 pandemic and efforts to reduce its spread has significantly affected worldwide economic conditions, caused supply chain disruptions and could have a material adverse impact on our business, liquidity, financial condition and results of operations

The COVID-19 pandemic, including the Delta and Omicron variants and other resistant strains of the coronavirus, has the potential to adversely impact several aspects of each of our business segments, our commercial manufacturing operations and plasma collection facilities, including but not limited to potential disruptions to our supply-chain operations, including procurement of raw materials and packaging materials, a portion of which are sourced internationally, and the testing of finished drug product that is required prior to its availability for commercial sale. Such testing has historically been performed by contract laboratories outside the United States. While we do not believe that the COVID-19 pandemic has significantly affected operations and immunoglobulin production at our Boca Facility or our ADMA BioCenters plasma collection operations at this time, we may experience adverse effects in the future. For example, our employees becoming ill, the imposition of additional mandatory remote working environments and federal, state and local responses to the pandemic could materially affect the efficiency and pace of our operations and manufacturing at our Boca Facility. Employee or donor illness, if not properly managed, could also impact the quality of our products and product candidates. Further, in certain instances and geographic regions, we may experience decreased customer engagement (for example, as a result of a temporary shutdown of a customer's facilities resulting from the COVID-19 pandemic or the continuation of no in-person meetings) could impact our results of operations. In addition, travel and other restrictions that have been implemented in the United States could impact our commercial efforts with respect to any of our products, including BIVIGAM and ASCENIV, as trade shows, industry and medical conferences and other events we had been planning to utilize and exhibit and attend with our staff to increase awareness of our products by physicians and payers are subject to limitations, rescheduling or outright cancellation in response to the pandemic. Also, due to a combination of previous state and local "shelter-in-place" orders, as well as government stimulus packages, amongst other initiatives, we have experienced, and may experience in the future, lower than expected donor collections at our FDA-licensed plasma collection centers. We were also subject to delays in shipments of source plasma from our contracted third-party suppliers, as well as delays in deliveries for personal protective equipment, reagents and other non-plasma raw materials and supplies used in the manufacture, testing and distribution of our products. We have also experienced supply chain delays as a result of significant resources being diverted towards the rapid development and distribution of COVID-19 vaccines, which could result in our need to carry more inventory than we have in the past, which would put an additional strain on our cash resources.

In the future we may continue to experience pandemic-related challenges with respect to obtaining and manufacturing a sufficient amount of supplies, raw materials, and finished product to meet our need for commercial and clinical product supply. If we or any of our suppliers or manufacturers are adversely impacted by the pandemic or the restrictions resulting from the outbreak, if they or we cannot obtain the necessary supplies, or if third parties need to prioritize other products or customers over us, including under the Defense Production Act, we may experience future delays or disruptions in our supply chain, which could have a material and adverse impact on our business. Moreover, we, our suppliers, and any third-party manufacturers may also need to implement measures and changes, or deviate from typical requirements, because of the pandemic that may otherwise adversely impact our supply chains or the quality of the resulting products or supplies. Depending on the change, we may need to obtain FDA pre-approval or otherwise provide the FDA with a notification of the change.

To the extent that we or our partners are conducting clinical trials, the pandemic could cause delays or disruptions in these or future development programs. By example, the pandemic may result in slower enrollment, the need to suspend enrollment into studies, patient withdrawals, postponement of planned clinical or preclinical studies, redirection of site resources from studies, study modification, suspension, or termination, the introduction of remote study procedures and modified informed consent procedures, study site changes, direct delivery of investigational products to patient homes requiring state licensing, study deviations or noncompliance, and changes or delays in site monitoring. The foregoing may require that we consult with relevant review and ethics committees, IRBs, and the FDA. The foregoing may also impact the integrity of our study data. The effects of the COVID-19 pandemic may also increase the need for clinical trial patient monitoring and regulatory reporting of adverse effects. The pandemic could further impact our ability to interact with the FDA or other regulatory authorities and may result in delays in the conduct of inspections or review of pending applications or submissions. No assurances can be provided as to the timing for completion of any regulatory submissions or applications that may be impacted by restrictions related to COVID-19 or other circumstances unknown to us presently or that are out of our direct control. Due to the potential impact of the COVID-19 outbreak on clinical trials, drug development, and manufacturing, the FDA issued a number of guidances specifically concerning COVID-19, including guidances with respect to blood and blood components. The FDA's guidance is continually evolving.

Subsequent to the onset of the COVID-19 pandemic, there had been a noticeable decline in certain medical prescriptions attributed to lower incident rates for illnesses, hospital admissions and delays in diagnosis of certain health conditions and a reduction in doctor visits. In addition, physical and social distancing guidelines issued by public health authorities and the resulting global changes in human behavior resulted in an observed reduction in infection transmission rates and spread of bacterial and viral infections, resulting in lower rates of infection across all patient populations, which, if continued, could potentially negatively impact the use of our IVIG products by patients. While COVID-19-related requirements vary across the United States, there are recent reports of increasing rates of other viral infections in certain locations and geographic regions of the country and as such may impact the usage and/or demand for our IVIG products. Additionally, the previous guidelines that were issued by public health authorities or any new or changing recommendations or guidelines may still impact the demand for or usage as well as the prescriptions of our IVIG products.

The COVID-19 pandemic may also result in changes in laws and regulations. By example, in March 2020, the U.S. Congress passed the CARES Act, which includes various provisions regarding FDA drug shortage reporting requirements, as well as provisions regarding supply chain security, such as risk management plan requirements, and the promotion of supply chain redundancy and domestic manufacturing. The CARES Act further included reporting requirements related to the volume of products produced over the course of the year. FDA recently issued guidance regarding this requirement. This and any future changes in law may require that we change our internal processes and procedures to ensure continued compliance.

The ultimate impact of the COVID-19 pandemic is highly uncertain and subject to change. We do not yet know the full extent of potential delays or impacts on our business, operations, or financial condition, or on healthcare systems or the global economy as a whole. Although the COVID-19 pandemic has not adversely affected our capital and financial resources to date, the pandemic's effects could have a material impact on our ability to access the capital markets as needed and on our operations and business, including those of the third parties on which we rely. Because we are unable to determine the ultimate severity or duration of the pandemic or its effects on, among other things, the global, national or local economies, the capital and credit markets, our workforce, our customers or our suppliers, at this time we are unable to predict whether COVID-19 will have a material adverse impact on our business, financial condition, liquidity and results of operations.

We contract with third parties for a portion of the filling, packaging, testing and labeling of the drug substance we manufacture. This reliance on third parties carries the risk that the services upon which we rely may not be performed in a timely manner or according to our specifications, which could delay the availability of our finished drug product and could adversely affect our commercialization efforts and our revenues.

Third-party fill/finish providers may not perform as agreed or in accordance with FDA requirements. Any significant problem that our fill/finish providers experience could delay or interrupt our supply of finished drug product until the service provider cures the problem or until we locate, negotiate for, validate and receive FDA approval for an alternative provider (when necessary), if one is available. Failure to obtain the needed fill/finish services could have a material and adverse effect on our business, financial condition and results from operations.

Although we have received FDA approval for the fill/finish suite we built at the Boca Facility, we also intend to continue to utilize third parties to supplement our fill/finish process for final drug substance. Our anticipated reliance on a limited number of third-party manufacturers exposes us to the following risks:

- we may be unable to identify contract fill/finishers on acceptable terms or at all because the number of potential service providers is limited and the FDA must inspect and qualify any contract manufacturers for current cGMP compliance as part of our marketing application;
- a new fill/finisher would have to be educated in, or develop substantially equivalent processes for, the production of our products and product candidates;
- the COVID-19 pandemic could adversely affect our contracted fill/finishers' operations, supply chain or workforce;
- our contracted fill/finishers' resources and level of expertise with plasma-derived biologics may be limited, and therefore they may require a significant amount of support from us in order to implement and maintain the infrastructure and processes required to deliver our finished drug product;
- our third-party fill/finishers might be unable to timely provide finished drug product in sufficient quantity to meet our commercial needs;
- contract manufacturers may not be able to execute our inspection procedures and required tests appropriately;
- contract manufacturers are subject to ongoing periodic unannounced inspection by the FDA and corresponding state agencies to ensure strict compliance with cGMP and other government regulations, and we do not have control over third-party providers' compliance with these regulations;
- contract manufacturers may fail to comply with applicable regulatory requirements, placing them and us at risk of regulatory enforcement actions, recalls and other adverse consequences, which may negatively impact our business and their ability to supply products to meet our development, clinical and commercial needs;
- our third-party fill/finishers could breach or terminate their agreements with us; and
- our contract fill/finishers may have unacceptable or inconsistent drug product quality success rates and yields, and we have no direct control over our contract fill/finishers' ability to maintain adequate quality control, quality assurance and qualified personnel.

Each of these risks could delay or prevent the completion of our finished drug product and the release of finished drug product by us or the FDA, which could result in higher costs or adversely impact the commercialization of our products. These risks could also result in the delay in obtaining clinical supplies, which would delay our development programs. In addition, our contract fill/finishers and our other third-party vendors may source their materials and supplies globally and are therefore subject to supply disruptions in the event of fire, weather related events such as hurricanes, wind and rain, international conflicts, trade and sanction requirements and limits, other acts of God or force majeure events or global health occurrences and emergencies, including the COVID-19 pandemic.

The estimates of market opportunity and forecasts of market and revenue growth included in our filings may prove to be inaccurate, and even if the markets in which we compete achieve the forecasted growth, our business could fail to grow at similar rates, if at all.

Market opportunity estimates and growth forecasts are subject to significant uncertainty and are based on assumptions and estimates that may not prove to be accurate, including as a result of changing circumstances during the ongoing COVID-19 pandemic. In particular, the size and growth of the overall U.S. IVIG and source plasma markets are subject to significant variables that can be difficult to measure, estimate or quantify. Our business depends on, among other things, successful commercialization of our existing products, market acceptance of such products and ensuring that our products are safe and effective. Further, there can be no assurance that we will be able to generate the revenue that we believe our products and plasma facilities are capable of generating. As a result, we may not be able to accurately forecast or predict revenue. For these reasons, the estimates and forecasts in our filings relating to revenue generation and growth may prove to be inaccurate. Even if the markets in which we compete meet our size estimates and forecasted growth, our business could fail to grow at similar rates, if at all.

Both of our business segments and our facilities, as well as our suppliers and contractors, are subject to periodic inspections by the FDA, which, depending on the outcome of such inspections, could result in certain FDA actions, including the issuance of observations, notices, citations or warning letters.

We and our suppliers and contractors may be unable to comply with our specifications, cGMP requirements and with other FDA, state, and foreign regulatory requirements for commercial and clinical supply. The FDA is authorized to perform inspections of our and our suppliers' facilities, including the Boca Facility. The FDA also may inspect and approve our and our third-parties' facilities before they may be used for commercial production. At the end of such an inspection, the FDA could issue a Form 483 Notice of Inspectional Observations, which could cause FDA to not approve the use of the facility and cause us to modify certain activities identified during the inspection. Following such inspections, the FDA may issue an untitled letter as an initial correspondence that cites violations that do not meet the threshold of regulatory significance of a warning letter. FDA guidelines also provide for the issuance of warning letters for violations of "regulatory significance" for which the failure to adequately and promptly achieve correction may be expected to result in an enforcement action. FDA also may issue warning letters and untitled letters in connection with events or circumstances unrelated to an FDA inspection. Depending on the seriousness of any findings, we or our suppliers may be subject to additional significant enforcement actions which could have a material impact on our business.

We may not be able to timely resolve concerns raised by the FDA as a result of an inspection or without expending significant resources. We are unable to control the timing of FDA inspections, communications and actions, and will be required to respond to the FDA and make certain submissions within certain timeframes. We also do not know whether or not the FDA will change its requirements, guidance or expectations. If the FDA determines that we have not remediated the issues identified in a warning letter or any other inspection issues and deficiencies, any failure of ours to address or provide requested documentation of corrections for these issues could disrupt our business operations and the timing of our commercialization efforts and could have a material adverse effect on our financial condition and operating results.

If we fail to comply with environmental, health and safety laws and regulations, we could become subject to fines or penalties or incur costs that could have a material adverse effect on the success of our business.

We are subject to numerous environmental, health and safety laws and regulations, including those governing laboratory procedures and the handling, use, storage, treatment and disposal of hazardous materials and wastes. Our commercial manufacturing and any research and development activities involve the use of biological and hazardous materials and produce hazardous waste products. We generally contract with third parties for the disposal of these materials and wastes. We cannot eliminate the risk of contamination or injury from these materials, which could cause an interruption of our commercialization efforts, research and development efforts and business operations, environmental damage resulting in costly clean-up and liabilities under applicable laws and regulations governing the use, storage, handling and disposal of these materials and specified waste products. Although we believe that the safety procedures utilized internally and by our third-party manufacturers for handling and disposing of these materials generally comply with the standards prescribed by these laws and regulations, we cannot guarantee that this is the case or eliminate the risk of accidental contamination or injury from these materials. In such an event, we may be held liable for any resulting damages and such liability could exceed our resources and state or federal or other applicable authorities may curtail our use of certain materials and/or interrupt our business operations. Furthermore, environmental laws and regulations are complex, change frequently and have tended to become more stringent. We cannot predict the impact of such changes and cannot be certain of our future compliance. In addition, we may incur substantial costs in order to comply with current or future environmental, health and safety laws and regulations. These current or future laws and regulations may impair our commercial manufacturing, research and development, or production efforts. Failure to comply with these laws and regulations also may result in substantial fines, penalties, or other sanctions.

Business interruptions could adversely affect our business.

Our operations, including our headquarters located in Ramsey, NJ, the Boca Facility and our plasma collection facilities, are vulnerable to interruption by fire, weather related events such as hurricanes, wind and rain, other acts of God or force majeure events, electric power loss, telecommunications failure, equipment failure, cyberattacks on our operations and information technology systems and breakdown, human error, employee issues, global health occurrences such as the COVID-19 pandemic, and emergencies, product liability claims and events beyond our control. While we maintain several insurance policies with reputable carriers that provide partial coverage for a variety of these risks, including replacing or rebuilding a part of our facilities, these policies are subject to the insurance carriers' final determination of compensation to us and we may not have adequate coverage if we need to rebuild or replace our inventory, infrastructure, business income or our entire facility. In addition, our disaster recovery plans for our facilities may not be adequate and we do not have an alternative manufacturing facility or contractual arrangements with other manufacturers in the event of a casualty to or destruction of any of our facilities. If we are required to rebuild or relocate any of our facilities, a substantial investment in improvements and equipment would be necessary. We carry only a limited amount of business interruption insurance, which may not sufficiently compensate us for losses that may occur. As a result, any significant business interruption could adversely affect our business and results of operations.

If we are unsuccessful in obtaining regulatory approval for any of our product candidates or if any of our product candidates do not provide positive results, we may be required to delay or abandon development of such product, which would have a material adverse impact on our business.

Product candidates require extensive clinical data analysis and regulatory review and may require additional testing. Clinical trials and data analysis can be very expensive, time-consuming and difficult to design and implement. The conduct of preclinical studies and clinical trials is subject to numerous risks and results of the studies and trials are highly uncertain. Human clinical trials are very expensive and difficult to design and implement, in part because they are subject to rigorous regulatory requirements. The clinical trial process is also time-consuming. Furthermore, delays or setbacks can occur at any stage of the process, and we could encounter problems that cause us to abandon our product development programs and related INDs or BLAs, or to repeat clinical trials. The evolving COVID-19 pandemic may directly or indirectly affect the pace of enrollment in clinical trials as patients may be restricted in traveling to and accessing healthcare facilities and physicians' offices. Additionally, such healthcare facilities and offices have their limited resources directed towards treating patients with COVID-19 symptoms. The commencement and completion of clinical trials for any current or future development product candidate may be delayed by several factors, including:

- unforeseen safety issues;
- determination of dosing issues;
- lack of effectiveness during clinical trials;
- slower than expected rates of patient recruitment;
- inability to monitor patients adequately during or after treatment;
- inability or unwillingness of medical investigators to follow our clinical protocols; and
- temporary suspension resulting from the COVID-19 pandemic.

We cannot be certain as to what type and how many clinical trials the FDA, or equivalent foreign regulatory agencies, will require us to conduct before we may successfully gain approval to market any of our product candidates that still require FDA approval. Prior to approving a new drug or biologic, the FDA generally requires that the effectiveness of the product candidate (which is not typically fully investigated until Phase 3) be demonstrated in two adequate and well-controlled clinical trials. However, if the FDA or an equivalent foreign regulatory authority determines that our Phase 3 clinical trial results do not demonstrate a statistically significant, clinically meaningful benefit with an acceptable safety profile, or if a relevant regulator requires us to conduct additional Phase 3 clinical trials in order to gain approval, we will incur significant additional development costs and commercialization of these products would be prevented or delayed and our business could be adversely affected.

In addition, the FDA or an IRB may not permit us to commence a clinical trial, may require amendments to our clinical trial protocols, or may suspend our clinical trials at any time if it appears that we are exposing participants to unacceptable health risks or if the FDA or IRB finds deficiencies in our IND submissions or the conduct of these trials. Regulatory authorities may also not accept data from clinical trials if the trials are not conducted in accordance with the applicable regulatory requirements. Failure to comply with the applicable regulatory requirements may also result in enforcement actions. Therefore, we cannot provide any assurance or predict with certainty the schedule for future clinical trials. In the event we do not ultimately receive regulatory approval for our product candidates, we may be required to terminate development of such product candidates. If we fail to obtain regulatory approval to market and sell our product candidates, or if approval is delayed, we will be unable to generate revenue from the sale of these products, our potential for generating positive cash flow will be diminished and the capital necessary to fund our operations will increase.

If the results of our clinical trials do not support our product candidate claims, completing the development of such product candidate may be significantly delayed or we may be forced to abandon development of such product candidate altogether.

We cannot be certain that the clinical trial results of our product candidates will support our product candidates' claims. Success in preclinical testing and early clinical trials does not ensure that later clinical trials will be successful, and we cannot be sure that the results of later clinical trials will replicate the results of prior clinical trials and preclinical testing.

The clinical trial process may fail to demonstrate that our product candidates are safe for humans and effective for indicated uses. This failure would cause us to abandon a product candidate and may delay development of other product candidates. Any delay in, or termination of, our clinical trials will delay our ability to commercialize our product candidates and generate product revenues.

Other issues that may impact our clinical trials and that could delay or prevent our ability to receive marketing approval or commercialize our product candidates, include:

- Delays in reaching, or failure to reach, agreement on acceptable clinical trial contracts or clinical trial protocols with prospective trial sites and our CROs;
- Regulators requiring us to perform additional or unanticipated clinical trials to obtain approval or becoming subject to additional post-marketing testing, surveillance, or REMS requirements to maintain regulatory approval;
- Failure by our third-party contractors to comply with regulatory requirements or the clinical trial protocol, or meet their contractual obligations to us in a timely manner, or at all, or our being required to engage in additional clinical trial site monitoring;
- The cost of clinical trials of our product candidates being greater than we anticipate or our having insufficient funds for a clinical trial or to pay the substantial user fees required by FDA upon the filing of a marketing application;
- Insufficient supply or inadequate quality of our product candidates or other materials necessary to conduct clinical trials;
- Inability to achieve sufficient study enrollment, subjects dropping out or withdrawing from our studies, delays in adding new investigators or clinical trial sites or a withdrawal of clinical trial sites;
- Flaws in our clinical trial design that are not discoverable until the clinical trial has progressed;
- Disagreement by the FDA or comparable foreign regulatory authorities with our intended indications or study design, including endpoints, or our interpretation of data from preclinical studies and clinical trials, finding that a product candidate's benefits do not outweigh its safety risks or requiring that we conduct additional development or study work;

- The need to make changes to our product candidates that require additional testing or that cause our product candidates to perform differently than expected;
- Global trade policies that may impact our ability to obtain raw materials and/or finished product for commercialization;
- FDA or comparable regulatory authorities taking longer than we anticipate to make decisions on our products or product candidates; and
- Potential inability to demonstrate that a product or product candidate provides an advantage over current standards of care or current or future competitive therapies in development.

In addition, our clinical trials involve a relatively small patient population. Because of the small sample size, the results of these clinical trials may not be indicative of future results. In addition, certain portions of our clinical trials and product testing for our product candidates may be performed outside of the U.S., and therefore, may not be performed in accordance with standards normally required by the FDA and other regulatory agencies.

If we do not obtain and maintain the necessary U.S. or international regulatory approvals to commercialize a product candidate, we will not be able to sell that product candidate, which would make it difficult for us to recover the costs of researching and developing such product candidate.

If we are not able to generate revenue from our products and product candidates, our sources of revenue may continue to be from a product mix consisting only of plasma collection and sales revenues, revenues generated from sales of our FDA-approved commercial products, revenues generated from ongoing contract manufacturing for third parties and revenues generated from the sales of manufacturing intermediates. We cannot assure you that we will receive the approvals necessary to commercialize any product candidate we may acquire or develop in the future. In order to obtain FDA approval of any product candidate requiring FDA approval, our clinical development must demonstrate that the product candidate is safe for humans and effective for its intended use, and we must successfully complete an FDA BLA review. Obtaining FDA approval of a product candidate generally requires significant research and testing, referred to as preclinical studies, as well as human tests, referred to as clinical trials. Satisfaction of the FDA's regulatory requirements typically takes many years, depends upon the type, complexity and novelty of the product candidate and requires substantial resources for research, development and testing. We cannot predict whether our research and clinical approaches will result in products that the FDA considers safe for humans and effective for indicated uses. The FDA has substantial discretion in the product approval process and may require us to conduct additional preclinical and clinical testing or to perform post-marketing studies or may require additional CMC or other data and information, and the development and provision of this data and information may be time-consuming and expensive. The approval process may also be delayed by changes in government regulation, future legislation, diversion of resources for FDA review during the ongoing COVID-19 pandemic or administrative action or changes in FDA policy that occur prior to or during our regulatory review. Delays in obtaining regulatory approvals may:

- delay commercialization of, and our ability to derive revenues from, our product candidates;
- impose costly procedures on us; and
- diminish any competitive advantages that we may otherwise enjoy.

Even if we comply with all FDA requests, the FDA may ultimately reject our product candidate's BLA. In addition, the FDA could determine that we must test additional subjects and/or require that we conduct further studies with more subjects. We may never obtain regulatory approval for any future potential product candidate or label expansion activity. Failure to obtain FDA approval of any of our product candidates will severely undermine our business by leaving us without the ability to generate additional accretive revenues. There is no guarantee that we will ever be able to develop or acquire other product candidates. In foreign jurisdictions, we must receive approval from the appropriate regulatory authorities before we can commercialize any products or product candidates outside the U.S. Foreign regulatory approval processes generally include all of the risks and uncertainties associated with the FDA review, inspection and approval procedures described above. We cannot assure you that we will receive the approvals necessary to commercialize any product candidate for sale outside the U.S.

Although we have received approval from the FDA to market ASCENIV as a treatment for PIDD, our ability to market or seek approval for ASCENIV for alternative indications could be limited, unless additional clinical trials are conducted successfully and the FDA approves a BLA or other required submission for review.

The FDA and other governmental authorities strictly regulate and monitor marketing, labeling and the advertising and promotion of prescription drugs. These regulations include standards and restrictions for direct-to-consumer advertising, industry-sponsored scientific and educational activities, promotional activities involving the Internet and off-label promotion. The FDA does not allow drugs to be promoted for "off-label" uses — that is, uses that are not described in the product's labeling and that differ from those that were approved by the FDA. The FDA limits approved uses to those studied by a company in its clinical trials. In addition to the FDA approval required for new formulations, any new indication for an approved product also requires FDA approval. Although we have received approval from the FDA to market ASCENIV as a treatment for PIDD, we cannot be sure whether we will be able to obtain FDA approval for any desired future indications for ASCENIV.

While physicians in the U.S. may choose, and are generally permitted, to prescribe drugs for uses that are not described in the product's labeling, and for uses that differ from those tested in clinical studies and approved by the regulatory authorities, our ability to promote our products is narrowly limited to those indications that are specifically approved by the FDA. "Off-label" uses are common across medical specialties and may constitute an appropriate treatment for some patients in varied circumstances. Regulatory authorities in the U.S. generally do not regulate the behavior of physicians in their choice of treatments. Regulatory authorities do, however, restrict communications by pharmaceutical companies on the subject of off-label use. If the FDA determines that our promotional activities fail to comply with the FDA's regulations or guidelines, we may be subject to warnings from, or enforcement action by, these authorities. In addition, our failure to follow FDA rules and guidelines related to promotion and advertising may cause the FDA to issue warning letters or untitled letters, bring an enforcement action against us, suspend or withdraw an approved product from the market, require a recall, require payment of civil fines or could result in disgorgement of money, operating restrictions, injunctions or criminal prosecution, among other consequences, any of which could harm our reputation and our business.

With the approval of ASCENIV, there can be no assurance that we will be successful in further developing and expanding commercial operations or balancing our research and development activities with our commercialization activities.

Since receiving FDA approval for ASCENIV, we have been commercializing this product while also continuing our research and development activities. There can be no assurance that we will be able to successfully manage the balance of our research and development operations with our commercialization activities. Potential investors and stockholders should be aware of the problems, delays, expenses and difficulties frequently encountered by companies balancing development of product candidates, which can include problems such as unanticipated issues relating to clinical trials and receipt of approvals from the FDA and foreign regulatory bodies, with commercialization efforts, which can include problems related to managing manufacturing and supply, including supply chain constraints directly or indirectly caused by the ongoing COVID-19 pandemic and government responses thereto, reimbursement, marketing challenges, development of a comprehensive compliance program, and other related and additional costs. For example, the raw material plasma we collect and procure to manufacture ASCENIV using our patented proprietary microneutralization assay is comprised of plasma collected from donors which contains high titer antibodies to RSV. This high titer plasma which meets our internal specifications for the manufacture of ASCENIV that we are able to identify with our patented testing assay amounts to less than 10% of the total donor collection samples we test. As a result, we may experience an insufficient supply of this plasma.

Our product candidates will require significant additional research and clinical trials, and we will need to overcome significant regulatory burdens prior to commercialization in the U.S. and other countries. In addition, we may be required to spend significant funds on building out our commercial operations. There can be no assurance that after the expenditure of substantial funds and efforts, we will successfully develop and commercialize any of our product candidates, generate any significant revenues or ever achieve and maintain a substantial level of sales of our products.

We depend on third-party researchers, developers and vendors to develop, manufacture or test products and product candidates, as well as for other pre-and-post approval services, and such parties are, to some extent, outside of our control.

We depend on independent investigators and collaborators, such as universities and medical institutions, contract laboratories, CROs, contract manufacturers, contract fill/finishers and consultants to conduct our preclinical activities, clinical trials, CMC testing and other activities under agreements with us. These collaborators are not our employees and we cannot control the amount or timing of resources that they devote to our programs or the impact that the ongoing COVID-19 pandemic will have on such third parties. These investigators may not assign as great a priority to our programs or pursue them as diligently as we would if we were undertaking such programs ourselves. If outside collaborators fail to devote sufficient time and resources to our product-development programs, or if their performance is substandard, our trials may be repeated, extended, delayed, or terminated, the approval of our FDA application(s), if any, and our introduction of new products, if any, will be delayed. We or they may also be subject to regulatory enforcement actions and we may not be able to meet commercial demand. These collaborators may also have relationships with other commercial entities, some of whom may compete with us. If our collaborators assist our competitors at our expense, our competitive position would be harmed. Additionally, any change in the regulatory compliance status of any of our vendors may impede our ability to receive approval for our product candidates.

We may be unable to successfully expand our manufacturing processes to fulfill demand for our products or increase our production capabilities through the addition of new equipment, including if we do not obtain requisite approval from the FDA.

We currently anticipate expanding the manufacturing capacity of our Boca Facility by approximately 50% or more. We also anticipate expanding our production capabilities through the addition of our fill-finish machine at our Boca Facility. Following the expansion of any of our manufacturing processes or the addition of new equipment, such as our fill-finish machine, we will need to validate the expanded facility and equipment and have it inspected by the FDA. Given the significant delays that may result during the validation process, including due to any diverted FDA attention during the COVID-19 pandemic, we may experience a significant supply shortage of our products or our production capabilities may be limited until completion of and validation of our facility expansion and new manufacturing equipment.

Our products, and any additional products for which we may obtain marketing approval in the future, could be subject to post-marketing restrictions or withdrawal from the market and we could be subject to substantial penalties if we fail to comply with regulatory requirements or if we experience unanticipated problems with our products following approval.

Our products, and any additional products for which we may obtain marketing approval in the future, could be subject to post-marketing restrictions, new FDA guidance, or other regulatory actions, such as withdrawal from the market. Such products, as well as the manufacturing processes, post-marketing studies and measures, labeling and advertising and promotional activities for such products, among other things, are subject to ongoing regulatory compliance requirements, and oversight, review, and inspection by the FDA and other regulatory authorities. These requirements include submissions of safety and other post-marketing information and reports, registration and listing requirements, adherence with labeling and promotional requirements and restrictions, requirements relating to manufacturing, quality control, quality assurance and corresponding maintenance of records and documents, requirements regarding safeguarding the drug supply chain as well as the distribution of samples to physicians and recordkeeping. For example, the FDA's approval of our PAS to allow for the commercial relaunch of BIVIGAM requires us to conduct specified post-marketing studies related to our manufacturing controls and processes, and submit specified post-marketing reports to the FDA. If, during the post-marketing period (after marketing approval) previously unknown adverse events, discovery that the product is less effective than previously thought, or other potential concerns regarding our products or their manufacturing processes emerge, or we are observed in any way to fail to comply with the numerous regulatory requirements to which we are subject, those circumstances may yield various results, including:

- restrictions on such products or manufacturing processes;
- restrictions on the labeling or marketing of a product;
- restrictions on product distribution or use;
- clinical holds or termination of clinical trials;
- requirements to conduct further post-marketing studies or clinical trials, implement risk mitigation strategies, or to issue corrective information;
- warning letters or untitled letters;
- withdrawal of the products from the market;
- refusal to approve pending applications or supplements to approved applications that we submit;
- recall of products;
- restrictions on coverage by third-party payers;
- fines, restitution or disgorgement of profits or revenues;
- suspension or withdrawal of marketing approvals;
- refusal to permit the import or export of products;
- FDA debarment, suspension and debarment from government contracts, and refusal of orders under existing government contracts, exclusion from healthcare programs, consent decrees, or corporate integrity agreements;
- product seizure or detention; or
- injunctions or the imposition of civil or criminal penalties.

Historically, a few customers have accounted for a significant amount of our total revenue and accounts receivable and the loss of any of these customers could have a material adverse effect on our business, results of operations and financial condition.

For the year ended December 31, 2021, four customers, BioCare, Reliance, Curascript and AmerisourceBergen, represented an aggregate of 81% of our consolidated revenues. For the year ended December 31, 2020, three customers, BioCare, Reliance and Biolife Plasma Services, L.P., represented an aggregate of 82% of our consolidated revenues.

As of December 31, 2021, three customers, Curascript, BioCare and Reliance, represented a total of 94% of our consolidated accounts receivable. As of December 31, 2020, three customers, BioCare, Reliance and Curascript, represented a total of 92% of our consolidated accounts receivable.

The loss of any key customers or a material change in the revenue generated by any of these customers could have a material adverse effect on our business, results of operations and financial condition. Moreover, we anticipate deriving increased revenue from some of these customers over the next few years. Factors that could influence our relationships with our customers include, among other things:

- our ability to sell our products at competitive prices;

- our ability to maintain features and quality standards for our products sufficient to meet the expectations of our customers;
- our ability to produce and deliver a sufficient quantity of our products in a timely manner to meet our customers' requirements; and
- the impact of the ongoing COVID-19 pandemic and government responses thereto on our customers and their businesses, operations and financial condition.

Additionally, an adverse change in the financial condition of any of our key customers could negatively affect revenue derived from such customer, which in turn could have a material adverse effect on our business and results of operations.

Issues with product quality and compliance could have a material adverse effect upon our business, subject us to regulatory actions and cause a loss of customer confidence in us or our products.

Our success depends upon the quality of our products. Quality management plays an essential role in meeting customer requirements, preventing defects, improving our products and services and assuring the safety and efficacy of our products. Our future success depends on our ability to maintain and continuously improve our quality management program. A quality or safety issue may result in failure to obtain product approval, adverse inspection reports, warning letters, product recalls or seizures, monetary sanctions, injunctions to halt manufacture and distribution of products, civil or criminal sanctions, costly litigation, refusal of a government to grant approvals and licenses, restrictions on operations or withdrawal of existing approvals and licenses. An inability to address a quality or safety issue by us or by a third-party vendor in an effective and timely manner may also cause negative publicity or a loss of customer confidence in us or our current or future products, which may result in the loss of sales and difficulty in successfully commercializing our current products and launching new products.

In addition, as a manufacturer of biological products, we are subject to the risks inherent in biological production, which could include normal course losses and failures inherent in the manufacturing process. As our biologics production levels increase, there may be normal course inventory losses or write-downs as we ensure product quality and compliance with cGMP, FDA, state and local regulations, or due to testing results not meeting specifications. As a result, our operating results are subject to potentially significant variability from one reporting period to the next should such normal course losses occur in any given period. However, because our products and product candidates are plasma-based products, not only are we subject to FDA's drug and biologic cGMP requirements, but we are also subject to special requirements for the collection, testing, handling, storage, and use of blood products. This adds an extra level of compliance and complexity to our operations, which we may not be able to successfully meet. Failure to meet any regulatory quality standards could have an adverse impact on our business.

If physicians, payers and patients do not accept and use our current products or our future product candidates, our ability to generate revenue from these products will be materially impaired.

Even if the FDA approves a product made by us, physicians, payers and patients may not accept and use it. Acceptance and use of our products depends on a number of factors including, but not limited to:

- perceptions by members of the healthcare community, including physicians, about the safety and effectiveness of our products;
- cost-effectiveness of our products relative to competing products;
- availability of reimbursement for our products from government or other healthcare payers; and
- the effectiveness of marketing and distribution efforts by us and our licensees and distributors, if any.

The failure of our current or future products to find market acceptance would harm our business and could require us to seek additional financing or make such financing difficult to obtain on favorable terms, if at all.

Our long-term success may depend on our ability to supplement our existing product portfolio through new product development or the in-license or acquisition of other new products, product candidates and label expansion of existing products, and if our business development efforts are not successful, our ability to achieve profitability may be adversely impacted.

Our current product development portfolio consists primarily of label expansion activities for Nabi-HB, BIVIGAM and ASCENIV, as well as expanding our IP estate with patents issued for *S. Pneumoniae* hyperimmune IG. We have initiated small scale preclinical activities to potentially expand our current portfolio through new product development efforts or to in-license or acquire additional products and product candidates. If we are not successful in developing or acquiring additional products and product candidates, we will have to depend on our ability to successfully commercialize ASCENIV, as well as our ability to generate revenue from Nabi-HB, BIVIGAM, contract manufacturing, intermediate fractions and plasma attributable to the operations of ADMA BioCenters, to support our operations.

Our ADMA BioCenters operations collect information from donors in the U.S. that subjects us to consumer and health privacy laws, which could create enforcement and litigation exposure if we fail to meet their requirements.

Consumer privacy is highly protected by federal and state law. The Health Insurance Portability and Accountability Act of 1996 ("HIPAA"), as amended by the Health Information Technology for Economic and Clinical Health Act of 2009 ("HITECH"), and their respective implementing regulations, impose, among other things, obligations, including mandatory contractual terms, with respect to safeguarding the privacy, security and transmission of individually identifiable health information held by covered entities and business associates. A "covered entity" is the primary type of HIPAA-regulated entity. Health plans/insurers, healthcare providers engaging in standard transactions (insurance/health plan claims and encounters, payment and remittance advice, claims status, eligibility, enrollment/disenrollment, referrals and authorizations, coordination of benefits and premium payments), and healthcare clearinghouses (switches that convert data between standard and non-standard data sets) are covered entities. A "business associate" provides services to covered entities (directly or as subcontractors to other business associates) involving arranging, creating, receiving, maintaining, or transmitting protected health information ("PHI") on a covered entity's behalf. In order to legally provide access to PHI to service providers, covered entities and business associates must enter into a "business associate agreement" ("BAA") with the service provider PHI recipient. Among other things, HITECH made certain aspects of the HIPAA's rules (notably the Security Rule) directly applicable to business associates – independent contractors or agents of covered entities that receive or obtain protected health information in connection with providing a service on behalf of a covered entity. HITECH also created four new tiers of civil monetary penalties, amended HIPAA to make civil and criminal penalties directly applicable to business associates, and gave state attorneys general new authority to file civil actions for damages or injunctions in federal court to enforce the federal HIPAA laws and seek attorney's fees and costs associated with pursuing federal civil actions. The HHS Office of Civil Rights ("OCR") has increased its focus on compliance and continues to train state attorneys general for enforcement purposes. OCR has recently increased both its efforts to audit HIPAA compliance and its level of enforcement, with one recent penalty exceeding $5.0 million.

While we are not a covered entity or business associate subject to HIPAA, even when HIPAA does not apply, according to the U.S. Federal Trade Commission (the "FTC"), failing to take appropriate steps to keep consumers' personal information secure constitutes unfair acts or practices in or affecting commerce in violation of Section 5(a) of the Federal Trade Commission Act, 15 U.S.C § 45(a). The FTC expects a company's data security measures to be reasonable and appropriate in light of the sensitivity and volume of consumer information it holds, the size and complexity of its business, and the cost of available tools to improve security and reduce vulnerabilities. Medical data is considered sensitive data that merits stronger safeguards. The FTC's guidance for appropriately securing consumers' personal information is similar to what is required by the HIPAA Security Rule. In addition, states impose a variety of laws protecting consumer information, with certain sensitive information such as HIV/Sexually Transmitted Disease status subject to heightened standards. In addition, federal and state privacy, data security, and breach notification laws, rules and regulations, and other laws apply to the collection, use and security of personal information, including social security number, driver's license numbers, government identifiers, credit card and financial account numbers. Some state privacy and security laws apply more broadly than HIPAA and associated regulations. For example, California recently enacted legislation – the California Consumer Privacy Act, or CCPA – which went into effect January 1, 2020, and will be amended by the California Privacy Rights Act, effective January 1, 2023. The CCPA, among other things, creates new data privacy obligations for covered companies and provides new privacy rights to California residents, including the right to opt out of certain disclosures of their information. The CCPA also creates a private right of action with statutory damages for certain data breaches, thereby potentially increasing risks associated with a data breach. It remains unclear what, if any, modifications will be made to this legislation or how it will be interpreted. We could be subject to enforcement action and litigation exposure if we fail to adhere to these data privacy and security laws.

The Hayfin Credit Facility is subject to acceleration in specified circumstances, which may result in Hayfin taking possession and disposing of any collateral.

On March 23, 2022 (the "Hayfin Closing Date"), we entered into the Hayfin Credit Agreement with Hayfin (see "Liquidity and Capital Resources"). The Hayfin Credit Agreement provides for a senior secured term loan facility in the principal amount of up to $175.0 million (the "Hayfin Credit Facility"), composed of (i) a term loan made on the Hayfin Closing Date in the principal amount of $150.0 million (the "Hayfin Closing Date Loan"), (ii) a delayed draw term loan in the principal amount of $25.0 million (the "Hayfin Delayed Draw Loan" and, together with the Hayfin Closing Date Loan, the "Hayfin Loans"). The obligation of the lenders to make the Hayfin Delayed Draw Loan expires on March 22, 2023 is subject to the satisfaction of certain conditions, including but not limited to, our meeting certain 12-month revenue targets as set forth in the Hayfin Credit Agreement. The Hayfin Credit Facility has a maturity date of March 23, 2027(the "Hayfin Maturity Date"). The Hayfin Loans are secured by substantially all of our assets, including our intellectual property. Events of Default include, among others, non-payment of principal, interest or fees, violation of covenants, inaccuracy of representations and warranties, bankruptcy and insolvency events, material judgments, cross-defaults to material contracts and events constituting a change of control. In addition to an increase in the rate of interest on the Hayfin Loans of 3% per annum, the occurrence of an Event of Default could result in, among other things, the termination of commitments under the Hayfin Credit Facility, the declaration that all outstanding Loans are immediately due and payable in whole or in part, and Hayfin taking immediate possession of, and selling, any collateral securing the Hayfin Loans.

Developments by competitors may render our products or technologies obsolete or non-competitive.

The biotechnology and pharmaceutical industries are intensely competitive and subject to rapid and significant technological change. Our current products and any future product we may develop will have to compete with other marketed therapies. In addition, other companies may pursue the development of pharmaceuticals that target the same diseases and conditions that we are targeting. We face competition from pharmaceutical and biotechnology companies in the U.S. and abroad. In addition, companies pursuing different but related fields represent substantial competition. Many of these organizations competing with us have substantially greater financial resources, larger research and development staffs and facilities, longer product development history in obtaining regulatory approvals and greater manufacturing and marketing capabilities than we do. These organizations also compete with us to attract qualified personnel and parties for acquisitions, joint ventures or other collaborations.

If we are unable to protect our patents, trade secrets or other proprietary rights, if our patents are challenged or if our provisional patent applications do not get approved, our competitiveness and business prospects may be materially damaged.

As we move forward in clinical development we are also uncovering novel aspects of our products and are drafting patents to cover our inventions. We rely on a combination of patent rights, trade secrets and nondisclosure and non-competition agreements to protect our proprietary intellectual property, and we will continue to do so. There can be no assurance that our patents, trade secret policies and practices or other agreements will adequately protect our intellectual property. Our issued patents may be challenged, found to be over-broad or otherwise invalidated in subsequent proceedings before courts or the U.S. Patent and Trademark Office. Even if enforceable, we cannot provide any assurances that they will provide significant protection from competition. The processes, systems, and/or security measures we use to preserve the integrity and confidentiality of our data and trade secrets may be breached, and we may not have adequate remedies as a result of any such breaches. In addition, our trade secrets may otherwise become known or be independently discovered by competitors. There can be no assurance that the confidentiality, nondisclosure and non-competition agreements with employees, consultants and other parties with access to our proprietary information to protect our trade secrets, proprietary technology, processes and other proprietary rights, or any other security measures relating to such trade secrets, proprietary technology, processes and proprietary rights, will be adequate, will not be breached, that we will have adequate remedies for any breach, that others will not independently develop substantially equivalent proprietary information or that third parties will not otherwise gain access to our trade secrets or proprietary knowledge. To the extent that our consultants, contractors or collaborators use intellectual property owned by others in their work for us, disputes may arise as to the rights in related or resulting know-how and inventions.

We could lose market exclusivity of a product earlier than expected.

In the pharmaceutical and biotechnology industries, the majority of an innovative product's commercial value is realized during its market exclusivity period. In the U.S. and in some other countries, when market exclusivity expires and generic or biosimilar versions are approved and marketed or when biosimilars are introduced (even if only for a competing product), there are usually very substantial and rapid declines in a product's revenues.

Market exclusivity for our products is based upon patent rights and certain regulatory forms of exclusivity. The scope of our patent rights may vary from country to country and may also be dependent on the availability of meaningful legal remedies in a country. The failure to obtain patent and other intellectual property rights, or limitations on the use or loss of such rights, could be material to us. In some countries, basic patent protections for our products may not exist because certain countries did not historically offer the right to obtain specific types of patents and/or we (or our licensors) did not file in those markets. In addition, the patent environment can be unpredictable and the validity and enforceability of patents cannot be predicted with certainty. Absent relevant patent protection for a product, once the data exclusivity period expires, generic versions can be approved and marketed.

Patent rights covering our products may become subject to patent litigation. In some cases, manufacturers may seek regulatory approval by submitting their own clinical trial data to obtain marketing approval or choose to launch a generic product "at risk" before the expiration of our patent rights/or before the final resolution of related patent litigation. Enforcement of claims in patent litigation can be very costly, time-consuming and no assurance can be given that we will prevail. In addition, any such litigation may divert our management's attention from our core business and reduce the resources available for our clinical development, manufacturing and marketing activities, and consequently have a material and adverse effect on our business and prospects, regardless of the outcome.
There is no assurance that ASCENIV, or any other of our products for which we are issued a patent, will enjoy market exclusivity for the full time period of the respective patent.

Third parties could obtain patents that may require us to negotiate licenses to conduct our business, and there can be no assurance that the required licenses would be available on reasonable terms or at all.

We may not be able to operate our business without infringing third-party patents. Numerous U.S. and foreign patents and pending patent applications owned by third parties exist in fields that relate to the development and commercialization of IG. In addition, many companies have employed intellectual property litigation as a way to gain a competitive advantage. It is possible that infringement claims may occur as the number of products and competitors in our market increases. In addition, to the extent that we gain greater visibility and market exposure as a public company, we face a greater risk of being the subject of intellectual property infringement claims. We cannot be certain that the conduct of our business does not and will not infringe intellectual property or other proprietary rights of others in the U.S. and in foreign jurisdictions. If our products, methods, processes and other technologies are found to infringe third-party patent rights, we could be prohibited from manufacturing and commercializing the infringing technology, process or product unless we obtain a license under the applicable third-party patent and pay royalties or are able to design around such patent. We may be unable to obtain a license on terms acceptable to us, or at all, and we may not be able to redesign our products or processes to avoid infringement. Even if we are able to redesign our products or processes to avoid an infringement claim, our efforts to design around the patent could require significant time, effort and expense and ultimately may lead to an inferior or more costly product and/or process. Any claim of infringement by a third party, even those without merit, could cause us to incur substantial costs defending against the claim and could distract our management from our business. Furthermore, if any such claim is successful, a court could order us to pay substantial damages, including compensatory damages for any infringement, plus prejudgment interest and could, in certain circumstances, treble the compensatory damages and award attorney fees. These damages could be substantial and could harm our reputation, business, financial condition and operating results. A court also could enter orders that temporarily, preliminarily or permanently prohibit us, our licensees, if any, or our customers from making, using, selling, offering to sell or importing one or more of our products or practicing our proprietary technologies or processes, or could enter an order mandating that we undertake certain remedial activities. Any of these events could seriously harm our business, operating results and financial condition.

If we are unable to successfully manage our growth, our business may be harmed.

Our success will depend on the expansion of our commercial and manufacturing activities, supply of plasma and overall operations and the effective management of our growth, which will place a significant strain on our management and on our administrative, operational and financial resources. To manage this growth, we must expand our facilities, augment our operational, financial and management systems and hire and train additional qualified personnel. Our ability to accomplish each of these factors may be negatively impacted as a consequence of the COVID-19 pandemic. If we are unable to manage our growth effectively, our business could be harmed.

The loss of one or more key members of our management team could adversely affect our business.

Our performance is substantially dependent on the continued service and performance of our management team, who have extensive experience and specialized expertise in our business. In particular, the loss of Adam S. Grossman, our President and Chief Executive Officer, could adversely affect our business and operating results. We do not have "key person" life insurance policies for any members of our management team. We have employment agreements with each of our executive officers; however, the existence of an employment agreement does not guarantee retention of members of our management team and we may not be able to retain those individuals for the duration of or beyond the end of their respective terms. The loss of services of key personnel, or the inability to attract and retain additional qualified personnel, could result in delays in development or approval of our product candidates and diversion of management resources.

Cyberattacks and other security breaches could compromise our proprietary and confidential information, which could harm our business and reputation.

In the ordinary course of our business, we generate, collect and store proprietary information, including intellectual property and business information. The secure storage, maintenance, and transmission of and access to this information is important to our operations and reputation. Computer hackers may attempt to penetrate our computer systems and, if successful, misappropriate our proprietary and confidential information including e-mails and other electronic communications. Further, while many of our employees and certain suppliers with whom we do business operate in a remote working environment during the COVID-19 pandemic, the risk of cybersecurity attacks and data breaches, particularly through phishing attempts, may be increased as we and third parties with whom we interact leverage our IT infrastructure in unanticipated ways during the ongoing COVID-19 pandemic. In addition, an employee, contractor, or other third party with whom we do business may attempt to obtain such information, and may purposefully or inadvertently cause a breach involving such information. While we have certain safeguards in place to reduce the risk of and detect cyberattacks, including a Company-wide cybersecurity policy, our information technology networks and infrastructure may be vulnerable to unpermitted access by hackers or other breaches, or employee error or malfeasance. Any such compromise of our data security and access to, or public disclosure or loss of, confidential business or proprietary information could disrupt our operations, damage our reputation, provide our competitors with valuable information and subject us to additional costs, which could adversely affect our business.

If we are unable to hire and retain a substantial number of qualified personnel, our ability to sustain and grow our business may be harmed.

Our success depends in part on our ability to attract, motivate, and retain a sufficient number of qualified employees across various areas of our operations, such as research and development, manufacturing operations, and sales, who understand and appreciate our strategy and culture and are able to contribute to our mission. We will need to hire additional qualified personnel with expertise in commercialization, sales, marketing, medical affairs, reimbursement, government regulation, formulation, quality control, manufacturing and finance and accounting. In particular, over the next 12-24 months, we expect to hire several new employees devoted to commercialization, sales, marketing, medical and scientific affairs, regulatory affairs, quality control, finance and general and operational management. Qualified individuals of the requisite caliber and number needed to fill these positions may be in short supply in some areas. We compete for qualified individuals with numerous biopharmaceutical companies, universities and other research institutions. Competition for such individuals is intense, and we cannot assure you that our search for such personnel will be successful, particularly if the COVID-19 pandemic causes significant changes in the competitive market for such personnel, including but not limited to overall increases in the cost of labor or travel restrictions related to COVID-19, prevent us from being able to hire qualified personnel. If we are unable to hire and retain personnel capable of consistently performing at a high level, our business and operations could be materially adversely affected. Additionally, any material increases in existing employee turnover rates or increases in labor costs could have a material adverse effect on our business, financial condition or operating results.

We currently collect human blood plasma at our ADMA BioCenters facilities, and if we cannot maintain FDA approval for these facilities or obtain FDA approval for additional facilities that we create or acquire rights to, we may be adversely affected and may not be able to sell or use this human blood plasma for future commercial purposes.

We intend to maintain FDA approval of our ADMA BioCenters collection facilities for the collection of human blood plasma and we may seek other governmental and regulatory approvals for these facilities. We also plan to grow through the building and licensing of additional ADMA BioCenters facilities in various regions of the U.S. Collection facilities are subject to FDA and potentially other governmental and regulatory inspections and extensive regulation, including compliance with current cGMP and blood standards and FDA and other governmental approvals, as applicable. Failure to comply with applicable governmental regulations or to receive applicable approvals for our current or future facilities may result in enforcement actions, such as adverse inspection reports, warning or untitled letters, product recalls or seizures, monetary sanctions, injunctions to halt manufacture and distribution of products, civil or criminal sanctions, costly litigation, refusal of regulatory authority approvals and licenses, restrictions on operations or withdrawal of existing approvals and licenses, any of which may significantly delay or suspend our operations for these locations, potentially having a material adverse effect on our ability to manufacture our products or offer for sale plasma collected at the affected sites.

We manufacture our current marketed products, pipeline products, and products for third parties in our manufacturing and testing facilities, and if we or our vendors cannot maintain appropriate FDA status for these facilities, we may be adversely affected, and may not be able to sell, manufacture or commercialize these products.

There are no assurances we will be able to maintain compliance with all FDA or other regulations. Moreover, to the extent that we use third-party vendors to fulfill our regulatory or contractual requirements, these third-party vendors may perform activities for themselves or other clients and we may not be privy to all regulatory findings or issues discovered by the FDA or other regulatory agencies. Such findings, which are out of our control, may adversely affect our ability to continue to work with these vendors, or our ability to release commercial drug product or perform necessary testing or other actions for us or our clients, which may be required in order to remain FDA compliant or to commercialize our products. If we are not able to maintain manufacturing compliance at our facilities or our vendors' facilities for our products and product candidates, we may not be able to successfully develop and commercialize our products and product candidates and we may face potential contractual or regulatory actions, which would have an adverse impact on our business.

We may incur substantial liabilities and may be required to limit commercialization of our products in response to product liability lawsuits.

The testing and marketing of medical products entail an inherent risk of product liability. If we cannot successfully defend ourselves against product liability claims, we may incur substantial liabilities or be required to limit commercialization of our products. Product liability claims may also result in recalls and/or regulatory enforcement actions. Even successful defense, however, could impair our results of operations. Our inability to obtain and maintain sufficient product liability insurance at an acceptable cost to protect against potential product liability claims could prevent or inhibit the commercialization of pharmaceutical products we develop, either alone or with collaborators.

Many of our business practices are subject to scrutiny by federal and state regulatory authorities, as well as to lawsuits brought by private citizens under federal and state laws. Failure to comply with applicable law or an adverse decision in lawsuits may result in adverse consequences to us.

The laws governing our conduct in the U.S. are enforceable on the federal and state levels by criminal, civil and administrative penalties. Violations of laws such as the Federal Food, Drug, and Cosmetic Act, the Social Security Act (including the Anti-Kickback Statute), the Public Health Service Act and the civil and criminal Federal False Claims Act, the civil monetary penalty statute, requirements regarding the reporting and repayment of overpayments, other fraud and abuse laws and any regulations promulgated under the authority of the preceding, may result in jail sentences, fines or exclusion from federal and state programs, as may be determined by Medicare, Medicaid and HHS and other regulatory authorities as well as by the courts. Similarly, the violation of applicable laws, rules and regulations of states, including the State of Florida with respect to the manufacture and marketing of our products and product candidates may result in jail sentences, fines or exclusion from applicable state programs. There can be no assurance that our activities will not come under the scrutiny of federal and/or state regulators and other government authorities or that our practices will not be found to violate applicable laws, rules and regulations or prompt lawsuits by private citizen "relators" under federal or state false claims laws.

For example, under the Anti-Kickback Statute and similar state laws and regulations, the offer or payment of anything of value for patient referrals, or in return for purchasing, leasing, ordering or arranging for or recommending the purchase, lease, or ordering of any time or service reimbursable in whole or in part by a federal healthcare program is prohibited. This places constraints on the marketing and promotion of products and on common business arrangements, such as discounted terms and volume incentives for customers in a position to recommend or choose products for patients, such as physicians and hospitals, and these practices can result in substantial legal penalties, including, among others, exclusion from the Medicare and Medicaid programs. Arrangements with referral sources such as purchasers, group purchasing organizations, physicians and pharmacists must be structured with care to comply with applicable requirements. Legislators and regulators may seek to further restrict the scope of financial relationships that are considered appropriate. For example, HHS recently promulgated a regulation that is effective in two phases. First, the regulation excludes from the definition of "remuneration" limited categories of (a) PBM rebates or other reductions in price to a plan sponsor under Medicare Part D or a Medicaid Managed Care Organization plan reflected in point-of sale reductions in price and (b) PBM service fees. Second, effective January 1, 2023, the regulation expressly provides that rebates to plan sponsors under Medicare Part D either directly to the plan sponsor under Medicare Part D, or indirectly through a pharmacy benefit manager will not be protected under the anti-kickback discount safe harbor.

Also, certain business practices, such as payments of consulting fees to healthcare providers, sponsorship of educational or research grants, charitable donations, interactions with healthcare providers that prescribe products for uses not approved by the FDA and financial support for continuing medical education programs, must be conducted within narrowly prescribed and controlled limits to avoid any possibility of wrongfully influencing healthcare providers to prescribe or purchase particular products or as a reward for past prescribing. Under the Patient Protection and Affordable Care Act ("ACA") and the companion Health Care and Education Reconciliation Act, which together are referred to as the "Healthcare Reform Law," payments and transfers of value by pharmaceutical manufacturers of drugs, devices, biologics and medical supplies for which payment is available under Medicare, Medicaid or the Children's Health Insurance Program (with certain exceptions) to or at the request of covered recipients, such as, but limited to, physicians, physician assistants, nurse practitioners, clinical nurse specialists and certified registered nurse anesthetists and teaching hospitals, must be tracked and reported to CMS, and are publicly disclosed. Such "applicable manufacturers" are also required to report certain ownership interests held by physicians and their immediate family members. A number of states have similar laws in place. Additional and stricter prohibitions could be implemented by federal and state authorities. Where such practices have been found to be improper incentives to use such products, government investigations and assessments of penalties against manufacturers have resulted in substantial damages and fines. Many manufacturers have been required to enter into consent decrees or orders that prescribe allowable corporate conduct.

Failure to satisfy requirements under the Federal Food, Drug, and Cosmetic Act can also result in penalties, as well as requirements to enter into consent decrees or orders that prescribe allowable corporate conduct. In addition, while regulatory authorities generally do not regulate physicians' discretion in their choice of treatments for their patients, they do restrict communications by manufacturers on unapproved uses of approved products or on the potential safety and efficacy of unapproved products in development. Companies in the U.S., Canada and the European Union cannot promote approved products for other indications that are not specifically approved by the competent regulatory authorities such as the FDA in the U.S., nor can companies promote unapproved products. In limited circumstances, companies may disseminate to physicians information regarding unapproved uses of approved products or results of studies involving investigational products. If such activities fail to comply with applicable regulations and guidelines of the various regulatory authorities, we may be subject to warnings from, or enforcement action by, these authorities. Furthermore, if such activities are prohibited, it may harm demand for our products. Promotion of unapproved drugs or devices or unapproved indications for a drug or device is a violation of the Federal Food, Drug, and Cosmetic Act and subjects us to civil and criminal sanctions. Furthermore, sanctions under the Federal False Claims Act have recently been brought against companies accused of promoting off-label uses of drugs, because such promotion induces the use and subsequent claims for reimbursement under Medicare and other federal programs. Similar actions for off-label promotion have been initiated by several states for Medicaid fraud. The Healthcare Reform Law significantly strengthened provisions of the Federal False Claims Act, the Anti-Kickback Statute that applies to Medicare and Medicaid, and other healthcare fraud provisions, leading to the possibility of greatly increased qui tam suits by relators for perceived violations. Violations or allegations of violations of the foregoing restrictions could materially and adversely affect our business.

We are required to report detailed pricing information, net of included discounts, rebates and other concessions, to CMS for the purpose of calculating national reimbursement levels, certain federal prices and certain federal and state rebate obligations. Inaccurate or incomplete reporting of pricing information could result in liability under the False Claims Act, the federal Anti-Kickback Statute and various other laws, rules and regulations.

We will need to establish systems for collecting and reporting this data accurately to CMS and institute a compliance program to assure that the information collected is complete in all respects. If we report pricing information that is not accurate to the federal government, we could be subject to fines and other sanctions that could adversely affect our business. If we choose to pursue clinical development and commercialization in the European Union or otherwise market and sell our products outside of the U.S., we must obtain and maintain regulatory approvals and comply with regulatory requirements in such jurisdictions. The approval procedures vary among countries in complexity and timing. We may not obtain approvals from regulatory authorities outside the U.S. on a timely basis, if at all, which would preclude us from commercializing products in those markets.

In addition, some countries, particularly the countries of the European Union, regulate the pricing of prescription pharmaceuticals. In these countries, pricing discussions with governmental authorities can take considerable time after the receipt of marketing approval for a product. To obtain reimbursement or pricing approval in some countries, we may be required to conduct a clinical trial that compares the cost-effectiveness of our product candidate to other available therapies. Such trials may be time-consuming and expensive and may not show an advantage in efficacy for our products. If reimbursement of our products is unavailable or limited in scope or amount, or if pricing is set at unsatisfactory levels, in either the U.S. or the European Union, we could be adversely affected.

Also, under the U.S. Foreign Corrupt Practices Act, the U.S. has increasingly focused on regulating the conduct by U.S. businesses occurring outside of the U.S., generally prohibiting remuneration to foreign officials for the purpose of obtaining or retaining business. To enhance compliance with applicable healthcare laws, and mitigate potential liability in the event of noncompliance, regulatory authorities such as the HHS Office of Inspector General (the "OIG") have recommended the adoption and implementation of a comprehensive healthcare compliance program that generally contains the elements of an effective compliance and ethics program described in Section 8B2.1 of the U.S. Sentencing Commission Guidelines Manual. Increasing numbers of U.S.-based pharmaceutical companies have such programs. We will need to adopt healthcare compliance and ethics programs that would incorporate the OIG's recommendations and train our employees. Such a program may be expensive and may not provide assurance that we will avoid compliance issues.

We are also required to comply with the applicable laws, rules, regulations and permit requirements of the various states in which our business operates, including the State of Florida where our manufacturing facility is located. These regulations and permit requirements are not always in concert with applicable federal laws, rules and regulations regulating our business. Although compliant with applicable federal requirements, we may be required to comply with additional state laws, rules, regulations and permits. Failure to appropriately comply with such state requirements could result in temporary or long-term cessation of our manufacturing operations, as well as fines and other sanctions. Any such penalties may have a material adverse effect on our business and results of operations.

We are subject to extensive and rigorous governmental regulation, including the requirement of FDA and other federal, state and local business regulatory approval before our products and product candidates may be lawfully marketed, and our ability to obtain regulatory approval of our products and product candidates from the FDA in a timely manner, access the public markets and obtain necessary capital in order to properly capitalize and continue our operations may be hindered by inadequate funding for the FDA, the SEC and other state and local government agencies.

Both before and after the approval of our products, our products, operations, facilities, suppliers and CROs are subject to extensive regulation by federal, state and local governmental authorities in the U.S. and other countries, with regulations differing from country to country. In the U.S., the FDA regulates, among other things, the pre-clinical testing, clinical trials, manufacturing, safety, efficacy, potency, labeling, storage, record keeping, quality systems, advertising, promotion, sale and distribution of therapeutic products. Failure to comply with applicable requirements could result in, among other things, one or more of the following actions: notices of violation, untitled letters, warning letters, CRLs, fines and other monetary penalties, unanticipated expenditures, delays in approval or refusal to approve a product or product candidate, product recall or seizure, interruption of manufacturing or clinical trials, operating restrictions, injunctions and criminal prosecution. Our products and product candidates cannot be lawfully marketed in the U.S. without FDA and other federal, state and local business regulatory approvals. Any failure to receive the marketing approvals necessary to commercialize our product or product candidates could harm our business.

Additionally, the ability of the FDA and other federal, state and local business regulatory agencies to review and approve products and product candidates can be affected by a variety of factors, including government budget and funding levels, ability to hire and retain key personnel and accept the payment of user fees, and statutory, regulatory, and policy changes. Average review times at the FDA and other federal, state and local business regulatory agencies have fluctuated in recent years as a result. In addition, government funding of the SEC and other government agencies on which our operations may rely, including those that fund research and development activities, is subject to the political process, which is inherently fluid and unpredictable. Disruptions at the FDA and other agencies may also slow the time necessary for products and product candidate submissions to be reviewed and/or approved by necessary government agencies, which would adversely affect our business. For example, over the last several years, including in December 2018 and January 2019, the U.S. government has shut down several times and certain regulatory agencies, such as the FDA and the SEC, have had to furlough critical employees and stop critical activities. If a prolonged government shutdown reoccurs, it could significantly impact the ability of the FDA to timely review and process our regulatory submissions and other reporting requirements which could have a material adverse effect on our business. Further, future government shutdowns could impact our ability to access the public markets and obtain necessary capital in order to properly capitalize and continue our operations.

The manufacturing processes for plasma-based biologics are complex and involve biological intermediates that are susceptible to contamination and impurities.

Plasma is a raw material that is susceptible to damage and contamination and may contain human pathogens, any of which would render the plasma unsuitable as raw material for further manufacturing. For instance, improper storage of plasma, by us or third-party suppliers, may require us to destroy some of our raw material. If unsuitable plasma is not identified and discarded prior to the release of the plasma to the manufacturing process, it may be necessary to discard intermediate or finished product made from that plasma or to recall any finished product released to the market, resulting in a charge to cost of product revenue. The manufacture of our plasma products is an extremely complex process of fractionation, purification, testing, filling and finishing. Our products can become non-releasable or otherwise fail to meet our stringent specifications or regulatory agencies' specifications through a failure in one or more of these process steps. We may detect instances in which an unreleased product was produced without adherence to our manufacturing procedures or plasma used in our production process was not collected or stored in a compliant manner consistent with our cGMP or other regulations. Such an event of noncompliance would likely result in our determination that the implicated products should not be released or maybe replaced or withdrawn from the market and therefore should be destroyed. Once manufactured, our plasma-derived products must be handled carefully and kept at appropriate temperatures. Our failure, or the failure of third parties that supply, test, ship or distribute our products or product components to properly care for our products, may require that those products be destroyed. Even if handled properly, biologics may form or contain particulates or have other issues or problems after storage which may require products to be destroyed or recalled. While we expect to write off small amounts of work-in-progress in the ordinary course of business due to the complex nature of plasma, our processes and our products, unanticipated events may lead to write-offs and other costs materially in excess of our expectations and the reserves we have established for these purposes. Such write-offs and other costs could cause material fluctuations in our results of operations. Product or component quality issues may also result in regulatory enforcement actions, liability, corrective actions and recalls, among other actions, as described elsewhere in this annual report.

Furthermore, contamination of our products could cause investors, consumers, or other third parties with whom we conduct business to lose confidence in the reliability of our manufacturing procedures, which could adversely affect our revenues. In addition, faulty or contaminated products that are unknowingly distributed could result in patient harm, threaten the reputation of our products and expose us to product liability damages and claims from companies for whom we do contract manufacturing.

Our ability to continue to produce safe and effective products depends on the safety of our plasma supply, testing by third parties and the timing of receiving the testing results, and manufacturing processes against transmittable diseases.

Despite overlapping safeguards, including the screening of donors and other steps to remove or inactivate viruses and other infectious disease-causing agents, the risk of transmissible disease through blood plasma products cannot be entirely eliminated. For example, since plasma-derived therapeutics involves the use and purification of human plasma, there has been concern raised about the risk of transmitting HIV, prions, West Nile virus, H1N1 virus or “swine flu” and other blood-borne pathogens through plasma-derived products. There are also concerns about the future transmission of H5N1 virus, or “bird flu.” In the 1980s, thousands of hemophiliacs worldwide were infected with HIV through the use of contaminated Factor VIII. Other producers of Factor VIII, though not us, were defendants in numerous lawsuits resulting from these infections. New infectious diseases emerge in the human population from time to time. If a new infectious disease has a period during which time the causative agent is present in the bloodstream but symptoms are not present, it is possible that plasma donations could be contaminated by that infectious agent. Typically, early in an outbreak of a new disease, tests for the causative agent do not exist. During this early phase, we must rely on screening of donors for behavioral risk factors or physical symptoms to reduce the risk of plasma contamination. Screening methods are generally less sensitive and specific than a direct test as a means of identifying potentially contaminated plasma units. During the early phase of an outbreak of a new infectious disease, our ability to manufacture safe products would depend on the manufacturing process’ capacity to inactivate or remove the infectious agent. To the extent that a product’s manufacturing process is inadequate to inactivate or remove an infectious agent, our ability to manufacture and distribute that product would be impaired. If a new infectious disease were to emerge in the human population, such as COVID-19, or if there were a reemergence of an infectious disease, the regulatory and public health authorities could impose precautions to limit the transmission of the disease that would impair our ability to procure plasma, manufacture our products or both. Such precautionary measures could be taken before there is conclusive medical or scientific evidence that a disease poses a risk for plasma-derived products. In recent years, new testing and viral inactivation methods have been developed that more effectively detect and inactivate infectious viruses in collected plasma. There can be no assurance, however, that such new testing and inactivation methods will adequately screen for, and inactivate, infectious agents in the plasma used in the production of our products.

We could become supply-constrained and our financial performance would suffer if we cannot obtain adequate quantities of FDA-approved source plasma with proper specifications or other necessary raw materials.

In order for plasma to be used in the manufacturing of our products, the individual centers at which the plasma is collected must generally be licensed by the FDA and approved by the regulatory authorities of any country in which we may wish to commercialize our products. When we open a new plasma center, and on an ongoing basis after licensure, it must be inspected by the FDA for compliance with cGMP and other regulatory requirements. Therefore, even if we are able to construct new plasma collection centers to complement our current plasma collection facilities, an unsatisfactory inspection could prevent a new center from being licensed or risk the suspension or revocation of an existing license, among other enforcement actions. We do not and will not have adequate plasma to manufacture our products. Therefore, we are reliant on the purchase of plasma from third parties to manufacture our products. We can give no assurances that appropriate plasma will be available to us on commercially reasonable terms, or at all, to manufacture our products. Further, the COVID-19 pandemic has resulted in, and may continue to result in, significant constraints in raw material supply across various different industries, including the supply of plasma. It is possible that in the future, the COVID-19 pandemic and government responses thereto will have an adverse effect on our ability to source plasma from donors in quantity and quality sufficient for our manufacturing processes. In order to maintain a plasma center's license, its operations must continue to conform to cGMP and other regulatory requirements. In the event that we determine that plasma was not collected in compliance with cGMP and other applicable regulatory requirements, we may be unable to use and may ultimately destroy plasma collected from that center, which would be recorded as a charge to cost of product revenue. Additionally, if non-compliance in the plasma collection process is identified after the impacted plasma has been pooled with compliant plasma from other sources, entire plasma pools, in-process intermediate materials and final products could be impacted. Consequently, we could experience significant inventory impairment provisions and write-offs which could adversely affect our business and financial results. We plan to increase our supplies of plasma for use in the manufacturing processes through increased purchases of plasma from third-party suppliers as well as collections from our existing ADMA BioCenters plasma collection facilities. This strategy is dependent upon our ability to maintain a cGMP compliant environment at our plasma collection facilities and to expand production and attract donors to our facilities. There is no assurance that the FDA will inspect and license any of our current or future unlicensed plasma collection facilities in a timely manner consistent with our production plans. If we misjudge the readiness of a center for an FDA inspection, we may lose credibility with the FDA and cause the FDA to more closely examine all of our operations. Such additional scrutiny could materially hamper our operations and our ability to increase plasma collections. Our ability to expand production and increase our plasma collection facilities to more efficient production levels may be affected by changes in the economic environment and population in selected regions where ADMA BioCenters operates its current or future plasma facilities, by the entry of competitive plasma centers into regions where ADMA BioCenters operates such centers, by misjudging the demographic potential of individual regions where ADMA BioCenters expects to expand production and attract new donors, by unexpected facility related challenges, or by unexpected management challenges at selected plasma facilities held by us from time to time.

Our ability to commercialize our products, alone or with collaborators, will depend in part upon the extent to which reimbursement will be available from governmental agencies, health administration authorities, private health maintenance organizations and health insurers and other healthcare payers, and also depends upon the approval, timing and representations by the FDA or other governmental authorities for our product candidates.

Our ability to generate product revenues will be diminished if our products sell for inadequate prices or patients are unable to obtain adequate levels of coverage. Significant uncertainty exists as to the reimbursement status of newly approved healthcare products, as well as to the timing, language, specifications and other details pertaining to the approval of such products. Healthcare payers, including Medicare, are challenging the prices charged for medical products and services. Government and other healthcare payers increasingly attempt to contain healthcare costs by limiting both coverage and the level of reimbursement for products. Even if one of our product candidates is approved by the FDA, insurance coverage may not be available, and reimbursement levels may be inadequate, to cover such product. If government and other healthcare payers do not provide adequate coverage and reimbursement levels for one of our products, once approved, market acceptance of such product could be reduced. Prices in many countries, including many in Europe, are subject to local regulation and certain pharmaceutical products, such as plasma-derived products, are subject to price controls in several of the world's principal markets, including many countries within the European Union. In the U.S., where pricing levels for our products are substantially established by third-party payers, including Medicare, if payers reduce the amount of reimbursement for a product, it may cause groups or individuals dispensing the product to discontinue administration of the product, to administer lower doses, to substitute lower cost products or to seek additional price-related concessions. These actions could have a negative effect on our financial results, particularly in cases where our products command a premium price in the marketplace, or where changes in reimbursement induce a shift in the site of treatment. The existence of direct and indirect price controls and pressures over our products could materially adversely affect our financial prospects and performance.

The biosimilar pathway established as part of healthcare reform may make it easier for competitors to market biosimilar products.

The Healthcare Reform Law introduced an abbreviated licensure pathway for biological products that are demonstrated to be biosimilar to an FDA-licensed biological product. A biological product may be demonstrated to be "biosimilar" if data shows that, among other things, the product is "highly similar" to an already-approved biological product, known as a reference product, and has no clinically meaningful differences in terms of safety and effectiveness from the reference product. The law provides that a biosimilar application may be submitted as soon as four years after the reference product is first licensed, and that the FDA may not make approval of an application effective until 12 years after the reference product was first licensed. Since the enactment of the law, the FDA has issued several guidance documents to assist sponsors of biosimilar products in preparing their approval applications. Moreover, in an effort to increase competition in the biologic product marketplace, Congress, the executive branch, and the FDA have taken certain legislative and regulatory steps. For example, in 2020 the FDA finalized a guidance to facilitate biologic product importation. The 2020 Further Consolidated Appropriations Act included provisions requiring that sponsors of approved biologic products provide samples of the approved products to persons developing biosimilar products within specified timeframes, in sufficient quantities, and on commercially reasonable market-based terms. The FDA approved the first biosimilar product in 2015 and has since approved a number of biosimilars. As a result of the biosimilar pathway in the U.S., we expect in the future to face greater competition from biosimilar products, including a possible increase in patent challenges.

The implementation of the Healthcare Reform Law in the U.S. may adversely affect our business.

Through the March 2010 adoption of the Healthcare Reform Law in the U.S., substantial changes are being made to the current system for paying for healthcare in the U.S., including programs to extend medical benefits to millions of individuals who currently lack insurance coverage. This reform establishes significant cost-saving measures with respect to several government healthcare programs, including Medicaid and Medicare Parts B and D, that may cover the cost of our future products, and these efforts could have a material adverse impact on our future financial prospects and performance. For example, in order for a manufacturer's products to be reimbursed by federal funding under Medicaid, the manufacturer must enter into a Medicaid rebate agreement with the Secretary of HHS and pay certain rebates to the states based on utilization data provided by each state to the manufacturer and to CMS and pricing data provided by the manufacturer to the federal government. The states share these savings with the federal government, and sometimes implement their own additional supplemental rebate programs. Under the Medicaid drug rebate program, the rebate amount for most branded drug products was previously equal to a minimum of 15.1% of the Average Manufacturer Price ("AMP") or the AMP less Best Price, whichever is greater, plus the inflation penalty if applicable. Effective January 1, 2010, the Healthcare Reform Law generally increased the size of the Medicaid rebates paid by manufacturers for single source and innovator multiple source (brand name) drug products from a minimum of 15.1% to a minimum of 23.1% of AMP, subject to certain exceptions, plus the inflation penalty if applicable. For non-innovator multiple source (generic) products, the rebate percentage was increased from a minimum of 11.0% to a minimum of 13.0% of AMP, and the Bipartisan Budget Act of 2015 established a new inflation penalty for these drugs. In 2010, the Healthcare Reform Law also newly extended the Medicaid drug rebate obligation to prescription drugs covered by Medicaid managed care organizations. These increases in required rebates may adversely affect our future financial prospects and performance. In order for a pharmaceutical product to receive federal reimbursement under the Medicare Part B and Medicaid programs or to be sold directly to U.S. government agencies, the manufacturer must extend discounts to entities eligible to participate in the 340B drug pricing program. The required 340B discount on a given product is calculated based on the AMP and Medicaid rebate amounts reported by the manufacturer. As the 340B drug pricing is determined based on AMP and Medicaid rebate data, the revisions to the Medicaid rebate formula and AMP definition described above could cause the required 340B discount to increase, and recent regulations have established a civil monetary penalty for failure to refund these overcharges.

Effective in 2011, the Healthcare Reform Law imposed an annual, nondeductible fee on any entity that manufactures or imports certain branded prescription drugs and biologic agents, apportioned among these entities according to their market share in certain government healthcare programs. These fees may adversely affect our future financial prospects and performance.

The Healthcare Reform Law also created new rebate obligations for our products under Medicare Part D, a partial, voluntary prescription drug benefit created by the U.S. federal government primarily for persons 65 years old and over. The Part D drug program is administered through private insurers that contract with CMS. Beginning in 2011, the Healthcare Reform Law generally requires that in order for a drug manufacturer's products to be reimbursed under Medicare Part D, the manufacturer must enter into a Medicare Coverage Gap Discount Program agreement with the Secretary of HHS, and reimburse each Medicare Part D plan sponsor an amount now equal to 70% savings for the manufacturer's brand name drugs and biologics which the Part D plan sponsor has provided to its Medicare Part D beneficiaries who are in the "donut hole" (or a gap in Medicare Part D coverage for beneficiaries who have expended certain amounts for drugs). The Part D plan sponsor is responsible for calculating and providing the discount directly to its beneficiaries and for reporting these amounts paid to CMS's contractor, which notifies drug manufacturers of the rebate amounts it must pay to each Part D plan sponsor. The rebate requirement could adversely affect our future financial performance, particularly if contracts with Part D plans cannot be favorably renegotiated or the Part D plan sponsors fail to accurately calculate payments due in a manner that overstates our rebate obligation. Regarding access to our products, the Healthcare Reform Law established and provided significant funding for a Patient-Centered Outcomes Research Institute to coordinate and fund Comparative Effectiveness Research ("CER"). While the stated intent of CER is to develop information to guide providers to the most efficacious therapies, outcomes of CER could influence the reimbursement or coverage for therapies that are determined to be less cost-effective than others. Should any of our products be determined to be less cost effective than alternative therapies, the levels of reimbursement for these products, or the willingness to reimburse at all, could be impacted, which could materially impact our future financial prospects and results.

There have been repeated legal challenges and attempts by Congress to repeal or change the Healthcare Reform Law and the possibility of future challenges or legislative changes contribute to the uncertainty of the ongoing implementation and impact of the law and also underscores the potential for additional reform going forward. We cannot assure that the law, as currently enacted or as amended in the future, will not adversely affect our business and financial results and we cannot predict how future federal or state legislative or administrative changes relating to healthcare reform will affect our business. Certain provisions of enacted or proposed legislative changes may negatively impact coverage and reimbursement of, or rebates paid by manufacturers for, healthcare items and services. We will continue to evaluate the effect that the Healthcare Reform Law and any potential changes may have on our business.

Corporate responsibility, specifically related to environmental, social and governance ("ESG") matters, may impose additional costs and expose us to new risks.

Public ESG and sustainability reporting is becoming more broadly expected by investors, stockholders and other third parties. Certain organizations that provide corporate governance and other corporate risk information to investors and stockholders have developed, and others may in the future develop, scores and ratings to evaluate companies and investment funds based upon ESG or "sustainability" metrics. Many investment funds focus on positive ESG business practices and sustainability scores when making investments and may consider a company's ESG or sustainability scores as a reputational or other factor in making an investment decision. In addition, investors, particularly institutional investors, use these scores to benchmark companies against their peers and if a company is perceived as lagging, these investors may engage with such company to improve ESG disclosure or performance and may also make voting decisions, or take other actions, to hold these companies and their boards of directors accountable. Board diversity is an ESG topic that is, in particular, receiving heightened attention by investors, stockholders, lawmakers and listing exchanges. Certain states have passed laws requiring companies to meet certain gender and ethnic diversity requirements on their boards of directors. We may face reputational damage in the event our corporate responsibility initiatives or objectives, including with respect to board diversity, do not meet the standards set by our investors, stockholders, lawmakers, listing exchanges or other constituencies, or if we are unable to achieve an acceptable ESG or sustainability rating from third-party rating services. A low ESG or sustainability rating by a third-party rating service could also result in the exclusion of our common stock from consideration by certain investors who may elect to invest with our competition instead. Ongoing focus on corporate responsibility matters by investors and other parties as described above may impose additional costs or expose us to new risks.

Risks Relating to our Finances, Capital Requirements and Other Financial Matters

We require additional funding and may be unable to raise capital when needed, which would force us to delay, curtail or eliminate one or more of our research and development programs or commercialization efforts.

Our operations have consumed substantial amounts of cash since inception. For the years ended December 31, 2021 and 2020, we had negative cash flows from operations of approximately $112.4 million and $102.0 million, respectively. We expect to continue to spend substantial amounts on procurement of raw material plasma and other raw materials necessary to scale up our manufacturing operations, commercial product launches, capacity expansion at the Boca Facility and building additional plasma collection facilities. In addition, our end-to-end production cycle from procurement of raw materials to commercial release of finished product can take between seven and 12 months or potentially longer, requiring substantial investments in raw material plasma and other manufacturing materials. We expect that we will not be able to generate a sufficient amount of product revenue to achieve profitability until the beginning of 2024 and, as a result, we may need to continue to finance our operations through additional equity or debt financings or corporate collaboration and licensing agreements. We currently anticipate, based upon our projected revenue and expenditures, that our current cash, cash equivalents and accounts receivable, including the proceeds received and expected to be received from the refinancing of our senior credit facility, along with the remaining funds available under the distribution agreement for the sale of our common stock (see "Liquidity and Capital Resources"), will be sufficient to fund our operations, as currently conducted, into the first quarter of 2024, at which time we believe we will begin to generate positive cash flow from operations. This time frame may change based upon how quickly we are able to execute on our commercialization efforts and operational initiatives and whether or not the assumptions underlying our projected revenues and expenses are correct. If we are unable to raise additional capital if needed, including due to widespread liquidity constraints or significant market instability that could result from the COVID-19 pandemic, we will have to delay, curtail or eliminate our commercialization efforts or our product development activities.

We may not have cash available to us in amounts sufficient to enable us to make interest or principal payments on our indebtedness when due.

The Hayfin Credit Facility provides for a senior secured term loan facility in an aggregate principal amount of up to $175.0 million, of which $150.0 million has been drawn down and is currently outstanding. Borrowings under the Hayfin Credit Facility bear interest at a rate per annum equal to 9.5% plus the greater of (i) one- or three-month SOFR as we elect and (ii) 1.25%, as more fully described in "Liquidity and Capital Resources"; provided, however, that upon, and during the continuance of, an Event of Default, the interest rate will automatically increase by an additional 300 basis points. We are currently required to make monthly payments of interest during the term of the Hayfin Credit Facility of approximately $1.1 million, with all principal and unpaid interest due at maturity. The Hayfin Credit Facility has a maturity date of March 23, 2027, subject to acceleration pursuant to the Hayfin Credit Agreement, including upon an Event of Default. All of our obligations under the Hayfin Credit Facility are secured by a first-priority lien and security interest in substantially all of our and our subsidiaries' tangible and intangible assets, including intellectual property, and all of the equity interests in our subsidiaries.

Our current cash, cash equivalents and accounts receivable will not be sufficient to repay all of our current outstanding debt obligations as they mature. If we are unable to obtain additional financing and are otherwise unable to become profitable and generate cash from operations in the amounts necessary to repay our outstanding debt obligations when due, including as a result of the impact of the COVID-19 pandemic, our creditors would be able to accelerate all of the amounts due and, in the case of the Hayfin Credit Facility, seek to enforce their security interests, which could lead to our creditors taking immediate possession of and selling substantially all of our assets with no return provided to our stockholders.

Raising additional funds by issuing securities or through licensing or lending arrangements may cause dilution to our existing stockholders, restrict our operations or require us to relinquish proprietary rights.

To the extent that we raise additional capital by issuing equity securities, the share ownership of existing stockholders will be diluted. Any future debt financing may involve covenants that, among other restrictions, limit our ability to incur liens or additional debt, pay dividends, redeem or repurchase our common stock, make certain investments or engage in certain merger, consolidation or asset sale transactions. In addition, if we raise additional funds through licensing arrangements or the disposition of any of our assets, it may be necessary to relinquish potentially valuable rights to our product candidates or grant licenses on terms that are not favorable to us.

Our cash and cash equivalents could be adversely affected if the financial institutions in which we hold our cash and cash equivalents fail.

We regularly maintain cash balances at third-party financial institutions in excess of the Federal Deposit Insurance Corporation insurance limit. While we monitor the cash balances in our operating accounts on a daily basis and adjust the balances as appropriate, these balances could be impacted, and there could be a material adverse effect on our business, if one or more of the financial institutions with which we deposit cash fails or is subject to other adverse conditions in the financial or credit markets. To date, we have experienced no loss or lack of access to our invested cash or cash equivalents; however, we can provide no assurance that access to our invested cash and cash equivalents will not be impacted by adverse conditions in the financial and credit markets.

If we fail to maintain proper and effective internal control over financial reporting in the future, our ability to produce accurate and timely financial statements could be impaired, which could harm our operating results, investors' views of us and, as a result, the value of our common stock.

Pursuant to Section 404 of the Sarbanes-Oxley Act of 2002 (the "Sarbanes-Oxley Act") and related rules, our management is required to report on the effectiveness of our internal control over financial reporting. The rules governing the standards that must be met for management to assess our internal control over financial reporting are complex and require significant documentation, testing and possible remediation. To comply with the requirements of being a reporting company under the Exchange Act, we have been required to upgrade, and may need to implement further upgrades, to our financial, information and operating systems, implement additional financial and management controls, reporting systems and procedures and hire additional accounting and finance staff.

Consequently, we have incurred increased costs related to our compliance with Section 404 of the Sarbanes-Oxley Act and will continue to do so. Our Audit Committee has retained the services of BDO, a Sarbanes-Oxley advisor, to assist with our internal control over financial reporting and information technology relating to Section 404. Moreover, if we are not able to comply with the requirements of Section 404 applicable to us in a timely manner, or if we or our independent registered public accounting firm identifies deficiencies in our internal control over financial reporting that are deemed to be material weaknesses, the market price of our common stock could decline and we could be subject to sanctions or investigations by the SEC or other regulatory authorities, which would require additional financial and management resources.

Our ability to use our net operating loss carryforwards ("NOLs") may be limited.

We have incurred substantial losses during our history. As of December 31, 2021, we had federal and state NOLs of $299.9 million and $185.0 million, respectively. Federal and State NOLs of approximately $55.2 million and $77.8 million, respectively, will begin to expire at various dates beginning in 2027, if not limited by triggering events prior to such time. Under the provisions of the Internal Revenue Code of 1986, as amended (the "Code"), changes in our ownership, in certain circumstances, will limit the amount of federal NOLs that can be utilized annually in the future to offset taxable income. In particular, Section 382 of the Code imposes limitations on a company's ability to use NOLs upon certain changes in such ownership. If we are limited in our ability to use our NOLs in future years in which we have taxable income, we will pay more taxes than if we were able to fully utilize our NOLs. The Biotest Transaction on June 6, 2017 resulted in a change in ownership of ADMA under Section 382 and, as a result, we were required to write off $57.6 million of federal NOLs. On October 25, 2021, we completed a public offering of our common stock whereby we issued 57,500,000 shares of our common stock resulting in another change of ownership for ADMA under section 382 of the Code, resulting in an additional write-off of $3.0 million of federal NOLs, $28.1 million of state NOLs and $1.0 million of research and development credits. We may experience ownership changes in the future as a result of subsequent changes in our stock ownership that we cannot predict or control that could result in further limitations being placed on our ability to utilize our federal NOLs.

Risks Associated with our Common Stock

The market price of our common stock may be volatile and may fluctuate in a way that is disproportionate to our operating performance.

Our stock price may experience substantial volatility as a result of a number of factors, including:

- sales or potential sales of substantial amounts of our common stock;
- uncertainties in the equity markets related to the effects of the COVID-19 pandemic;
- delay or failure in initiating or completing preclinical or clinical trials or unsatisfactory results of these trials;
- delay in a decision by federal, state or local business regulatory authority;
- the timing of acceptance, third-party reimbursement and sales of BIVIGAM and ASCENIV;
- announcements about us or about our competitors, including clinical trial results, regulatory approvals or new product introductions;
- developments concerning our licensors or third-party vendors;

- litigation and other developments relating to our patents or other proprietary rights or those of our competitors;
- conditions in the pharmaceutical or biotechnology industries;
- governmental regulation and legislation;
- overall market volatility;
- variations in our anticipated or actual operating results; and
- change in securities analysts' estimates of our performance, or our failure to meet analysts' expectations.

Many of these factors are beyond our control. The stock markets in general, and the market for pharmaceutical and biotechnology companies in particular, have historically experienced extreme price and volume fluctuations. These fluctuations often have been unrelated or disproportionate to the operating performance of these companies. These broad market and industry factors could reduce the market price of our common stock, regardless of our actual operating performance.

Sales of a substantial number of shares of our common stock, or the perception that such sales may occur, may adversely affect the market price of our common stock.

As of March 18, 2022, most of our 195,920,353 outstanding shares of common stock, as well as a substantial number of shares of our common stock underlying outstanding warrants, were available for sale in the public market, subject to certain restrictions with respect to sales of our common stock by our affiliates, either pursuant to Rule 144 under the Securities Act, or under effective registration statements. Sales of a substantial number of shares of our common stock, or the perception that such sales may occur, could cause the market price of our common stock to decline or adversely affect demand for our common stock.

Our affiliates control a substantial amount of our shares of common stock. Provisions in our Second Amended and Restated Certificate of Incorporation (the "Certificate of Incorporation"), our Amended and Restated Bylaws (the "Bylaws") and Delaware law might discourage, delay or prevent a change in control of our Company or changes in our management and, therefore, depress the trading price of our common stock.

As of December 31, 2021, Perceptive, Stonepine Capital Management, LLC and our directors and executive officers and their affiliates beneficially owned approximately 15% of the outstanding shares of our common stock. Provisions of our Certificate of Incorporation, our Bylaws and Delaware law may have the effect of deterring unsolicited takeovers or delaying or preventing a change in control of our Company or changes in our management, including transactions in which our stockholders might otherwise receive a premium for their shares over then current market prices. In addition, these provisions may limit the ability of stockholders to approve transactions that they may deem to be in their best interests. These provisions include:

- the inability of stockholders to call special meetings;
- classification of our Board and limitation on filling of vacancies could make it more difficult for a third party to acquire, or discourage a third party from seeking to acquire, control of our Company; and
- authorization of the issuance of "blank check" preferred stock, with such designation rights and preferences as may be determined from time to time by the Board, without any need for action by stockholders.

In addition, Section 203 of the Delaware General Corporation Law prohibits a publicly-held Delaware corporation from engaging in a business combination with an interested stockholder, generally a person which together with its affiliates owns, or within the last three years, has owned 15% of our voting stock, for a period of three years after the date of the transaction in which the person became an interested stockholder, unless the business combination is approved in a prescribed manner. The existence of the foregoing provisions and anti-takeover measures could limit the price that investors might be willing to pay in the future for shares of our common stock. They could also deter potential acquirers of our company, thereby reducing the likelihood that you could receive a premium for your common stock in an acquisition. In addition, as a result of the concentration of ownership of our shares of common stock, our stockholders may, from time to time, observe instances where there may be less liquidity in the public markets for our securities.

Our Board also recently adopted a short-term stockholder rights agreement with an expiration date of June 15, 2022 and an ownership trigger threshold of 10%. This stockholder rights agreement could render more difficult or discourage a merger, tender offer or assumption of control of the Company that is not approved by our Board. The rights agreement, however, should not interfere with any merger, tender or exchange offer or other business combination approved by our Board. In addition, the rights agreement does not prevent our Board from considering any offer that it considers to be in the best interest of the Company's stockholders.

We have never paid and do not intend to pay cash dividends in the foreseeable future. As a result, capital appreciation, if any, will be your sole source of gain.

We have never paid cash dividends on any of our capital stock and we currently intend to retain future earnings, if any, to fund the development and growth of our business. In addition, the terms of existing and future debt agreements may preclude us from paying dividends. For example, the Hayfin Credit Agreement prohibits us from paying dividends. As a result, capital appreciation, if any, of our common stock will be your sole source of gain for the foreseeable future.

If we fail to adhere to the strict listing requirements of the Nasdaq Global Market ("Nasdaq"), we may be subject to delisting. As a result, our stock price may decline and our common stock may be delisted. If our stock were no longer listed on Nasdaq, the liquidity of our securities likely would be impaired.

Our Common Stock currently trades on the Nasdaq Global Market under the symbol "ADMA." If we fail to adhere to Nasdaq's strict listing criteria, including with respect to stock price, market capitalization and stockholders' equity, our stock may be delisted. This could potentially impair the liquidity of our securities not only in the number of shares that could be bought and sold at a given price, which may be depressed by the relative illiquidity, but also through delays in the timing of transactions and the potential reduction in media coverage. As a result, an investor might find it more difficult to dispose of our common stock. We believe that current and prospective investors would view an investment in our common stock more favorably if it continues to be listed on Nasdaq. Any failure at any time to meet the Nasdaq continued listing requirements could have an adverse impact on the value and trading activity of our common stock. Although we currently satisfy the listing criteria for Nasdaq, if our stock price declines dramatically, we could be at risk of failing to meet the Nasdaq continued listing criteria.

Penny stock regulations may affect your ability to sell our common stock.

Because the price of our common stock currently trades below $5.00 per share, our common stock is subject to Rule 15g-9 under the Exchange Act, which imposes additional sales practice requirements on broker-dealers which sell these securities to persons other than established customers and accredited investors. Under these rules, broker-dealers who recommend penny stocks to persons other than established customers and "accredited investors" must make a special written suitability determination for the purchaser and receive the purchaser's written agreement to a transaction prior to sale, which includes an acknowledgement that the purchaser's financial situation, investment experience and investment objectives forming the basis for the broker-dealer's suitability determination are accurately stated in such written agreement. Unless an exception is available, the regulations require the delivery, prior to any transaction involving a penny stock, of a disclosure schedule explaining the penny stock market and the associated risks. The additional burdens imposed upon broker-dealers by these requirements could discourage broker-dealers from effecting transactions in our common stock and may make it more difficult for holders of our common stock to sell shares to third parties or to otherwise dispose of them.

Our Board may, without stockholder approval, issue and fix the terms of shares of preferred stock and issue additional shares of common stock adversely affecting the rights of holders of our common stock.

Our Certificate of Incorporation authorizes the issuance of up to 10,000,000 shares of "blank check" preferred stock, with such designation rights and preferences as may be determined from time to time by the Board. Currently, our Certificate of Incorporation authorizes the issuance of up to 300,000,000 shares of common stock. As of December 31, 2021, there were 87,241,078 shares remaining available for issuance, after giving effect to 16,876,015 shares of our common stock that were subject to outstanding stock options, RSUs and warrants as of December 31, 2021 that may be issued by us without stockholder approval, as well as an additional 69,090 shares reserved for the future issuance of awards under our equity compensation plans.

Item 1B. Unresolved Staff Comments

Not Applicable.

Item 2. Properties

The table below describes our principal facilities as of December 31, 2021:

Location	Principal Business Activity	Approximate Square Feet	Owned or expiration date of lease
Ramsey, NJ	Corporate Headquarters	4,200	September 30, 2022 *
Boca Raton, FL	Manufacturing and Administration	84,462	Owned
Boca Raton, FL	Laboratory and Administration	44,495	Owned

* - Pursuant to a shared services agreement with Areth, LLC (“Areth”) for office, warehouse space and related services. The agreement provides for automatic one-year renewals unless ADMA gives written notice of termination to Areth 60 days prior to the end of the term. Areth is a company controlled by Dr. Jerrold B. Grossman, our Vice Chairman of the Board of Directors, and Adam S. Grossman, our President and Chief Executive Officer.

We also have 10 plasma collection centers under various stages of development in leased facilities across the southeastern United States, which require lease payments through the respective lease terms that expire at various dates through 2033 (see Note 12 to the consolidated financial statements appearing elsewhere in this report).

We believe that our leased and owned properties are adequate to meet our current and future needs.

Item 3. Legal Proceedings

We are and may become subject to certain legal proceedings and claims arising in connection with the normal course of our business. Neither the Company nor any of its subsidiaries are a party to any material pending legal proceedings, other than ordinary routine litigation incidental to our business.

Item 4. Mine Safety Disclosures

Not applicable.

PART II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Market Information

Our Common Stock had been listed on the Nasdaq Capital Market ("Nasdaq") under the symbol "ADMA" since November 10, 2014. Since October 22, 2019, our Common Stock has been listed on the Nasdaq Global Market.

Holders

As of December 31, 2021, there were 9 record holders of our Common Stock, based upon information received from our transfer agent. However, this number does not include beneficial owners whose shares were held of record by nominees or broker dealers. As of February 1, 2022, we estimate that there are more than 30,000 beneficial owners of our Common Stock.

Dividend Policy

We have never paid any cash dividends on our capital stock. We anticipate that we will retain earnings, if any, to support operations and to finance the growth and development of our business. In addition, the terms of our Credit Agreement with Hayfin precludes us from paying cash dividends without their consent. Therefore, we do not expect to pay any cash dividends for the foreseeable future.

Stock Performance Graph

Not applicable.

Sale of Unregistered Securities

During the year ended December 31, 2021, we had no sales of unregistered securities that have not been previously disclosed in a Current Report on Form 8-K or Quarterly Reports on Form 10-Q.

Purchases of Equity Securities by the Issuer and Affiliated Purchasers

We did not repurchase any of our securities during the three months ended December 31, 2021.

Item 6. Reserved

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

The following discussion of our financial condition and results of operations should be read in conjunction with the consolidated financial statements and notes thereto included elsewhere in this Annual Report on Form 10-K. The various sections of this discussion contain a number of forward-looking statements, all of which are based on our current expectations and could be materially affected by the uncertainties and risk factors described throughout this Annual Report. See "Special Note Regarding Forward-Looking Statements." Our actual results may differ materially.

OVERVIEW

Our Business

ADMA Biologics, Inc. (the "Company," "ADMA," "we," "us" or "our") is an end-to-end commercial biopharmaceutical company dedicated to manufacturing, marketing and developing specialty plasma-derived biologics for the treatment of immunodeficient patients at risk for infection and others at risk for certain infectious diseases. Our targeted patient populations include immune-compromised individuals who suffer from an underlying immune deficiency disorder or who may be immune-suppressed for medical reasons.

Through our ADMA BioManufacturing business segment, we currently have three products with U.S. Food and Drug Administration (the "FDA") approval, all of which are currently marketed and commercially available: (i) BIVIGAM (Immune Globulin Intravenous, Human), an Intravenous Immune Globulin ("IVIG") product indicated for the treatment of Primary Humoral Immunodeficiency ("PI"), also known as Primary Immunodeficiency Disease ("PIDD"), and for which we received FDA approval on May 9, 2019 and commenced commercial sales in August 2019; (ii) ASCENIV (Immune Globulin Intravenous, Human – slra 10% Liquid), an IVIG product indicated for the treatment of PI, for which we received FDA approval on April 1, 2019 and commenced first commercial sales in October 2019; and (iii) Nabi-HB (Hepatitis B Immune Globulin, Human), which is indicated for the treatment of acute exposure to blood containing HBsAg and other listed exposures to Hepatitis B. We seek to develop a pipeline of plasma-derived therapeutics, including a product based on our most recently approved patent application under U.S. Patent No. 10,259,865 related to methods of treatment and prevention of *S. pneumonia* infection for an immunoglobulin manufactured to contain standardized antibodies to numerous serotypes of *S. pneumoniae*. Our products and product candidates are intended to be used by physician specialists focused on caring for immune-compromised patients with or at risk for certain infectious diseases.

We manufacture these products at our FDA-licensed, plasma fractionation and purification facility located in Boca Raton, Florida with a peak annual processing capability of up to 600,000 liters (the "Boca Facility"). Based on current production yields, our ongoing supply chain enhancements and capacity expansion initiatives, we believe this facility has the potential to produce sufficient quantities of our immune globulin ("IG") products representing more than $250 million in annual revenue beginning in 2024 and potentially in excess of $300 million of annual revenue thereafter, as well as achieving profitability during the first quarter of 2024, as we ramp-up production over the next two to four years.

Through our ADMA BioCenters subsidiary, we currently operate FDA-licensed source plasma collection facilities in the U.S. This business unit, which we refer to as our Plasma Collection Centers business segment, provides us with a portion of our blood plasma for the manufacture of our products and product candidates, and also allows us to sell certain quantities of source plasma to customers for further manufacturing. As a part of our planned supply chain robustness initiative, we have opened five new plasma collection centers during the past 18 months, and we now have ten plasma collection centers in various stages of approval and development, including six that are operational and collecting plasma. With respect to our operational plasma collection centers, five plasma collection centers currently hold FDA licenses. In addition, one of our FDA-approved plasma collection centers also has approvals from the Korean Ministry of Food and Drug Safety ("MFDS"), as well as FDA approval to operate a Hepatitis B immunization program. After giving effect to the progress we made in 2020 and 2021 with our plasma collection network expansion, we believe we remain on track to achieve our goal of having 10 plasma collection centers licensed by the FDA by the end of 2023. A typical plasma collection center, such as those operated by ADMA BioCenters, can collect approximately 30,000 to 50,000 liters of source plasma annually, which may be sold for different prices depending upon the type of plasma, quantity of purchase and market conditions at the time of sale. Plasma collected from ADMA BioCenters' facilities that is not used to manufacture our products or product candidates is sold to third-party customers in the U.S. and in other locations outside the U.S. where we are approved under supply agreements or in the open "spot" market.

We sell plasma-derived intermediate fractions to certain customers, which are generated as part of our FDA-approved manufacturing process for IG and IVIG products. In January 2020, we announced our entry into a five-year manufacturing and supply agreement to produce and sell these intermediate by-products, which are used as the starting raw material to produce other plasma-derived biologics. In addition, from time to time we provide contract manufacturing and testing services for certain third-party clients. We also provide laboratory contracting services to certain customers.

On September 8, 2021, we announced that the FDA granted approval for our aseptic fill-finish machine and our related internal fill-finish processes. This approval provides us with in-house fill-finish operations capable of sufficiently addressing our forecasted production requirements for our FDA approved commercial products. With our fill-finish machine and related processes now operational, we anticipate improved gross margins, enhanced patient supply consistency, potentially accelerated inventory production cycle times, and increased control and visibility of commercial product lot releases. We also expect that the approval of our in-house fill-finish processes and capabilities will potentially enable us with the opportunity to onboard new fill-finish contract manufacturing opportunities with third parties as a potential new revenue stream.

On June 6, 2017, we completed the acquisition of certain assets (the "Biotest Assets") of the Therapy Business Unit ("BTBU") of Biotest Pharmaceuticals Corporation ("BPC" and, together with Biotest AG, "Biotest"), which included two FDA-licensed products, Nabi-HB and BIVIGAM, and the Boca Facility (the "Biotest Transaction").

Our Products

BIVIGAM

BIVIGAM is a plasma-derived IVIG that contains a broad range of antibodies similar to those found in normal human plasma. These antibodies are directed against bacteria and viruses and help to protect PI patients against serious infections. BIVIGAM is a purified, sterile, ready-to-use preparation of concentrated human Immunoglobulin G antibodies indicated for the treatment of PI, a group of genetic disorders. This includes, but is not limited to, the humoral immune defect in common variable immunodeficiency, X-linked agammaglobulinemia, congenital agammaglobulinemia, Wiskott-Aldrich syndrome and severe combined immunodeficiency. These PIs are a group of genetic disorders. Based on recent estimates, these disorders are no longer considered to be very rare, with as many as one in every 1,200 people in the United States having some form of PI.

On May 9, 2019, the FDA approved the Prior Approval Supplement (the "PAS") for the use of our IVIG manufacturing process, thereby enabling us to commence commercial sales of this product in the United States. We resumed production of BIVIGAM during the fourth quarter of 2017 and commercial production is ongoing, using our FDA-approved IVIG manufacturing process under U.S. Department of Health and Human Services ("HHS") License No. 2019. We commenced commercial sales for this product in August of 2019.

On April 28, 2021, we announced that the FDA granted approval for our expanded plasma pool production scale process, allowing for a 4,400-liter plasma pool for the manufacture of our BIVIGAM IVIG product. This increased IVIG plasma pool scale, which allows us to produce BIVIGAM at an expanded capacity utilizing the same equipment, release testing assays and labor force, has begun to have a favorable impact on our gross margins and operating results, beginning in the third quarter of 2021.

ASCENIV

ASCENIV is a plasma-derived IVIG that contains naturally occurring polyclonal antibodies, which are proteins that are used by the body's immune system to neutralize microbes, such as bacteria and viruses, and prevent against infection and disease. We manufacture ASCENIV under HHS License No. 2019 using a process known as fractionation. The Centers for Medicare and Medicaid Services ("CMS") has issued a permanent, product-specific-J-code for ASCENIV. Under the Healthcare Common Procedure Coding System ("HCPCS"), the J-code (J1554) became effective April 1, 2021. As part of our proprietary manufacturing process for ASCENIV, we leverage our unique, patented plasma donor screening methodology and tailored plasma pooling design, which blends normal source plasma and plasma from donors tested to have high levels of neutralizing antibody titers to respiratory syncytial virus ("RSV") using our proprietary microneutralization testing assay. We are able to identify the high titer or "hyperimmune" plasma that meets our internal and required specifications for ASCENIV with our patented testing methods and assay. This type of high titer plasma is typically found in less than 10% of the total donor collection samples we test.

ASCENIV is approved for the treatment of Primary Immune Deficiency Disorder ("PIDD"), a class of inherited genetic disorders that causes a deficient or absent immune system in adults and adolescents (12 to 17 years of age). Our pivotal Phase 3 clinical trial in 59 PIDD patients met the primary endpoint of no Serious Bacterial Infections reported during 12 months of treatment. Secondary efficacy endpoints further demonstrated the benefits of ASCENIV in the low incidence of infection, therapeutic antibiotic use, days missed from work/school/daycare and unscheduled medical visits and hospitalizations. We believe this clinical data together with the FDA approval for the treatment of PIDD better positions ADMA to further evaluate ASCENIV in immune-compromised patients infected with or at-risk for RSV infection or potentially other respiratory viral pathogens. We may elect to work with the FDA and the immunology and infectious disease community to potentially design an appropriate clinical trial to evaluate the use of ASCENIV in this patient population or other appropriate populations. Commercial sales of ASCENIV commenced in October of 2019 and the product is currently available to U.S.-based healthcare professionals for prescription and use in U.S.-based patients.

Nabi-HB

Nabi-HB is a hyperimmune globulin that is rich in antibodies to the Hepatitis B virus. Nabi-HB is a purified human polyclonal antibody product collected from plasma donors who have been previously vaccinated with a Hepatitis B vaccine. Nabi-HB is indicated for the treatment of acute exposure to blood containing HBsAg, prenatal exposure of infants born to HBsAg-positive mothers, sexual exposure to HBsAg-positive persons and household exposure to persons with acute Hepatitis B virus infection in specific, listed settings. Hepatitis B is a potentially life-threatening liver infection caused by the Hepatitis B virus. It is a major global health problem. It can cause chronic infection and puts people at high risk of death from cirrhosis and liver cancer. Nabi-HB has a well-documented record of long-term safety and effectiveness since its initial market introduction. The FDA approved Nabi-HB on March 24, 1999. Production of Nabi-HB at the Boca Facility has continued under our leadership since the third quarter of 2017. In early 2018, we received authorization from the FDA for the release of our first commercial batch of Nabi-HB for commercial distribution in the U.S. and we continue to manufacture Nabi-HB under HHS License No. 2019.

IMPACT OF THE COVID-19 CRISIS

We continue to monitor the ongoing developments related to the COVID-19 pandemic, including the emergence of the Delta and Omicron variants and other resistant strains of the coronavirus, and its impacts to our commercial and manufacturing operations and plasma collection facilities, including collections of source plasma, procurement of raw materials and packaging materials, a portion of which are sourced internationally, and the testing of finished drug product that is required prior to its availability for commercial sale. A substantial portion of such testing has historically been performed by contract laboratories outside the United States.

Due to a combination of previous state and local "shelter-in-place" orders, as well as government stimulus packages, persisting social distancing measures and varying roll-outs of vaccinations by state, we have experienced lower than normal donor collections at our FDA approved plasma collection centers. We were also subject to delays in shipments of source plasma from our contracted third-party suppliers, as well as delays in deliveries for personal protective equipment, reagents and other non-plasma raw materials and supplies used in the manufacture and distribution of our products. In addition, we are subject to supply chain delays as a result of certain of our suppliers diverting significant resources towards the rapid development and distribution of COVID-19 vaccines and, as a result, we have elected to carry more raw materials inventory than we have in the past. The COVID-19 pandemic has also impacted, to a certain degree, our customer engagement initiatives, whereby ADMA's sales and medical affairs field personnel have faced difficulties communicating directly with physicians and other healthcare professionals, as well as the cancellation or postponement of a number of key scientific and medical meetings, further limiting our ability to communicate with potential customers. We have implemented a comprehensive suite of virtual engagement initiatives; however, clinician engagement has been reduced due to rapidly evolving COVID-19 priorities at U.S. medical centers.

The pandemic could also impact our ability to interact with the FDA or other regulatory authorities and may result in delays in the conduct of inspections or review of pending applications or submissions. Although we received several FDA approvals and two FDA inspections of the Boca Facility were completed during the year ended December 31, 2021, no assurances can be provided as to the timing for completion of any other regulatory submissions or applications that may be impacted by restrictions related to COVID-19.

During the year ended December 31, 2021, our revenue attributable to international customers was approximately 13% of our total revenues. As we seek to grow this aspect of our business, we may also be subject to the impacts of the COVID-19 pandemic in locations outside the United States.

Notwithstanding the foregoing, the COVID-19 pandemic to date has not had a material impact on our financial condition or results of operations, and we do not believe that our production operations at the Boca Facility, our contract fill/finishers or our plasma collection facilities have been significantly impacted by the COVID-19 pandemic. As a result, we do not anticipate and have not experienced any material impairments with respect to any of our long-lived assets, including our property and equipment, goodwill or intangible assets.

Although the COVID-19 pandemic has not, to date, materially adversely impacted our capital and financial resources, because we are unable to determine the ultimate severity or duration of the pandemic or its long-term effects on, among other things, the global, national or local economies, the capital and credit markets or our workforce, customers or suppliers, at this time we are unable to predict whether COVID-19 will have a material adverse impact on our business, financial condition, liquidity and results of operations.

RESULTS OF OPERATIONS

Critical Accounting Policies and Estimates

This Management's Discussion and Analysis of Financial Condition and Results of Operations is based on our consolidated financial statements, which have been prepared in accordance with Accounting Principles Generally Accepted in the United States of America ("U.S. GAAP"). The preparation of these consolidated financial statements requires us to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses. On an ongoing basis, we evaluate these estimates and assumptions, including those described below. We base our estimates on our historical experience and on various other assumptions that we believe to be reasonable under the circumstances. These estimates and assumptions form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results and experiences may differ materially from these estimates. Significant estimates include rebates and certain other deductions from gross revenues, impairment of long-lived assets, assumptions used in projecting future liquidity and capital requirements, assumptions used in the fair value of awards granted under our equity incentive plans and warrants issued in connection with the issuance of notes payable and the valuation allowance for our deferred tax assets.

Some of the estimates and assumptions we have to make under U.S. GAAP require difficult, subjective and/or complex judgments about matters that are inherently uncertain and, as a result, actual results could differ from those estimates. Due to the estimation processes involved, the following summary of accounting estimates and their application are considered to be critical to understanding our business operations, financial condition and results of operations. For a description of our significant accounting policies, see Note 2 to the Consolidated Financial Statements included elsewhere in this Annual Report on Form 10-K. Estimates and assumptions used in projecting future liquidity and capital requirements are described in Note 1 to the Consolidated Financial Statements.

Revenues

Our gross product revenues are subject to a variety of deductions, which are estimated and recorded in the same period that the revenues are recognized. These deductions primarily consist of rebates, distribution fees, chargebacks and sales allowances. These deductions represent estimates of the related obligations, some of which are contractual in nature and do not require extensive judgment to be exercised by management, while other estimates require complex or subjective matters of knowledge and judgment when estimating the impact of these revenue deductions on net revenues for a reporting period.

Historically, adjustments to these estimates to reflect actual results or updated expectations, have not been material to our overall business. However, two of our primary immunoglobulin products, ASCENIV and BIVIGAM, were only approved for commercial sale by the FDA in 2019, and as such our historical experience with rebates with respect to these products is limited. If any of our ratios, factors, assessments, experiences or judgments are not indicative or accurate estimates of our future experience, our results could be materially affected. Estimates that are most at risk for material adjustment are those associated with U.S. Medicaid rebates because of the extensive time delay between the recording of the accrual and its ultimate settlement, an interval that can generally take up to several years or more. While our results of operations to date have not required any material adjustment due to this risk, the lag time between when this obligation is initially recorded and ultimately settled could potentially materially impact our revenues and our results of operations in the future.

Stock-Based Compensation and Valuation of Warrants

All equity-based payments, including grants of stock options and restricted stock units ("RSUs") are recognized at their estimated fair value at the date of grant, and compensation expense is recognized on a straight-line basis over the grantee's requisite vesting period. For the purpose of valuing stock options granted to our employees, directors and officers, we use the Black-Scholes option pricing model. The Black-Scholes option valuation model was developed for use in estimating the fair value of publicly traded options, which have no vesting restrictions and are fully transferable. The Company's employee stock options have characteristics significantly different from those of traded options, and changes in the underlying Black-Scholes assumptions can materially affect the fair value estimate. To determine the risk-free interest rate, we utilize the U.S. Treasury yield curve in effect at the time of the grant with a term consistent with the expected term of our awards. The expected term of the options granted is in accordance with SEC Staff Accounting Bulletins 107 and 110 and is based on the average between vesting terms and contractual terms. The expected dividend yield reflects our current and expected future policy for dividends on our Common Stock. The expected stock price volatility for our stock options was calculated by examining the historical volatility of our Common Stock since our Common Stock became publicly traded in the fourth quarter of 2013. We will continue to analyze the expected stock price volatility and expected term assumptions and will adjust our Black-Scholes option pricing assumptions as appropriate. Any changes in the foregoing Black-Scholes assumptions, or if we were to elect to utilize an alternative method for valuing stock options granted to employees, directors and officers, could potentially impact our stock-based compensation expense and our results of operations.

We also use the Black-Scholes option valuation model for the purpose of estimating the fair value of warrants we issue from time to time in connection with the issuance of notes payable. Changes in our Black-Scholes assumptions, or if we were to utilize an alternative method for valuing warrants issued to our lenders, could impact our interest expense and results of operations.

Impairment of Long-Lived Assets

We assess the recoverability of our long-lived assets, which include property and equipment and definite-lived intangible assets, whenever significant events or changes in circumstances indicate impairment may have occurred. If indicators of impairment exist, projected future undiscounted cash flows associated with the asset are compared to its carrying amount to determine whether the asset's carrying value is recoverable. Any resulting impairment is recorded as a reduction in the carrying value of the related asset in excess of fair value and a charge to operating results. For the years ended December 31, 2021 and 2020, we determined that there was no impairment of our long-lived assets. Examples of events or circumstances that may be indicative of impairment that would require the use of significant judgment by management include:

- A significant adverse change in legal factors or in the business climate that could affect the value of the asset.
- Significant and continued cash flow losses.
- A significant adverse change in the extent or manner in which an asset is used, such as a restriction imposed by the FDA or other regulatory authorities that could affect our ability to manufacture our products using a particular asset.
- An expectation of losses or reduced profits associated with an asset. This could result, for example, from the introduction of a competitor's product that impacts projected revenue growth, or a change in the acceptance of a product by patients, physicians and payers that results in an inability to sustain projected product revenues.

Goodwill is not amortized but is assessed for impairment on an annual basis or more frequently if impairment indicators exist. The testing of goodwill for impairment requires us to determine whether or not the fair value of the reporting unit associated with the goodwill is less than its carrying amount, including goodwill and other intangible assets. An impairment charge is recorded to the extent the reporting unit's carrying value exceeds its fair value, with the impairment loss recognized not to exceed the total amount of goodwill allocated to that reporting unit. In order to determine the fair value of the reporting unit, we utilize the fair value of the Company as a whole, as determined by its market capitalization. Determination of the fair value and carrying value of each reporting unit, relative to the fair value of the Company, requires management to employ certain estimates, assumptions and judgment, which we believe are reasonable. However, any changes to these estimates and assumptions could impact our determination of whether or not our goodwill is impaired. We did not recognize any impairment charges related to goodwill for the years ended December 31, 2021 and 2020.

Deferred Tax Assets

We have historically maintained a full valuation allowance against all of our net deferred tax assets, and as a result have recorded no income tax benefit in the accompanying consolidated financial statements. This valuation allowance reflects our assessment of whether it is more likely than not that we will generate sufficient taxable income in the future to be able to utilize our deferred tax assets. In determining whether a valuation allowance is warranted, we evaluate factors such as prior earnings history, expected future earnings, carryback and carryforward periods and tax strategies. We consider all positive and negative evidence to estimate if sufficient future taxable income will be generated to realize our deferred tax assets. We consider cumulative losses in recent years to be a significant type of negative evidence, and based on our history of losses, at this time we have not included future projected taxable income as a source of income to recognize our deferred tax assets.

Year Ended December 31, 2021 Compared to December 31, 2020

The following table presents a summary of the changes in our results of operations for the year ended December 31, 2021 compared to the year ended December 31, 2020:

	Year Ended December 31,		
	2021	2020	Increase (Decrease)
Revenues	$ 80,942,625	$ 42,219,783	$ 38,722,842
Cost of product revenue (exclusive of amortization expense shown below)	79,769,341	61,291,426	18,477,915
Gross profit (loss)	1,173,284	(19,071,643)	20,244,927
Research and development expenses	3,646,060	5,907,013	(2,260,953)
Plasma center operating expenses	12,288,723	4,170,051	8,118,672
Amortization of intangibles	715,353	715,353	-
Selling, general and administrative expenses	42,896,889	35,050,817	7,846,072
Loss from operations	(58,373,741)	(64,914,877)	6,541,136
Interest expense	(13,056,834)	(11,985,066)	(1,071,768)
Gain on extinguishment of debt	-	991,797	(991,797)
Other (expense) income, net	(217,043)	159,598	(376,641)
Net loss	$ (71,647,618)	$ (75,748,548)	$ 4,100,930

Revenues

We recorded total revenues of $80.9 million during the year ended December 31, 2021, as compared to $42.2 million during the year ended December 31, 2020, an increase of $38.7 million, or approximately 92%. The increase is mainly due to increased sales of our immunoglobulin products and intermediate fractions generated by our Boca Facility manufacturing operations in 2021 totaling $38.1 million as we conclude our second full year of commercial sales of BIVIGAM and ASCENIV. We attribute this increase in revenue, which reflects sales volume increases across our entire portfolio of IVIG products, to an expansion of our customer base in 2021 and to increased physician, payer and patient acceptance of both BIVIGAM and ASCENIV. We also experienced a $0.5 million increase in plasma revenues generated by our plasma collection centers business segment.

Cost of Product Revenue

Cost of product revenue was $79.8 million for the year ended December 31, 2021, as compared to $61.3 million for the year ended December 31, 2020, an increase of $18.5 million. This increase reflects higher product revenue costs pertaining to the Company's immunoglobulin product sales during the year of approximately $23.6 million due to higher sales volume, an increase in non-inventoriable manufacturing costs of approximately $1.9 million related to IVIG production at our Boca Facility operations, largely due to higher prices, and to increased product revenue costs pertaining to plasma sales of $0.3 million. These amounts were partially offset by non-recurring production charges of $7.5 million in 2020 for the manufacture of BIVIGAM conformance lots at an increased plasma pool production scale in connection with our planned capacity expansion and other production initiatives and investments at the Boca Facility.

Research and Development Expenses

Research and development expenses ("R&D") totaled $3.6 million for the year ended December 31, 2021, as compared to $5.9 million for the year ended December 31, 2020. The decrease is primarily due to several non-recurring projects in 2020 aggregating to $2.2 million for which there are no comparable amounts in 2021, consisting of (i) $1.4 million for the testing and development of a new filling line at one of our third-party fill/finishers for a process that had not been approved by the FDA, (ii) $0.4 million for a study we performed to potentially extend ASCENIV's approved and labeled expiration dating, (iii) $0.2 million related to third-party assay development and (iv) $0.2 million for assistance with a third-party clinical research project. In addition, we experienced lower compensation expense (including stock-based compensation) related to R&D expenses of $1.1 million in 2021, mainly due to the resignation of our former Chief Medical and Chief Scientific Officer. These amounts were partially offset by $1.0 million of increased expenses associated with post-marketing commitment clinical studies for ASCENIV and BIVIGAM in 2021.

Plasma Center Operating Expenses

Plasma center operating expenses were $12.3 million for the year ended December 31, 2021, as compared to $4.2 million for the year ended December 31, 2020. Plasma center operating expenses consist of certain general and administrative plasma center costs, including lease expenses, maintenance, utilities, compensation and benefits for center and administrative staff, advertising and promotion expenses and computer software fees related to donor collections.

At December 31, 2020 we had three plasma collection centers in operation. At December 31, 2021, we had six plasma collection centers in operation. In addition, for those plasma collection centers that are in construction or development but not yet operational, we still need to incur staffing, training, travel and other costs during the build-out period so that these facilities can be operational on the day they open. The increase in plasma center operating expenses in 2021 is mainly attributable to increases in employee compensation costs of $4.8 million, donor fees of $2.5 million, softgoods and supplies of $0.8 million, depreciation expense of $0.7 million, rent expense of $0.7 million, plasma testing expenses of $0.3 million, travel expense of $0.3 million and advertising expenses of $0.2 million. These amounts were partially offset by an increase in plasma collections which resulted in a reduction in our plasma center operating expenses by approximately $3.0 million. We expect additional increases in our plasma center operating expenses in 2022 and beyond as we intend to have 10 plasma collection centers in operation and approved by the FDA by the end of 2023.

Selling, General and Administrative Expenses

Selling, general and administrative expenses ("SG&A") were $42.9 million for the year ended December 31, 2021, an increase of $7.8 million from the year ended December 31, 2020. As we continued to support the increase in the size and scope of our Boca Facility manufacturing and commercial operations in 2021, we experienced increases in employee compensation and related expenses, including travel, relocation and recruiting, of $6.7 million. We also experienced increased insurance expense of $1.3 million in 2021, recognized an expense and corresponding liability in the amount of $0.8 million related to the separation and transition agreement with our former Chief Medical and Chief Scientific Officer and incurred increased expenses associated with the commercialization of our immunoglobulin portfolio of $0.7 million. These amounts were partially offset by a reduction in market intelligence fees of approximately $2.1 million for a one-time project related to ASCENIV that concluded in early 2021.

Amortization of Intangibles

Amortization expense for intangible assets acquired in the Biotest Transaction was $0.7 million for the years ended December 31, 2021 and 2020.

Loss from Operations

Our operating loss was $58.4 million for the year ended December 31, 2021, as compared to $64.9 million for the year ended December 31, 2020. The decrease in operating loss was mainly due to the improved gross profit/loss for the year ended December 31, 2021 of $20.2 million compared with the same period of a year ago and the $2.3 million of lower R&D expenses, largely offset by the increases in plasma center operating expenses and SG&A. The improvement in gross profit/loss is mainly due to the 92% increase in revenues in 2021, as well as to the absence of the $7.5 million of non-recurring production charges we incurred during 2020. We expect further improvements to our gross margins in 2022 as the efficiencies we anticipate from our expanded plasma pool production scale process that was approved by the FDA in April of 2021 and our in-house fill-finish capabilities that were approved in September of 2021 begin to take effect, subject to the current rate of inflation and price increases we may receive from time to time from our suppliers.

Interest Expense

Interest expense was $13.1 million for the year ended December 31, 2021, as compared to $12.0 million for the year ended December 31, 2020. The increase reflects the additional interest expense associated with the Perceptive Tranche III Loan which we drew down on March 20, 2020, as well as the higher interest on the $15 million note formerly due to Biotest that we refinanced in December 2020, which increased the interest rate on this indebtedness from 6% per annum to 11% per annum (see “Liquidity and Capital Resources”). Interest expense also includes the amortization of debt discount in the amount of $1.9 million and $1.8 million for the years ended December 31, 2021 and 2020, respectively. In connection with the refinancing of our senior credit facility on March 23, 2022, we expect our annual interest expense, excluding amortization of debt discount, to increase from approximately $11.2 million per year to a range between approximately $16.0 million and $19.0 million per year, depending on whether and when we access the second tranche of this facility in the amount of $25.0 million (see “Liquidity and Capital Resources”) .

Gain/Loss on Extinguishment of Debt

On December 8, 2020, we refinanced our $15 million subordinated note payable to Biotest with an amendment to our senior credit facility and the corresponding Tranche IV draw on that facility. As a result of this transaction and the payoff of the Biotest note, we recorded a gain on the extinguishment of debt in the amount of $1.0 million (see Note 7 to the Consolidated Financial Statements).

Net Loss

Our net loss was $71.6 million for the year ended December 31, 2021, as compared to $75.7 million for the year ended December 31, 2020. The decrease in net loss of $4.1 million was mainly due to the decrease in operating loss, partially offset by the higher interest expense in 2021 and the gain on extinguishment of debt in 2020.

LIQUIDITY AND CAPITAL RESOURCES

As of December 31, 2021, we had working capital of $178.4 million, primarily consisting of $124.7 million of inventory, cash and cash equivalents of $51.1 million and accounts receivable of $28.6 million, partially offset by $29.6 million of accounts payable and accrued expenses, as compared to working capital of $133.8 million, mainly comprised of $81.5 million of inventory, cash and cash equivalents of $55.9 million and accounts receivable of $13.2 million, partially offset by accounts payable and accrued expenses of $19.4 million, as of December 31, 2020. We have incurred an accumulated deficit of $412.1 million since inception and had negative cash flows from operations of $112.4 million and $102.0 million for the years ended December 31, 2021 and 2020, respectively. We have funded our operations over the past few years primarily from the sale of our equity and debt securities. Our material cash requirements are primarily comprised of:

- The procurement of raw material plasma and other raw materials necessary to maintain and scale up our manufacturing operations
- Employee compensation and benefits
- Capital expenditures for the building of additional plasma collection facilities and for equipment upgrades and capacity expansion at the Boca Facility
- Plasma donor fees and plasma center supplies
- Interest on our debt
- Marketing programs and continued commercialization efforts
- Boca Facility maintenance, repairs and supplies; and
- Conducting post-marketing clinical trials for our FDA-approved products.

In addition, our end-to-end production cycle from procurement of raw materials to commercial release of finished product can take between seven and 12 months or potentially longer, requiring substantial investments in raw material plasma and other manufacturing materials.

We expect that we will not be able to generate a sufficient amount of product revenue to achieve profitability until the beginning of 2024. We currently anticipate, based upon our projected revenue and expenditures, that our current cash, cash equivalents and accounts receivable, including the proceeds received and expected to be received from the refinancing of our senior credit facility as discussed below, along with the remaining amounts available under the distribution agreement for the sale of our common stock also discussed below, will be sufficient to fund our operations, as currently conducted, into the first quarter of 2024, at which time we believe we will begin to generate positive cash flow from operations. This time frame may change based several factors, including the success of our commercial sales of our products and the acceptability of our immune globulin products by physicians, patients or payers, and whether or not the assumptions underlying our projected revenues and expenses are correct. If we are unable to raise additional capital if needed, including due to widespread liquidity constraints or significant market instability that could result from the COVID-19 pandemic, inflationary pressures or other factors beyond our control, we may have to delay, curtail or eliminate some of our commercialization efforts or product development activities. We are also continuing to evaluate a variety of strategic and financing alternatives through our ongoing engagement with Morgan Stanley as a financial advisor.

On March 23, 2022, (the “Hayfin Closing Date”) we and all of our subsidiaries entered into a Credit and Guaranty Agreement (the “Hayfin Credit Agreement”) with Hayfin Services LLP (“Hayfin”). The Hayfin Credit Agreement provides for a senior secured term loan facility in a principal amount of up to $175.0 million (the “Hayfin Credit Facility”), composed of (i) a term loan made on the Hayfin Closing Date in the principal amount of $150.0 million (the “Hayfin Closing Date Loan”), and (ii) a delayed draw term loan in the principal amount of $25.0 million (the “Hayfin Delayed Draw Loan” and, together with the Hayfin Closing Date Loan, the “Hayfin Loans”). The obligation of the lenders to make the Hayfin Delayed Draw Loan expires on March 22, 2023, and is subject to the satisfaction of certain conditions, including, but not limited to, our meeting certain 12-month revenue targets as set forth in the Hayfin Credit Agreement. The Hayfin Credit Facility has a maturity date of March 23, 2027 (the “Hayfin Maturity Date”), subject to acceleration pursuant to the Hayfin Credit Agreement, including upon an Event of Default (as defined in the Hayfin Credit Agreement).

On the Hayfin Closing Date, we used $100.0 million of the Hayfin Closing Date Loan to terminate and pay in full all of the outstanding obligations under our previous senior credit facility with Perceptive (see Note 7 to the Consolidated Financial Statements). We also used $2.0 million of the Hayfin Closing Date Loan proceeds to pay a redemption premium to Perceptive and used approximately $0.3 million of the Hayfin Closing Date Loan proceeds to pay certain fees and expenses incurred in connection with this transaction. In addition, a $1.8 million upfront fee payable to Hayfin was paid "in kind" and was added to the outstanding principal balance in accordance with the terms of the Hayfin Credit Agreement. The remainder of the proceeds received or to be received from the Hayfin Loans will be used for working capital and other general corporate purposes.

Borrowings under the Hayfin Credit Agreement will bear interest at our election, at either (a) a base rate (equal to the highest of (i) the rate of interest per annum last quoted by The Wall Street Journal as the "Prime Rate" in the United States, (ii) the federal funds rate in effect on such day plus 0.50% and (iii) the adjusted Term SOFR for a one-month tenor in effect on such day plus 1.00%) plus an applicable margin of 8.50% or (b) adjusted Term SOFR for either a one-month or three-month tenor, as elected by us, and subject to a floor of 1.25%, plus an applicable margin of 9.5% (the "Applicable Margin"); provided, however, that upon, and during the continuance of, an Event of Default, the Applicable Margin shall increase by an additional 3% per annum. We will also pay "in kind" a portion of the interest on the Hayfin Loans for each monthly or quarterly interest period in an amount equal to 2.5% per annum. Such interest paid "in kind" will reduce our quarterly cash interest obligation by approximately $1.0 million and will be added to the principal amount of the outstanding debt under the Hayfin Credit Facility. On the Hayfin Closing Date, our interest rate was 10.75%. On the last day of each calendar month or quarter during the term of the Hayfin Credit Facility, we are required to pay accrued interest to Hayfin of approximately $1.0 million per month or $3.1 million per quarter, after giving effect to the "in kind" interest of 2.5% per annum, but without giving effect to the Hayfin Delayed Draw Loan.

On the Hayfin Maturity Date, we will pay Hayfin the entire outstanding principal amount underlying the Hayfin Loans and any accrued and unpaid interest thereon, as well as an exit fee of 1.0% of the outstanding principal amount being paid. Prior to the Hayfin Maturity Date, there will be no scheduled principal payments on the Hayfin Loans. We may prepay outstanding principal on the Hayfin Loans at any time and from time to time upon five business days' prior written notice, subject to the payment to Hayfin of, (A) any accrued but unpaid interest on the prepaid principal amount plus (B) an early prepayment fee in the amount equal to (i) 7.0% of the prepaid principal amount, if prepaid on or prior to the first anniversary of the Hayfin Closing Date, (ii) 3.0% of the prepaid principal amount, if prepaid after the first anniversary of the Hayfin Closing Date and on or prior to the second anniversary of the Hayfin Closing Date, or (iii) 1.0% of the prepaid principal amount, if prepaid after the second anniversary of the Hayfin Closing Date and on or prior to the third anniversary of the Hayfin Closing Date. In addition, for any prepayments of principal or payment of principal on the Hayfin Maturity Date, we are required to pay an exit fee of 1.0% of the amount of principal being paid.

All of our obligations under the Hayfin Credit Agreement are secured by a first-priority lien and security interest in substantially all of our tangible and intangible assets, including intellectual property and all of the equity interests in our subsidiaries. The Hayfin Credit Agreement contains certain representations and warranties, affirmative covenants, negative covenants and conditions that are customarily required for similar financings. The negative covenants restrict or limit our ability and the ability of our subsidiaries to, among other things and subject to certain exceptions contained in the Hayfin Credit Agreement, incur new indebtedness; create liens on assets; engage in certain fundamental corporate changes, such as mergers or acquisitions, or changes to our or our subsidiaries' business activities; make certain Investments or Restricted Payments (each as defined in the Hayfin Credit Agreement); change our fiscal year; pay dividends; repay other certain indebtedness; engage in certain affiliate transactions; or enter into, amend or terminate any other agreements that have the impact of restricting our ability to make loan repayments under the Hayfin Credit Agreement. In addition, we are required (i) at all times prior to the Maturity Date to maintain a minimum cash balance of $6.0 million; and (ii) as of the last day of each fiscal quarter commencing with the fiscal quarter ending June 30, 2022, report IVIG product and related revenues for the trailing 12-month period that exceed the amounts set forth in the Hayfin Credit Agreement, which range from $75.0 million for the fiscal quarter ending June 30, 2022 to $250.0 million for the fiscal quarter ending December 31, 2026 and each fiscal quarter thereafter.

On October 25, 2021, we completed an underwritten public offering whereby we issued 57.5 million shares of our common stock and received gross proceeds of $57.5 million. Net proceeds, after underwriting discounts and expenses associated with the offering, were approximately $53.8 million, and are being used (i) to advance the commercial sales of our FDA approved products through the procurement of raw materials for the manufacturing of BIVIGAM and ASCENIV; (ii) to expand our plasma collection facility network; (iii) to scale up the manufacturing capacity of the Boca Facility and make continuous improvements in order to adhere to cGMP compliance; (iv) to explore business development opportunities; and (v) for general corporate purposes and other capital expenditures.

On September 3, 2021, we entered into a distribution agreement with Raymond James & Associates, Inc., as agent ("Agent"), pursuant to which we may offer and sell, from time to time, at our option, through or to the Agent, up to an aggregate of $50 million of shares of our common stock (the "Distribution Agreement"). We currently intend to use any net proceeds from the sale of our common stock under the Distribution Agreement for general corporate purposes, including procurement of source plasma and other raw materials, supply chain initiatives and production expenditures, funding expansion of plasma collection centers, working capital, capital expenditures, expansion and resources for commercialization activities, and other potential research and development and business opportunities. During the year ended December 31, 2021, we issued 5,540,831 shares of our common stock under the Distribution Agreement and received net proceeds of $6.9 million. We currently have approximately $42.8 million of shares available to sell under the Distribution Agreement.

On August 5, 2020, we entered into an open market sale agreement (as amended from time to time, the "Sale Agreement") with Jefferies LLC ("Jefferies"), pursuant to which we could offer and sell, from time to time, at our option, through or to Jefferies, up to an aggregate of $50 million of shares of our common stock. On November 5, 2020 and February 3, 2021, we and Jefferies amended the Sale Agreement to provide for increases in the aggregate offering amount under the Sale Agreement such that we could sell shares having an aggregate offering price of up to $105.4 million under the Sale Agreement, as amended. For the year ended December 31, 2021, we issued and sold 27,805,198 shares of common stock under the Sale Agreement and received net proceeds of $60.4 million. The Sale Agreement was terminated on August 31, 2021.

In February 2020, we completed an underwritten public offering of 27,025,000 shares of our common stock and received net proceeds, after underwriting discounts and other expenses associated with the offering, of approximately $88.7 million. The proceeds from this offering were used (i) for the procurement of raw materials for the manufacturing of BIVIGAM and ASCENIV; (ii) to support the ongoing commercial sales of BIVIGAM and ASCENIV; (iii) to expand the manufacturing capacity of our Boca Facility and enhance our supply chain capabilities; (iv) to expand our plasma collection facility network; (v) for research and development and business development opportunities; and (vi) for general corporate purposes and other capital expenditures.

On February 11, 2019 (the "Perceptive Closing Date"), we and all of our subsidiaries entered into the Perceptive Credit Agreement. The Perceptive Credit Agreement, as amended, provided for a senior secured term loan facility in a principal amount of $100.0 million comprised of (i) a term loan made on the Perceptive Closing Date in the principal amount of $45.0 million, as evidenced by the Company's issuance of a promissory note (the "Perceptive Tranche I Note") in favor of Perceptive on the Perceptive Closing Date (the "Perceptive Tranche I Loan"), (ii) a term loan in the principal amount of $27.5 million (the "Perceptive Tranche II Loan") evidenced by the Company's issuance of a promissory note (the "Perceptive Tranche II Note") in favor of Perceptive on May 3, 2019, (iii) a term loan in the principal amount of $12.5 million evidenced by the Company's issuance of a promissory note (the "Perceptive Tranche III Note") in favor of Perceptive on March 20, 2020 (the "Perceptive Tranche III Loan"); and (iv) a term loan in the principal amount of $15 million evidenced by our issuance of a promissory note in favor of Perceptive on December 8, 2020 (the "Perceptive Tranche IV Loan", and together with the Perceptive Tranche I Loan, the Perceptive Tranche II Loan and the Perceptive Tranche III Loan, the "Perceptive Loans"). The Perceptive Tranche III Loan is the result of an amendment to the Perceptive Credit Agreement that the Company and Perceptive entered into on May 3, 2019 (the "First Perceptive Amendment"), and the Perceptive Tranche III Loan became available to the Company upon the approval of BIVIGAM on May 9, 2019. The Perceptive Tranche IV Loan is the result of an amendment to the Perceptive Credit Facility entered into on December 8, 2020 (the "Second Perceptive Amendment"), which also extended the maturity date of the Perceptive Credit Facility to March 1, 2024 (the "Maturity Date"), subject to acceleration pursuant to the Perceptive Credit Agreement, including upon an Event of Default (as defined in the Perceptive Credit Agreement). The proceeds from the Perceptive Tranche IV Loan were used to retire the $15.0 million note we had payable to Biotest, which had a maturity date of June 17, 2022.

All of the Perceptive Loans were retired and our other obligations under the Perceptive Credit Facility were satisfied using the proceeds we received from the Hayfin Closing Date Loan.

Cash Flows

The following table sets forth a summary of our cash flows for the periods indicated:

	Year Ended December 31,	
	2021	2020
Net cash used in operating activities	$ (112,368,982)	$ (102,002,958)
Net cash used in investing activities	(13,511,258)	(12,724,680)
Net cash provided by financing activities	121,048,206	143,896,655
Net change in cash and cash equivalents	(4,832,034)	29,169,017
Cash and cash equivalents - beginning of year	55,921,152	26,752,135
Cash and cash equivalents - end of year	$ 51,089,118	$ 55,921,152

Net Cash Used in Operating Activities

Cash used in operations for the year ended December 31, 2021 was $112.4 million, an increase of $10.4 million from the same period of a year ago, mainly due to the increase in inventories as we continue to increase production resulting from the FDA approval of the 4,400 liter scale-up expansion for BIVIGAM. The following table illustrates the primary components of our cash flows from operations:

	Year Ended December 31,	
	2021	2020
Net loss	$ (71,647,618)	$ (75,748,548)
Non-cash expenses, gains and losses	10,959,055	7,526,908
Changes in accounts receivable	(15,339,567)	(9,767,371)
Changes in inventories	(43,188,489)	(28,470,864)
Changes in prepaid expenses and other current assets	(1,292,779)	(512,873)
Changes in accounts payable and accrued expenses	9,697,041	5,300,930
Other	(1,556,625)	(331,140)
Cash used in operations	$ (112,368,982)	$ (102,002,958)

Net Cash Used in Investing Activities

Net cash used in investing activities for the year ended December 31, 2021 was $13.5 million, which consisted of $8.6 million for the construction and buildout of new plasma collection facilities and $4.9 million of capital expenditures at the Boca Facility, which included equipment purchases and continued implementation of our in-house fill/finish capabilities. Cash used in investing activities of $12.7 million for the year ended December 31, 2020 was mainly comprised of $7.6 million of capital expenditures at the Boca Facility and $5.1 million for the construction and buildout of new plasma collection facilities. We expect our total capital expenditures will be between $12.0 million and $18.0 million for fiscal 2022 as we seek to have 10 FDA-approved plasma collection centers in operation by the end of 2023.

Net Cash Provided by Financing Activities

Cash provided by financing activities during the year ended December 31, 2021 was $121.0 million, which is mainly comprised of the net proceeds of $60.4 received from the Sale Agreement, $53.8 million from the October 2021 underwritten public offering and $6.9 million from the Distribution Agreement. Cash provided by financing activities of $143.9 million for the year ended December 31, 2020 mainly consisted of $88.7 million of net proceeds received from our underwritten public offering in February 2020, $42.5 million of proceeds received from the Sale Agreement during the second half of 2020 and $12.5 million of proceeds from the Perceptive Tranche III Loan received in March 2020.

Effect of Inflation

Although inflation or changing prices did not have a significant impact on our revenues or net loss for the year ended December 31, 2020, inflation however did impact a number of facets of our business during the year ended December 31, 2021 at both of our business segments. We experienced price increases for, among other items, raw materials, consumable supplies, services for repairs and maintenance of our facilities and labor costs. We expect this trend to continue at least into the first half of 2022, which could have a significant impact on our future results of operations. In addition, some of our plasma purchase agreements provide for annual price increases that are tied to various consumer price indices, which have resulted in higher than historical price increases and is expected to result in higher source plasma costs in 2022.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

Not applicable.

Item 8. Financial Statements and Supplementary Data

Our financial statements required to be filed pursuant to this Item 8 appear in a separate section of this Annual Report on Form 10-K, beginning on page F-1.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None.

Item 9A. Controls and Procedures

Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures as of December 31, 2021. The term "disclosure controls and procedures," as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act, means controls and other procedures of a company that are designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the company's management, including its principal executive and principal financial officers, as appropriate to allow timely decisions regarding required disclosure. Management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Based on the evaluation of our disclosure controls and procedures as of December 31, 2021, our Chief Executive Officer and Chief Financial Officer concluded that, as of such date, our disclosure controls and procedures were effective at the reasonable assurance level.

Management's Annual Report on Internal Control Over Financial Reporting

The Management of ADMA Biologics, Inc. (the "Company") is responsible for establishing and maintaining adequate internal control over financial reporting for the Company. Internal control over financial reporting is defined in Rule 13a-15(f) or 15d-15(f) promulgated under the Exchange Act, as amended, as a process designed by, or under the supervision of, the Company's principal executive and principal financial officers and effected by the Company's board of directors, management and other personnel, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with accounting principles generally accepted in the United States of America ("U.S. GAAP") and includes those policies and procedures that: (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the Company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with U.S. GAAP, and that receipts and expenditures of our company are being made only in accordance with authorizations of management and directors of the Company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the Company's assets that could have a material effect on the financial statements.

Internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements prepared for external purposes in accordance with U.S. GAAP. Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Management, with the participation of the Company's Chief Executive Officer and Chief Financial Officer, assessed the effectiveness of its internal control over financial reporting as of December 31, 2021. In making this assessment, management used the criteria set forth in the Internal Control-Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on its assessment, management concluded that the Company's internal control over financial reporting was effective as of December 31, 2021 based on those criteria.

As a Smaller Reporting Company, the Company is not required to include in this Annual Report on Form 10-K a report on the effectiveness of its internal control over financial reporting by the Company's independent registered public accounting firm.

Changes in Internal Control Over Financial Reporting

There has been no change in our internal control over financial reporting during the quarter ended December 31, 2021 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information

None.

Item 9C. Disclosure Regarding Foreign Jurisdictions that Prevent Inspections

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

Information required to be disclosed by this Item with respect to our executive officers is incorporated into this Annual Report on Form 10-K by reference from the section entitled "Executive Officers and Director and Officer Compensation: Executive Officers" contained in our definitive proxy statement for our 2022 annual meeting of stockholders, which we intend to file within 120 days of the end of our fiscal year ended December 31, 2021.

Information required to be disclosed by this Item about our Board of Directors (the "Board") is incorporated into this Annual Report on Form 10-K by reference from the section entitled "Proposal No. 1: Election of Directors" contained in our definitive proxy statement for our 2022 annual meeting of stockholders, which we intend to file within 120 days of the end of our fiscal year ended December 31, 2021.

To the extent necessary, information required to be disclosed by this Item about the Section 16(a) compliance of our directors and executive officers is incorporated into this Annual Report on Form 10-K, as applicable, by reference from the section entitled "Delinquent Section 16(a) Reports" contained in our definitive proxy statement for our 2022 annual meeting of stockholders, which we intend to file within 120 days of the end of our fiscal year ended December 31, 2021.

Information required to be disclosed by this Item about our Board, the Audit Committee of our Board, our audit committee financial expert, our Code of Ethics and Business Conduct Standards, and other corporate governance matters is incorporated into this Annual Report on Form 10-K by reference from the section entitled "Corporate Governance" contained in our definitive proxy statement for our 2022 annual meeting of stockholders, which we intend to file within 120 days of the end of our fiscal year ended December 31, 2021.

The text of our Code of Ethics and Business Conduct Standards, which applies to our directors and employees (including our principal executive officer, principal financial officer, principal accounting officer or controller and persons performing similar functions), is posted in the "Corporate Governance" section of the Investors section of our website, www.admabiologics.com. A copy of the Code of Ethics and Business Conduct Standards can be obtained free of charge on our website. We intend to disclose on our website any amendments to, or waivers from, our Code of Ethics and Business Conduct Standards that are required to be disclosed pursuant to the rules of the SEC and The Nasdaq Stock Market.

The information presented on our website is not a part of this Annual Report on Form 10-K and the reference to our website is intended to be an inactive textual reference only.

Item 11. Executive Compensation

Information required to be disclosed by this Item is incorporated into this Annual Report on Form 10-K by reference from the section entitled "Executive Officers and Director and Officer Compensation" contained in our definitive proxy statement for our 2022 annual meeting of stockholders, which we intend to file within 120 days of the end of our fiscal year ended December 31, 2021.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

Information required to be disclosed by this Item is incorporated into this Annual Report on Form 10-K by reference from the sections entitled "Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters" contained in our definitive proxy statement for our 2022 annual meeting of stockholders, which we intend to file within 120 days of the end of our fiscal year ended December 31, 2021.

Item 13. Certain Relationships and Related Transactions, and Director Independence

The information required to be disclosed by this Item is incorporated in this Annual Report on Form 10-K by reference from the section entitled "Certain Relationships and Related Transactions, and Director Independence" contained in our definitive proxy statement for our 2022 annual meeting of stockholders, which we intend to file within 120 days of the end of our fiscal year ended December 31, 2021.

Item 14. Principal Accounting Fees and Services

The information required to be disclosed by this Item is incorporated into this Annual Report on Form 10-K by reference from the section entitled "Audit and Other Fees" contained in our definitive proxy statement for our 2022 annual meeting of stockholders, which we intend to file within 120 days of the end of our fiscal year ended December 31, 2021.

PART IV

Item 15. Exhibits, Financial Statement Schedules

Financial Statement Schedules

(a) The following documents are filed as part of this Annual Report on Form 10-K:

(1) Consolidated Financial Statements.

(2) Financial Statement Schedules.
Required information is included in the footnotes to the financial

(3) Index to Exhibits.

INDEX TO EXHIBITS

Exhibit No.	Description
2.1	Master Purchase and Sale Agreement, dated as of January 21, 2017, by and among Biotest Pharmaceuticals Corporation, ADMA BioManufacturing, LLC, ADMA Biologics, Inc., Biotest AG and Biotest US Corporation (incorporated herein by reference to Exhibit 2.1 to the Company's Current Report on Form 8-K, filed with the SEC on January 23, 2017).
3.1	Second Amended and Restated Certificate of Incorporation of the Company (incorporated herein by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K, filed with the SEC on August 23, 2019).
3.1.1	Certificate of Amendment of the Second Amended and Restated Certificate of Incorporation of ADMA Biologics, Inc., dated as of May 27, 2021 (incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K filed on May 28, 2021).
3.2	Amended and Restated Bylaws (incorporated herein by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K, filed with the SEC on October 7, 2016).
3.3	Certificate of Designation of Series A Junior Participating Preferred Stock of ADMA Biologics, Inc. (incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K filed with the SEC on December 21, 2021).
4.1	Specimen Common Stock Certificate (incorporated herein by reference to Exhibit 4.1 to Amendment No. 1 to the Company's Current Report on Form 8-K/A, filed with the SEC on March 29, 2012).
4.2	Warrant Agreement, dated December 21, 2012, issued by the Company to Hercules Technology Growth Capital, Inc. (incorporated herein by reference to Exhibit 4.3 to the Company's Registration Statement on Form S-1, filed with the SEC on February 11, 2013).
4.3	Form of Warrant Agreement, dated May 13, 2016, issued by the Company to Oxford Finance LLC (incorporated herein by reference to Exhibit 4.6 to the Company's Quarterly Report on Form 10-Q, filed with the SEC on May 13, 2016).
4.4	Warrant to Purchase Stock, dated October 10, 2017, issued by the Company to Marathon Healthcare Finance Fund, L.P. (incorporated herein by reference to Exhibit 4.2 to the Company's Current Report on Form 8-K, filed with the SEC on October 11, 2017).
4.5	Warrant to Purchase Stock, dated February 11, 2019, issued by the Company to Perceptive Credit Holdings II, LP (incorporated herein by reference to Exhibit 4.2 to the Company's Current Report on Form 8-K, filed with the SEC on February 12, 2019).
4.6	Warrant to Purchase Stock, dated May 3, 2019, issued by the Company to Perceptive Credit Holdings II, LP (incorporated by reference to Exhibit 4.2 to the Company's Current Report on Form 8-K filed with the SEC on May 3, 2019).
4.7	Warrant to Purchase Stock, dated December 8, 2020, issued by the Company to Perceptive Credit Holdings II, LP (incorporated by reference to Exhibit 4.7 to the Company's Annual Report on Form 10-K for the year ended December 31, 2020, filed with the SEC on March 24, 2021).
4.8	Note, dated February 11, 2019, issued by the Company to Perceptive Credit Holdings II, LP (incorporated herein by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K, filed with the SEC on February 12, 2019).
4.9	Note, dated May 3, 2019, issued by the Company to Perceptive Credit Holdings II, LP (incorporated herein by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K, filed with the SEC on May 3, 2019).
4.10	Note, dated December 8, 2020, issued by the Company to Perceptive Credit Holdings II, L.P. (incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K filed with the SEC on December 9, 2020).
4.11*	Description of Securities Registered under Section 12 of the Securities Exchange Act of 1934.

4.12	Rights Agreement, dated as of December 20, 2021, by and between ADMA Biologics, Inc. and Continental Stock Transfer and Trust Company, as rights agent (incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K filed with the SEC on December 21, 2021).
4.13*	Form of Warrant to Purchase Stock, in the form issued by the Company to various entities affiliated with Hayfin Services LLP, dated as of March 23, 2022
10.1†	2007 Employee Stock Option Plan, as amended by Amendment No. 3 (incorporated herein by reference to Exhibit A to the Information Statement on Schedule 14C, filed with the SEC on October 29, 2012).
10.2†	Amended and Restated ADMA Biologics, Inc. 2014 Omnibus Incentive Compensation Plan (incorporated herein by reference to Exhibit 10.1 to the Company's Registration Statement on Form S-8, filed with the SEC on August 18, 2017).
10.3†	Amended and Restated Employment Agreement, dated January 29, 2019, by and between ADMA Biologics, Inc. and Adam Grossman (incorporated herein by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K, filed with the SEC on January 29, 2019).
10.3.1†	Amendment to Employment Agreement, dated as of September 29, 2021, by and between ADMA Biologics, Inc. and Adam Grossman (incorporated by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K, filed with the SEC on October 1, 2021).
10.4†	Amended and Restated Employment Agreement, dated January 29, 2019, by and between ADMA Biologics, Inc. and Brian Lenz (incorporated herein by reference to Exhibit 10.3 to the Company's Current Report on Form 8-K, filed with the SEC on January 29, 2019).
10.4.1†	Amendment to Employment Agreement, dated as of September 29, 2021, by and between ADMA Biologics, Inc. and Brian Lenz (incorporated by reference to Exhibit 10.3 to the Company's Current Report on Form 8-K, filed with the SEC on October 1, 2021).
10.5+	Plasma Purchase Agreement, dated as of November 17, 2011, by and between Biotest Pharmaceuticals Corporation and ADMA Biologics, Inc., as amended by First Amendment to Plasma Purchase Agreement, dated as of December 1, 2011, by and between Biotest Pharmaceuticals Corporation and ADMA Biologics, Inc. (incorporated herein by reference to Exhibit 10.9 to Amendment No. 3 to the Company's Current Report on Form 8-K/A, filed with the SEC on June 22, 2012).
10.5.1+	Second Amendment to Plasma Purchase Agreement, dated as of December 18, 2015, by and between Biotest Pharmaceuticals Corporation and ADMA Biologics, Inc. (incorporated herein by reference to Exhibit 10.3.1 to the Company's Annual Report on Form 10-K, filed with the SEC on March 23, 2016).
10.5.2	Third Amendment to Plasma Purchase Agreement, dated as of April 8, 2016, by and between Biotest Pharmaceuticals Corporation and ADMA Biologics, Inc. (incorporated herein by reference to Exhibit 10.3.2 to the Company's Quarterly Report on Form 10-Q, filed with the SEC on May 13, 2016).
10.5.3	Fourth Amendment to Plasma Purchase Agreement, dated as of June 6, 2017, by and between Biotest Pharmaceuticals Corporation and ADMA Biologics, Inc. (incorporated herein by reference to Exhibit 10.9 to the Company's Quarterly Report on Form 10-Q, filed with the SEC on August 11, 2017).
10.5.4+	Fifth Amendment to Plasma Purchase Agreement, dated as of January 1, 2019, by and between Grifols Worldwide Operations Limited (as successor-in-interest to Biotest Pharmaceuticals Corporation) and ADMA Biologics, Inc. (incorporated herein by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K, filed with the SEC on January 2, 2019).
10.6+	Plasma Supply Agreement, dated as of June 6, 2017, by and between ADMA BioManufacturing, LLC and Biotest Pharmaceuticals Corporation (incorporated herein by reference to Exhibit 10.5 to the Company's Quarterly Report on Form 10-Q, filed with the SEC on August 11, 2017).
10.6.1+	Amendment #1 to the Plasma Supply Agreement, dated as of July 19, 2018, by and between Biotest Pharmaceuticals Corporation and ADMA BioManufacturing, LLC (incorporated herein by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q, filed with the SEC on August 10, 2018).

10.7+	Plasma Purchase Agreement, dated as of June 6, 2017, by and between ADMA BioManufacturing, LLC and Biotest Pharmaceuticals Corporation (incorporated herein by reference to Exhibit 10.6 to the Company's Quarterly Report on Form 10-Q, filed with the SEC on August 11, 2017).
10.7.1+	Amendment to Plasma Purchase Agreement, dated as of July 19, 2018, by and between Biotest Pharmaceuticals Corporation and ADMA BioManufacturing, LLC (incorporated herein by reference to Exhibit 10.3 to the Company's Quarterly Report on Form 10-Q, filed with the SEC on August 10, 2018).
10.8	Amended and Restated Agreement for Services, effective as of January 1, 2016, as amended, by and between ADMA Biologics, LLC and Areth LLC (incorporated herein by reference to Exhibit 10.18 to the Company's Quarterly Report on Form 10-Q, filed with the SEC on August 12, 2016).
10.9	Lease, effective as of February 17, 2017, by and between Home Center Properties, LLC and ADMA BioCenters Georgia Inc. (incorporated herein by reference to Exhibit 10.22 to the Company's Annual Report on Form 10-K, filed with the SEC on February 24, 2017).
10.10	Form of Indemnification Agreement (incorporated herein by reference to Exhibit 10.12 to the Company's Current Report on Form 8-K, filed with the SEC on February 13, 2012).
10.11	Credit Agreement and Guaranty, dated as of February 11, 2019, by and among the Company, ADMA Plasma Biologics, Inc., ADMA BioCenters Georgia Inc., ADMA BioManufacturing, LLC, and Perceptive Credit Holdings II, LP. (incorporated herein by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K, filed with the SEC on February 12, 2019).
10.12	Amendment No. 1 to Credit Agreement and Guaranty, dated as of May 3, 2019, by and among the Company, ADMA Plasma Biologics, Inc., ADMA BioCenters Georgia Inc., ADMA BioManufacturing, LLC and Perceptive Credit Holdings II, LP (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed with the SEC on May 3, 2019).
10.13	Amendment No. 2 to the Credit Agreement and Guaranty, dated December 8, 2020, by and among the Company, ADMA Plasma Biologics, Inc., ADMA BioCenters Georgia Inc., ADMA BioManufacturing, LLC and Perceptive Credit Holdings II, LP. (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on December 9, 2020).
10.14	Security Agreement, dated as of February 11, 2019, by and among the Company, ADMA Plasma Biologics, Inc., ADMA Bio Centers Georgia Inc., ADMA BioManufacturing, LLC, and Perceptive Credit Holdings II, LP. (incorporated herein by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K, filed with the SEC on February 12, 2019).

10.15+	License Agreement, effective as of December 31, 2012, by and between ADMA Biologics, Inc. and Biotest AG (incorporated herein by reference to Exhibit 10.21 to the Company's Registration Statement on Form S-1, filed with the SEC on February 11, 2013).
10.15.1+	First Amendment to License Agreement, dated as of June 6, 2017, by and between the Company and Biotest AG (incorporated herein by reference to Exhibit 10.8 to the Company's Quarterly Report on Form 10-Q, filed with the SEC on August 11, 2017).
10.16+	Manufacturing Agreement, dated as of September 30, 2011, by and between ADMA BioManufacturing, LLC (as successor-in-interest to Biotest Pharmaceuticals Corporation) and Sanofi Pasteur S.A. (incorporated herein by reference to Exhibit 10.24 to the Company's Annual Report on Form 10-K, filed with the SEC on March 29, 2018).
10.16.1+	Amendment #2 to the Manufacturing Agreement, effective as of August 1, 2016, by and between ADMA BioManufacturing, LLC (as successor-in-interest to Biotest Pharmaceuticals Corporation) and Sanofi Pasteur S.A. (incorporated herein by reference to Exhibit 10.24.1 to the Company's Annual Report on Form 10-K, filed with the SEC on March 29, 2018).
10.16.2+	Amendment #3 to the Manufacturing Agreement, effective as of December 21, 2017, by and between ADMA BioManufacturing, LLC and Sanofi Pasteur S.A. (incorporated herein by reference to Exhibit 10.24.2 to the Company's Annual Report on Form 10-K, filed with the SEC on March 29, 2018).
10.17	Stockholders Agreement, dated as of June 6, 2017, by and between the Company and Biotest Pharmaceuticals Corporation (incorporated herein by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K, filed with the SEC on June 12, 2017).
10.18+	Transition Services Agreement, dated as of January 1, 2019, by and between the Company and Biotest Pharmaceuticals Corporation. (incorporated herein by reference to Exhibit 10.22 to the Company's Annual Report on Form 10-K, filed with the SEC on March 13, 2019)
10.19++	Amendment #1 to Transition Services Agreement, dated as of August 29, 2019, by and between ADMA BioManufacturing, LLC and Biotest Pharmaceuticals Corporation (incorporated by reference from Exhibit 10.1 to Current Report on Form 8-K, filed on September 5, 2019).
10.20	Amendment 3 to the Amended and Restated Agreement for Services, effective as of November 7, 2019, by and between ADMA Biologics, LLC and Areth LLC (incorporated herein by reference to the Exhibit 10.27 to the Company's Annual Report on Form 10-K filed March 12, 2020).
10.21	Distribution Agreement, dated September 3, 2021, by and between ADMA Biologics, Inc. and Raymond James & Associates, Inc. (incorporated by reference to Exhibit 1.1 to the Company's Current Report on Form 8-K filed on September 3, 2021).
10.22	Form of Retention Bonus Agreement (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on October 1, 2021).
10.23	Separation Agreement and Release, dated August 6, 2021, by and between ADMA Biologics, Inc. and James Mond (incorporated by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K filed on August 11, 2021).
10.24*	Credit Agreement and Guaranty, dated as of March 23, 2022, by and among the Company, Hayfin Services LLP and the lenders party thereto
10.25*	Security Agreement, dated as of March 23, 2022, by and among the Company, certain subsidiaries of the Company and Hayfin Services LLP.
21.1*	Subsidiaries of the Company.
23.1*	Consent of CohnReznick LLP.
31.1*	Certification of Principal Executive Officer pursuant to Rules 13a-14(a) and 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.

31.2*	Certification of Principal Financial Officer pursuant to Rules 13a-14(a) and 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1**	Certification of Principal Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2**	Certification of Principal Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101*	The following materials from ADMA Biologics, Inc. Form 10-K for the year ended December 31, 2021, formatted in Extensible Business Reporting Language (XBRL): (i) Consolidated Balance Sheets at December 31, 2021 and December 31, 2020, (ii) Consolidated Statements of Operations for the years ended December 31, 2021 and 2020, (iii) Consolidated Statements of Changes in Stockholders' Equity for the years ended December 31, 2021 and 2020, (iv) Consolidated Statements of Cash Flows for the years ended December 31, 2021 and 2020; and (v) Notes to Consolidated Financial Statements.
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101).

+ Confidential treatment has been granted with respect as to certain portions of this exhibit. Such portions have been redacted and submitted separately to the SEC.

++ Portions of this exhibit and the schedules thereto have been omitted pursuant to Item 601(b)(10)(iv) of Regulation S-K.

* Filed herewith.

** Furnished herewith.

† Management compensatory plan, contract or arrangement.

Item 16. Form 10-K Summary

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

ADMA Biologics, Inc.

Date: March 24, 2022

By: /s/ Adam S. Grossman
Name: Adam S. Grossman
Title: President and Chief Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated:

Signature	Title	Date
/s/ Adam S. Grossman Adam S. Grossman	President and Chief Executive Officer (Principal Executive Officer) and Director	March 24, 2022
/s/ Brian Lenz Brian Lenz	Executive Vice President and Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)	March 24, 2022
/s/ Steven A. Elms Steven A. Elms	Chairman of the Board of Directors	March 24, 2022
/s/ Dr. Jerrold B. Grossman Dr. Jerrold B. Grossman	Vice Chairman of the Board of Directors	March 24, 2022
/s/ Martha J. Demski Martha J. Demski	Director	March 24, 2022
/s/ Bryant E. Fong Bryant E. Fong	Director	March 24, 2022
/s/ Lawrence P. Guiheen Lawrence P. Guiheen	Director	March 24, 2022
/s/ Young T. Kwon Young T. Kwon	Director	March 24, 2022

ADMA BIOLOGICS, INC. AND SUBSIDIARIES

CONSOLIDATED FINANCIAL STATEMENTS

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and
Stockholders of ADMA Biologics, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of ADMA Biologics, Inc. and subsidiaries (the "Company") as of December 31, 2021 and 2020; the related consolidated statements of operations, changes in stockholders' equity, and cash flows for the years then ended; and, the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2021 and 2020, and the results of its operations and its cash flows for the years then ended in conformity with accounting principles generally accepted in the United States of America.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's consolidated financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) ("PCAOB") and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits, we are required to obtain an understanding of internal control over financial reporting, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current period audit of the consolidated financial statements that were communicated or required to be communicated to the audit committee and that: (1) relate to accounts or disclosures that are material to the consolidated financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing a separate opinion on the critical audit matters or on the accounts or disclosures to which they relate.

Inventory

Description of the matter

As of December 31, 2021, the Company's inventory totaled $124,724,091. As described in the notes to the consolidated financial statements, the valuation of inventory involves significant estimates relating to the capitalization of labor and overhead costs to the work in process and finished goods inventories as well as lower of cost or net realizable value considerations. Given the significance of the inventory value, the importance of inventory to the Company's operations, the various components and the multiple locations and the complexity of the computations, auditing the inventory was challenging and involved a relatively high degree of auditor judgement and subjectivity, extensive testing, and the involvement of more senior members of the engagement team to design the appropriate responsive audit procedures and to supervise, execute and review the test results.

How we addressed the matter in our audit

We obtained an understanding of and tested the Company's process to estimate labor and overhead in the inventory to devise our responsive audit approach. We performed substantive test procedures relating to the inventory valuation, which included verifying significant components of the valuation to supporting records, assessing the application of direct labor costs included in the valuation and assessing the appropriateness of the components of the indirect overhead pools as well as the application of such pool to the valuation. We verified the completeness and accuracy of the data used in management's valuation and the mathematical accuracy of the direct labor and overhead applications. To assess management's assertion that inventory is carried at the lower of cost or net realizable value, we tested subsequent sales transactions and net sales proceeds.

Sales Rebate Liabilities

Description of the matter

As disclosed in Note 2 to the consolidated financial statements, revenue from the sale of the Company's products is recorded net of estimated rebates, price protection arrangements and customer incentives, including prompt pay discounts, wholesaler chargebacks and other wholesaler fees. Estimated rebates are also attributable to government programs that mandate various reductions from list price, which are reflected as liabilities and settled through cash payments.

Auditing the sales rebate liabilities related to U.S. Medicaid, Medicare Part D, and managed care is complex because of the subjectivity of certain assumptions and judgements required to develop estimates. These significant assumptions and judgments include consideration of legal interpretations of applicable laws and regulations, historical claims experience, payer channel mix, current contract prices, unbilled claims and claims submission time lags. Additionally, auditing this matter is challenging given the Company's limited history in selling certain of its products.

How we addressed the matter in our audit

We obtained an understanding the Company's process to estimate rebate liabilities to devise our responsive audit approach. We performed substantive test procedures related to the rebate accruals, which included testing the significant assumptions and mathematical accuracy. We tested the completeness and accuracy of the data used in the estimates and developed expectations of the key inputs using independent sources. To address the completeness of the reserves, we also assessed the historical accuracy of management's estimates by comparing actual activity to previous estimates and performing analytical procedures. Finally, we considered subsequent events and any new information after the financial statement date that would require an adjustment to the accruals.

Liquidity Analysis

Description of the matter

The Company asserts that the cash on hand and certain other sources of funding as described in Note 1 to the consolidated financial statements provide sufficient liquidity to satisfy obligations for at least one year from the date of issuance of these consolidated financial statements. We concluded that liquidity considerations involved in the Company's ability to continue as a going concern are complex and therefore a critical audit matter as such are complex. Finally, there is a high degree of subjectivity in the estimates prepared by management and in our selection of appropriate audit procedures, resulting in this to be a challenging audit area.

How we addressed the matter in our audit

We obtained an understanding the Company's process to prepare cash flow projections to devise our responsive audit approach. We obtained and audited management's projections, considering their completeness with respect to cash obligations. Through cumulative audit knowledge, we applied judgement in obtaining evidence to support the projections and scrutinized the sources and probability of realization of the projected funds. We compared the data provided to sensitivity adjusted projections, made inquiries of management and applied our industry knowledge. Finally, we considered management's overall ability to put forth reasonable projections based on the performance of retrospective audit procedures on historic cash flow projections and based on the results of audit procedures applied to other estimates.

/s/ CohnReznick LLP

We have served as the Company's auditor since 2008.

Holmdel, New Jersey

March 24, 2022

ADMA BIOLOGICS, INC. AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS
December 31, 2021 and 2020

	December 31, 2021	December 31, 2020
ASSETS		
Current assets:		
Cash and cash equivalents	$ 51,089,118	$ 55,921,152
Accounts receivable, net	28,576,857	13,237,290
Inventories	124,724,091	81,535,599
Prepaid expenses and other current assets	4,339,245	3,046,466
Total current assets	208,729,311	153,740,507
Property and equipment, net	50,935,074	41,593,090
Intangible assets, net	1,728,768	2,444,121
Goodwill	3,529,509	3,529,509
Right to use assets	7,262,658	4,259,191
Deposits and other assets	4,067,404	2,106,976
TOTAL ASSETS	$ 276,252,724	$ 207,673,394
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 12,429,409	$ 11,073,708
Accrued expenses and other current liabilities	17,214,988	8,365,143
Current portion of deferred revenue	142,834	142,834
Current portion of lease obligations	591,084	365,682
Total current liabilities	30,378,315	19,947,367
Senior notes payable, net of discount	94,866,239	92,968,866
Deferred revenue, net of current portion	1,975,865	2,118,698
Lease obligations, net of current portion	7,462,388	4,334,151
Other non-current liabilities	397,351	54,886
TOTAL LIABILITIES	135,080,158	119,423,968
COMMITMENTS AND CONTINGENCIES		
STOCKHOLDERS' EQUITY		
Preferred Stock, $0.0001 par value, 10,000,000 shares authorized, no shares issued and outstanding	-	-
Common Stock - voting, $0.0001 par value, 300,000,000 and 150,000,000 shares authorized, 195,813,817 and 104,902,888 shares issued and outstanding	19,581	10,490
Additional paid-in capital	553,265,706	428,704,039
Accumulated deficit	(412,112,721)	(340,465,103)
TOTAL STOCKHOLDERS' EQUITY	141,172,566	88,249,426
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY	$ 276,252,724	$ 207,673,394

The accompanying notes are an integral part of these consolidated financial statements.

ADMA BIOLOGICS, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF OPERATIONS
Years Ended December 31, 2021 and 2020

	Years Ended December 31,	
	2021	**2020**
REVENUES:		
Product revenue	$ 80,799,791	$ 42,076,949
License revenue	142,834	142,834
Total revenues	80,942,625	42,219,783
Cost of product revenue	79,769,341	61,291,426
Gross profit (loss)	1,173,284	(19,071,643)
OPERATING EXPENSES:		
Research and development	3,646,060	5,907,013
Plasma center operating expenses	12,288,723	4,170,051
Amortization of intangible assets	715,353	715,353
Selling, general and administrative	42,896,889	35,050,817
Total operating expenses	59,547,025	45,843,234
LOSS FROM OPERATIONS	(58,373,741)	(64,914,877)
OTHER INCOME (EXPENSE):		
Interest income	34,532	288,126
Interest expense	(13,056,834)	(11,985,066)
Gain on extinguishment of debt	-	991,797
Other expense	(251,575)	(128,528)
Other expense, net	(13,273,877)	(10,833,671)
NET LOSS	$ (71,647,618)	$ (75,748,548)
BASIC AND DILUTED LOSS PER COMMON SHARE	$ (0.51)	$ (0.88)
WEIGHTED AVERAGE COMMON SHARES OUTSTANDING:		
Basic and Diluted	139,578,538	86,145,052

The accompanying notes are an integral part of these consolidated financial statements.

ADMA BIOLOGICS, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY
Years Ended December 31, 2021 and 2020

	Common Stock		Additional Paid-in Capital	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount			
Balance at December 31, 2019	59,318,355	$ 5,932	$ 290,903,772	$ (264,716,555)	$ 26,193,149
Stock-based compensation	-	-	2,855,122	-	2,855,122
Warrants issued in connection with note payable	-	-	3,740,980	-	3,740,980
Vesting of Restricted Stock Units	15,000	2	(2)	-	-
Issuance of common stock, net of offering expenses	45,562,907	4,555	131,190,736	-	131,195,291
Stock options exercised	6,626	1	13,431	-	13,432
Net loss	-	-	-	(75,748,548)	(75,748,548)
Balance at December 31, 2020	104,902,888	10,490	428,704,039	(340,465,103)	88,249,426
Stock-based compensation	-	-	3,488,253	-	3,488,253
Vesting of Restricted Stock Units, net of shares withheld for taxes and retired	64,900	6	(61,604)	-	(61,598)
Issuance of common stock, net of offering expenses	90,846,029	9,085	121,135,018	-	121,144,103
Net loss	-	-	-	(71,647,618)	(71,647,618)
Balance at December 31, 2021	195,813,817	$ 19,581	$ 553,265,706	$ (412,112,721)	$ 141,172,566

The accompanying notes are an integral part of these consolidated financial statements.

ADMA BIOLOGICS, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS
Years Ended December 31, 2021 and 2020

	Years Ended December 31,	
	2021	**2020**
CASH FLOWS FROM OPERATING ACTIVITIES:		
Net loss	$ (71,647,618)	$ (75,748,548)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	5,495,502	3,942,292
Loss on disposal of fixed assets	220,761	81,697
Stock-based compensation	3,488,253	2,855,122
Amortization of debt discount	1,897,373	1,782,428
Gain on extinguishment of debt	-	(991,797)
Amortization of license revenue	(142,834)	(142,834)
Changes in operating assets and liabilities:		
Accounts receivable	(15,339,567)	(9,767,371)
Inventories	(43,188,489)	(28,470,864)
Prepaid expenses and other current assets	(1,292,779)	(512,873)
Deposits and other assets	(1,775,205)	(196,749)
Accounts payable	1,355,700	1,899,115
Accrued expenses	8,341,341	3,401,815
Other current and non-current liabilities	218,580	(134,391)
Net cash used in operating activities	(112,368,982)	(102,002,958)
CASH FLOWS FROM INVESTING ACTIVITIES:		
Purchase of property and equipment	(13,511,258)	(12,726,680)
Proceeds from the sale of property and equipment	-	2,000
Net cash used in investing activities	(13,511,258)	(12,724,680)
CASH FLOWS FROM FINANCING ACTIVITIES:		
Principal payments on notes payable	-	(13,950,000)
Proceeds from issuance of common stock, net of offering expenses	121,144,103	131,195,291
Proceeds from the exercise of stock options	-	13,432
Payment of debt refinancing fees	-	(830,000)
Proceeds from issuance of note payable	-	27,500,000
Taxes paid on vested Restricted Stock Units	(61,598)	-
Payments on finance lease obligations	(34,299)	(32,068)
Net cash provided by financing activities	121,048,206	143,896,655
Net (decrease) increase in cash and cash equivalents	(4,832,034)	29,169,017
Cash and cash equivalents - beginning of year	55,921,152	26,752,135
Cash and cash equivalents - end of year	$ 51,089,118	$ 55,921,152

The accompanying notes are an integral part of these consolidated financial statements.

ADMA BIOLOGICS, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
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1. ORGANIZATION AND BUSINESS

ADMA Biologics, Inc. ("ADMA" or the "Company") is an end-to-end commercial biopharmaceutical company dedicated to manufacturing, marketing and developing specialty plasma-derived biologics for the treatment of immunodeficient patients at risk for infection and others at risk for certain infectious diseases. The Company's targeted patient populations include immune-compromised individuals who suffer from an underlying immune deficiency disorder or who may be immune-suppressed for medical reasons.

ADMA operates through its wholly-owned subsidiaries ADMA BioManufacturing, LLC ("ADMA BioManufacturing") and ADMA BioCenters Georgia Inc. ("ADMA BioCenters"). ADMA BioManufacturing was formed in January 2017 to facilitate the acquisition of the Biotest Therapy Business Unit ("BTBU") from BPC Plasma, Inc. (formerly Biotest Pharmaceuticals Corporation) ("BPC" and, together with Biotest AG, "Biotest") on June 6, 2017. The acquisition included certain assets (the "Biotest Assets") of BTBU, which included the FDA-licensed BIVIGAM and Nabi-HB immunoglobulin products, and an FDA-licensed plasma fractionation manufacturing facility located in Boca Raton, FL (the "Boca Facility") (the "Biotest Transaction"). BTBU had previously been the Company's third-party contract manufacturer. ADMA BioCenters is the Company's source plasma collection business with ten plasma collection facilities in various stages of approval and development located throughout the U.S., five of which hold an approved license with the U.S. Food and Drug Administration (the "FDA").

The Company has three FDA-approved products, all of which are currently marketed and commercially available: (i) BIVIGAM (Immune Globulin Intravenous, Human), an Intravenous Immune Globulin ("IVIG") product indicated for the treatment of Primary Humoral Immunodeficiency ("PI"), also known as Primary Immunodeficiency Disease ("PIDD"), and for which the Company received FDA approval on May 9, 2019 and commenced commercial sales in August 2019; (ii) ASCENIV (Immune Globulin Intravenous, Human – slra 10% Liquid), an IVIG product indicated for the treatment of PI, for which the Company received FDA approval on April 1, 2019 and commenced first commercial sales in October 2019; and (iii) Nabi-HB (Hepatitis B Immune Globulin, Human), which is indicated for the treatment of acute exposure to blood containing Hepatitis B surface antigen ("HBsAg") and other listed exposures to Hepatitis B. In addition to its commercially available immunoglobulin products, the Company provides contract manufacturing and laboratory services for certain clients and generates revenues from the sale of intermediate by-products that result from the immunoglobulin production process. The Company seeks to develop a pipeline of plasma-derived therapeutics, and its products and product candidates are intended to be used by physician specialists focused on caring for immune-compromised patients with or at risk for certain infectious diseases.

As of December 31, 2021, the Company had working capital of $178.4 million, including $51.1 million of cash and cash equivalents. Based upon the Company's current projected revenue and expenditures, including capital expenditures and continued implementation of the Company's commercialization and expansion activities, the Company's management currently believes that its cash, cash equivalents, projected revenue and accounts receivable, together with the remaining available funds under the distribution agreement discussed in Note 8 and the net proceeds received and expected to be received from the refinancing of the Company's senior debt on March 23, 2022 (see Note 17), will be sufficient to fund ADMA's operations, as currently conducted, into the first quarter of 2024, at which time the Company believes it will begin to generate positive cash flow from operations. These estimates may change based upon several factors, including the success of the Company's commercial sales of its products, whether or not the assumptions underlying the Company's projected revenues and expenses are correct and the acceptability of ADMA's immune globulin products by physicians, patients or payers. There can be no assurance that the Company's approved products will be commercially viable, or that plant capacity expansion, plasma center buildouts or other capital improvements will be successfully completed or that any product developed in the future will be approved. The Company is subject to risks common to companies in the biotechnology and pharmaceutical manufacturing industries including, but not limited to, dependence on collaborative arrangements, development by the Company or its competitors of new technological innovations, dependence on key personnel, inflationary pressures, supply chain constraints, protection of proprietary technology, and compliance with FDA and other governmental regulations and approval requirements. The Company is also continuing to evaluate a variety of strategic and financing alternatives through its ongoing engagement with Morgan Stanley as a financial advisor.

During the year ended December 31, 2021, the Company issued 90,846,029 shares of its common stock through an underwritten public offering and various open market sale agreements for its common stock and received net proceeds of $121.1 million.

2. SIGNIFICANT ACCOUNTING POLICIES

Principles of Consolidation and Basis of presentation

The accompanying consolidated financial statements include the accounts of ADMA and its wholly-owned subsidiaries, and have been prepared in conformity with accounting principles generally accepted in the United States of America ("U.S. GAAP") and in accordance with Article 8 of Regulation S-X of the Securities and Exchange Commission (the "SEC"). All intercompany balances have been eliminated in consolidation. Any reference in these notes to applicable guidance is meant to refer to U.S. GAAP as found in the Accounting Standards Codification ("ASC") and Accounting Standards Updates ("ASU") of the Financial Accounting Standards Board (the "FASB"). During the years ended December 31, 2021 and 2020, comprehensive loss was equal to the net loss amounts presented for the respective periods in the accompanying consolidated statements of operations.

Use of estimates

The preparation of financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates. Significant estimates include the realizable value of accounts receivable, valuation of inventory, assumptions used in projecting future liquidity and capital requirements, assumptions used in the fair value of awards granted under the Company's equity incentive plans and warrants issued in connection with the issuance of notes payable and the valuation allowance for the Company's deferred tax assets.

Cash and cash equivalents

The Company considers all highly-liquid instruments purchased with a maturity of three months or less to be cash equivalents.

The Company regularly maintains cash and cash equivalents at third-party financial institutions in excess of the Federal Deposit Insurance Corporation insurance limit. Although the Company monitors the daily cash balances in its operating accounts and adjusts the balances as appropriate, these balances could be impacted, and there could be a material adverse effect on the Company's business, if one or more of the financial institutions with which the Company has deposits fails or is subject to other adverse conditions in the financial or credit markets. To date, the Company has not experienced a loss or lack of access to its deposited cash or cash equivalents; however, the Company cannot provide assurance that access to its cash and cash equivalents will not be impacted by adverse conditions in the financial and credit markets in the future.

Accounts receivable

Accounts receivable is reported at realizable value, net of allowances for contractual credits and doubtful accounts in the amount of $0.2 million and $0.1 million at December 31, 2021 and December 31, 2020, respectively, which are recognized in the period the related revenue is recorded. The Company extends credit to its customers based upon an evaluation of each customer's financial condition and credit history. Evaluations of the financial condition and associated credit risk of customers are performed on an ongoing basis. Based on these evaluations, the Company has concluded that its credit risk is minimal. (see Note 16).

Inventories

Raw materials inventory consists of various materials purchased from suppliers, including normal source plasma, used in the production of the Company's products. Work-in-process and finished goods inventories (see Note 3) reflect the cost of raw materials as well as costs for direct and indirect labor, primarily salaries, wages and benefits for applicable employees, as well as an allocation of overhead costs related to the Boca Facility including utilities, property taxes, general repairs and maintenance, consumable supplies and depreciation. The allocation of Boca Facility overhead to inventory is generally based upon the estimated square footage of the Boca Facility that is used in the production of the Company's products relative to the total square footage of the facility.

Inventories, including plasma intended for resale and plasma intended for internal use in the Company's manufacturing, commercialization or research and development activities, are carried at the lower of cost or net realizable value determined by the first-in, first-out method. Net realizable value is generally determined based upon the consideration the Company expects to receive when the inventory is sold, less costs to deliver the inventory to the recipient. The estimates for net realizable value of inventory are based on contractual terms or upon historical experience and certain other assumptions, and the Company believes that such assumptions are reasonable. Inventory is periodically reviewed to ensure that its carrying value does not exceed its net realizable value, and adjustments are recorded to write down such inventory, with a corresponding charge to cost of product revenue, when the carrying value or historical cost exceeds its estimated net realizable value. In addition, costs associated with the production of conformance or engineering lots that would not qualify as immediately available for commercial sale are charged to cost of product revenue and not capitalized into inventory.

Property and equipment

Assets comprising property and equipment (see Note 4) are stated at cost less accumulated depreciation. Depreciation is calculated using the straight-line method over the asset's estimated useful life. Land is not depreciated. The buildings have been assigned a useful life of 30 years. Property and equipment other than land and buildings have useful lives ranging from 3 to 15 years. Leasehold improvements are amortized over the lesser of the lease term or their estimated useful lives.

Goodwill

Goodwill represents the excess of purchase price over the fair value of net assets acquired by the Company. Goodwill at December 31, 2021 and 2020 was $3.5 million, all of which is attributable to the Company's ADMA BioManufacturing business segment. There were no changes to the carrying amount of goodwill during the years ended December 31, 2021 and 2020.

Goodwill is not amortized but is assessed for impairment on an annual basis or more frequently if impairment indicators exist. The Company has the option to perform a qualitative assessment of goodwill to determine whether it is more likely than not that the fair value of its reporting unit is less than its carrying amount, including goodwill and other intangible assets. If the Company concludes that this is the case, then it must perform a goodwill impairment test by comparing the fair value of the reporting unit to its carrying value. An impairment charge is recorded to the extent the reporting unit's carrying value exceeds its fair value, not to exceed the total amount of goodwill allocated to that reporting unit. The Company performs its annual goodwill impairment test as of October 1 of each year. The Company's annual goodwill impairment tests as of October 1, 2021 and 2020 did not result in any impairment charges related to goodwill for the years ended December 31, 2021 and 2020.

Impairment of long-lived assets

The Company assesses the recoverability of its long-lived assets, which include property and equipment and finite-lived intangible assets, whenever significant events or changes in circumstances indicate impairment may have occurred. If indicators of impairment exist, projected future undiscounted cash flows associated with the asset are compared to its carrying amount to determine whether the asset's carrying value is recoverable. Any resulting impairment is recorded as a reduction in the carrying value of the related asset in excess of fair value and a charge to operating results. For the years ended December 31, 2021 and 2020, the Company determined that there was no impairment of its long-lived assets.

Revenue recognition

Revenues for the years ended December 31, 2021 and 2020 are comprised of (i) revenues from the sale of the Company's immunoglobulin products, BIVIGAM, ASCENIV and Nabi-HB, (ii) product revenues from the sale of human plasma collected by the Company's Plasma Collection Centers business segment, (iii) contract manufacturing and laboratory services revenue, (iv) revenues from the sale of intermediate by-products; and (v) license and other revenues primarily attributable to the out-licensing of ASCENIV to Biotest in 2012 to market and sell this product in Europe and selected countries in North Africa and the Middle East. Biotest has provided the Company with certain services and financial payments in accordance with the related Biotest license agreement and is obligated to pay the Company certain amounts in the future if certain milestones are achieved. Deferred revenue is amortized into income over the term of the Biotest license, representing a period of approximately 22 years.

Product revenue is recognized when the customer is deemed to have control over the product. Control is determined based on when the product is shipped or delivered and title passes to the customer. Revenue is recorded in an amount that reflects the consideration the Company expects to receive in exchange. Revenue from the sale of the Company's immunoglobulin products is recognized when the product reaches the customer's destination, and is recorded net of estimated rebates, price protection arrangements and customer incentives, including prompt pay discounts, wholesaler chargebacks and other wholesaler fees. These estimates are based on historical experience and certain other assumptions, and the Company believes that such estimates are reasonable. For revenues associated with contract manufacturing and the sale of intermediates, control transfers to the customer and the performance obligation is satisfied when the customer takes possession of the product from the Boca Facility or from a third-party warehouse that is utilized by the Company.

Product revenues from the sale of human plasma collected at the Company's plasma collection centers are recognized at the time control of the product has been transferred to the customer, which generally occurs at the time of shipment. Product revenues are recognized at the time of delivery if the Company retains control of the product during shipment.

Cost of product revenue

Cost of product revenue includes costs associated with the manufacture of the Company's FDA approved products, intermediates and the sale of human source plasma, as well as expenses related to conformance batch production, process development and scientific and technical operations when these operations are attributable to marketed products. When the activities of these operations are attributable to new products in development, the expenses are classified as research and development expenses.

Research and development expenses

Research and development expenses consist of clinical research organization costs, costs related to clinical trials, post-marketing commitment studies for BIVIGAM and ASCENIV, wages, benefits and stock-based compensation for employees directly related to research and development activities. All research and development costs are expensed as incurred.

Advertising and marketing expenses

Advertising and marketing expense includes cost for promotional materials and trade show expenses for the marketing of the Company's products and services and expenses incurred for attracting donors to the Company's plasma collection centers. All advertising and marketing expenses are expensed as incurred. Advertising and marketing expenses were $1.4 million and $1.1 million for the years ended December 31, 2021 and 2020, respectively.

Stock-based compensation

The Company follows recognized accounting guidance which requires all equity-based payments, including grants of stock options, to be recognized in the statement of operations as compensation expense based on their fair values at the date of grant. Compensation expense related to awards to employees and directors with service-based vesting conditions is recognized on a straight-line basis over the associated vesting period of the award based on the grant date fair value of the award. Stock options granted under the Company's equity incentive plans generally have a four-year vesting period and a term of 10 years. For milestone-based equity awards (see Note 8) the Company periodically assesses the probability of vesting for each milestone-based award and adjusts compensation expense based on its probability assessment. Pursuant to ASU No. 2016-09, *Improvements to Employee Share-Based Payment Accounting (Topic 718)*, the Company has elected not to establish a forfeiture rate, as stock-based compensation expense related to forfeitures of unvested equity awards is fully reversed at the time of forfeiture.

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Income taxes

The Company recognizes deferred tax assets and liabilities for the expected future tax consequences of events that have been included in the consolidated financial statements or its tax returns. Under this method, deferred tax assets and liabilities are recognized for the temporary differences between the tax bases of assets and liabilities and their respective financial reporting amounts at enacted tax rates in effect for the years in which the temporary differences are expected to reverse. The Company records a valuation allowance on its deferred tax assets if it is more likely than not that the Company will not generate sufficient taxable income to utilize its deferred tax assets (see Note 11). The Company is subject to income tax examinations by major taxing authorities for all tax years since 2017 and for previous periods as it relates to the Company's net operating loss carryforwards.

Loss Per Share

Basic loss per share is computed by dividing net loss attributable to common stockholders by the weighted average number of shares of common stock outstanding during the period. Diluted loss per share is calculated by dividing net loss attributable to common stockholders as adjusted for the effect of dilutive securities, if any, by the weighted average number of shares of common stock and dilutive common stock outstanding during the period. Potentially dilutive common stock includes the shares of common stock issuable upon the exercise of outstanding stock options and warrants (using the treasury stock method). Potentially dilutive common stock in the diluted net loss per share computation is excluded to the extent that it would be anti-dilutive. No potentially dilutive securities are included in the computation of any diluted per share amounts as the Company reported a net loss for all periods presented. For the years ended December 31, 2021 and 2020, the following securities were excluded from the calculation of diluted loss per common share because of their anti-dilutive effects:

	For the Years Ended December 31,	
	2021	**2020**
Stock options	7,862,722	6,922,931
Restricted stock units	4,485,133	326,000
Warrants	4,528,160	4,528,160
	16,876,015	11,777,091

Fair value of financial instruments

The carrying amounts of certain of the Company's financial instruments, including cash and cash equivalents, accounts receivable and accounts payable are shown at cost, which approximates fair value due to the short-term nature of these instruments. The debt outstanding under the Company's senior notes payable (see Note 7) approximates fair value due to the variable interest rate on this debt.

Recent Accounting Pronouncements

In June 2016, the Financial Accounting Standards Board (the "FASB") issued Accounting Standards Update ("ASU") No. 2016-13, *Financial Instruments – Credit Losses (Topic 326)* ("ASU 2016-13"), which requires financial assets to be presented at the net amount expected to be collected, with an allowance for credit losses to be deducted from the amortized cost basis of the financial asset such that the net carrying value of the asset is presented as the amount expected to be collected. Under ASU 2016-13, the entity's statement of operations is required to reflect the measurement of credit losses for newly recognized financial assets, as well as expected increases or decreases in expected credit losses that have taken place during the period. For public business entities, ASU 2016-13 is effective for fiscal years beginning after December 15, 2019. The Company adopted ASU No. 2016-13 on January 1, 2020, and the adoption of this update did not have a significant impact on the Company's consolidated financial statements.

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3. INVENTORIES

The following table provides the components of inventories:

	December 31, 2021	December 31, 2020
Raw materials	$ 36,755,720	$ 32,044,393
Work-in-process	58,968,535	30,293,288
Finished goods	28,999,836	19,197,918
Total inventories	$ 124,724,091	$ 81,535,599

Raw materials includes plasma and other materials expected to be used in the production of BIVIGAM, ASCENIV and Nabi-HB. These materials will be consumed in the production of goods expected to be available for sale or otherwise have alternative uses that provide a probable future benefit. All other activities and materials associated with the production of inventories used in research and development activities are expensed as incurred.

Work-in-process inventory primarily consists of bulk drug substance and unlabeled filled vials of the Company's immunoglobulin products.

Finished goods inventory is comprised of immunoglobulin product inventory and related intermediates that are available for commercial sale, as well as plasma collected at the Company's plasma collection center which is expected to be sold to third-party customers.

4. PROPERTY AND EQUIPMENT

Property and equipment at December 31, 2021 and 2020 is summarized as follows:

	December 31, 2021	December 31, 2020
Manufacturing and laboratory equipment	$ 16,702,991	$ 14,468,874
Office equipment and computer software	4,082,462	3,253,528
Furniture and fixtures	3,389,140	2,389,585
Construction in process	5,496,222	3,336,557
Leasehold improvements	11,129,639	5,272,490
Land	4,339,441	4,339,441
Buildings and building improvements	19,067,032	17,396,557
	64,206,927	50,457,032
Less: Accumulated depreciation	(13,271,853)	(8,863,942)
Total property, plant and equipment, net	$ 50,935,074	$ 41,593,090

The Company recorded depreciation expense on property and equipment of $4.8 million and $3.2 million for the years ended December 31, 2021 and 2020, respectively.

5. INTANGIBLE ASSETS

Intangible assets at December 31, 2021 and 2020 consist of the following:

	December 31, 2021			December 31, 2020		
	Cost	Accumulated Amortization	Net	Cost	Accumulated Amortization	Net
Trademark and other intangible rights related to Nabi-HB	$ 4,100,046	$ 2,684,554	$ 1,415,492	$ 4,100,046	$ 2,098,833	$ 2,001,213
Rights to intermediates	907,421	594,145	313,276	907,421	464,513	442,908
	$ 5,007,467	$ 3,278,699	$ 1,728,768	$ 5,007,467	$ 2,563,346	$ 2,444,121

Under the previous contract manufacturing agreement between ADMA and BPC, intermediate by-products derived from the manufacture of ASCENIV were property of Biotest. As a result of the Biotest Transaction, ADMA obtained the right to these intermediate products, which are being amortized over a period of seven years. The intangible rights to Nabi-HB are also being amortized over a period of seven years.

Amortization expense related to the Company's intangible assets for the years ended December 31, 2021 and 2020 was $0.7 million. Estimated aggregate future aggregate amortization expense is expected to be as follows:

2022	$ 715,352
2023	715,352
2024	298,064

6. ACCRUED EXPENSES AND OTHER LIABILITIES

Accrued expenses and other current liabilities at December 31, 2021 and 2020 are as follows:

	December 31, 2021	December 31, 2020
Accrued rebates	$ 5,040,200	$ 2,604,245
Accrued distribution fees	4,739,651	828,120
Accrued incentives	4,066,109	3,210,884
Accrued testing	1,189,970	779,660
Accrued payroll	1,167,072	734,972
Other	1,011,986	207,262
Total accrued expenses and other current liabilities	$ 17,214,988	$ 8,365,143

7. NOTES PAYABLE

Senior Notes Payable

A summary of outstanding senior notes payable is as follows:

	December 31, 2021	December 31, 2020
Notes payable	$ 100,000,000	$ 100,000,000
Less:		
Debt discount	(5,133,761)	(7,031,134)
Senior notes payable	$ 94,866,239	$ 92,968,866

On February 11, 2019 (the "Perceptive Closing Date"), the Company and all of its subsidiaries entered into a Credit Agreement and Guaranty (the "Perceptive Credit Agreement") with Perceptive Credit Holdings II, LP, as the lender and administrative agent ("Perceptive"). The Perceptive Credit Agreement, as amended, provides for a senior secured term loan facility in a principal amount of $100.0 million (the "Perceptive Credit Facility"), comprised of (i) a term loan made on the Perceptive Closing Date in the principal amount of $45.0 million, as evidenced by the Company's issuance of a promissory note (the "Perceptive Tranche I Note") in favor of Perceptive on the Perceptive Closing Date (the "Perceptive Tranche I Loan"), (ii) a term loan in the principal amount of $27.5 million (the "Perceptive Tranche II Loan") evidenced by the Company's issuance of a promissory note (the "Perceptive Tranche II Note") in favor of Perceptive on May 3, 2019, (iii) a term loan in the principal amount of $12.5 million evidenced by the Company's issuance of a promissory note (the "Perceptive Tranche III Note") in favor of Perceptive on March 20, 2020 (the "Perceptive Tranche III Loan"); and (iv) a term loan in the principal amount of $15 million evidenced by our issuance of a promissory note in favor of Perceptive on December 8, 2020 (the "Perceptive Tranche IV Loan", and together with the Perceptive Tranche I Loan, the Perceptive Tranche II Loan and the Perceptive Tranche III Loan, the "Perceptive Loans"). The Perceptive Tranche III Loan is the result of an amendment to the Perceptive Credit Agreement that the Company and Perceptive entered into on May 3, 2019 (the "First Perceptive Amendment"), and the Perceptive Tranche III Loan became available to the Company upon the approval of BIVIGAM on May 9, 2019. The Perceptive Tranche IV Loan is the result of an amendment to the Perceptive Credit Facility entered into on December 8, 2020 (the "Second Perceptive Amendment"), which also extended the maturity date of the Perceptive Credit Facility to March 1, 2024 (the "Maturity Date"), subject to acceleration pursuant to the Perceptive Credit Agreement, including upon an Event of Default (as defined in the Perceptive Credit Agreement). Also on December 8, 2020, the Company retired a subordinated note payable to Biotest in the principal amount of $15.0 million with the proceeds from the Perceptive Tranche IV Loan. As part of this transaction, Biotest agreed to a 7% discount from the principal, and the obligation under the note was satisfied by a payment by the Company of approximately $14.0 million. As a result, the Company recorded a gain on the extinguishment of the note of approximately $1.0 million.

Borrowings under the Perceptive Credit Agreement bear interest at a rate per annum equal to 7.5% plus the greater of (i) one-month LIBOR and (ii) 3.5%; provided, however, that upon, and during the continuance of, an Event of Default, the interest rate will automatically increase by an additional 400 basis points. Accrued interest was payable to Perceptive on the last day of each month during the term of the Perceptive Credit Facility. The rate of interest in effect as of the Perceptive Closing Date and at December 31, 2021 was 11.0%.

On the Maturity Date, the Company was to have paid Perceptive the entire outstanding principal amount underlying the Perceptive Loans and any accrued and unpaid interest thereon. There were no scheduled principal payments on the Perceptive Loans prior to the Maturity Date. On March 23, 2022, the Company retired in full all of its outstanding obligations under the Perceptive Credit Agreement, including a redemption premium of $2.0 million per the amended terms of the Perceptive Credit Agreement, using the proceeds received from a new senior credit facility the Company entered into on that date (see Note 17).

All of the Company's obligations under the Perceptive Credit Agreement were secured by a first-priority lien and security interest in substantially all of the Company's tangible and intangible assets, including intellectual property and all of the equity interests in the Company's subsidiaries. The Perceptive Credit Agreement contained certain representations and warranties, affirmative covenants, negative covenants and conditions that are customarily required for similar financings. The negative covenants restricted or limited the ability of the Company and its subsidiaries to, among other things and subject to certain exceptions contained in the Perceptive Credit Agreement, incur new indebtedness; create liens on assets; engage in certain fundamental corporate changes, such as mergers or acquisitions, or changes to the Company's or its subsidiaries' business activities; make certain Investments or Restricted Payments (each as defined in the Perceptive Credit Agreement); change its fiscal year; pay dividends; repay other certain indebtedness; engage in certain affiliate transactions; or enter into, amend or terminate any other agreements that had the impact of restricting the Company's ability to make loan repayments under the Perceptive Credit Agreement. In addition, the Company was required (i) at all times prior to the Maturity Date to maintain a minimum cash balance of $3.0 million; and (ii) as of the last day of each fiscal quarter commencing with the fiscal quarter ended June 30, 2019, report revenues for the trailing 12-month period that exceed the amounts set forth in the Perceptive Credit Agreement, which ranged from $7.0 million for the fiscal quarter ended June 30, 2019 to $55.0 million for the fiscal quarter ending December 31, 2021. At December 31, 2021, the Company was in compliance with all of the covenants contained in the Perceptive Credit Agreement.

As consideration for the Perceptive Credit Agreement, the Company issued to Perceptive a warrant to purchase 1,360,000 shares of the Company's common stock (the "Perceptive Warrant") on the Perceptive Closing Date. The Perceptive Warrant has an exercise price equal to $3.28 per share, which is equal to the trailing 10-day volume weighted average price ("VWAP") of the Company's common stock on the business day immediately prior to the Perceptive Closing Date multiplied by 1.15. The Company valued the Perceptive Warrant at $2.7 million as of the Perceptive Closing Date and it has an expiration date of February 11, 2029. In connection with the First Perceptive Amendment, the Company issued an additional warrant (the "Perceptive Tranche III Warrant") to purchase 250,000 shares of the Company's common stock to Perceptive with an exercise price equal to $4.64 per share, which represents the trailing 10-day VWAP of the Company's common stock as of May 2, 2019. The Perceptive Tranche III Warrant was valued by the Company at $0.9 million and has an expiration date of May 3, 2029. As consideration for the Second Perceptive Amendment, the Company issued an additional warrant (the "Perceptive Tranche IV Warrant" and, together with the Perceptive Warrant and the Perceptive Tranche III Warrant, the "Perceptive Warrants") to purchase 2,390,000 shares of the Company's common stock to Perceptive with an exercise price of $1.94 per share, which is equal to the trailing 10-day VWAP of the Company's common stock on the business day immediately prior to the date of the Perceptive Second Amendment. The Perceptive Tranche IV Warrant was valued by the Company at $3.7 million and has an expiration date of December 8, 2030. Perceptive had represented to the Company, among other things, that it was an "accredited investor" (as such term is defined in Rule 501(a) of Regulation D under the Securities Act) and the Company issued the Perceptive Warrants in reliance upon an exemption from registration contained in Section 4(2) under the Securities Act. The Perceptive Warrants and the shares of common stock issuable thereunder may not be offered, sold, pledged or otherwise transferred in the U.S. absent registration or an applicable exemption from the registration requirements under the Securities Act.

As a result of the fees paid to Perceptive and the value of the Perceptive Warrants, the Company recognized an aggregate discount on the Perceptive Loans in the amount of $7.1 million. The Company records debt discount as a reduction to the face amount of the debt, and the debt discount is amortized as interest expense over the life of the debt using the interest method. Based on the fair value of the Perceptive Warrants and the aggregate amount of fees and expenses associated with obtaining the Perceptive Credit Facility, the effective interest rate on the Perceptive Loans since December 8, 2020 was approximately 13.7%.

8. STOCKHOLDERS' EQUITY

Preferred Stock

The Company is currently authorized to issue up to 10 million shares of preferred stock, $0.0001 par value per share. There were no shares of preferred stock outstanding at December 31, 2021 and 2020.

Common Stock

As of December 31, 2021 and 2020, the Company was authorized to issue 300,000,000 and 150,000,000 shares, respectively, of its common stock, $0.0001 par value per share, and 195,813,817 and 104,902,888 shares of common stock were outstanding as of December 31, 2021 and 2020, respectively. On May 27, 2021, the Company amended its Second Amended and Restated Certificate of Incorporation to increase the number of shares of common stock that the Company is authorized to issue from 150,000,000 to 300,000,000. After giving effect to shares reserved for the issuance of warrants and for awards issued under the Company's equity incentive plans, 87,241,078 shares of common stock were available for issuance as of December 31, 2021.

On October 25, 2021, the Company completed an underwritten public offering whereby the Company issued 57.5 million shares of common stock and received gross proceeds of $57.5 million. Net proceeds after underwriting discounts and expenses associated with the offering, were approximately $53.8 million, and are being used (i) to advance the commercial sales of the Company's FDA approved products through the procurement of raw materials for the manufacturing of BIVIGAM and ASCENIV; (ii) to expand the Company's plasma collection facility network; (iii) to scale up the manufacturing capacity of the Boca Facility and make continuous improvements in order to adhere to cGMP compliance; (iv) to explore business development opportunities; and (v) for general corporate purposes and other capital expenditures.

On September 3, 2021, the Company entered into a distribution agreement with Raymond James & Associates, Inc., as agent ("Agent"), pursuant to which the Company may offer and sell, from time to time, at its option, through or to the Agent, up to an aggregate of $50 million of shares of the Company's common stock (the "Distribution Agreement"). The Company currently intends to use any net proceeds from the sale of its common stock under the Distribution Agreement for general corporate purposes, including procurement of source plasma and other raw materials, supply chain initiatives and production expenditures, funding expansion of plasma centers, working capital, capital expenditures, expansion and resources for commercialization activities, and other potential research and development and business opportunities. During the year ended December 31, 2021, the Company issued 5,540,831 shares of its common stock under the Distribution Agreement and received net proceeds of $6.9 million.

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On August 5, 2020, the Company entered into an open market sale agreement (as amended from time to time, the "Sale Agreement") with Jefferies LLC ("Jefferies"), pursuant to which the Company could offer and sell, from time to time, at its option, through or to Jefferies, up to an aggregate of $50 million of shares of the Company's common stock. On November 5, 2020 and February 3, 2021, the Company and Jefferies amended the Sale Agreement to provide for increases in the aggregate offering amount under the Sale Agreement such that the Company could sell shares having an aggregate offering price of up to $105.4 million under the Sale Agreement, as amended. For the year ended December 31, 2021, the Company issued and sold 27,805,198 shares of common stock under the 2020 Sale Agreement and received net proceeds of $60.4 million. For the year ended December 31, 2020, the Company sold 18,537,907 shares of common under the Sale Agreement and received net proceeds of $42.5 million.

On February 11, 2020, the Company completed an underwritten public offering of 23,500,000 shares of its common stock for gross proceeds of $82.3 million. On February 21, 2020, the Company sold an additional 3,525,000 shares pursuant to the underwriters' exercise of their option to purchase additional shares of the Company's common stock for additional gross proceeds of $12.3 million. The Company received net proceeds, after underwriting discounts and other expenses associated with the offering, of approximately $88.7 million.

During the year ended December 31, 2020, the Company issued 6,626 shares of common stock in connection with the exercise of stock options that had been granted to employees.

Warrants

On December 8, 2020, the Company issued the Perceptive Tranche IV Warrant, whereby Perceptive may purchase an aggregate of 2,390,000 shares of common stock at an exercise price $1.94 per share (see Note 7). The warrant was valued at $3.7 million, using the Black-Scholes option-pricing model assuming an expected term of 10 years, a volatility of 69.3%, a dividend yield of 0% and a risk-free interest rate of 0.92%.

At December 31, 2021 and 2020, the Company had outstanding warrants to purchase an aggregate of 4,528,160 shares of common stock, with a weighted average exercise price of $2.82 per share and expiration dates ranging between June 2022 and December 2030.

Equity Incentive Plans

From time to time the Company grants stock options or other equity-based awards under the Company's Amended and Restated 2014 Omnibus Incentive Compensation Plan (the "2014 Plan").

The 2014 Plan, as amended, was approved by the Board on March 15, 2017 and by the Company's stockholders on May 25, 2017. Currently, the maximum number of shares reserved for grant under the 2014 Plan is: (a) 2,334,940 shares; plus (b) an annual increase as of the first day of the Company's fiscal year, beginning in 2018 and occurring each year thereafter through 2022, equal to 4% of the outstanding shares of common stock as of the end of the Company's immediately preceding fiscal year, or any lesser number of shares determined by the Board; provided, however, that no more than an aggregate of 10 million shares of common stock may be issued pursuant to incentive stock options intended to qualify under Section 422 of the Internal Revenue Code. As of December 31, 2021, an aggregate of 69,090 shares were available for issuance under the 2014 Plan. In accordance with the foregoing, on January 1, 2022 the aggregate number of shares available for issuance increased to 7,901,643.

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During the years ended December 31, 2021 and 2020, the Company granted options to purchase an aggregate of 1,895,550 and 1,468,412 shares of common stock, respectively, to its directors, employees and certain third-party service providers. The fair value of stock options granted was determined on the date of grant using the Black-Scholes model. The Black-Scholes option valuation model was developed for use in estimating the fair value of publicly traded options, which have no vesting restrictions and are fully transferable. The Company's employee stock options have characteristics significantly different from those of traded options, and changes in the underlying Black-Scholes assumptions can materially affect the fair value estimate. To determine the risk-free interest rate, the Company utilized the U.S. Treasury yield curve in effect at the time of the grant with a term consistent with the term of the awards granted by the Company. The expected term of the options granted is in accordance with Staff Accounting Bulletins 107 and 110, which is based on the average between vesting terms and contractual terms. The expected dividend yield reflects the Company's current and expected future policy for dividends on the Company's common stock. For the years ended December 31, 2021 and 2020, the expected stock price volatility for the Company's stock options was calculated by examining the historical volatility of the Company's common stock since the stock became publicly traded in the fourth quarter of 2013.

The grant date fair values of stock options awarded during the years ended December 31, 2021 and 2020 were determined using the Black-Scholes option-pricing model with the following assumptions:

	Years Ended	
	December 31, 2021	**December 31, 2020**
Expected term	5.5-6.3 years	5.5-6.3 years
Volatility	68-70%	62-70%
Dividend yield	0.0	0.0
Risk-free interest rate	0.80-1.27%	0.33-1.68%

The 2014 Plan provides for the Board or a Committee of the Board (the "Committee") to grant awards to optionees and to determine the exercise price, vesting term, expiration date and all other terms and conditions of the awards, including acceleration of the vesting of an award at any time. All options granted under the 2014 Plan are intended to be incentive stock options ("ISOs"), unless specified by the Committee to be non-qualified options ("NQOs") as defined by the Internal Revenue Code. ISOs and NQOs may be granted to employees, consultants or Board members at an option price not less than the fair market value of the common stock subject to the stock option agreement. The following table summarizes information about stock options outstanding as of December 31, 2021 and 2020:

	Shares	**Weighted Average Exercise Price**
Options outstanding, vested and expected to vest at December 31, 2019	5,630,351	$ 4.76
Forfeited	(141,724)	$ 3.81
Expired	(27,482)	$ 4.26
Granted	1,468,412	$ 2.93
Exercised	(6,626)	$ 2.03
Options outstanding, vested and expected to vest at December 31, 2020	6,922,931	$ 4.40
Forfeited	(529,202)	$ 2.89
Expired	(426,557)	$ 4.91
Granted	1,895,550	$ 2.14
Exercised	-	-
Options outstanding, vested and expected to vest at December 31, 2021	7,862,722	$ 3.93
Options exercisable	5,521,312	$ 4.54

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As of December 31, 2021, the Company had $3.1 million of unrecognized compensation expense related to stock options granted under the Company's equity incentive plan, which is expected to be recognized over a weighted-average period of 2.4 years. The weighted average remaining contractual term of stock options outstanding and expected to vest at December 31, 2021 is 6.1 years. The weighted average remaining contractual term of stock options exercisable at December 31, 2021 is 4.9 years.The following table summarizes additional information regarding outstanding and exercisable options under the stock option plans at December 31, 2021:

	Stock Options Outstanding				Stock Options Exercisable			
Range of Exercise Prices	Options Outstanding	Weighted Average Remaining Contractual Life (Years)	Weighted Average Exercise Price	Aggregate Intrinsic Value	Options Outstanding	Weighted Average Remaining Contractual Life (Years)	Weighted Average Exercise Price	Aggregate Intrinsic Value
$1.10 - $1.67	352,500	9.6	$ 1.10	$ 35,935	15,583	9.8	$ 1.10	$ 4,831
$1.73 - $2.60	1,673,518	8.9	$ 2.42	-	374,318	8.5	$ 2.42	-
$2.62 - $3.93	4,209,177	5.9	$ 3.51	-	3,554,848	5.6	$ 3.51	-
$3.98 - $5.97	487,040	5.6	$ 5.07	-	442,202	5.4	$ 5.07	
$6.02 - $9.03	892,987	1.1	$ 7.74	-	886,861	1.0	$ 7.74	
$9.37 - $10.80	247,500	2.9	$ 10.28	-	247,500	2.9	$ 10.28	-
	7,862,722	6.1	$ 3.93	$ 35,935	5,521,312	4.9	$ 4.54	$ 4,831

During the years ended December 31, 2021 and 2020, the Company granted Restricted Stock Units ("RSUs") representing an aggregate of 4,384,744 and 361,000 shares, respectively, to certain management employees of the Company and, during 2020, to members of its Board of Directors (the "Board"). Except for the RSUs granted under the Company's retention incentive program discussed below, the RSUs generally vest annually over a period of four years for employees and semi-annually over a period of one year for directors. The RSUs granted during the year ended December 31, 2021 include 3,832,500 shares granted under a retention incentive program implemented by the Company for its executive management and certain employees (see Note 10), whereby the Company issued an aggregate of 2,685,000 time-based RSUs and 1,147,500 milestone-based RSUs. Fifty percent of the time-based RSUs granted under the retention incentive program vest on December 31, 2022, with the remainder vesting in quarterly installments through December 31, 2024. The milestone-based RSUs will vest upon achievement of the applicable milestone, with each milestone required to be achieved on or prior to December 31, 2022.

The milestones required to be achieved in order for the milestone-based RSUs to vest were determined by the Board and are consistent with the 2022 operating plan approved by the Board. The Company will periodically assess the probability of vesting for each milestone-based RSU and will adjust compensation expense based on its probability assessment. In connection with the completion of the refinancing of the Company's senior credit facility on March 23, 2022 (see Note 17), 254,745 milestone-based RSUs vested.

During the year ended December 31, 2021, 92,750 shares vested in connection with grants of RSUs. With respect to these vested RSUs, 27,850 shares valued at approximately $62,000 were withheld by the Company to cover employees' tax liabilities. These shares have been retired by the Company and were no longer outstanding as of December 31, 2021. A summary of the Company's unvested RSU activity and related information is as follows:

	Shares	Weighted Average Grant Date Fair Value
Balance at December 31, 2019	-	$ -
Granted	361,000	$ 2.82
Vested	(15,000)	$ 2.92
Forfeited	(20,000)	$ 2.83
Balance at December 31, 2020	326,000	$ 2.81
Granted	4,384,744	$ 1.30
Vested	(92,750)	$ 2.82
Forfeited	(132,861)	$ 2.51
Balance at December 31, 2021	4,485,133	$ 1.34

As of December 31, 2021, the Company had $5.1 million of unrecognized compensation expense related to unvested RSUs granted under the Company's equity incentive plan, which is expected to be recognized over a weighted-average period of 2.6 years.

Total stock-based compensation expense for all awards granted under the Company's equity incentive plan for the years ended December 31, 2021 and 2020 was as follows:

	2021	2020
Research and development	$ 153,924	$ 471,146
Plasma center operating expenses	60,257	33,464
Selling, general and administrative	2,958,008	2,107,577
Cost of product revenue	316,064	242,935
Total stock-based compensation expense	$ 3,488,253	$ 2,855,122

9. RELATED PARTY TRANSACTIONS

The Company leases an office building and equipment from Areth, LLC ("Areth") pursuant to an agreement for services effective as of January 1, 2016, as amended from time to time. Effective October 1, 2017, monthly rent on this facility was reduced to $10,000. On September 27, 2018, the agreement was amended to extend the term of the agreement through September 30, 2019. On November 7, 2019, an additional amendment was entered into between Areth and the Company to extend the term of this agreement through September 30, 2020, and to provide for automatic one-year renewals unless ADMA gives written notice of termination to Areth 60 days prior to the end of the term. The Company did not provide such written notice to Areth as of July 31, 2021. Rent expense for the years ended December 31, 2021 and 2020 amounted to $0.1 million. Areth is a company controlled by Dr. Jerrold B. Grossman, the Vice Chairman of the Company's Board of Directors, and Adam S. Grossman, the Company's President and Chief Executive Officer. The Company also reimburses Areth for office, warehousing and building related (common area) expenses, equipment and certain other operational expenses, which were not material to the consolidated financial statements for the years ended December 31, 2021 and 2020.

During the years ended December 31, 2021 and 2020, the Company purchased certain specialized medical equipment and services related to the Company's plasma collection centers, as well as personal protective equipment, from GenesisBPS and its affiliates ("Genesis") in the amount of $0.2 million and $0.1 million, respectively. Genesis is owned by Dr. Grossman and Adam Grossman.

See Notes 7 and 17 for a discussion of the Company's credit facility and related transactions with Perceptive, a holder of more than 5% of the Company's common stock.

During the year ended December 31, 2021, in connection with the resignation of Dr. James Mond, the Company's former Chief Scientific and Medical Officer, the Company recognized an expense and corresponding liability in the amount of $0.8 million for payments to be made under a separation and transition agreement with Dr. Mond. Such payments are to be made in scheduled installments over a period of 10 months.

In connection with the 2021 public offering of the Company's common stock (see Note 8) on October 25, 2021: (i) Mr. Grossman purchased 100,000 shares of common stock directly and 250,000 shares of common stock indirectly through an entity he controls, (ii) Dr. Grossman purchased 100,000 shares of common stock, (iii) Dr. Young Kwon, a member of the Company's Board of Directors, purchased 100,000 shares of common stock, and (iv) Brian Lenz, the Company's Executive Vice President and Chief Financial Officer, purchased 30,000 shares of common stock, all at the public offering price of $1.00 per share.

In connection with the 2020 public offering of the Company's common stock (see Note 8) on February 11, 2020: (i) Perceptive Advisors, a principal stockholder of ADMA, purchased 4,563,700 shares of common stock through one of its affiliates, (ii) Dr. Grossman purchased 22,857 shares of common stock directly and 22,857 shares indirectly through an entity he controls, (iii) Lawrence P. Guiheen, a director of the Company, purchased 20,000 shares of common stock, (iv) Mr. Grossman purchased 28,571 shares of common stock directly and 57,143 shares indirectly through an entity he controls, (v) Mr. Lenz purchased 7,142 shares of common stock, and (vi) Dr. Mond purchased 4,285 shares of common stock, all at the public offering price of $3.50 per share.

10. COMMITMENTS AND CONTINGENCIES

General Legal Matters

From time to time the Company is or may become subject to certain legal proceedings and claims arising in connection with the normal course of its business. Management does not expect that the outcome of any such claims or actions will have a material effect on the Company's liquidity, results of operations or financial condition.

COVID-19 Pandemic

The Company continues to monitor the ongoing developments related to the COVID-19 pandemic, including the emergence of the Delta and Omicron variants and other resistant strains of the coronavirus, and its impacts to the Company's commercial and manufacturing operations and plasma collection facilities, including collections of source plasma, procurement of raw materials and packaging materials, a portion of which are sourced internationally, and the testing of finished drug product that is required prior to its availability for commercial sale. A substantial portion of such testing has historically been performed by contract laboratories outside the United States.

Due to a combination of previous state and local "shelter-in-place" orders, as well as government stimulus packages, persisting social distancing measures and varying roll-outs of vaccinations by state, the Company has experienced lower than normal donor collections at its FDA approved plasma collection centers. The Company was also subject to delays in shipments of source plasma from its contracted third-party suppliers, as well as delays in deliveries for personal protective equipment, reagents and other non-plasma raw materials and supplies used in the manufacture and distribution of its products. In addition, the Company is subject to supply chain delays as a result of certain of its suppliers diverting significant resources towards the rapid development and distribution of COVID-19 vaccines and, as a result, the Company has elected to carry more raw materials inventory than it has in the past. The COVID-19 pandemic has also impacted, to a certain degree, the Company's customer engagement initiatives, whereby ADMA's sales and medical affairs field personnel have faced difficulties communicating directly with physicians and other healthcare professionals, as well as the cancellation or postponement of a number of key scientific and medical meetings, further limiting the Company's ability to communicate with potential customers. The Company has implemented a comprehensive suite of virtual engagement initiatives; however, clinician engagement has been reduced due to rapidly evolving COVID-19 priorities at U.S. medical centers.

The pandemic could also impact the Company's ability to interact with the FDA or other regulatory authorities and may result in delays in the conduct of inspections or review of pending applications or submissions. Although the Company received several FDA approvals and two FDA inspections of the Boca Facility were completed during the year ended December 31, 2021, no assurances can be provided as to the timing for completion of any other regulatory submissions or applications that may be impacted by restrictions related to COVID-19.

During the years ended December 31, 2021 and 2020, revenue attributable to international customers was approximately 13% of the Company's total revenues. As the Company seeks to grow this aspect of its business, it may also be subject to the impacts of the COVID-19 pandemic in locations outside the United States.

Notwithstanding the foregoing, the COVID-19 pandemic to date has not had a material impact on the Company's financial condition or results of operations, and the Company does not believe that its production operations at the Boca Facility, the Company's contract fill/finishers or its plasma collection facilities have been significantly impacted by the COVID-19 pandemic. As a result, the Company does not anticipate and has not experienced any material impairments with respect to any of its long-lived assets, including the Company's property and equipment, goodwill or intangible assets.

Although the COVID-19 pandemic has not, to date, materially adversely impacted the Company's capital and financial resources, because the Company is unable to determine the ultimate severity or duration of the pandemic or its long-term effects on, among other things, the global, national or local economies, the capital and credit markets or the Company's workforce, customers or our suppliers, at this time the Company is unable to predict whether COVID-19 will have a material adverse impact on the Company's business, financial condition, liquidity and results of operations.

Vendor and Licensor Commitments

Pursuant to the terms of a plasma purchase agreement with BPC dated as of November 17, 2011 (the "2011 Plasma Purchase Agreement"), the Company agreed to purchase from BPC an annual minimum volume of source plasma containing antibodies to RSV to be used in the manufacture of ASCENIV. The Company must purchase a to-be-determined and agreed upon annual minimum volume from BPC, but may also collect high-titer RSV plasma from up to five wholly-owned ADMA plasma collection facilities. During 2015, the Company and BPC amended the 2011 Plasma Purchase Agreement to allow the Company the ability to collect its raw material RSV high-titer plasma from other third-party collection organizations, thus allowing the Company to expand its reach for raw material supply as it executes its commercialization plans for ASCENIV. As part of the closing of the Biotest Transaction, the parties amended the 2011 Plasma Purchase Agreement to extend the initial term through the ten-year anniversary of the closing date of the Biotest Transaction. Unless terminated earlier, the 2011 Plasma Purchase Agreement expires in June 2027, after which it may be renewed for two additional five-year periods if agreed to by the parties. On December 10, 2018, BPC assigned its rights and obligations under the 2011 Plasma Purchase Agreement to Grifols Worldwide Operations Limited ("Grifols") as its successor-in-interest, effective January 1, 2019. On January 1, 2019, Grifols and the Company entered into an additional amendment to the 2011 Plasma Purchase Agreement for the purchase of source plasma containing antibodies to RSV from Grifols (see Note 16). Pursuant to this amendment, until January 1, 2022, the Company may purchase RSV plasma from Grifols from the two plasma collection centers that were transferred to BPC on January 1, 2019 at a price equal to cost plus five percent (5%) (without any additional increase due to inflation). Effective January 1, 2022, RSV plasma purchased from these two plasma collection centers will be subject to the pricing terms in effect for RSV plasma purchased from other plasma collection centers owned by Grifols.

On June 6, 2017, the Company and BPC entered into a Plasma Supply Agreement pursuant to which BPC supplies, on an exclusive basis subject to certain exceptions, to ADMA BioManufacturing an annual minimum volume of hyperimmune plasma that contain antibodies to the Hepatitis B virus for the manufacture of Nabi-HB. The Plasma Supply Agreement has a 10-year term. On July 19, 2018, the Company and BPC entered into an amendment to the Plasma Supply Agreement to provide, among other things, that in the event BPC elects not to supply in excess of ADMA BioManufacturing's specified amount of Hepatitis B plasma and ADMA BioManufacturing is unable to secure Hepatitis B plasma from a third party at a price that is within a low double- digit percentage of the price that ADMA BioManufacturing pays to BPC, then BPC shall reimburse ADMA BioManufacturing for the difference in price ADMA BioManufacturing incurs. On December 10, 2018, BPC assigned its rights and obligations under the Plasma Supply Agreement to Grifols, effective January 1, 2019.

On June 6, 2017, the Company and BPC entered into a Plasma Purchase Agreement (the "2017 Plasma Purchase Agreement"), pursuant to which ADMA BioManufacturing purchases normal source plasma ("NSP") from BPC at agreed upon annual quantities and prices. The 2017 Plasma Purchase Agreement has an initial term of five years after which the 2017 Plasma Purchase Agreement may be renewed for additional two terms of two years each upon the mutual written consent of the parties. On July 19, 2018, the Company and BPC entered into an amendment to the 2017 Plasma Purchase Agreement to, among other things, provide agreed upon amounts of normal source plasma to be supplied by BPC to ADMA BioManufacturing in calendar year 2019 at a specified price per liter, provided that ADMA BioManufacturing delivers a valid purchase order to BPC. Additionally, pursuant to the amendment to the 2017 Plasma Purchase Agreement, BPC agreed that, for calendar years 2020 and 2021, it shall supply no less than a high double-digit percentage of ADMA BioManufacturing's requested NSP amounts, provided that such requested NSP amounts are within an agreed range, at a price per liter to be mutually determined. Furthermore, pursuant to the amendment to the 2017 Plasma Purchase Agreement, in the event BPC fails to supply ADMA BioManufacturing with at least a high double-digit percentage of ADMA BioManufacturing's requested NSP amounts, BPC shall promptly reimburse ADMA BioManufacturing the difference in price ADMA BioManufacturing incurs due to BPC's election not to supply NSP to ADMA BioManufacturing in such amounts as requested. On December 10, 2018, BPC assigned its rights and obligations under the Plasma Purchase Agreement to Grifols, effective January 1, 2019.

Effective as of May 12, 2021, the Company and Grifols amended the foregoing 2017 Plasma Purchase Agreement whereby, among other things, the term of the agreement was extended through December 31, 2022, while certain historical provisions were deleted. In order to maintain a reliable supply of raw material plasma thereafter, the Company has executed additional agreements with multiple third-party suppliers of NSP to supplement the 2017 Plasma Purchase Agreement. The Company has also increased its number of planned plasma collection center buildouts such that the Company expects to have 10 FDA-approved plasma collection centers in operation by the end of 2023, while also continuing to increase its plasma collection capabilities at its ADMA BioCenters plasma collection centers business segment.

Post-marketing commitments

In connection with the approval of the BLA for BIVIGAM, on December 19, 2012 Biotest committed to perform two additional post-marketing studies, a pediatric study to evaluate the efficacy and safety of BIVIGAM in children and adolescents, and a post-authorization safety study to further assess the potential risk of hypotension and hepatic and renal impairment in BIVIGAM-treated patients with primary humoral immunodeficiency. These studies are still pending completion. ADMA has assumed the remaining obligations, and the costs of the studies will be expensed as incurred as research and development expenses. The Company currently expects to incur expenses of approximately $3.0 million to $4.0 million to complete these studies, with both studies to be completed by June of 2023.

In connection with the FDA's approval of ASCENIV on April 1, 2019, the Company is required to perform a pediatric study to evaluate the safety and efficacy of ASCENIV in children and adolescents. The Company expects to incur expenses of approximately $2 million to complete this study, which is required to be completed by June of 2023.

Employment contracts

The Company has entered into employment agreements with Mr. Grossman and Mr. Lenz.

Other commitments

On September 28, 2021, following the approval of the Company's Board of Directors upon recommendation of the Compensation Committee of the Board of Directors, and in consultation with an independent compensation consultant, the Company implemented a retention incentive program, consisting of cash payments and awards of RSUs (see Note 8), to the Company's management, including Mr. Grossman and Mr. Lenz, and to certain other employees. The purpose of the retention program is to promote and ensure business continuity and provide an incentive to the Company's executive management and certain other employees considering the operational challenges presented by the ongoing COVID-19 pandemic and the competitive work environment in which the Company operates as an FDA regulated manufacturer of specialized biologic therapies. The retention awards were granted considering the nationwide labor shortages and the increased employee turnover rates that the Company, its pharmaceutical peers and other companies outside of the Company's industry have reported experiencing.

The cash portion of the retention program consists of two tranches. The first tranche was paid to employees on September 30, 2021 in the amount of $1.3 million, and the second tranche aggregating to approximately $1.3 million will be paid on June 15, 2022. Based on the terms of the retention agreements the Company entered into with each applicable executive and employee, $0.8 million of the first tranche is being recognized over the retention service period, which ends on December 31, 2022, with the remainder having been recognized as expense on September 30, 2021. The second tranche will be recognized as compensation expense over a 15-month period from October 1, 2021 through December 31, 2022.

In the normal course of business, the Company enters into contracts that contain a variety of indemnifications with its employees, licensors, suppliers and service providers. Further, the Company indemnifies its directors and officers who are, or were, serving at the Company's request in such capacities. The Company's maximum exposure under these arrangements is unknown as of December 31, 2021. The Company does not anticipate recognizing any significant losses relating to these arrangements.

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11. INCOME TAXES

A reconciliation of income taxes at the U.S. federal statutory rate to the benefit for income taxes is as follows:

	Year Ended December 31,	
	2021	2020
Benefit at U.S. federal statutory rate	$ (15,045,999)	$ (15,907,195)
State taxes - deferred	(251,839)	(3,797,393)
Increase in valuation allowance	14,618,762	19,535,265
Research and development credits	(239,585)	(246,989)
Decrease in federal net operating loss	623,679	-
Other	294,982	416,312
Benefit for income taxes	$ -	$ -

A summary of the Company's deferred tax assets is as follows:

	Year Ended December 31,	
	2021	2020
Federal and state net operating loss carryforwards	$ 73,036,983	$ 59,114,928
Federal and state research credits	31,333	921,577
Interest expense limitation carryforwards	6,013,040	2,911,508
Transaction costs	977,046	1,080,041
Deferred revenue	519,819	563,956
Accrued expenses and other	1,030,064	2,397,513
Total gross deferred tax assets	81,608,285	66,989,523
Less: valuation allowance for deferred tax assets	(81,608,285)	(66,989,523)
Net deferred tax assets	$ -	$ -

As of December 31, 2021, the Company had federal and state (post-apportioned basis) net operating losses ("NOLs") of $299.9 million and $185.0 million, respectively. Approximately $55.2 million and $77.8 million of the foregoing federal and state NOLs, respectively, will expire at various dates from 2027 through 2041, if not limited by triggering events prior to such time. Under the provisions of the Internal Revenue Code, changes in ownership of the Company, in certain circumstances, would limit the amount of federal NOLs that can be utilized annually in the future to offset taxable income. In particular, Section 382 of the Internal Revenue Code imposes limitations on an entity's ability to use NOLs upon certain changes in ownership. If the Company is limited in its ability to use its NOLs in future years in which it has taxable income, then the Company will pay more taxes than if it were otherwise able to fully utilize its NOLs. The Company may experience ownership changes in the future as a result of subsequent shifts in ownership of the Company's capital stock that the Company cannot predict or control that could result in further limitations being placed on the Company's ability to utilize its federal NOLs. As of December 31, 2021, the Company performed an analysis of limitations imposed by Section 382 of the Internal Revenue Code and as a result has written off the deferred tax assets related to $3.0 million of federal NOLs, $1.0 million of federal research and development tax credits and $28.1 million of state NOLs which are limited by historical ownership changes. As a result, there was a $3.9 million reduction to the Company's net deferred tax assets, which is offset by a corresponding $3.9 million reduction in the Company's valuation allowance, resulting in no net impact to the Company's provision for income taxes for the year ended December 31, 2021.

A valuation allowance, if needed, reduces deferred tax assets to the amount expected to be realized. When determining the amount of net deferred tax assets that are more likely than not to be realized, the Company assesses all available positive and negative evidence. This evidence includes, but is not limited to, prior earnings history, expected future earnings, carry-back and carry-forward periods and the feasibility of ongoing tax strategies that could potentially enhance the likelihood of the realization of a deferred tax asset. The weight given to the positive and negative evidence is commensurate with the extent the evidence may be objectively verified. As such, it is generally difficult for positive evidence regarding projected future taxable income, exclusive of reversing taxable temporary differences, to outweigh objective negative evidence of recent financial reporting losses. Based on these criteria and the relative weighting of both the positive and negative evidence available, management continues to maintain a full valuation allowance against its net deferred tax assets.

In accordance with U.S. GAAP, the Company is required to determine whether a tax position of the Company is more likely than not to be sustained upon examination by the applicable taxing authority, including resolution of any related appeals or litigation processes, based on the technical merits of the position. The tax benefit to be recognized is measured as the largest amount of benefit that is greater than fifty percent likely of being realized upon ultimate settlement. Derecognition of a tax benefit previously recognized could result in the Company recording a tax liability that would reduce net assets. The amount of the liability for which an exposure exists is measured as the largest amount of benefit determined on a cumulative probability basis that the Company believes is more likely than not to be realized upon ultimate settlement of the position. Components of the liability are classified as either a current or a long-term liability in the accompanying consolidated balance sheets based on when the Company expects each of the items to be settled. The Company does not have any unrecognized tax benefits as of December 31, 2021 and 2020, and does not anticipate a significant change in unrecognized tax benefits during the next 12 months.

12. LEASE OBLIGATIONS

The Company leases certain properties and equipment for its ADMA BioCenters subsidiary and certain equipment for its ADMA BioManufacturing subsidiary, which leases provide the right to use the underlying assets and require lease payments through the respective lease terms which expire at various dates through 2033. The Company's lease agreements do not contain any material residual value guarantees or material restrictive covenants.

The Company determines if an arrangement is an operating lease at inception. Leases with an initial term of 12 months or less are not recorded on the balance sheet. All other leases are recorded on the balance sheet with assets representing the right to use the underlying asset for the lease term and lease liabilities representing the obligation to make lease payments arising from the lease. Right-to-use assets and lease liabilities are recognized at the lease commencement date based on the present value of lease payments over the lease term and include options to extend or terminate the lease when they are reasonably certain to be exercised. The present value of the lease payments is determined using the Company's incremental borrowing rate as of the lease commencement date. For the lease liabilities recognized during the years ended December 31, 2021 and 2020, the Company used a discount rate of 13% to determine the present value of its lease obligations. The Company's operating lease expense is recognized on a straight-line basis over the lease term and is reflected in Plasma center operating expenses and Selling, general and administrative expenses. Aggregate lease expense for the Company's operating leases for the years ended December 31, 2021 and 2020 was $1.4 million and $0.7 million, respectively. Aggregate cash paid on these leases for the years ended December 31, 2021 and 2020 was $1.1 million and $0.5 million, respectively.

During the year ended December 31, 2021, the Company recognized additional right-to-use assets and corresponding lease liabilities of $3.6 million in connection with four new property leases where the Company has opened or intends to open additional plasma collection facilities. Including a finance lease the Company entered into in June 2018, the Company has aggregate lease liabilities of $8.1 million and $4.7 million as of December 31, 2021 and 2020, respectively, which are comprised primarily of the leases for the Company's plasma collection centers. The Company's operating leases have a weighted average remaining term of 9.1 years. Scheduled payments under the Company's lease obligations are as follows:

Year ended December 31, 2022	$ 1,596,006
2023	1,641,603
2024	1,517,229
2025	1,525,793
2026	1,260,391
Thereafter	6,345,559
Total payments	13,886,581
Less: imputed interest	(5,833,109)
Current portion	(591,084)
Balance at December 31, 2021	$ 7,462,388

On June 11, 2021, the Company entered into an additional property lease that the Company intends to use to store certain inventory for its ADMA BioManufacturing business segment. The Company has not taken possession of this leased property and its lease commencement date has not been determined. With the exception of a security deposit and six months' rent totaling $0.3 million, no payments have been made under this lease. The initial term of the lease is for 90 months with monthly rental payments varying between approximately $14,000 and $24,000, including common area maintenance charges. On January 22, 2022, the Company entered into an additional property lease for its ninth plasma collection facility. The Company has not taken possession of this leased property and its lease commencement date has not been determined. With the exception of a security deposit and an initial month's rent totaling approximately $44,000, no payments have been made under this lease. The initial term of the lease is for 126 months with monthly rental payments varying between approximately $18,000 and $25,000, including common area maintenance charges.

13. SEGMENTS

The Company is engaged in the manufacture, marketing and development of specialty plasma-derived biologics. The Company's ADMA BioManufacturing segment reflects the Company's immune globulin manufacturing and development operations in Florida, acquired on June 6, 2017. The Plasma Collection Centers segment consists of ten plasma collection facilities in various stages of development as of December 31, 2021, six of which are operational and collecting plasma, and five of which hold an approved license with the FDA (and of which one facility has received approvals from the Korean Ministry of Food and Drug Safety as well as FDA approval to implement a Hepatitis B immunization program). The Corporate segment includes general and administrative overhead expenses. The Company defines its segments as those business units whose operating results are regularly reviewed by the chief operating decision maker ("CODM") to analyze performance and allocate resources. The Company's CODM is its President and Chief Executive Officer. Summarized financial information concerning reportable segments is shown in the following tables:

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Year Ended December 31, 2021

	ADMA BioManufacturing	Plasma Collection Centers	Corporate	Consolidated
Revenues	$ 74,935,528	$ 5,864,263	$ 142,834	$ 80,942,625
Cost of product revenue	74,124,999	5,644,342	-	79,769,341
Loss from operations	(29,293,309)	(12,056,364)	(17,024,068)	(58,373,741)
Interest and other expense, net	(218,053)	(5,660)	(13,050,164)	(13,273,877)
Net loss	(29,511,362)	(12,062,024)	(30,074,232)	(71,647,618)
Capital expenditures	4,876,983	8,634,275	-	13,511,258
Depreciation and amortization expense	4,217,771	1,272,397	5,334	5,495,502
Total assets	208,391,019	24,681,691	43,180,014	276,252,724

Year Ended December 31, 2020

	ADMA BioManufacturing	Plasma Collection Centers	Corporate	Consolidated
Revenues	$ 36,673,287	$ 5,403,662	$ 142,834	$ 42,219,783
Cost of product revenue	55,908,696	5,382,730	-	61,291,426
Loss from operations	(46,904,634)	(4,410,890)	(13,599,353)	(64,914,877)
Interest and other expense, net	(984,017)	(7,388)	(10,834,063)	(11,825,468)
Gain on extinguishment of debt	-	-	991,797	991,797
Net loss	(47,888,651)	(4,418,278)	(23,441,619)	(75,748,548)
Capital expenditures	7,579,437	5,147,243	-	12,726,680
Depreciation and amortization expense	3,341,506	591,593	9,193	3,942,292
Total assets	140,908,957	13,102,008	53,662,429	207,673,394

14. OTHER EMPLOYEE BENEFITS

The Company sponsors a 401(k) savings plan. Under the plan, employees may make contributions which are eligible for a Company discretionary percentage contribution as defined in the plan and determined by the Board of Directors. The Company recognized $1.1 million and $0.9 million of related compensation expense for the years ended December 31, 2021 and 2020, respectively.

15. SUPPLEMENTAL DISCLOSURE OF CASH FLOW INFORMATION

Supplemental cash flow information for the years ended December 31, 2021 and 2020 is as follows:

	2021	2020
SUPPLEMENTAL CASH FLOW INFORMATION:		
Cash paid for interest	$ 11,159,461	$ 10,267,632
Noncash Financing and Investing Activities:		
Equipment acquired reflected in accounts payable and accrued liabilities	$ 1,352,627	$ 973,958
Right-to-use assets in exchange for lease obligations	$ 3,554,473	$ 3,329,374
Warrants issued in connection with notes payable	$ -	$ 3,740,980

16. CONCENTRATIONS

Financial instruments that potentially subject the Company to concentrations of credit risk consist of cash and cash equivalents and accounts receivable. At December 31, 2021, three customers accounted for approximately 94% of the Company's consolidated accounts receivable. At December 31, 2020, three customers accounted for approximately 92% of the Company's consolidated accounts receivable.

For the year ended December 31, 2021, four customers accounted for approximately 81% of the Company's consolidated revenues. For the year ended December 31, 2020, three customers represented an aggregate of 82% of the Company's consolidated revenues.

The Company purchases substantially all of its raw material plasma from Grifols. For the year ended December 31, 2021, plasma purchases from Grifols were approximately $42.0 million, or 69% of the Company's total inventory purchases. For the year ended December 31, 2020, plasma purchases from Grifols were approximately $25.0 million, or 68% of the Company's total inventory purchases.

Net revenues according to geographic area, based on the location of where the product is shipped, is as follows:

	Year Ended December 31,	
	2021	2020
United States	$ 70,625,848	$ 36,552,244
International	10,316,777	5,667,539
Total revenues	$ 80,942,625	$ 42,219,783

17. SUBSEQUENT EVENTS

Refinancing of Senior Credit Facility

On March 23, 2022, (the "Hayfin Closing Date") the Company and all of its subsidiaries entered into a Credit and Guaranty Agreement (the "Hayfin Credit Agreement") with Hayfin Services LLP ("Hayfin"). The Hayfin Credit Agreement provides for a senior secured term loan facility in a principal amount of up to $175.0 million (the "Hayfin Credit Facility"), composed of (i) a term loan made on the Hayfin Closing Date in the principal amount of $150.0 million(the "Hayfin Closing Date Loan"), and (ii) a delayed draw term loan in the principal amount of $25.0 million (the "Hayfin Delayed Draw Loan" and, together with the Hayfin Closing Date Loan, the "Hayfin Loans"). The obligation of the lenders to make the Hayfin Delayed Draw Loan expires on March 22, 2023 and is subject to the satisfaction of certain conditions, including, but not limited to, the Company's meeting certain 12-month revenue targets as set forth in the Hayfin Credit Agreement. The Hayfin Credit Facility has a maturity date of March 23, 2027 (the "Hayfin Maturity Date"), subject to acceleration pursuant to the Hayfin Credit Agreement, including upon an Event of Default (as defined in the Hayfin Credit Agreement).

On the Hayfin Closing Date, the Company used $100.0 million of the Hayfin Closing Date Loan to terminate and pay in full all of the outstanding obligations under the Perceptive Credit Facility (see Note 7). The Company also used $2.0 million of the Hayfin Closing Date Loan proceeds to pay a redemption premium to Perceptive and used approximately $0.3 million of the Hayfin Closing Date Loan proceeds to pay certain fees and expenses incurred in connection with this transaction. In addition, a $1.8 million upfront fee payable to Hayfin was paid "in kind" and was added to the outstanding principal balance in accordance with the terms of the Hayfin Credit Agreement. In connection with the repayment of the Perceptive Loans, the Company will record a loss on extinguishment of debt in the approximate amount of $6.7 million, consisting of the write-off of unamortized discount related to the Perceptive Loans and the redemption premium paid to Perceptive.

Borrowings under the Hayfin Credit Agreement will bear interest, at the Company's election, at either (a) a base rate (equal to the highest of (i) the rate of interest per annum last quoted by the Wall Street Journal as the "Prime Rate" in the United States, (ii) the federal funds rate in effect on such day plus 0.50% and (iii) adjusted Term Secured Overnight Financing Rate ("SOFR") for a one-month tenor in effect on such day plus 1.00%) plus an applicable margin of 8.5%, or (b) adjusted Term SOFR for either a one-month or three-month tenor, as elected by the Company, and subject to a floor of 1.25%, plus an applicable margin of 9.5% (the "Applicable Margin"); provided, however, that upon, and during the continuance of, an Event of Default, the Applicable Margin shall increase by an additional 3% per annum. On the last day of each calendar month or quarter during the term of the Hayfin Credit Facility, the Company will pay accrued interest to Hayfin. The rate of interest in effect as of the Hayfin Closing Date was 10.75%. The Company will also pay "in kind" a portion of the interest on the Hayfin Loans for each monthly or quarterly interest period in an amount equal to 2.5% per annum, which will be added to the principal amount of the outstanding debt under the Hayfin Credit Facility.

On the Hayfin Maturity Date, the Company will pay Hayfin the entire outstanding principal amount underlying the Hayfin Loans and any accrued and unpaid interest thereon, as well as an exit fee of 1.0% of the outstanding principal amount being paid. Prior to the Hayfin Maturity Date, there will be no scheduled principal payments on the Hayfin Loans. The Company may prepay outstanding principal on the Hayfin Loans at any time and from time to time upon five business days' prior written notice, subject to the payment to Hayfin of, (A) any accrued but unpaid interest on the prepaid principal amount plus (B) an early prepayment fee in the amount equal to (i) 7.0% of the prepaid principal amount, if prepaid on or prior to the first anniversary of the Hayfin Closing Date, (ii) 3.0% of the prepaid principal amount, if prepaid after the first anniversary of the Hayfin Closing Date and on or prior to the second anniversary of the Hayfin Closing Date, or (iii) 1.0% of the prepaid principal amount, if prepaid after the second anniversary of the Hayfin Closing Date and on or prior to the third anniversary of the Hayfin Closing Date. In addition, for any prepayments of principal or payment of principal on the Hayfin Maturity Date, the Company is required to pay an exit fee of 1.0% of the amount of principal being paid.

All of the Company's obligations under the Hayfin Credit Agreement are secured by a first-priority lien and security interest in substantially all of the Company's tangible and intangible assets, including intellectual property and all of the equity interests in the Company's subsidiaries. The Hayfin Credit Agreement contains certain representations and warranties, affirmative covenants, negative covenants and conditions that are customarily required for similar financings. The negative covenants restrict or limit the ability of the Company and its subsidiaries to, among other things and subject to certain exceptions contained in the Hayfin Credit Agreement, incur new indebtedness; create liens on assets; engage in certain fundamental corporate changes, such as mergers or acquisitions, or changes to the Company's or its subsidiaries' business activities; make certain Investments or Restricted Payments (each as defined in the Hayfin Credit Agreement); change its fiscal year; pay dividends; repay other certain indebtedness; engage in certain affiliate transactions; or enter into, amend or terminate any other agreements that have the impact of restricting the Company's ability to make loan repayments under the Hayfin Credit Agreement. In addition, the Company is required (i) at all times prior to the Maturity Date to maintain a minimum cash balance of $6.0 million; and (ii) as of the last day of each fiscal quarter commencing with the fiscal quarter ending June 30, 2022, report IVIG product and related revenues for the trailing 12-month period that exceed the amounts set forth in the Hayfin Credit Agreement, which range from $75.0 million for the fiscal quarter ending June 30, 2022 to $250.0 million for the fiscal quarter ending December 31, 2026.

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As consideration for the Hayfin Credit Agreement, the Company issued to various entities affiliated with Hayfin, on the Hayfin Closing Date, warrants to purchase 9,103,047 shares of the Company's common stock (the "Hayfin Warrants"). The Hayfin Warrants have an exercise price equal to $1.6478 per share, which is equal to the trailing 30-day Volume Weighted-average Price of the Company's common stock on the business day immediately prior to the Hayfin Closing Date (the "Closing Date Exercise Price"). The Hayfin Warrants were valued by the Company at approximately $9.6 million as of the Hayfin Closing Date and have an expiration date of March 23, 2029.

As a result of the fees paid to Hayfin and the value of the Hayfin Warrants, the Company recognized an aggregate discount on the Hayfin Loans in the amount of $13.2 million. The Company records debt discount as a reduction to the face amount of the debt, and the debt discount is amortized as interest expense over the life of the debt using the interest method. Based on the fair value of the Hayfin Warrants and the aggregate amount of fees and expenses associated with obtaining the Hayfin Credit Facility, the effective interest rate on the Hayfin Loans as of March 23, 2022 was approximately 12.9%.

Exhibit 4.11

DESCRIPTION OF THE REGISTRANT'S SECURITIES REGISTERED PURSUANT TO SECTION 12 OF THE SECURITIES EXCHANGE ACT OF 1934

As of December 31, 2021, ADMA Biologics, Inc. (the "Company," "we," or "our") had two classes of securities registered under Section 12 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"): our common stock, $0.0001 par value per share (the "Common Stock") and our preferred share purchase rights.

The Company is authorized to issue 310,000,000 shares of capital stock, divided into two classes consisting of (i) 300,000,000 shares of Common Stock, and (ii) 10,000,000 shares of preferred stock, $0.0001 par value per share ("Preferred Stock").

DESCRIPTION OF COMMON STOCK

The following description of our Common Stock is a summary, does not purport to be complete and is subject to the provisions of our Second Amended and Restated Certificate of Incorporation (the "Certificate of Incorporation") and our Amended and Restated Bylaws (the "Bylaws"). For the complete terms of our Common Stock, please refer to our Certificate of Incorporation and our Bylaws.

General

The Common Stock is not redeemable, and has no subscription or conversion rights. The Common Stock does not have any sinking fund provisions. Holders of Common Stock do not have cumulative or preemptive rights.

Voting

Holders of Common Stock are entitled to one vote per share on all matters on which stockholders are generally entitled to vote. Holders of a majority of the outstanding shares of Common Stock constitute a quorum at a meeting of stockholders for the transaction of any business. Directors are elected by a plurality of the votes of the shares present in person or represented by proxy at the meeting and entitled to vote on the election of directors. Any other action is authorized by a majority of the votes cast, except where the Delaware General Corporation Law ("DGCL") prescribes a different percentage of votes or a different exercise of voting power.

Dividends

Holders of our Common Stock are entitled to receive ratably such dividends, if any, as may be declared by our Board of Directors out of funds legally available therefor, subject to any preferential dividend rights for our outstanding Preferred Stock.

Distributions upon Dissolution, Liquidation or Winding Up

Upon a liquidation, dissolution or windup of the Company, subject to the rights, if any, of holders of any outstanding series of Preferred Stock that may be issued, holders of Common Stock shall be entitled to receive the assets of the Company available for distribution to its stockholders ratably in proportion to the number of shares of Common Stock held by them.

Delaware Anti-Takeover Law

The Company is subject to the provisions of Section 203 of the DGCL. Section 203 prohibits publicly held Delaware corporations from engaging in a "business combination" with an "interested stockholder" for a period of three years after the date of the transaction in which the person became an interested stockholder, unless the business combination is approved in a prescribed manner. A "business combination" includes mergers, asset sales and other transactions resulting in a financial benefit to the interested stockholder. Subject to certain exceptions, an "interested stockholder" is a person who, together with affiliates and associates, owns, or within three years did own, 15% or more of the corporation's voting stock. These provisions could have the effect of delaying, deferring or preventing a change of control of the Company or reducing the price that certain investors might be willing to pay in the future for shares of the Company's stock.

Staggered Board; Removal of Directors; Certificate of Incorporation

The Company's Certificate of Incorporation divides the Company's Board into three classes with staggered three-year terms. Only one class of directors will be elected at each annual meeting of the Company's stockholders, with the other classes continuing for the remainder of their respective three year terms. Except as the DGCL may otherwise require, any newly created directorships or vacancies on the Board may be filled only by the Board, but subject to the rights of holders of any series of Preferred Stock.

The Company's Certificate of Incorporation provides that (i) all stockholder actions must be effected at a duly called meeting of the stockholders and (ii) stockholders may not adopt actions by written consent without a meeting.

The combination of these provisions will make it more difficult for the Company's existing stockholders to replace the Board as well as for another party to obtain control of the Company by replacing members of the Board. Since the Board has the power to retain and discharge the officers, these provisions could also make it more difficult for existing stockholders or another party to effect a change in management. In addition, the authorization of undesignated Preferred Stock makes it possible for the Board to issue Preferred Stock with voting or other rights or preferences that could impede any attempt to effect a change of control of the Company.

Registration Rights

In connection with our acquisition of certain assets of Biotest Pharmaceuticals Corporation ("BPC") in 2017 (the "Biotest Transaction"), we entered into a registration rights agreement with BPC pursuant to which BPC, or its transferee, or its affiliate(s) have, among other things, certain registration rights under the Securities Act of 1933, as amended, with respect to its shares of our Common Stock, subject to certain transfer restrictions. In July 2018, BPC agreed to transfer its remaining shares of Common Stock to The Biotest Divestiture Trust (the "Biotest Trust"). In connection with the transfer of shares, the Biotest Trust has agreed to be bound by all obligations of, and will have all of the remaining rights of BPC under the aforementioned registration rights agreement.

Transfer Agent

Continental Stock Transfer & Trust Company, 1 State Street 30th Floor, New York, New York, serves as the transfer agent and registrar for the Company's stock.

Stock Exchange Listing

Our Common Stock is traded on the Nasdaq Stock Market under the symbol "ADMA."

DESCRIPTION OF PREFERRED SHARE PURCHASE RIGHTS

On December 20, 2021, the Board of Directors (the "Board") of the Company, approved and adopted a Rights Agreement, dated as of December 20, 2021 (the "Rights Agreement"), by and between the Company and Continental Stock Transfer and Trust Company, as rights agent. Pursuant to the Rights Agreement, the Board declared a dividend of one preferred share purchase right (each, a "Right") for each outstanding share of Common Stock (each share, a "Common Share"). The Rights are distributable to stockholders of record as of the close of business on December 30, 2021 (the "Record Date"). One Right also will be issued together with each Common Share issued by the Company after December 30, 2021, but before the Distribution Date (as defined below) (or the earlier redemption or expiration of the Rights) and, in certain circumstances, after the Distribution Date.

Generally, the Rights Agreement works by causing substantial dilution to any person or group that acquires beneficial ownership of ten percent (10%) or more of the Common Shares without the approval of the Board. As a result, the overall effect of the Rights Agreement and the issuance of the Rights may be to render more difficult or discourage a merger, tender or exchange offer or other business combination involving the Company that is not approved by the Board. The Rights Agreement is not intended to interfere with any merger, tender or exchange offer or other business combination approved by the Board. The Rights Agreement also does not prevent the Board from considering any offer that it considers to be in the best interest of its stockholders.

The following is a summary description of the Rights and material terms and conditions of the Rights Agreement. This summary is intended to provide a general description only, does not purport to be complete and is qualified in its entirety by reference to the complete text of the Rights Agreement, a copy of which is filed as Exhibit 4.1 to our Current Report on Form 8-K filed with the Securities and Exchange Commission on December 21, 2021. All capitalized terms used but not defined herein shall have the meanings ascribed to such terms in the Rights Agreement.

The Rights

Subject to the terms, provisions and conditions of the Rights Agreement, if the Rights become exercisable, each Right would initially represent the right to purchase from the Company one one-thousandth of a share of a newly-designated series of preferred stock, Series A Junior Participating Preferred Stock, par value $0.0001 per share, of the Company (each, a "Series A Preferred Share" and, collectively, the "Series A Preferred Shares"), at an exercise price of $8.00 per one one-thousandth of a Series A Preferred Share, subject to adjustment (the "Exercise Price"). If issued, each one one-thousandth of a Series A Preferred Share would give the stockholder approximately the same dividend, voting and liquidation rights as does one Common Share. However, prior to exercise, a Right does not give its holder any rights as a stockholder of the Company, including, without limitation, any dividend, voting or liquidation rights. A copy of the Amended and Restated Certificate of Designation of Series A Junior Participating Preferred Stock (the " Amended and Restated Series A Certificate of Designation") that the Company intends to file with the Secretary of State of the State of Delaware on December 21, 2021 to designate the Series A Preferred Shares is filed as Exhibit 3.1 to this Current Report on Form 8-K and is incorporated herein by reference.

Initial Exercisability

Initially, the Rights will not be exercisable, certificates will not be sent to stockholders and the Rights will automatically trade with the Common Shares. Until the Rights separate from the Common Shares and become exercisable (or the earlier redemption or expiration of the Rights), the Rights will be evidenced by Common Share certificates, Rights relating to any uncertificated Common Shares that are registered in book entry form will be represented by a notation in book entry on the records of the Company, and the surrender for transfer of any Common Shares will also constitute the transfer of the associated Rights.

Subject to certain exceptions specified in the Rights Agreement, the Rights will separate from the Common Shares and become exercisable following the earlier to occur of the tenth (10th) business day (or such later date as may be determined by the Board) after (i) the day on which a public announcement or filing with the Securities and Exchange Commission (the "SEC") is made indicating that a person has become an Acquiring Person (as defined below) or that discloses information that reveals the existence of an Acquiring Person (the "Shares Acquisition Date"), or (ii) the commencement by any person (other than certain exempted persons) of, or the first public announcement of the intent of any person (other than certain exempted persons) to commence, a tender or exchange offer by or on behalf of a person, the successful consummation of which would result in any person (other than certain exempted persons) becoming an Acquiring Person, irrespective of whether any shares are actually purchased or exchanged pursuant to such offer (the earlier of these dates is called the "Distribution Date").

After the Distribution Date, separate rights certificates will be issued and the Rights may be transferred other than in connection with the transfer of the underlying Common Shares unless and until the Board has determined to effect an exchange pursuant to the Rights Agreement (as described below).

Acquiring Person

Under the Rights Agreement, an Acquiring Person is any person who or that, together with all Affiliates and Associates (as defined in the Rights Agreement) of such person, from and after the first public announcement by the Company of the adoption of the Rights Agreement, is or becomes the beneficial owner of ten percent (10%) or more of the Common Shares outstanding, subject to various exceptions. For purposes of the Rights Agreement, beneficial ownership is defined to include the ownership of derivative securities.

The Rights Agreement provides that an Acquiring Person does not include the Company, any subsidiary of the Company, any employee benefit plan of the Company or any subsidiary of the Company, or any person organized, appointed, or established to hold Common Shares pursuant to any employee benefit plan of the Company or for the purpose of funding any such plan.

The Rights Agreement also provides that the following persons shall not be deemed an Acquiring Person thereunder: (i) any person who becomes the beneficial owner of ten percent (10%) or more of the shares of Common Stock of the Company then outstanding solely as a result of the initial grant or vesting of any options, warrants, rights or similar interests (including restricted shares and restricted stock units) by the Company to its directors, officers and employees pursuant to any employee benefit or stock ownership plan of the Company, or the acquisition of shares of Common Stock of the Company upon the exercise or conversion of any such securities so granted; (ii) any person who as the result of an acquisition of shares of Common Stock by the Company (or any subsidiary of the Company, or any person organized, appointed, established or holding shares of Common Stock of the Company for or pursuant to the terms of any such plan) that, by reducing the number of shares of Common Stock of the Company outstanding, increases the proportionate number of shares of Common Stock of the Company beneficially owned by such person to ten percent (10%) or more of the Common Shares then outstanding; (iii) any person who or that became the beneficial owner of ten percent (10%) or more of the Common Shares then outstanding as a result of the acquisition of Common Shares directly from the Company; or (iv) any person who or that would otherwise be an Acquiring Person who or that the Board determines had become such inadvertently (including, without limitation, because (A) such person was unaware that it beneficially owned a percentage of the Common Shares that would otherwise cause such person to be an "Acquiring Person," or (B) such person was aware of the extent of its beneficial ownership of Common Shares but had no actual knowledge of the consequences of such beneficial ownership under the Rights Agreement), and who or that thereafter within five (5) business days of being requested by the Company, reduces such person's beneficial ownership to less than ten percent (10%) of the Common Shares then outstanding.

"Grandfathering" of Existing Holders

The Rights Agreement also provides that any person who beneficially owned ten percent (10%) or more of the Common Shares immediately prior to the first public announcement by the Company of the adoption of the Rights Agreement (each a "Grandfathered Person"), shall not be deemed to be an "Acquiring Person" for purposes of the Rights Agreement unless and until a Grandfathered Person becomes the beneficial owner of one or more additional Common Shares after the first public announcement by the Company of the adoption of the Rights Agreement (other than pursuant to a dividend or distribution paid or made by the Company on the outstanding Common Shares, pursuant to a split, reclassification or subdivision of the outstanding Common Shares or pursuant to the acquisition of beneficial ownership of Common Shares upon the vesting or exercise of any option, warrants or other rights, or upon the initial grant or vesting of restricted stock, granted or issued by the Company to its directors, officers and employees, pursuant to a compensation or benefits plan or arrangement adopted by the Board). However, if upon acquiring beneficial ownership of one or more additional Common Shares at any time after the first public announcement by the Company of the adoption of the Rights Agreement, the Grandfathered Person does not, at such time, beneficially own ten percent (10%) or more of the Common Shares then outstanding, the Grandfathered Person will not be treated as an "Acquiring Person" for purposes of the Rights Agreement.

Flip-In Trigger

If a person becomes an Acquiring Person, then, following the occurrence of the Distribution Date and subject to the terms, provisions and conditions of the Rights Agreement, each Right will entitle the holder thereof to purchase from the Company, upon payment of the Exercise Price, in lieu of a number of one one-thousandths of a Series A Preferred Share, a number of Common Shares (or, in certain circumstances, cash, property or other securities of the Company) having a then-current market value of twice the Exercise Price. However, the Rights are not exercisable until such time as the Rights are no longer redeemable by the Company, as further described below.

Following the occurrence of an event set forth in the preceding paragraph, all Rights that are or, under certain circumstances specified in the Rights Agreement, were beneficially owned by an Acquiring Person or certain of its transferees will become null and void and nontransferable.

Flip-Over Trigger

If, after an Acquiring Person obtains beneficial ownership of ten percent (10%) or more of the Common Shares, (i) the Company merges into another entity, (ii) an acquiring entity merges into the Company, or (iii) the Company sells or transfers more than fifty percent (50%) of its assets, cash flow or earning power, then each Right (except for Rights that have previously been voided as set forth above) will entitle the holder thereof to purchase, upon payment of the Exercise Price, in accordance with the terms of the Rights Agreement, a number of shares of common stock of the person engaging in the transaction having a then-current market value of twice the Exercise Price.

Redemption of the Rights

At any time until the close of business on the tenth (10th) business day after the Shares Acquisition Date (or, if the tenth (10th) business day after the Shares Acquisition Date occurs before the Record Date, the close of business on the Record Date), or thereafter under certain circumstances, the Company may redeem the Rights in whole, but not in part, at a price of $0.001 per Right (the "Redemption Price"). The Redemption Price may be paid in cash, Common Shares or other forms of consideration, as determined by the Board, in the exercise of its sole discretion. The redemption of the Rights may be made effective at such time, on such basis and subject to such conditions as the Board in its sole discretion may establish. Immediately upon any redemption of the Rights, the right to exercise the Rights will terminate and the only right of the holders of Rights will be to receive the Redemption Price without any interest thereon.

Exchange of the Rights

At any time after any person (other than certain exempted persons and Grandfathered Persons) becomes an Acquiring Person, and prior to the acquisition by any person of beneficial ownership of fifty percent (50%) or more of the Common Shares, the Board may, at its option, cause the Company to exchange all or part of the then outstanding and exercisable Rights (other than Rights held by the Acquiring Person or any Affiliate or Associate thereof, which would have become null and void and nontransferable in accordance with the terms of the Rights Agreement), in whole or in part, for Common Shares at an exchange ratio (subject to adjustment) of one Common Share for each Right.

In any exchange of the Rights pursuant to the Rights Agreement, the Company, at its option, may, and to the extent there are an insufficient number of authorized Common Shares not reserved for any other purpose to exchange for all of the outstanding Rights, shall, substitute preferred stock or other securities of the Company for some or all of the Common Shares exchangeable for Rights such that the aggregate value received by a holder of Rights in exchange for each Right is substantially the same value as one Common Share. The exchange of the Rights by the Board may be made effective at such time, on such basis, and subject to such conditions as the Board in its sole discretion may establish. Immediately upon the action of the Board authorizing the exchange of the Rights, the right to exercise the Rights will terminate, and the only right of the holders of Rights will be to receive the Common Shares or other consideration issuable in connection with the exchange.

Expiration of the Rights

The Rights and the Rights Agreement will expire upon the earliest to occur of (i) the date on which all of the Rights are redeemed, (ii) the date on which the Rights are exchanged, and (iii) the close of business on June 15, 2022.

Amendment of Rights Agreement

Except as otherwise provided in the Rights Agreement, the Company, by action of the Board, may from time to time, in its sole and absolute discretion, supplement or amend any provision of the Rights Agreement in any respect without the approval of any holders of Rights, including, without limitation, in order to (i) cure any ambiguity in the Rights Agreement, (ii) correct or supplement any provision contained in the Rights Agreement that may be defective or inconsistent with any other provisions contained therein, (iii) shorten or lengthen any time period in the Rights Agreement, or (iv) otherwise change, amend, or supplement any provisions in the Rights Agreement in any manner that the Company may deem necessary or desirable; *provided, however*, that from and after such time as any person becomes an Acquiring Person, the Rights Agreement may not be supplemented or amended in any manner that would adversely affect the interests of the holders of Rights (other than Rights that have become null and void pursuant to the Rights Agreement) as such or cause the Rights Agreement to become amendable other than in accordance with the terms of the Rights Agreement. Without limiting the foregoing, the Company, by action of the Board, may at any time before any person becomes an Acquiring Person amend the Rights Agreement to make the provisions of the Rights Agreement inapplicable to a particular transaction by which a person might otherwise become an Acquiring Person or to otherwise alter the terms and conditions of the Rights Agreement as they may apply with respect to any such transaction.

Rights of Holders

Until a Right is exercised, a Right does not give its holder any rights as a stockholder of the Company, including, without limitation, any dividend, voting or liquidation rights.

Anti-Dilution Provisions

The Board may adjust the Exercise Price, the number of Series A Preferred Shares issuable and the number of outstanding Rights to prevent dilution that may occur from a stock dividend, a stock split or a reclassification of the Series A Preferred Shares or Common Shares.

With certain exceptions, no adjustments to the Exercise Price will be made until the cumulative adjustments amount to at least one percent (1%) of the Exercise Price. No fractional Series A Preferred Shares will be issued other than fractions that are integral multiples of one one-thousandth of a share and, in lieu thereof, an adjustment in cash will be made based on the current market price of the Series A Preferred Shares.

Tax Consequences

The adoption of the Rights Agreement and the subsequent distribution of the Rights to stockholders should not be a taxable event for the Company or its stockholders under presently existing U.S. federal income tax laws. However, if the Rights become exercisable or if the Rights are redeemed, stockholders may recognize taxable income, depending on the circumstances then existing.

Accounting Treatment

The distribution of the Rights as a dividend to the Company’s stockholders is not expected to have any financial accounting or reporting impact. The fair value of the Rights is expected to be zero when they are distributed because the Rights will be “out of the money” when distributed and no value should be attributable to them. Additionally, the Rights do not meet the definition of a liability under generally accepted accounting principles in the United States and are therefore not accounted for as a long-term obligation.

Authority of the Board

When evaluating decisions relating to the redemption of the Rights or any amendment to the Rights Agreement to delay or prevent the Rights from detaching and becoming exercisable as a result of a particular transaction, pursuant to the Rights Agreement, the Board, or any future board of directors, would not be subject to restrictions such as those commonly known as “dead-hand,” “slow-hand,” “no-hand,” or similar provisions.

Certain Anti-Takeover Effects

The Rights are not intended to prevent a takeover of the Company and should not interfere with any merger or other business combination approved by the Board. However, the Rights may cause substantial dilution to a person or group that acquires beneficial ownership of ten percent (10%) or more of the issued and outstanding Common Shares (which includes for this purpose stock referenced in derivative transactions and securities) without the approval of the Board.

SEC Registration

Since the Rights are not exercisable immediately, registration with the SEC of the Series A Preferred Shares issuable upon exercise of the Rights is not required until the Rights become exercisable.

Exhibit 4.13

FINAL FORM

THIS WARRANT AND THE SHARES ISSUABLE HEREUNDER HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "**ACT**"), OR THE SECURITIES LAWS OF ANY STATE AND MAY NOT BE OFFERED, SOLD, PLEDGED OR OTHERWISE TRANSFERRED, EXCEPT AS SET FORTH IN SECTIONS 6.3 and 6.4 BELOW, UNLESS AND UNTIL REGISTERED UNDER SAID ACT AND LAWS OR, IN THE OPINION OF LEGAL COUNSEL IN FORM AND SUBSTANCE REASONABLY SATISFACTORY TO THE COMPANY, SUCH OFFER, SALE, PLEDGE OR OTHER TRANSFER IS EXEMPT FROM SUCH REGISTRATION.

WARRANT TO PURCHASE COMMON STOCK

Company:	ADMA BIOLOGICS, INC., a Delaware corporation
Number of Shares:	[•] (subject to adjustment pursuant to the terms herein)
Type/Series of Stock:	Common stock, $0.0001 par value per share ("**Common Stock**")
Exercise Price:	A per share dollar amount equal to $1.6478.
Issue Date:	March 23, 2022.
Expiration Date:	March 23, 2029. See also Section 6.1.

THIS WARRANT CERTIFIES THAT, for good and valuable consideration, [•] ("**Initial Holder**" and, together with any successor or permitted assignee or transferee of this Warrant or of any shares issued upon exercise hereof, "**Holder**") is entitled to purchase the number of fully paid and non-assessable shares (the "**Shares**") of Common Stock (the "**Class**") of ADMA Biologics, Inc. (the "**Company**") at the above-stated Exercise Price, all as set forth above and as adjusted pursuant to Section 2 of this Warrant, subject to the provisions and upon the terms and conditions set forth in this Warrant.

SECTION 1. EXERCISE.

1.1 Method of Exercise. Holder may at any time and from time to time exercise this Warrant, in whole or in part, by delivering to the Company a copy of this Warrant together with a duly executed Notice of Exercise in substantially the form attached hereto as Appendix 1 and, unless Holder is exercising this Warrant pursuant to a cashless exercise set forth in Section 1.2, a check, wire transfer of same-day funds (to an account designated by the Company), or other form of payment acceptable to the Company for the aggregate Exercise Price for the Shares being purchased.

1.2 Cashless Exercise. On any exercise of this Warrant, in lieu of payment of the aggregate Exercise Price in the manner as specified in Section 1.1 above, but otherwise in accordance with the requirements of Section 1.1, Holder may elect to receive Shares equal to the value of this Warrant (or portion hereof as to which this Warrant is being exercised) if the fair market value of one Share is greater than the Exercise Price (at the date of calculation as set forth below). Thereupon, the Company shall issue to the Holder such number of fully paid and non-assessable Shares as are computed using the following formula:

X = Y(A-B)/A

where:

X = the number of Shares to be issued to the Holder;

Y= the number of Shares with respect to which this Warrant is being exercised (on a gross basis, as if such exercise was not occurring on a cashless basis, but instead was occurring pursuant to Section 1.1 above);

A = the Fair Market Value (as determined pursuant to Section 1.3 below) of one Share; and

B = the Exercise Price of one Share.

1.3 Fair Market Value. If the Company's Common Stock is then traded or quoted on the NYSE American, the Nasdaq Capital Market, the Nasdaq Global Market, the Nasdaq Global Select Market or the New York Stock Exchange (or any successors to any of the foregoing) (a "**Trading Market**") and the Class is Common Stock, the fair market value of a Share shall be the closing price or last sale price of a share of Common Stock reported for the Business Day (as defined below) immediately before the date on which Holder delivers this Warrant together with its Notice of Exercise to the Company. If the Company's Common Stock is not traded in a Trading Market but is quoted on OTCQB or OTCQX, the fair market value of a Share shall be the volume weighted average price of the Common Stock for such date (or the nearest preceding date) on OTCQB or OTCQX, as applicable. If the Common Stock is not then listed or quoted for trading on a Trading Market, OTCQB or OTCQX and if prices for the Common Stock are then reported on The Pink Open Market (or a similar organization or agency succeeding to its functions of reporting prices), the fair market value of a Share shall be the most recent bid price per share of the Common Stock so reported. If the Company's Common Stock is not traded on a Trading Market, is not quoted on OTCQB or OTCQX, and is not reported on the Pink Open Market, the Board of Directors of the Company shall determine the fair market value of a Share in its reasonable good faith judgment, subject to Section 6.12(a) below.

1.4 Delivery of Certificate and New Warrant. Within four (4) Business Days after Holder exercises this Warrant in the manner set forth in Section 1.1 or 1.2 above, if (i) either (A) there is an effective registration statement permitting the issuance of the Shares to or resale of the Shares by the Holder or (B) the Shares are eligible for resale by the Holder without volume or manner-of-sale limitations pursuant to Rule 144 (assuming cashless exercise of the Warrants), the Company shall cause the Shares purchased hereunder to be transmitted by the Company's transfer agent to the Holder by crediting the account of the Holder's or its designee's balance account with The Depository Trust Company through its Deposit or Withdrawal at Custodian system ("**DWAC**") if the Company is then a participant in such system; or (ii) if the conditions in 1.4(a)(i) are not satisfied, the Company shall deliver to Holder a certificate representing the Shares issued to Holder upon such exercise. In each case, if this Warrant has not been fully exercised and has not expired, the Company shall deliver to Holder a new warrant of like tenor and having the same terms as set forth herein (as in effect at such time) representing the Shares remaining to be issued upon further exercise hereof.

1.5 Replacement of Warrant. On receipt of evidence reasonably satisfactory to the Company of the loss, theft, destruction or mutilation of this Warrant and, in the case of loss, theft or destruction, on delivery of a customary indemnity agreement reasonably satisfactory in form, substance and amount to the Company or, in the case of mutilation, on surrender of this Warrant to the Company for cancellation, the Company shall, within four (4) Business Days, execute and deliver to Holder, in lieu of this Warrant, a new warrant of like tenor and amount and having the same terms as set forth herein (as in effect at such time).

1.6 Treatment of Warrant Upon Acquisition of Company.

(a) Acquisition. For the purpose of this Warrant, "**Acquisition**" means any transaction or series of related transactions involving: (i) the sale, lease, exclusive license, or other disposition of all or substantially all of the consolidated assets of the Company (ii) any merger or consolidation of the Company into or with another Person, or any other corporate reorganization, in which the stockholders of the Company in their capacity as such immediately prior to such merger, consolidation or reorganization, own shares representing less than a majority of the Company's (or the surviving or successor entity's) outstanding voting power immediately after such merger, consolidation or reorganization; or (iii) any sale or other transfer by the stockholders (or series of sales or transfers) of the Company of shares which in the aggregate represent at least a majority of the Company's then-total outstanding combined voting power.

(b) Treatment of Warrant at Acquisition. In the event of an Acquisition by a third party (or multiple related third parties) not related to or affiliated with the Company or stockholders prior to the Expiration Date in which the consideration to be received by the Company's stockholders consists solely of cash, solely of Marketable Securities (as defined below) or a combination of cash and Marketable Securities (a "**Cash/Public Acquisition**"), unless the Holder otherwise notifies the Company in writing this Warrant shall automatically and without need of any action or notice by the Holder or any other Person be deemed to have been exercised in full pursuant to Section 1.2 on the date immediately preceding the date the Cash/Public Acquisition is consummated.

(c) The Company shall provide Holder with prior written notice (in reasonable detail) of any Acquisition (together with such reasonable information as Holder may reasonably request regarding the Acquisition including without limitation the parties thereto, the projected consideration per Share to be paid to holders of Shares and the treatment of this Warrant (including without limitation the number of Shares (or such other securities) that would be issued to the Holder, assuming exercise of this Warrant in full in connection with such Acquisition) in connection with such contemplated Acquisition giving rise to such notice), which notice shall be delivered to Holder not less than seven (7) Business Days prior to the closing of the proposed Cash/Public Acquisition.

(d) Upon the closing of any Acquisition other than a Cash/Public Acquisition defined above, the acquiring, surviving or successor entity shall assume the obligations of this Warrant, and this Warrant shall thereafter be exercisable for the same securities and/or other property as would have been paid for the Shares issuable upon exercise of the unexercised portion of this Warrant as if such Shares were outstanding on and as of the closing of such Acquisition, subject to further adjustment from time to time in accordance with the provisions of this Warrant.

(e) As used in this Warrant, "**Marketable Securities**" means securities meeting all of the following requirements: (i) the issuer thereof is then subject to the reporting requirements of Section 13 or Section 15(d) of the Securities Exchange Act of 1934, as amended (the "**Exchange Act**"), and is then current in its filing of all required reports and other information under the Act and the Exchange Act; (ii) the class and series of shares or other security of the issuer that would be received by Holder in connection with the Acquisition were Holder to exercise this Warrant on or prior to the closing thereof is then traded on a Trading Market, and (iii) following the closing of such Acquisition, Holder would not be restricted from publicly re-selling all of the issuer's shares and/or other securities that would be received by Holder in such Acquisition were Holder to exercise or convert this Warrant in full on or prior to the closing of such Acquisition, except to the extent that any such restriction (x) arises solely under federal or state securities laws, rules or regulations, and (y) does not extend beyond six (6) months from the closing of such Acquisition to the extent such restrictions may be lifted at such time under the applicable federal or state securities laws, rules or regulations.

1.7 Automatic Cashless Exercise. To the extent this Warrant has not been exercised in full by the Holder prior to the Expiration Date, any portion of this Warrant that remains unexercised on such date shall be deemed to have been exercised automatically pursuant to Section 1.2 hereof, in whole (and not in part), on the Business Day immediately preceding the Expiration Date; provided that, notwithstanding the foregoing, unless the Holder otherwise elects in writing, no such automatic exercise shall occur in the event that the fair market value on the trading day immediately preceding the Expiration Date is less than the Exercise Price.

SECTION 2. ADJUSTMENTS TO THE SHARES AND EXERCISE PRICE.

2.1 Stock Dividends, Splits, Etc. If the Company declares or pays a dividend or distribution on the outstanding shares of the Class payable in Common Stock or other securities or property (including cash), then upon exercise of this Warrant, for each Share acquired, Holder shall receive, without additional cost to Holder, the total number and kind of securities and property which Holder would have received had Holder owned the Shares of record as of the date the dividend or distribution occurred. If the Company subdivides the outstanding shares of the Class by reclassification or otherwise into a greater number of shares, the number of Shares purchasable hereunder shall be proportionately increased and the Exercise Price shall be proportionately decreased. If the outstanding shares of the Class are combined or consolidated, by reclassification or otherwise, into a lesser number of shares, the Exercise Price shall be proportionately increased and the number of Shares shall be proportionately decreased.

2.2 Reclassification, Exchange, Combinations or Substitution. Upon any event whereby all of the outstanding shares of the Class are reclassified, exchanged, combined, substituted, or replaced (or the like) for, into, with or by Company securities of a different class and/or series, then from and after the consummation of such event, this Warrant will be exercisable for the number, class and series of Company securities that Holder would have received had the Shares been outstanding on and as of the consummation of such event, and subject to further adjustment thereafter from time to time in accordance with the provisions of this Warrant. The provisions of this Section 2.2 shall similarly apply to successive reclassifications, exchanges, combinations substitutions, replacements or other similar events.

2.3 No Fractional Share. No fractional Share shall be issuable upon exercise of this Warrant and the number of Shares to be issued shall be rounded down to the nearest whole Share. If a fractional Share interest arises upon any exercise of the Warrant, the Company shall eliminate such fractional Share interest by paying Holder in cash the amount computed by multiplying the fractional interest by (i) the fair market value (as determined in accordance with Section 1.3 above) of a full Share, less (ii) the then-effective Exercise Price.

2.4 Notice/Certificate as to Adjustments. The Company shall provide the Holder with prompt prior written notice of any adjustment event. Upon giving effect to any adjustment of the Exercise Price, Class and/or number of Shares, the Company, at the Company's expense, shall, not later than four (4) Business Days following the occurrence of such event, notify the Holder in writing, which notice shall set forth (in reasonable detail) the reason for and effect of the adjustments to the Exercise Price, Class and/or number of Shares, as the case may be, and the facts upon which such adjustment is based. Such written notification shall include a certificate of the Company's Chief Financial Officer, including computations of such adjustment and the Exercise Price, Class and number of Shares in effect upon the date of such adjustment.

SECTION 3. REPRESENTATIONS AND COVENANTS OF THE COMPANY.

3.1 Representations and Warranties. The Company represents and warrants to, and agrees with, the Holder as follows:

(a) All Shares which may be issued upon the proper exercise of this Warrant in accordance with the terms contained herein shall, upon issuance, be duly authorized, validly issued, fully paid and non-assessable, and free of any liens except for restrictions on transfer provided for herein or under applicable federal and state securities laws. The Company covenants that it shall at all times cause to be reserved and kept available out of its authorized and unissued capital stock such number of shares of the Class, Common Stock and other securities as will be sufficient to permit the exercise in full of this Warrant and the conversion of the Shares into Common Stock or such other securities.

3.2 Notice of Certain Events. If the Company proposes at any time to:

(a) declare any dividend or distribution upon the outstanding shares of common stock, whether in cash, property, stock, or other securities and whether or not a regular cash dividend;

(b) offer for subscription or sale pro rata to the holders of the outstanding shares of the Company's common stock (other than pursuant to contractual pre-emptive rights);

(c) effect any reclassification, exchange, combination, substitution, reorganization or recapitalization of the outstanding shares of common stock; or

(d) effect an Acquisition or to liquidate, dissolve or wind up;

then, in connection with each such event, the Company shall give Holder:

(1) at least seven (7) Business Days prior written notice of the date on which a record will be taken for such dividend, distribution, or subscription rights (and specifying the date on which the holders of outstanding shares of the Class will be entitled thereto) or for determining rights to vote, if any, in respect of the matters referred to in (a) and (b) above;

(2) in the case of the matters referred to in (c) and (d) above at least seven (7) Business Days prior written notice of the date when the same will take place (and specifying the date on which the holders of outstanding shares of the Class will be entitled to exchange their shares for the securities or other property deliverable upon the occurrence of such event).

In the case of any matters referred to in (a), (b), (c) or (d) above, the Company will also provide information reasonably requested by Holder in respect of any such matter, including information that is reasonably necessary to enable Holder to comply with Holder's accounting or reporting requirements.

Provided the Company remains subject to the reporting obligations of the Exchange Act, the notice provisions set forth in this Section 3.2 shall terminate at such time as the Company no longer has substantially similar notice obligations under any other warrant, option or similar instrument or agreement thereto.

SECTION 4. REPRESENTATIONS, WARRANTIES OF THE HOLDER.

The Holder represents and warrants to the Company as follows:

4.1 Purchase for Own Account. This Warrant and the securities to be acquired upon exercise of this Warrant by Holder are being acquired for investment for Holder's account, not as a nominee or agent, and not with a current view to the public resale or distribution within the meaning of the Act. Holder also represents that it has not been formed for the specific purpose of acquiring this Warrant or the Shares.

4.2 Disclosure of Information. Holder is aware of the Company's business affairs and financial condition and has received or has had full access to all the information it considers necessary or appropriate to make an informed investment decision with respect to the acquisition of this Warrant and its underlying securities. Holder further has had an opportunity to ask questions and receive answers from the Company regarding the terms and conditions of the offering of this Warrant and its underlying securities and to obtain additional information (to the extent the Company possessed such information or could acquire it without unreasonable effort or expense) necessary to verify any information furnished to Holder or to which Holder has access.

4.3 Investment Experience. Holder understands that the purchase of this Warrant and its underlying securities involves substantial risk. Holder has experience as an investor in securities of companies in the development stage and acknowledges that Holder can bear the economic risk of such Holder's investment in this Warrant and its underlying securities and has such knowledge and experience in financial or business matters that Holder is capable of evaluating the merits and risks of its investment in this Warrant and its underlying securities and/or has a preexisting personal or business relationship with the Company and certain of its officers, directors or controlling persons of a nature and duration that enables Holder to be aware of the character, business acumen and financial circumstances of such persons.

4.4 Accredited Investor Status. Holder is an "accredited investor" within the meaning of Regulation D promulgated under the Act.

4.5 The Act. Holder understands that this Warrant and the Shares issuable upon exercise hereof have not been registered under the Act in reliance upon a specific exemption therefrom, which exemption depends upon, among other things, the bona fide nature of the Holder's investment intent as expressed herein. Holder understands that this Warrant and the Shares issued upon any exercise hereof must be held indefinitely unless subsequently registered under the Act and qualified under applicable state securities laws, or unless exemption from such registration and qualification are otherwise available. Holder is aware of the provisions of Rule 144 promulgated under the Act.

4.6 No Voting Rights. Holder, as a Holder of this Warrant, will not have any voting rights until the exercise of this Warrant.

SECTION 5. REGISTRATION RIGHTS AND COVENANTS OF THE COMPANY.

5.1 Registration. In the event that the Company files a registration statement (a "**Registration Statement**") with the Securities and Exchange Commission covering the sale of its shares of Common Stock (other than a registration statement on Form S-4 or S-8, or on another form, or in another context, in which such "piggyback" registration would be inappropriate), then, with respect to any or all Shares, Company shall notify Holder in reasonable advance of (but at least ten (10) business days prior to) the filing of such registration statement and Holder shall have the right to require the Company to register the resale of the Shares on such Registration Statement to the extent the Company does not maintain an effective registration statement for the Shares. Notwithstanding the foregoing, the registration rights contained in this Section 5.1 shall not be effective more than seven (7) years from the effective date of the Registration Statement in accordance with FINRA Rule 5110(f) (2)(G)(v).

5.2 Suspension. The Company may by written notice to Holder immediately suspend the use of any resale prospectus for a period not to exceed 60 consecutive days in any one instance or 120 calendar days in total, in either case in any 12-month period (each, a "**Suspension Period**") at any time that (i) the Company becomes engaged in a business activity or negotiation or any other event has occurred or is anticipated which is not disclosed in that prospectus which the Company reasonably believes should be disclosed therein under applicable law and which the Company desires to keep confidential for business purposes or (ii) the Company determines that a particular disclosure so determined to be required to be disclosed therein be premature or would adversely affect the Company or its business or prospects. The Company will use its commercially reasonable efforts to ensure that the use of the Registration Statement may be resumed as soon as practicable.

5.3 Costs and Expenses. The Company shall pay all expenses payable in connection with the preparation, issuance and delivery of certificates for the Shares and any new Warrants, except that if the certificates for the Shares or the new Warrants are to be registered in a name or names of a Person other than the name of the Holder or one of its Affiliates or related funds, funds sufficient to pay all transfer taxes payable as a result of such transfer shall be paid by the Holder at the time of its delivery of the Notice of Exercise or promptly upon receipt of a written request by the Company for payment. The Company shall bear all costs and expenses associated with the registration of the Shares as specified in this Section 5 and the preparation and filing of the Registration Statement, including, without limitation, all printing expenses, legal fees and disbursement of the Company's outside counsel, commissions, NASDAQ and blue sky registration filing fees and transfer agents' and registrars' fees, but not including underwriting commissions or similar charges and legal fees and disbursements of counsel to Holder. "**Affiliate**" of any Person means any other Person which, directly or indirectly, controls, is controlled by or is under common control with such Person. "**Control**" (and its correlatives) by any Person means the power of such Person, directly or indirectly, (i) to vote 10% or more of the Capital Securities (on a fully diluted basis) of another Person which Capital Securities have ordinary voting power for the election of directors, managing members or general partners (as applicable), or (ii) to direct or cause the direction of the management and policies of such other Person (whether by contract or otherwise).

5.4 Covenants. The Company covenants and agrees that:

(a) Securities Filings; Rules 144 & 144A. The Company will use commercially reasonable efforts to (i) file any reports required to be filed by it under the Securities Act, the Exchange Act or the rules and regulations adopted by the Securities and Exchange Commission (the "**Commission**") thereunder, (ii) cooperate with the Holder and each holder of Shares in supplying such information concerning the Company as may be necessary for the Holder or holder of Shares to complete and file any information reporting forms currently or hereafter required by the Commission as a condition to the availability of an exemption from the Securities Act for the sale of this Warrant or Shares issued upon exercise hereof, and (iii) take such further action as the Holder may reasonably request to the extent required from time to time to enable the Holder to sell Shares without registration under the Securities Act within the limitation of the exemptions provided by Rule 144 or 144A under the Securities Act, as such Rules may be amended from time to time, or any similar rule or regulation hereafter adopted by the Commission.

(b) Obtaining of Governmental Approvals and Stock Exchange Listings. The Company will use commercially reasonable efforts to (i) obtain and keep effective any and all permits, consents and approvals of governmental agencies and authorities which may from time to time be required of the Company in order to satisfy its obligations hereunder, and (ii) take all action which may reasonably be necessary so that the Shares issued upon exercise hereof, immediately upon their issuance upon the exercise of this Warrant, will be listed on each securities exchange, if any, on which such Shares are then listed.

(c) Structural Dilution. So long as this Warrant remains outstanding the Company shall not permit any of its Subsidiaries to issue, sell, distribute or otherwise grant in any manner (including by assumption) any rights to subscribe for or to purchase, or any warrants or options for the purchase of any equity securities of such Subsidiary or any securities convertible into or exchangeable for such equity securities (or any rights to subscribe for or to purchase, or any warrants or options for the purchase of any such convertible or exchangeable securities), whether or not immediately exercisable or exercisable prior to the Expiration Date or thereafter, provided, however, that the foregoing shall not prohibit the Company from forming a Subsidiary after the Issue Date while the Credit Agreement, dated as of March 23, 2022 (the "Credit Agreement"), is in effect if such formation and any Investments in such Subsidiary comply with the terms of the Credit Agreement.

(d) Ownership Cap. The Company shall not knowingly effect the exercise of this Warrant, and the Holder shall not have the right to exercise this Warrant to the extent that, after giving effect to such exercise, the Holder (together with its Affiliates) would beneficially own in excess of 9.99% (the "**Maximum Percentage**") of the voting Shares outstanding immediately after giving effect to such exercise. For purposes of the foregoing sentence, the aggregate number of Shares beneficially owned by the Holder and its Affiliates shall include the number of Shares issuable upon exercise of this Warrant with respect to which the determination of such sentence is being made, but shall exclude Shares which would be issuable upon (i) exercise of the remaining, unexercised portion of this Warrant beneficially owned by the Holder and its Affiliates and (ii) exercise or conversion of the unexercised or unconverted portion of any other securities of the Company beneficially owned by the Holder and its Affiliates (including, without limitation, any convertible notes or convertible shares or warrants) subject to a limitation on conversion or exercise analogous to the limitation contained herein. Except as set forth in the preceding sentence, for purposes of this Section 5.4(d), beneficial ownership shall be calculated in accordance with Section 13(d) of the Exchange Act. For purposes of this Warrant, in determining the number of outstanding Shares, the Holder of this Warrant may rely on the number of outstanding Shares as reflected in the most recent of (i) the Company's Form 10-K, Form 10-Q or other public filing with the Commission, as the case may be, (ii) a more recent public announcement by the Company or (iii) any other notice by the Company or its transfer agent setting forth the number of Shares outstanding. Upon the written request of the Holder, the Company shall, within fifteen (15) Business Days, confirm to the Holder the number of Shares then outstanding. Furthermore, upon the written request of the Company, the Holder shall confirm to the Company its then current beneficial ownership with respect to the Company's Shares.

SECTION 6. MISCELLANEOUS.

6.1 Term. Subject to the provisions of Section 1.6 above, this Warrant is exercisable in whole or in part at any time and from time to time on or before 6:00 PM, Eastern time, on the Expiration Date and shall be void thereafter.

6.2 Legends. Each certificate evidencing Shares (and each certificate evidencing the securities issued upon conversion of any Shares, if any) shall be imprinted with a customary applicable legend as reasonably determined by the Company, unless, in the written opinion of counsel selected by the Holder (who may be an employee of such Holder), which counsel and opinion shall be reasonably acceptable to the Company, the Shares need no longer be subject to restrictions on resale under the Securities Act, in which event, upon the request of such Holder, the Company shall issue replacement certificates for such Shares that do not bear a legend.

6.3 Compliance with Securities Laws on Transfer. This Warrant and the Shares issued upon exercise of this Warrant (and the securities issuable, directly or indirectly, upon conversion of the Shares, if any) may not be transferred or assigned in whole or in part except with respect to transfers and assignments to Affiliates or related funds of the Holder or otherwise in compliance with applicable federal and state securities laws by the transferor and the transferee (including, without limitation, the delivery of investment representation letters and legal opinions reasonably satisfactory to the Company, as reasonably requested by the Company). The Company agrees that it shall cause its counsel to issue a legal opinion to the transfer agent promptly if required by the transfer agent to effect the removal of the legend hereunder, and, if required for the issuance of such legal opinion, Holder agrees to deliver a letter containing customary representations and warranties required by counsel issuing such legal opinion.

6.4 Transfer Procedure. After receipt by Initial Holder of the executed Warrant, Initial Holder may transfer all or part of this Warrant to one or more of Initial Holder's affiliates or related funds (each, an "**Initial Holder Affiliate**"), by execution of an Assignment substantially in the form of Appendix 2. Subject to the provisions of Section 6.3 and upon providing the Company with written notice, Initial Holder, any such Initial Holder Affiliate and any subsequent Holder, may transfer all or part of this Warrant or the Shares issuable upon exercise of this Warrant to any other transferee, provided, however, in connection with a transfer of this Warrant, the Initial Holder Affiliate(s) or any subsequent Holder will give the Company notice of the portion of the Warrant being transferred with the name, address and taxpayer identification number (or jurisdictional equivalent) of the transferee and Holder will surrender this Warrant to the Company for reissuance to the transferee(s) (and Holder if applicable).

6.5 Notices. All notices and other communications hereunder from the Company to the Holder, or vice versa, shall be deemed delivered and effective (i) when given personally, (ii) on the third (3rd) Business Day after being mailed by first-class registered or certified mail, postage prepaid, (iii) upon actual receipt if given by facsimile or electronic mail and such receipt is confirmed in writing by the recipient, or (iv) on the first (1st) Business Day following delivery to a reliable overnight courier service, courier fee prepaid, in any case at such address as may have been furnished to the Company or Holder, as the case may be, in writing by the Company or such Holder from time to time in accordance with the provisions of this Section 6.5. All notices to Holder shall be addressed as follows until the Company receives notice of a change of address in connection with a transfer or otherwise:

[NAME OF HAYFIN ENTITY]
c/o Hayfin Services LLP
One Eagle Place, London, SW1Y 6AF
Email: Howard.Rowe@hayfin.com
Michael.Tischler@hayfin.com
gc@hayfin.com
Attention: Howard Rowe, Michael Tischler, Legal Team / Loan Operations

With a copy (which shall not constitute notice) to:

DLA Piper LLP (US)
4365 Executive Dr Suite #1100
San Diego, CA 92121
Attn: Matt Leivo
Email: matt.leivo@us.dlapiper.com

Notice to the Company shall be addressed as follows until Holder receives notice of a change in address:

ADMA Biologics, Inc.
465 Route 17 South
Ramsey, NJ 07446
Attn: Adam Grossman, President and Chief Executive Officer
Fax: (201) 478-5553
Email: agrossman@admabio.com

With a copy (which shall not constitute notice) to:

Morgan, Lewis & Bockius LLP
502 Carnegie Center
Princeton, NJ 08540
Attn: David C. Schwartz, Esq.
Tel.: (609) 919-6680
Fax: (609) 919-6701
Email: david.schwartz@morganlewis.com

6.6 Waiver. This Warrant and any term hereof may be changed, waived, discharged or terminated (either generally or in a particular instance and either retroactively or prospectively) only by an instrument in writing signed by the party against which enforcement of such change, waiver, discharge or termination is sought.

6.7 Attorneys' Fees. In the event of any dispute between the parties concerning the terms and provisions of this Warrant, the party prevailing in such dispute shall be entitled to collect from the other party all costs incurred in such dispute, including reasonable attorneys' fees. The Company shall pay on demand all other costs and expenses relating to this Warrant or any replacements or supplements.

6.8 Counterparts; Facsimile/Electronic Signatures. This Warrant may be executed in counterparts, all of which together shall constitute one and the same agreement. Any signature page delivered electronically or by facsimile shall be binding to the same extent as an original signature page with regards to any agreement subject to the terms hereof or any amendment thereto.

6.9 Governing Law. This Warrant shall be governed by and construed in accordance with the laws of the State of New York, without giving effect to its principles regarding conflicts of law.

6.10 Headings. The headings in this Warrant are for purposes of reference only and shall not limit or otherwise affect the meaning of any provision of this Warrant.

6.11 Business Days. "**Business Day**" means any day that is not a Saturday, Sunday or any other day on which commercial banks located in New York, New York are authorized or required by law to be closed for business.

6.12 Disputes and Other Actions Affecting Shares or this Warrant. The parties hereto agree as follows:

(a) Disputes. In the event of any dispute which arises between the Holder and the Company (including the Board of Directors of the Company) with respect to the calculation of the adjusted Exercise Price, the number of Shares issuable upon exercise, any determination of fair market value or any other matter involving this Warrant or the Shares that is not resolved by the parties after good faith discussions and efforts to reach resolution, upon the request of the Holder the disputed issue(s) shall be submitted to a firm of independent investment bankers or public accountants of recognized national standing, which (i) shall be chosen by the Company and be reasonably satisfactory to the Holder and (ii) shall be completely independent of the Company (an "**Independent Advisor**"), for determination, and such determination by the Independent Advisor shall be binding upon the Company and the Holder with respect to this Warrant, any Shares issued in connection herewith or any other matter in dispute as the case may be, absent manifest error. Costs and expenses of the Independent Advisor shall be shared 50/50 by the Company and the Holder.

(b) Equitable Equivalent. In case any event shall occur as to which the provisions of Section 2 above are not strictly applicable but the failure to make any adjustment would not, in the reasonable, good faith opinion of the Holder, fairly protect the rights and benefits of the Holder represented by this Warrant in accordance with the essential intent and principles of Section 2, then, in any such case, at the request of the Holder, the Company shall submit the matter and issues raised by the Holder to an Independent Advisor, which shall give its opinion upon the adjustment, if any, on a basis consistent with the essential intent and principles established in Section 2, to the extent necessary to preserve, without dilution, the rights and benefits represented by this Warrant. Upon receipt of such opinion, the Company will promptly mail a copy thereof to the Holder and shall make the adjustments described therein, if any. Costs and expenses of the Independent Advisor shall be shared 50/50 by the Company and the Holder.

6.13 No Avoidance. The Company shall not, by way of amendment of its certificate of incorporation or by-laws, by way of contract or other agreement, or through any consolidation, merger, reorganization, transfer of assets, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of this Warrant, but will at all times in good faith assist in the carrying out of all such terms and in the taking of all such action as may be necessary or appropriate in order to protect the rights of the Holder against dilution or other impairment as if the Holder was a shareholder of the Company entitled to the benefit of fiduciary duties afforded to shareholders under Delaware law.

[Remainder of page intentionally left blank; signature page follows]

IN WITNESS WHEREOF, the parties have caused this Warrant to Purchase Common Stock to be executed by their duly authorized representatives effective as of the Issue Date written above.

ADMA BIOLOGICS, INC.

By: _____

Name: Brian Lenz
Title: Executive Vice President, Chief Financial Officer, and Secretary

[*HOLDER*]

By: _____
Name:
Title:

By: _____
Name:
Title:

[*Signature Page – Warrant (2022)*]

APPENDIX 1

NOTICE OF EXERCISE

1. The undersigned Holder hereby exercises its right to purchase ___ shares of the Common Stock of ADMA BIOLOGICS, INC. (the "**Company**") in accordance with the attached Warrant To Purchase Common Stock, and tenders payment of the aggregate Exercise Price for such shares as follows [circle one]:

☐ Check in the amount of $_____ payable to order of the Company enclosed herewith

☐ Wire transfer of immediately available funds to the Company's account

☐ Cashless Exercise pursuant to Section 1.2 of the Warrant

☐ Other [Describe] _____

2. Please issue a certificate or certificates representing the Shares in the name specified below:

_____
Holder's Name

_____

_____
(Address)

HOLDER:

By: _____
Name: _____
Title _____
Date: _____

APPENDIX 2

ASSIGNMENT

For value received, the undersigned hereby sells, assigns and transfers unto

Name: [TRANSFEREE]

Address: _____

Tax ID _____

that certain Warrant to Purchase Common Stock issued by ADMA Biologics, Inc. (the "**Company**"), on [DATE] (the "**Warrant**") together with all rights, title and interest therein.

[HOLDER]

By: _____
Name: _____
Title _____

Date: _____

By its execution below, and for the benefit of the Company, [TRANSFEREE] makes each of the representations and warranties set forth in Section 4 of the Warrant and agrees to all other provisions of the Warrant as of the date hereof.

[TRANSFEREE]

By: _____
Name: _____
Title _____

Exhibit 10.24

Execution Version

CREDIT AGREEMENT AND GUARANTY

dated as of March 23, 2022

by and among

ADMA BIOLOGICS, INC.,
as Borrower,

THE LENDERS PARTY HERETO,

and

HAYFIN SERVICES LLP,
as the Agent for the Lenders

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SCHEDULES:

EXHIBITS:

CREDIT AGREEMENT AND GUARANTY

CREDIT AGREEMENT AND GUARANTY dated as of March 23, 2022 (as amended, supplemented or otherwise modified from time to time, this "Agreement"), by and among ADMA BIOLOGICS, INC., a Delaware corporation (the "Borrower"), the Subsidiaries of the Borrower from time to party hereto, as guarantors, the lenders from time to time party hereto (the "Lenders") and HAYFIN SERVICES LLP, as Agent for the Lenders hereunder (in such capacity, together with its successors and assigns in such capacity, the "Agent").

WHEREAS, the Borrower has requested that the Lenders extend credit to the Borrower in the form of term loans in an aggregate principal amount of up to $175,000,000; and

WHEREAS, the Lenders are willing to extend credit to the Borrower on the terms and subject to the conditions set forth herein.

NOW, THEREFORE, the parties hereto agree as follows:

ARTICLE I
DEFINITIONS AND ACCOUNTING TERMS

SECTION 1.1 Defined Terms. The following terms (whether or not underscored) when used in this Agreement, including its preamble and recitals, shall, except where the context otherwise requires, have the following meanings (such meanings to be equally applicable to the singular and plural forms thereof):

"ABR" means, for any day, a rate per annum equal to the highest of (a) the Prime Rate in effect on such day, (b) the Federal Funds Rate in effect on such day plus 0.50% and (c) Adjusted Term SOFR for a one-month tenor in effect on such day plus 1.00%. Any change in the ABR due to a change in the Prime Rate, the Federal Funds Rate or Adjusted Term SOFR shall be effective from and including the effective date of such change in the Prime Rate, the Federal Funds Rate or Adjusted Term SOFR, respectively.

"ABR Loan" means a Loan that bears interest based on the ABR.

"ABR Term SOFR Determination Day" has the meaning specified in the definition of "Term SOFR".

"Adjusted Term SOFR" means, for purposes of any calculation, the rate per annum equal to (a) Term SOFR for such calculation plus (b) if Term SOFR is greater than the Floor, the Term SOFR Adjustment.

"Affected Financial Institution" means (a) any EEA Financial Institution or (b) any UK Financial Institution.

"Affiliate" of any Person means any other Person which, directly or indirectly, controls, is controlled by or is under common control with such Person. "Control" (and its correlatives) by any Person means the power of such Person, directly or indirectly, (i) to vote 10% or more of the Capital Securities (on a fully diluted basis) of another Person which Capital Securities have ordinary voting power for the election of directors, managing members or general partners (as applicable), or (ii) to direct or cause the direction of the management and policies of such other Person (whether by contract or otherwise).

"Agent" has the meaning specified in the preamble.

"Agreement" has the meaning specified in the preamble.

"Applicable Margin" means, for any day, as to any SOFR Loan, 9.50% per annum or as to any ABR Loan, 8.50% per annum, in each case, as such percentage may be increased pursuant to Section 3.5 or 3.12.

"Assignment and Assumption" means an assignment and assumption entered into by a Lender and an assignee of such Lender substantially in the form of Exhibit D hereto.

"Authorized Officer" means, relative to any Credit Party or any of its Subsidiaries, those of its officers, general partners or managing members (as applicable) whose signatures and incumbency shall have been certified to the Agent pursuant to Section 5.1(a).

"Available Tenor" means, as of any date of determination and with respect to the then-current Benchmark, as applicable, (x) if such Benchmark is a term rate, any tenor for such Benchmark (or component thereof) that is or may be used for determining the length of an interest period pursuant to this Agreement or (y) otherwise, any payment period for interest calculated with reference to such Benchmark (or component thereof) that is or may be used for determining any frequency of making payments of interest calculated with reference to such Benchmark, in each case, as of such date and not including, for the avoidance of doubt, any tenor for such Benchmark that is then-removed from the definition of "Interest Period" pursuant to Section 2.5(d).

"Bail-In Action" means the exercise of any Write-Down and Conversion Powers by the applicable Resolution Authority in respect of any liability of an Affected Financial Institution.

"Bail-In Legislation" means, (i) with respect to any EEA Member Country implementing Article 55 of Directive 2014/59/EU of the European Parliament and of the Council of the European Union, the implementing law, regulation, rule or requirement for such EEA Member Country from time to time which is described in the EU Bail-In Legislation Schedule and (ii) with respect to the United Kingdom, Part I of the United Kingdom Banking Act 2009 (as amended from time to time) and any other law, regulation or rule applicable in the United Kingdom relating to the resolution of unsound or failing banks, investment firms or other financial institutions or their affiliates (other than through liquidation, administration or other insolvency proceedings).

"Benchmark" means, initially, the Term SOFR Reference Rate; provided that if a Benchmark Transition Event has occurred with respect to the Term SOFR Reference Rate or the then-current Benchmark, then "Benchmark" means the applicable Benchmark Replacement to the extent that such Benchmark Replacement has replaced such prior benchmark rate pursuant to Section 2.5(a).

"Benchmark Replacement" means with respect to any Benchmark Transition Event, the sum of: (a) the alternate benchmark rate that has been selected by the Agent and the Borrower giving due consideration to (i) any selection or recommendation of a replacement benchmark rate or the mechanism for determining such a rate by the Relevant Governmental Body or (ii) any evolving or then-prevailing market convention for determining a benchmark rate as a replacement to the then-current Benchmark for Dollar-denominated syndicated credit facilities and (b) the related Benchmark Replacement Adjustment; provided that, if such Benchmark Replacement as so determined would be less than the Floor, such Benchmark Replacement will be deemed to be the Floor for the purposes of this Agreement and the other Loan Documents.

"Benchmark Replacement Adjustment" means, with respect to any replacement of the then-current Benchmark with an Unadjusted Benchmark Replacement, the spread adjustment, or method for calculating or determining such spread adjustment, (which may be a positive or negative value or zero) that has been selected by the Agent and the Borrower giving due consideration to (a) any selection or recommendation of a spread adjustment, or method for calculating or determining such spread adjustment, for the replacement of such Benchmark with the applicable Unadjusted Benchmark Replacement by the Relevant Governmental Body or (b) any evolving or then-prevailing market convention for determining a spread adjustment, or method for calculating or determining such spread adjustment, for the replacement of such Benchmark with the applicable Unadjusted Benchmark Replacement for Dollar-denominated syndicated credit facilities.

"Benchmark Replacement Date" means the earliest to occur of the following events with respect to the then-current Benchmark:

(a) in the case of clause (a) or (b) of the definition of "Benchmark Transition Event", the later of (i) the date of the public statement or publication of information referenced therein and (ii) the date on which the administrator of such Benchmark (or the published component used in the calculation thereof) permanently or indefinitely ceases to provide all Available Tenors of such Benchmark (or such component thereof); or

(b) in the case of clause (c) of the definition of "Benchmark Transition Event", the first date on which such Benchmark (or the published component used in the calculation thereof) has been determined and announced by or on behalf of the administrator of such Benchmark (or such component thereof) or the regulatory supervisor for the administrator of such Benchmark (or such component thereof) to be non-representative or non-compliant with or non-aligned with the International Organization of Securities Commissions (IOSCO) Principles for Financial Benchmarks; provided that such non-representativeness, non-compliance or non-alignment will be determined by reference to the most recent statement or publication referenced in such clause (c) and even if any Available Tenor of such Benchmark (or such component thereof) continues to be provided on such date.

For the avoidance of doubt, the "Benchmark Replacement Date" will be deemed to have occurred in the case of clause (a) or (b) with respect to any Benchmark upon the occurrence of the applicable event or events set forth therein with respect to all then-current Available Tenors of such Benchmark (or the published component used in the calculation thereof).

"Benchmark Transition Event" means the occurrence of one or more of the following events with respect to the then-current Benchmark:

(a) a public statement or publication of information by or on behalf of the administrator of such Benchmark (or the published component used in the calculation thereof) announcing that such administrator has ceased or will cease to provide all Available Tenors of such Benchmark (or such component thereof), permanently or indefinitely; provided that, at the time of such statement or publication, there is no successor administrator that will continue to provide any Available Tenor of such Benchmark (or such component thereof);

(b) a public statement or publication of information by the regulatory supervisor for the administrator of such Benchmark (or the published component used in the calculation thereof), the Federal Reserve Board, the Federal Reserve Bank of New York, an insolvency official with jurisdiction over the administrator for such Benchmark (or such component), a resolution authority with jurisdiction over the administrator for such Benchmark (or such component) or a court or an entity with similar insolvency or resolution authority over the administrator for such Benchmark (or such component), which states that the administrator of such Benchmark (or such component) has ceased or will cease to provide all Available Tenors of such Benchmark (or such component thereof) permanently or indefinitely; provided that, at the time of such statement or publication, there is no successor administrator that will continue to provide any Available Tenor of such Benchmark (or such component thereof); or

(c) a public statement or publication of information by or on behalf of the administrator of such Benchmark (or the published component used in the calculation thereof) or the regulatory supervisor for the administrator of such Benchmark (or such component thereof) announcing that all Available Tenors of such Benchmark (or such component thereof) are not, or as of a specified future date will not be, representative or in compliance with or aligned with the International Organization of Securities Commissions (IOSCO) Principles for Financial Benchmarks.

For the avoidance of doubt, a "Benchmark Transition Event" will be deemed to have occurred with respect to any Benchmark if a public statement or publication of information set forth above has occurred with respect to each then-current Available Tenor of such Benchmark (or the published component used in the calculation thereof).

"Benchmark Transition Start Date" means, in the case of a Benchmark Transition Event, the earlier of (a) the applicable Benchmark Replacement Date and (b) if such Benchmark Transition Event is a public statement or publication of information of a prospective event, the ninetieth (90th) day prior to the expected date of such event as of such public statement or publication of information (or if the expected date of such prospective event is fewer than ninety (90) days after such statement or publication, the date of such statement or publication).

"Benchmark Unavailability Period" means, the period (if any) (a) beginning at the time that a Benchmark Replacement Date has occurred if, at such time, no Benchmark Replacement has replaced the then-current Benchmark for all purposes hereunder and under any Loan Document in accordance with Section 2.5 and (b) ending at the time that a Benchmark Replacement has replaced the then-current Benchmark for all purposes hereunder and under any Loan Document in accordance with Section 2.5.

"Beneficial Ownership Certification" means a certification regarding beneficial ownership as required by the Beneficial Ownership Regulation.

"Beneficial Ownership Regulation" means 31 C.F.R. § 1010.230.

"Blood Center Acquisition/Investment" has the meaning specified in Section 8.23.

"Boca Facility" means the FDA-licensed plasma fractionation manufacturing facility located in Boca Raton, FL at 5800 Park of Commerce Boulevard, NW, Boca Raton, FL 33487 and 5900 Park of Commerce Boulevard, NW, Boca Raton, Florida 33487.

"Boca Facility Title Policy" has the meaning specified in Section 7.13(e).

"Borrower" has the meaning specified in the preamble.

"Business Day" means any day that is not a Saturday, Sunday or other day that is a legal holiday under the laws of the State of New York or London or Luxembourg or is a day on which banking institutions in such state are authorized or required by Law to close.

"Capital Securities" means, with respect to any Person, all shares of, interests or participations in, or other equivalents in respect of (in each case however designated, whether voting or non-voting), such Person's capital stock or other equity securities, issued and outstanding as of the date hereof or any time hereafter, including treasury stock.

"Capitalized Lease Liabilities" means, with respect to any Person, all monetary obligations of such Person and its Subsidiaries under any leasing or similar arrangement which have been (or, in accordance with GAAP, should be) classified as capitalized leases, and for purposes of each Loan Document the amount of such obligations shall be the capitalized amount thereof, determined in accordance with GAAP, and the stated maturity thereof shall be the date of the last payment of rent or any other amount due under such lease prior to the first date upon which such lease may be terminated by the lessee without payment of a premium or a penalty.

"Cash Equivalent Investment" means, at any time:

(a) any direct obligation of (or unconditionally guaranteed by) the United States or a state thereof or of the District of Columbia (or any agency or political subdivision thereof, to the extent such obligations are supported by the full faith and credit of the United States or a state thereof or of the District of Columbia) maturing not more than one (1) year after such time;

(b) commercial paper, or corporate demand notes, maturing not more than 270 days from the date of issue, which is issued by a corporation (other than an Affiliate of a Credit Party or any of its Subsidiaries) organized under the laws of any state of the United States or of the District of Columbia and rated A-1 or higher by S&P or P-1 or higher by Moody's; or

(c) any certificate of deposit, time deposit or banker's acceptance, maturing not more than one year after its date of issuance, which is issued by any bank organized under the laws of the United States (or any state thereof or of the District of Columbia) and which has (x) a credit rating of A2 or higher from Moody's or A or higher from S&P and (y) a combined capital and surplus greater than $500,000,000.

(d) any repurchase agreement entered into with any commercial banking institution meeting the requirements set forth in clause (c) above which (i) is secured by a fully perfected security interest in any obligation of the type described in any of clauses (a) through (c) above and (ii) has a market value at the time such repurchase agreement is entered into of not less than one-hundred percent (100%) of the repurchase obligation of such commercial banking institution thereunder;

(e) money market accounts or mutual funds which invest exclusively or substantially in assets satisfying the foregoing requirements; or

(f) other short-term liquid investments approved in writing by the Agent.

"cGMP" means the applicable regulations setting forth current Good Manufacturing Practices, promulgated by the FDA under the FD&C Act.

"Change in Control" means and shall be deemed to have occurred if:

(a) any "person" or "group" (as such terms are used in Sections 13(d) and 14(d) of the Exchange Act, but excluding any employee benefit plan of such person or its subsidiaries, and any person or entity acting in its capacity as trustee, agent or other fiduciary or administrator of any such plan) becomes the "beneficial owner" (as defined in Rules 13d-3 and 13d-5 under the Exchange Act, except that a person or group shall be deemed to have "beneficial ownership" of all securities that such person or group has the right to acquire, whether such right is exercisable immediately or only after the passage of time (such right, an "option right")), directly or indirectly, of 35% or more of the equity securities of the Borrower entitled to vote for members of the board of directors or equivalent governing body of the Borrower on a fully-diluted basis (and taking into account all such securities that such person or group has the right to acquire pursuant to any option right);

(b) a majority of the seats (other than vacant seats) on the board of directors (or equivalent) of the Borrower shall at any time be occupied by persons who were not (x) directors (or equivalent) on the Closing Date, (y) nominated or appointed by the board of directors (or equivalent) of the Borrower as of the Closing Date or (z) nominated or appointed by directors (or equivalent) so nominated;

(c) the sale, lease, transfer, conveyance or other Disposition, in one or more related transactions, of all or substantially all of the assets of the Borrower and its Subsidiaries, taken as a whole, shall occur; or

(d) the Borrower shall cease to directly or indirectly own, beneficially and of record, 100% of the issued and outstanding Capital Securities of each Subsidiary Guarantor, free and clear of all Liens (other than any Liens granted hereunder and other Permitted Liens).

"Change in Law" means the occurrence, after the date of this Agreement, of any of the following: (i) the adoption or taking effect of any law, rule, regulation or treaty, (ii) any change in any law, rule, regulation or treaty or in the administration, interpretation, implementation or application thereof by any Governmental Authority or (iii) the making or issuance of any request, rule, guideline or directive (whether or not having the force of law) by any Governmental Authority; provided that, notwithstanding anything herein to the contrary, (x) the Dodd-Frank Wall Street Reform and Consumer Protection Act and all requests, rules, guidelines or directives thereunder or issued in connection therewith and (y) all requests, rules, guidelines or directives promulgated by the Bank for International Settlements, the Basel Committee on Banking Supervision (or any successor or similar authority) or the United States or foreign regulatory authorities, in each case pursuant to Basel III, shall in each case be deemed to be a "Change in Law", regardless of the date enacted, adopted or issued.

"Closing Date" means March 23, 2022.

"Closing Date Certificate" has the meaning specified in Section 5.1(b).

"Closing Date Lenders" means each Lender that has Commitments to make Closing Date Loans on the Closing Date.

"Closing Date Loan" means the term loans made on the Closing Date pursuant to Section 2.1(a) in an aggregate principal amount of $150,000,000.

"Closing Date Loan Commitment Amount" means $150,000,000.

"Code" means the U.S. Internal Revenue Code of 1986, as amended.

"Collateral" means any asset or property in which a Lien is purported to be granted under any Loan Document, including future acquired or created assets or property (or all such assets or property, as the context may require).

"Collateral Documents" means the Security Agreement, the Patent Security Agreement, the Trademark Security Agreement, any Controlled Account Agreement, any Mortgages, any Leasehold Mortgages and all other instruments, documents and agreements delivered by any Credit Party pursuant to this Agreement or any of the other Loan Documents, in each case, in order to grant to the Agent in favor and for the benefit of the Agent and the other Secured Parties or perfect a Lien on any Collateral as security for the Obligations, and all amendments, restatements, modifications or supplements thereof or thereto.

"Competitor" means, at any time of determination, any Person that is an operating company directly and primarily engaged in the same or substantially the same line of business as the Borrower as of such time, including without limitation, any Person that is listed as a competitor in the Borrower's filings made with the SEC.

"Compliance Certificate" means a certificate duly completed and executed by an Authorized Officer of the Borrower, substantially in the form of Exhibit A hereto, together with such changes thereto as the Agent or the Majority Lenders may from time to time request for the purpose of monitoring compliance with the financial covenants contained herein.

"Conforming Changes" means, with respect to either the use or administration of Term SOFR or the use, administration, adoption or implementation of any Benchmark Replacement, any technical, administrative or operational changes (including changes to the definition of "ABR," the definition of "Business Day," the definition of "U.S. Government Securities Business Day," the definition of "Interest Period" or any similar or analogous definition (or the addition of a concept of "interest period"), timing and frequency of determining rates and making payments of interest, timing of borrowing requests or prepayment, conversion or continuation notices, the applicability and length of lookback periods, the applicability of Section 4.2 and other technical, administrative or operational matters) that the Agent decides may be appropriate to reflect the adoption and implementation of any such rate or to permit the use and administration thereof by the Agent in a manner substantially consistent with market practice (or, if the Agent decides that adoption of any portion of such market practice is not administratively feasible or if the Agent determines that no market practice for the administration of any such rate exists, in such other manner of administration as the Agent decides is reasonably necessary in connection with the administration of this Agreement and the other Loan Documents).

"Connection Income Taxes" means Other Connection Taxes that are imposed on or measured by net income (however denominated) or that are franchise Taxes or branch profits Taxes.

"Consolidated Total Revenue" means, for any applicable Fiscal Period, the gross revenue of the Credit Parties and their Subsidiaries from the sale of Products during such Fiscal Period, determined on a consolidated basis in accordance with GAAP.

"Contingent Liability" means any agreement, undertaking or arrangement by which any Person guarantees, endorses or otherwise becomes or is contingently liable upon (by direct or indirect agreement, contingent or otherwise, to provide funds for payment, to supply funds to, or otherwise to invest in, a debtor, or otherwise to assure a creditor against loss) the Indebtedness of any other Person (other than by endorsements of instruments in the course of collection), or guarantees the payment of dividends or other distributions upon the Capital Securities of any other Person. The amount of any Person's obligation under any Contingent Liability shall (subject to any limitation set forth therein) be deemed to be the outstanding principal amount of the debt, obligation or other liability guaranteed thereby.

"Control" has the meaning specified within the definition of "Affiliate".

"Controlled Account" has the meaning specified in Section 7.12(a).

"Controlled Account Agreement" means, with respect to any Controlled Account, an account control agreement (or equivalent) in favor of, and satisfactory in form and substance to, the Agent (acting on the instructions of the Majority Lenders acting reasonably).

"Copyright Security Agreement" means any Copyright Security Agreement executed and delivered by any Credit Party and/or any of its Subsidiaries, as applicable, substantially in the form of Exhibit E to the Security Agreement, as amended or otherwise modified from time to time.

"Copyrights" means all copyrights and rights in copyrightable subject matter, whether statutory or common law, and all exclusive and nonexclusive licenses from third parties or rights to use copyrights owned by such third parties, along with any and all (i) renewals, revisions, extensions, derivative works, enhancements, modifications, updates and new releases thereof, (ii) income, royalties, damages, claims and payments now and hereafter due and/or payable with respect thereto, including, without limitation, damages and payments for past, present or future infringements thereof, (iii) rights to sue for past, present and future infringements thereof, and (iv) foreign copyrights and any other rights corresponding thereto throughout the world.

"Credit Parties" means, collectively, the Borrower and the Guarantors.

"Data Activities" has the meaning specified in Section 6.16(a).

"Default" means any Event of Default or any condition, occurrence or event which, after notice or lapse of time or both, would constitute an Event of Default.

"Delayed Draw Commitment Expiration Date" means March 23, 2023.

"Delayed Draw Date" means the date on which the Borrower requests the Delayed Draw Loan; provided that such date is after the later of the Closing Date and April 1, 2022 and before the Delayed Draw Commitment Expiration Date.

"Delayed Draw Date Certificate" has the meaning specified in Section 5.2(a).

"Delayed Draw Loan" means the term loan made after the later of the Closing Date and April 1, 2022 but before the Delayed Draw Commitment Expiration Date pursuant to Section 2.1(b) in an aggregate principal amount of $25,000,000.

"Delayed Draw Loan Commitment Amount" means $25,000,000.

"Designated Jurisdiction" means any country or territory to the extent that such country or territory is the subject of any Sanction.

"Disposition" (or similar words such as "Dispose") means any sale, transfer, lease, contribution or other conveyance (including by way of merger) of, or the granting of options, warrants or other rights to, a Credit Party's or its Subsidiaries' assets (including accounts receivable and Capital Securities of Subsidiaries) to any other Person (other than to the Borrower or a Wholly Owned Subsidiary Guarantor) in a single transaction or series of transactions.

"Disqualified Capital Securities" means, with respect to any Person, any Capital Security of such Person that, by its terms (or by the terms of any security or other Capital Security into which it is convertible or for which it is exchangeable), or upon the happening of any event or condition (i) matures or is mandatorily redeemable (other than solely for Qualified Capital Securities of the Borrower), including pursuant to a sinking fund obligation or otherwise, (ii) is redeemable at the option of the holder thereof (other than solely for Qualified Capital Securities of the Borrower), in whole or in part, (iii) provides for the scheduled payments of dividends in cash, or (iv) is or becomes convertible into or exchangeable for Indebtedness or any other Capital Securities that would constitute Disqualified Capital Securities, in each case, prior to the date that is one hundred eighty (180) days after the Maturity Date.

"Disqualified Institution" means any hedge fund or private equity fund that principally invests in distressed debt for the purpose of owning equity in the applicable borrower.

"Dollars" and the sign "$" mean lawful money of the United States.

"Donor Account" means each deposit account held by ADMA BioCenters Georgia Inc. and maintained with SunTrust Bank and 3Pea International, Inc., from which withdrawals are made solely for the purpose of compensating the Borrower's blood plasma donors for blood plasma donations in the ordinary course of Borrower's business.

"Early Prepayment Fee" means for any prepayment or repayment of Loans occurring (i) at any time on or prior to the first anniversary of the Closing Date, an amount equal to seven percent (7.0%) of the aggregate outstanding principal amount of the Loans being prepaid; (ii) at any time after the first anniversary of the Closing Date and on or prior to the second anniversary of the Closing Date, an amount equal to three percent (3.0%) of the aggregate outstanding principal amount of the Loans being prepaid; (iii) at any time after the second anniversary of the Closing Date and on or prior to the third anniversary of the Closing Date, an amount equal to one percent (1.0%) of the aggregate outstanding principal amount of the Loans being prepaid; and (iv) at any time after the third anniversary of the Closing Date, none.

"EEA Financial Institution" means (i) any credit institution or investment firm established in any EEA Member Country which is subject to the supervision of an EEA Resolution Authority, (ii) any entity established in an EEA Member Country which is a parent of an institution described in clause (i) of this definition, or (iii) any financial institution established in an EEA Member Country which is a subsidiary of an institution described in clauses (i) or (ii) of this definition and is subject to consolidated supervision with its parent.

"EEA Member Country" means any of the member states of the European Union, Iceland, Liechtenstein, and Norway.

"EEA Resolution Authority" means any public administrative authority or any person entrusted with public administrative authority of any EEA Member Country (including any delegee) having responsibility for the resolution of any EEA Financial Institution.

"Environmental Laws" means all federal, state, local or international laws, statutes, rules, regulations, codes, directives, treaties, requirements, ordinances, orders, decrees, judgments, injunctions, notices or binding agreements issued, promulgated or entered into by any Governmental Authority, relating in any way to (i) environmental matters, including those relating to any Hazardous Materials Activity; (ii) the generation, use, storage, transportation or disposal of Hazardous Materials; or (iii) occupational safety and health, industrial hygiene, land use or the protection of human, plant or animal health or welfare, in each case, in any manner applicable to any Credit Party, or any Subsidiary thereof or any of their respective facilities.

"Environmental Liability" means any liability, loss, claim, suit, action, investigation, proceeding, damage, commitment or obligation, contingent or otherwise (including any liability for damages, costs of environmental remediation, fines, penalties or indemnities), of or affecting any Credit Party or its Subsidiaries directly or indirectly arising from, in connection with or based upon (i) any Environmental Law or Environmental Permit, (ii) the generation, use, handling, transportation, storage, treatment, recycling, presence, disposal, Release or threatened Release of, or exposure to, any Hazardous Materials or (iii) any contract, agreement, penalty, order, decree, settlement, injunction or other arrangement (including operation of law) pursuant to which liability is assumed, entered into, inherited or imposed with respect to any of the foregoing.

"Environmental Claim" means any investigation, notice, notice of violation, claim, action, suit, proceeding, demand, abatement order or other order or directive (conditional or otherwise), by any Governmental Authority or any other Person, arising (i) pursuant to or in connection with any actual or alleged violation of any Environmental Law, (ii) in connection with any Hazardous Material or any actual or alleged Hazardous Materials Activity or (iii) in connection with any actual or alleged damage, injury, threat or harm to health, safety, natural resources or the environment.

"Environmental Permit" has the meaning specified in Section 6.7(c).

"Environmental Reports" has the meaning specified in Section 7.13(b).

"ERISA" means the Employee Retirement Income Security Act of 1974, as amended, and any successor statute thereto of similar import, together with the regulations thereunder, in each case as in effect from time to time. References to Sections of ERISA also refer to any successor Sections thereto.

"ERISA Affiliate" means any person that for purposes of Title I and Title IV of ERISA and Section 412 of the Code would be deemed to be a single employer with the Borrower, pursuant to Section 414(b), (c), (m) or (o) of the Code or Section 4001 of ERISA.

"ERISA Event" means (i) any reportable event, as defined in Section 4043 of ERISA, with respect to a Pension Plan, as to which PBGC has not by regulation waived the requirement of Section 4043(a) of ERISA that it be notified of such event, (ii) the filing of a notice of intent to terminate any Pension Plan, if such termination could reasonably be expected to require material additional contributions in order to be considered a standard termination within the meaning of Section 4041(b) of ERISA, the filing under Section 4041(c) of ERISA of a notice of intent to terminate any Pension Plan or the termination of any Pension Plan under Section 4041(c) of ERISA, (iii) the institution of proceedings under Section 4042 of ERISA by the PBGC for the termination of, or the appointment of a trustee to administer, any Pension Plan, (iv) any failure by any Pension Plan to satisfy the minimum funding requirements of Sections 412 and 430 of the Code or Section 302 of ERISA applicable to such Pension Plan, if not waived, (v) the failure to make a required contribution to any Pension Plan that could reasonably be expected to result in the imposition of an encumbrance on a Credit Party, any of its Subsidiaries or any ERISA Affiliate under Section 412 or 430 of the Code or at any time prior to the Closing Date, a filing under Section 412 of the Code or Section 302 of ERISA of any request for a minimum funding variance with respect to any Pension Plan or Multiemployer Plan, (vi) an engagement in a non-exempt prohibited transaction within the meaning of Section 4975 of the Code or Section 406 of ERISA with respect to which a Credit Party or any of its Subsidiaries could reasonably be expected to incur liability which could reasonably be expected to have a Material Adverse Effect, (vii) the complete or partial withdrawal of a Credit Party, any of its Subsidiaries or any ERISA Affiliate from a Multiemployer Plan, (viii) a Credit Party, any of its Subsidiaries or an ERISA Affiliate incurring any material liability under Title IV of ERISA with respect to any Pension Plan (other than premiums due and not delinquent under Section 4007 of ERISA), (ix) a determination by an actuary for a Pension Plan that such Pension Plan is, or is expected to be, in "at risk" status (as defined in Section 303(i)(4) of ERISA or Section 430(i)(4) of the Code) and (x) the assertion of a material claim (other than a routine claim for benefits) against any Plan or against any Credit Party, any of its Subsidiaries or any ERISA Affiliate in connection with any Plan.

"EU Bail-In Legislation Schedule" means the EU Bail-In Legislation Schedule published by the Loan Market Association (or any successor person), as in effect from time to time.

"Event of Default" has the meaning specified in Section 9.1.

"Event of Loss" means, with respect to any asset of a Credit Party or any of its Subsidiaries, any of the following: (i) any loss, destruction or damage of such asset or (ii) any actual condemnation, seizure or taking, by exercise of the power of eminent domain or otherwise, of such asset, or confiscation of such asset or requisition of the use of such asset.

"Exchange Act" means the Securities Exchange Act of 1934, as amended.

"Excluded Account" has the meaning set forth in the Security Agreement.

"Excluded Taxes" means any of the following Taxes imposed on or with respect to a Recipient or required to be withheld or deducted from a payment to a Recipient: (i) Taxes imposed on or measured by net income (however denominated), franchise Taxes, and branch profits Taxes, in each case, (x) imposed as a result of such Recipient being organized under the laws of, or having its principal office or, in the case of any Lender, its applicable lending office located in, the jurisdiction imposing such Tax (or any political subdivision thereof) or (y) that are Other Connection Taxes, (ii) in the case of a Lender, U.S. federal withholding Taxes imposed on amounts payable to or for the account of such Lender with respect to an applicable interest in a Loan pursuant to a law in effect on the date on which (x) such Lender acquires such interest in a Loan or (y) such Lender changes its lending office, except in each case to the extent that, pursuant to Section 4.3, amounts with respect to such Taxes were payable either to such Lender's assignor immediately before such Lender became a party hereto or to such Lender immediately before it changed its lending office, (iii) Taxes attributable to such Recipient's failure to comply with Section 4.3(g) and (iv) any withholding Taxes imposed under FATCA.

"Exit Fee" means for any prepayment or repayment of Loans, an amount equal to one percent (1.0%) of the aggregate outstanding principal amount of the Loans being prepaid or repaid.

"FATCA" means Sections 1471 through 1474 of the Code, as of the date of this Agreement (or any amended or successor version that is substantively comparable and not materially more onerous to comply with), any current or future regulations or official interpretations thereof, any agreements entered into pursuant to Section 1471(b)(1) of the Code and any fiscal or regulatory legislation, rules or practices adopted pursuant to any intergovernmental agreement, treaty or convention among Governmental Authorities and implementing such Sections of the Code.

"FDA" means the U.S. Food and Drug Administration and any successor entity.

"FD&C Act" means the U.S. Federal Food, Drug and Cosmetic Act of 1938 (or any successor thereto), as amended from time to time, and the rules and regulations promulgated thereunder.

"Federal Funds Rate" means, for any day, the greater of (a) the rate calculated by the Federal Reserve Bank of New York based on such day's Federal funds transactions by depositary institutions (as determined in such manner as the Federal Reserve Bank of New York shall set forth on its public website from time to time) and published on the next succeeding Business Day by the Federal Reserve Bank of New York as the Federal funds effective rate and (b) 0%.

"Federal Reserve Board" means the Board of Governors of the Federal Reserve System of the United States.

"Floor" means a rate of interest equal to 1.25%.

"Fee Letter" means that certain Fee Letter, dated as of the date hereof, by and among the Borrower, the Agent and the Lenders, as amended or otherwise modified from time to time.

"Fiscal Period" means, as applicable, a Fiscal Quarter or a Fiscal Year.

"Fiscal Quarter" means a quarter ending on the last day of March, June, September or December.

"Fiscal Year" means any period of twelve consecutive calendar months ending on December 31; references to a Fiscal Year with a number corresponding to any calendar year (e.g., the "2020 Fiscal Year") refer to the Fiscal Year ending December 31 of such calendar year.

"Foreign Lender" means a Lender that is not a U.S. Person.

"F.R.S. Board" means the Board of Governors of the Federal Reserve System or any successor thereto.

"Funded Indebtedness" of any Person means Indebtedness of the type described in clauses (a) and (c) of the definition of Indebtedness, and all Contingent Liabilities of such Person in respect of any such Funded Indebtedness.

"GAAP" has the meaning specified in Section 1.3.

"Governmental Authority" means any national, supranational, federal, state, county, provincial, local, municipal or other government or political subdivision thereof (including any Regulatory Authority), whether domestic or foreign, and any agency, authority, commission, ministry, instrumentality, regulatory body, court, tribunal, arbitrator, central bank or other Person exercising executive, legislative, judicial, taxing, regulatory or administrative powers or functions of or pertaining to any such government; any entity that contracts with a governmental entity to administer or assist in the administration of a governmental program (including any Medicare or Medicaid administrative contractors); or any arbitrator with authority to bind a party at law.

"Guaranteed Obligations" has the meaning specified in Section 12.1.

"Guarantors" means, collectively, the Borrower and each Subsidiary Guarantor.

"Hayfin Equity Investors" means one or more Affiliates or related funds of the Closing Date Lenders.

"Hazardous Material" means any material, substance, chemical, mixture or waste which is capable of damaging or causing harm to any living organism, the environment or natural resources, including all explosive, special, hazardous, polluting, toxic, industrial, dangerous, biohazardous, medical, infectious or radioactive substances, materials or wastes, noise, odor, electricity or heat, and including petroleum or petroleum products, byproducts or distillates, asbestos or asbestos-containing materials, urea formaldehyde, polychlorinated biphenyls, radon gas, ozone-depleting substances, greenhouse gases, and all other substances or wastes of any nature regulated pursuant to any Environmental Law or as to which any Governmental Authority requires investigation, reporting or remedial action.

"Hazardous Materials Activity" means any past, current, proposed or threatened activity, event or occurrence involving any Hazardous Materials, including the use, manufacture, possession, storage, holding, presence, existence, location, Release, threatened Release, discharge, placement, generation, transportation, processing, construction, treatment, abatement, removal, remediation, disposal, disposition or handling of any Hazardous Materials, and any corrective action or response action with respect to any of the foregoing.

"Healthcare Laws" means all applicable federal, state or local laws that govern Product Development and Commercialization Activities including, but not limited to, the FD&C Act; the Public Health Service Act; the federal False Claims Act; the federal Anti-Kickback Statute; the Anti-Inducement Law; the Stark Law; privacy and data security laws including without limitation the Health Insurance Portability and Accountability Act of 1996, as amended, and all implementing regulations (HIPAA); laws governing the Medicare Program (Title XVIII of the Social Security Act) and the Medicaid Program (Title XIX of the Social Security Act); all applicable rules, regulations and licensing requirements of applicable state agencies; laws and regulations pertaining to federal and state relief programs related to COVID-19; the Federal Trade Commission Act; and all other analogous laws to the foregoing within any other U.S. or foreign or supranational jurisdiction, and applicable rules and regulations issued thereunder.

"Hedging Agreement" means any interest rate, foreign currency, commodity, credit or equity swap, collar, cap, floor or forward rate agreement, or other agreement or arrangement designed to protect against fluctuations in interest rates or currency, commodity or equity values (including any option with respect to any of the foregoing and any combination of the foregoing agreements or arrangements), and any confirmation executed in connection with any such agreement or arrangement.

"Hedging Obligations" means, with respect to any Person, all liabilities of such Person under currency exchange agreements, interest rate swap agreements, interest rate cap agreements and interest rate collar agreements, and all other agreements or arrangements designed to protect such Person against fluctuations in interest rates or currency exchange rates.

"herein", "hereof", "hereto", "hereunder" and similar terms contained in any Loan Document refer to such Loan Document as a whole and not to any particular Section, paragraph or provision of such Loan Document.

"Impermissible Qualification" means any qualification, exception or emphasis of matter to the opinion or certification of any independent public accountant as to any financial statement of a Credit Party or any of its Subsidiaries (i) which is of a "going concern" or similar nature (other than any such qualification arising from the Loans hereunder maturing less than one year following the date of such financial statements), (ii) which relates to the limited scope of examination of matters relevant to such financial statement or (iii) which relates to the treatment or classification of any item in such financial statement and which, as a condition to its removal, would require an adjustment to such item the effect of which could be to cause the Borrower to be in Default.

"Indebtedness" of any Person means:

(a) all obligations of such Person for borrowed money or advances and all obligations of such Person evidenced by bonds, debentures, notes or similar instruments;

(b) all obligations, contingent or otherwise, relative to the face amount of all letters of credit, whether or not drawn, and banker's acceptances issued for the account of such Person;

(c) all Capitalized Lease Liabilities of such Person;

(d) net Hedging Obligations of such Person and all obligations of such Person arising under Synthetic Leases;

(e) all obligations issued, undertaken or assumed as the deferred purchase price of property or services, including earn outs, purchase price adjustments and seller notes in connection with acquisitions permitted hereunder (to the extent due and payable and included as a liability on the balance sheet in accordance with GAAP) (other than trade payables entered into in the ordinary course of business);

(f) whether or not so included as liabilities in accordance with GAAP, all obligations of such Person to pay the deferred purchase price of property or services (excluding trade accounts payable in the ordinary course of business which are not overdue for a period of more than ninety (90) days or, if overdue for more than ninety (90) days, as to which a dispute exists and adequate reserves in conformity with GAAP have been established on the books of such Person), and indebtedness secured by (or for which the holder of such indebtedness has an existing right, contingent or otherwise, to be secured by) a Lien on property owned or being acquired by such Person (including indebtedness arising under conditional sales or other title retention agreements), whether or not such indebtedness shall have been assumed by such Person or is limited in recourse;

(g) any Disqualified Capital Securities; and

(h) all Contingent Liabilities of such Person in respect of any of the foregoing clauses (a) through (g) inclusive.

The Indebtedness of any Person shall include the Indebtedness of any other Person (including any partnership in which such Person is a general partner) to the extent such Person is liable therefor as a result of such Person's ownership interest in or other relationship with such Person, except to the extent the terms of such Indebtedness expressly provide that such Person is not liable therefor.

"Indemnified Liabilities" has the meaning specified in Section 11.4(a).

"Indemnified Parties" has the meaning specified in Section 11.4(a).

"Indemnified Taxes" means (a) Taxes, other than Excluded Taxes, imposed on or with respect to any payment made by or on account of any obligation of any Credit Party under any Loan Document and (b) to the extent not otherwise described in (a), Other Taxes.

"Intellectual Property" means all (i) Patents, (ii) Trademarks, (iii) Copyrights and other works of authorship (registered or unregistered), and all applications, registrations and renewals therefor, (iv) Product Agreements, (v) computer software, databases, data and documentation, (vi) Trade Secrets and confidential business information, whether patentable or unpatentable and whether or not reduced to practice, know-how, inventions, manufacturing processes and techniques, research and development information, data and other information included in or supporting any Intellectual Property, (vii) financial, marketing and business data, pricing and cost information, business, finance and marketing plans, customer and prospective customer lists and information, and supplier and prospective supplier lists and information, (viii) other intellectual property or similar proprietary rights, (ix) copies and tangible embodiments of any of the foregoing (in whatever form or medium) and (x) any and all improvements to any of the foregoing.

"Intercompany Subordination Agreement" means a subordination agreement to be executed and delivered by the Borrower and each of its Subsidiaries, pursuant to which all obligations in respect of any Indebtedness for borrowed money (or equivalent) owing between or among any party to such subordination agreement shall be subordinated to the prior Payment in Full of all Obligations, such agreement to be substantially in the form of Exhibit F hereto or such other form reasonably acceptable to the Agent.

"Interest Payment Date" means the last day of an Interest Period; provided, however that the first such day shall be April 30, 2022.

"Interest Period" means, as to any Loans, the period commencing on the date of such Loan and ending on the numerically corresponding day in the calendar month that is one or three months thereafter (in each case, subject to the availability thereof), as specified in the applicable Loan Request; provided that (i) if any Interest Period would end on a day other than a Business Day, such Interest Period shall be extended to the next succeeding Business Day unless such next succeeding Business Day would fall in the next calendar month, in which case such Interest Period shall end on the next preceding Business Day, (ii) any Interest Period that commences on the last Business Day of a calendar month (or on a day for which there is no numerically corresponding day in the last calendar month of such Interest Period) shall end on the last Business Day of the last calendar month of such Interest Period, (iii) no Interest Period shall extend beyond the Maturity Date and (iv) no tenor that has been removed from this definition pursuant to Section 2.5(d) shall be available for specification in such Borrowing Request. For purposes hereof, the date of a Loan initially shall be the date on which such Loan is made and thereafter shall be the effective date of the most recent conversion or continuation of such Loan.

"Investment" means, relative to any Person, (i) any loan, advance or extension of credit made by such Person to any other Person, including the purchase by such Person of any bonds, notes, debentures or other debt securities of any other Person, (ii) Contingent Liabilities in favor of any other Person and (iii) any Capital Securities held by such Person in any other Person. The amount of any Investment shall be the original principal or capital amount thereof less all returns of principal or equity thereon and shall, if made by the transfer or exchange of property other than cash, be deemed to have been made in an original principal or capital amount equal to the fair market value of such property at the time of such Investment.

"Key Permits" means all material Permits relating to the Products (including all Regulatory Authorizations). As of the Closing Date, the Key Permits are as set forth on Schedule 1.1.

"Landlord Consent" has the meaning set forth in the Security Agreement.

"Law" means, collectively, all international, foreign, federal, state and local laws (including common law), statutes, treaties, rules, legally enforceable guidelines, regulations, ordinances, codes and administrative or judicial precedents or authorities and executive orders, including the interpretation or administration thereof by any Governmental Authority charged with the enforcement, interpretation or administration thereof, and all applicable administrative orders, directed duties, requests, licenses, authorizations and permits of, and agreements with, any Governmental Authority.

"Leasehold Mortgage" means each mortgage, deed of trust or other agreement which conveys or evidences a Lien in favor of the Agent, for the benefit of the Secured Parties, on real property leased by a Credit Party, including any amendment, restatement, modification or supplement thereto.

"Lender" has the meaning specified in the preamble.

"Lien" means any security interest, mortgage, pledge, hypothecation, assignment, deposit arrangement, encumbrance, lien (statutory or otherwise), charge against or interest in property, or other priority or preferential arrangement of any kind or nature whatsoever, to secure payment of a debt or performance of an obligation.

"Liquidity" means, at any time, unrestricted, unencumbered cash and Cash Equivalent Investments in one or more Controlled Accounts that is free and clear of all Liens, other than Liens granted under the Loan Documents in favor of the Agent, for the benefit of the Secured Parties.

"Loans" means, collectively, the Closing Date Loan and the Delayed Draw Loan.

"Loan Documents" means, collectively, this Agreement (as subsequently amended or otherwise modified), the Notes, the Fee Letter, the Security Agreement, any Mortgages, any Leasehold Mortgages, the Intercompany Subordination Agreement, the Patent Security Agreement, the Trademark Security Agreement, any Controlled Account Agreement and each other agreement pursuant to which any of the Agent or any of the other Secured Parties is granted a Lien to secure the Obligations, and each other agreement, certificate, document or instrument delivered in connection with any Loan Document, whether or not specifically mentioned herein or therein.

"Loan Request" means a Loan request and certificate duly executed by an Authorized Officer of the Borrower substantially in the form of Exhibit B hereto.

"Majority Lenders" means, at any time, Lenders holding more than 50% of the then-aggregate unpaid principal amount of the Loans.

"Marietta Facility" has the meaning specified in Section 7.13(h)(i).

"Marietta Landlord" has the meaning specified in Section 7.13(h)(i).

"Material Adverse Effect" means a material adverse effect on (i) the business, condition (financial or otherwise), operations, performance or properties of any Credit Party and each of its Subsidiaries, taken as a whole, (ii) the rights and remedies of the Agent or any Lender under any Loan Document, or (iii) the ability of any Credit Party or any of its Subsidiaries to perform their respective Obligations under any Loan Document.

"Material Agreements" means (i) each contract or agreement to which a Credit Party or any of its Subsidiaries is a party involving aggregate payments of more than $2,500,000 per Fiscal Year, whether such payments are being made by a Credit Party or any of its Subsidiaries to a Person that is not an Affiliate, or by any such Person to a Credit Party or any of its Subsidiaries; and (ii) all other contracts or agreements, individually or in the aggregate, that if breached or terminated could reasonably be expected to result in a Material Adverse Effect, including, in each case, all amendments, supplements, waivers and modifications thereto.

"Material Intellectual Property" means any Intellectual Property owned by, licensed to or otherwise held by any Credit Party or any of its Subsidiaries, whether currently owned or licensed, or acquired, developed or otherwise licensed or obtained after the date hereof (i) the loss of which could reasonably be expected to result in a Material Adverse Effect or (ii) that has a fair market value in excess of $500,000.

"Maturity Date" means March 23, 2027.

"Moody's" means Moody's Investors Service, Inc. and its successors.

"Mortgage" means each mortgage, deed of trust or other agreement which conveys or evidences a Lien in favor of the Agent, for the benefit of the Secured Parties, on real property owned by a Credit Party, including any amendment, restatement, modification or supplement thereto.

"Mortgage Instruments" means such title reports, title insurance, flood certifications and flood insurance, opinions of counsel, surveys, appraisals and environmental reports and other similar information and related certifications as are reasonably requested by, and in form and substance reasonably acceptable to, the Agent from time to time.

"Multiemployer Plan" means a "multiemployer plan" (as defined in Section 4001(a)(3) of ERISA) that is subject to Title IV of ERISA contributed to for any employees of a Credit Party, any of its Subsidiaries or any ERISA Affiliate.

"Net Cash Proceeds" means when used in respect of (i) any Disposition or (ii) the receipt of any proceeds in connection with any Event of Loss suffered, in each case, by a Credit Party or any of its Subsidiaries, the gross proceeds in cash or Cash Equivalent Investments received by such Person (excluding, in connection with any Disposition, any portion of such proceeds deposited in an escrow account pursuant to the documentation related thereto but including such proceeds subsequently received in respect of noncash consideration initially received and amounts initially placed in escrow that subsequently become available) from such Disposition or Event of Loss, *minus*, without duplication, (a) all direct costs and expenses incurred or to be incurred (including sales, commissions and legal, accounting and investment banking fees, commissions and expenses), (b) all federal, state, local and foreign Taxes assessed or to be assessed (if any), in connection therewith, (c) in connection with any Disposition, reserves for purchase price adjustments and retained liabilities reasonably expected to be payable by the Borrower or any Subsidiary in connection therewith, to the extent such reserves have been established in accordance with GAAP; provided that upon the final determination of the amount paid in respect of such purchase price adjustments and retained liabilities, if the actual amount of purchase price adjustments and retained liabilities paid is less than such reserves, the difference shall, at such time, constitute Net Cash Proceeds, and (d) with respect to any Disposition or Event of Loss, all money actually applied within three hundred sixty (360) days (or committed to be applied within three hundred sixty (360) days and actually applied within one hundred eighty (180) days following such commitment) following the receipt of any proceeds in connection with such Disposition or Event of Loss, to replace the assets in question, to acquire fixed or capital assets useful in the operation of the Borrower's business or to repair or reconstruct damaged property or property affected by loss, destruction, damage, condemnation, confiscation, requisition, seizure or taking.

"Net Income" means, for any applicable Fiscal Period for any Person determined on a consolidated basis for such Person and its Subsidiaries in accordance with GAAP, the aggregate of all amounts (exclusive of all amounts in respect of any extraordinary gains but including extraordinary losses) which would be included as net income on the consolidated financial statements of such Person and its Subsidiaries for such Fiscal Period.

"Net Sales" means Consolidated Total Revenue *minus* sales of source plasma *minus* Net Sales Deductions.

"Net Sales Deductions" means, with respect to Consolidated Total Revenue of any Product for any Fiscal Period, the sum of all applicable (i) billbacks, chargebacks, customer adjustments (including payment discounts and customer pricing), performance allowances, promotional monies, trade, quantity, cash discounts, volume incentives, off invoice discounts, government and other third-party rebates, and product service fees with respect to such Product, (ii) allowances or credits, including those in respect of rejection, defects, damaged item credits, sales returns, retroactive price reductions, shipping charges, shipment shortages, shelf-stock adjustments, invoice errors, and replacement costs with respect to such Product and (iii) such other discounts and other deductions customary in the trade, in each case attributable to the sale of such Product in such Fiscal Period as accrued (or as would be accrued) on financial statements prepared in accordance with GAAP.

"Note" means a promissory note of the Borrower payable to a Lender (as such promissory note may be amended, endorsed or otherwise modified from time to time), evidencing the aggregate Indebtedness of the Borrower to such Lender resulting from the outstanding amount of the Loans, and also means all other promissory notes accepted from time to time in substitution therefor or renewal thereof.

"Obligations" means all obligations (monetary or otherwise, whether absolute or contingent, matured or unmatured) of any Credit Party or any of its Subsidiaries arising under or in connection with a Loan Document and the principal of and premium, if any, and interest (including interest accruing during the pendency of any proceeding of the type described in Section 9.1(h), whether or not allowed in such proceeding) on the Loans.

"OFAC" means the Office of Foreign Assets Control of the United States Department of the Treasury.

"Organic Document" means, relative to any Credit Party or any of its Subsidiaries, its certificate of incorporation, by-laws, certificate of partnership, partnership agreement, certificate of formation, limited liability agreement, operating agreement and all stockholder agreements, voting trusts and similar arrangements applicable to such Credit Party's or any of its Subsidiaries' Capital Securities.

"Other Administrative Proceeding" means any administrative proceeding relating to a dispute involving a patent office or other relevant intellectual property registry which relates to validity, revocation, ownership or enforceability of the relevant Intellectual Property.

"Other Connection Taxes" means, with respect to any Recipient, Taxes imposed as a result of a present or former connection between such Recipient and the jurisdiction imposing such Tax (other than connections arising from such Recipient having executed, delivered, become a party to, performed its obligations under, received payments under, received or perfected a security interest under, engaged in any other transaction pursuant to or enforced any Loan Document, or sold or assigned an interest in any Loan or Loan Document).

"Other Taxes" means all present or future stamp, court or documentary, intangible, recording, filing or similar Taxes that arise from any payment made under, from the execution, delivery, performance, enforcement or registration of, from the receipt or perfection of a security interest under, or otherwise with respect to, any Loan Document, except any such Taxes that are Other Connection Taxes imposed with respect to an assignment.

"Participant Register" has the meaning specified in Section 11.11(b).

"Patent" means any patent, patent application and invention disclosure, including any divisions, continuations, continuations in-part, provisionals, continued prosecution applications, substitutions, reissues, reexaminations, renewals, extensions, restorations, supplemental protection certificates and other additions in connection therewith, whether in or related to the United States or any foreign country or other jurisdiction.

"Patent Security Agreement" means any Patent Security Agreement executed and delivered by any Credit Party and/or any of its Subsidiaries, as applicable, substantially in the form of Exhibit C to the Security Agreement, as amended or otherwise modified from time to time.

"Patriot Act" means the USA PATRIOT Act (Title III of Pub. L. 107-56 (signed into law October 26, 2001)).

"Payment in Full" means the entire principal amount of the Loans, interest thereon and all other Obligations, including all applicable Early Prepayment Fees and Exit Fees, shall have been indefeasibly paid in full in cash (other than inchoate indemnification, expense reimbursement obligations and other contingent obligations for which no claim has been asserted).

"PBGC" means the Pension Benefit Guaranty Corporation, or any entity succeeding to all or any of its functions under ERISA.

"Pension Plan" means a "pension plan", as such term is defined in Section 3(2) of ERISA, which is subject to Title IV of ERISA (other than a Multiemployer Plan), to which a Credit Party, any of its Subsidiaries or any ERISA Affiliate sponsors, contributes to, or provides benefits under, or has any obligation to contribute or provide benefits under, and to which a Credit Party, any of its Subsidiaries or any ERISA Affiliate may have liability, including any liability by reason of having been a substantial employer under Section 4063 of ERISA at any time during the preceding five years, or by reason of being deemed to be a contributing sponsor under Section 4069 of ERISA.

"Perfection Certificate" means a certificate duly completed and executed by an Authorized Officer of the Borrower, substantially in the form of Exhibit C hereto, together with such changes thereto as the Agent or the Majority Lenders may from time to time request.

"Periodic Term SOFR Determination Date" has the meaning specified in the definition of "Term SOFR".

"Permits" means all permits, licenses, registrations, certificates, orders, approvals, authorizations, consents, waivers, franchises, variances and similar rights issued by or obtained from any Governmental Authority, including, without limitation, those relating to Environmental Laws and Healthcare Laws.

"Permitted Acquisition" means any acquisition by the Borrower or any of its Wholly Owned Subsidiary Guarantors, whether by purchase, merger or otherwise, of all or substantially all of the assets of, all of the Capital Securities of, or a business line or unit or a division of, any Person; provided that:

(a) immediately prior to, and after giving effect thereto, no Default or Event of Default shall have occurred and be continuing or could reasonably be expected to result therefrom;

(b) all transactions in connection with such acquisition shall have been consummated, in all material respects, in accordance with all applicable Laws and in conformity with all applicable approvals from any Governmental Authorities;

(c) in the case of an acquisition of all of the Capital Securities of such Person, all of such Capital Securities (except for any such securities in the nature of directors' qualifying shares required pursuant to any law) acquired, or otherwise issued by such Person or any newly formed Subsidiary of the Borrower in connection with such acquisition, shall be owned one-hundred percent (100%) by a Credit Party, and the Borrower shall have taken, or caused to be taken, within thirty (30) days of the date such Person becomes a Subsidiary of the Borrower, each of the actions set forth in Section 7.8(b), if applicable;

(d) on a pro forma basis after giving effect to such acquisition, the Borrower and its Subsidiaries shall be (i) in compliance with the most recent financial covenant tests set forth in each of Section 8.4(a) and 8.4(b) and (ii) projected by the Company (in good faith and based on reasonable assumptions) to be in compliance with the financial covenants set forth in each of Section 8.4(a) and 8.4(b) on each date in the twelve (12) months following such acquisition;

(e) to the extent that the purchase price for any such acquisition is paid in cash, the amount thereof, when taken together with the purchase price paid in cash for all other acquisitions consummated or effected since the Closing Date, does not exceed $10,000,000 in the aggregate;

(f) to the extent that the purchase price for any such acquisition is paid in Capital Securities, all such Capital Securities shall be Qualified Capital Securities of the Borrower;

(g) promptly upon request by the Agent in the case of any such acquisition that has a purchase price in excess of $10,000,000, the Borrower shall provide (i) a copy of the draft purchase agreement related to the proposed acquisition (and any related documents requested by the Agent), (ii) any available quarterly and annual financial statements of the Person whose Capital Securities or assets are being acquired for the twelve (12) month period ending forty-five (45) days immediately prior to such acquisition, including any audited financial statements that are available and (iii) any other information reasonably requested by the Agent and available to the Credit Parties;

(h) the Borrower shall have provided the Agent with at least fifteen (15) Business Days' prior written notice of any such acquisition, together with summaries, prepared in reasonable detail, of all due diligence conducted by or on behalf of the Borrower or the applicable Subsidiary, as applicable, prior to such acquisition, and at least five (5) Business Days prior to the proposed date of such acquisition, the Agent shall have received a certificate of an Authorized Officer of the Borrower (prepared in reasonable detail), certifying that such acquisition complies with the requirements of this definition, and which certificate shall include a summary (prepared in reasonable detail), certifying as to any contingent liabilities and prospective research and development costs associated with the Person, business or assets being acquired;

(i) no Credit Party or any Subsidiary thereof shall, in connection with any such acquisition, assume or remain liable with respect to (i) any Indebtedness of the related seller or the business, Person or properties acquired, except to the extent permitted pursuant to Section 8.2, (ii) any Lien on any business, Person or assets acquired, except to the extent permitted pursuant to Section 8.2, (iii) any other liability (including Tax, ERISA and Environmental Liabilities), except (with respect to liabilities under this clause (iii) to the extent the assumption of any such liability could not reasonably be expected to result in a Material Adverse Effect. Any other such Indebtedness, liabilities or Liens not permitted to be assumed, continued or otherwise supported by any Credit Party or Subsidiary thereof hereunder shall be paid in full or released as to the business, Persons or properties being so acquired on or before the consummation of such acquisition; and

(j) the fair market value of such acquisition, when taken together with the fair market value for all other acquisitions consummated or effected since the Closing Date (including in all cases the amount of any deferred consideration and earn out or similar payments), does not exceed $20,000,000 in the aggregate.

"Permitted Disposition" means any of the following: (i) Dispositions of inventory (which shall include, but not be limited to, plasma or plasma-derived product(s)) in the ordinary course of business, (ii) Dispositions of damaged or worn out property in the ordinary course of business, (iii) licenses, sublicenses or similar agreements that are permitted pursuant to Section 8.21, (iv) any issuance, offer, sale, transfer or other Disposition of Qualified Capital Securities of the Borrower, (v) the abandonment or other Disposition of a lease or sublease of real property or personal property that is, in the reasonable business judgment of Borrower, not used or useful or is no longer economically necessary in the conduct of the business of the Borrower or any of its Subsidiaries, not to exceed $2,000,000 in fair market value in the aggregate since the Closing Date; provided that in no event shall any Disposition of the Boca Facility be permitted by this clause (v) or (vi) other Dispositions that (x) do not include the Boca Facility, Products, Material Intellectual Property, Capital Securities with respect to Subsidiaries or acquired entities, businesses and real property and (y) when taken together with all other Dispositions (A) made during the preceding period of 12 consecutive months pursuant to this clause (vi), do not exceed $1,000,000 in the aggregate and (B) made since the Closing Date do not exceed $5,000,000 in the aggregate.

"Permitted Indebtedness" has the meaning specified in Section 8.2.

"Permitted Investments" has the meaning specified in Section 8.5.

"Permitted Liens" has the meaning specified in Section 8.3.

"Person" means any natural person, corporation, limited liability company, partnership, joint venture, association, trust or unincorporated organization, Governmental Authority or any other legal entity, whether acting in an individual, fiduciary or other capacity.

"Personal Data" means all data relating to one or more individual(s) that is personally identifying (i.e., data that identifies an individual or, in combination with any other information or data available to the Borrower or its Subsidiaries, is capable of identifying an individual) or capable of identifying a specific device or non-personally identifying, including, without limitation, aggregate or de-identified data and data collected automatically, including data collected through a mobile or other electronic device.

"PIK Interest" has the meaning specified in Section 3.12.

"Plan" means any employee benefit plan as defined in Section 3(3) of ERISA (other than a Multiemployer Plan) maintained currently, in the future or within the last six years by any Borrower, or to which any Credit Party is obligated or becomes obligated to contribute.

"Prime Rate" means the rate of interest per annum last quoted by The Wall Street Journal as the "Prime Rate" in the U.S. or, if The Wall Street Journal ceases to quote such rate, the highest per annum interest rate published by the Federal Reserve Board in Federal Reserve Statistical Release H.15 (519) (Selected Interest Rates) as the "bank prime loan" rate or, if such rate is no longer quoted therein, any similar rate quoted therein (as determined by the Agent) or any similar release by the Federal Reserve Board (as determined by the Agent). Any change in the Prime Rate shall take effect at the opening of business on the day such change is publicly announced or quoted as being effective.

"Privacy and Data Security Policies" has the meaning specified in Section 6.16(d).

"Privacy Agreements" has the meaning specified in Section 6.16(a).

"Pro Rata Share" means, with respect to any Lender, the percentage (expressed as a decimal and carried out to the ninth decimal place) obtained by dividing (x) the aggregate outstanding principal amount of Loans made hereunder by such Lender, by (y) the aggregate outstanding principal amount of all Loans made hereunder by all Lenders, in each case subject to adjustment as provided in Section 4.7. The Pro Rata Share of each Lender in respect of the Loans is set forth opposite the name of such Lender on Schedule 2 under the caption "Pro Rata Shares" or in the Assignment and Assumption pursuant to which such Lender becomes a party hereto, as applicable.

"Product" means any current or future product developed, manufactured, licensed, marketed, sold, distributed, or otherwise commercialized by any Credit Party, including any such product in development or which may be developed.

"Product Agreement" means each agreement, license, document, instrument, interest (equity or otherwise) or the like under which one or more Persons grants or receives any right, title or interest with respect to any Product Development and Commercialization Activities in respect of one or more Products specified therein, or receives or is granted the right to exclude any third parties from engaging in any Product Development and Commercialization Activities with respect thereto, including each contract or agreement with suppliers, manufacturers, distributors, clinical research organizations, wholesalers, pharmacies or with any other Person related to any such entity.

"Product Development and Commercialization Activities" means, with respect to any Product, any combination of research, development, manufacture, importation, exportation, use, sale, storage, design, labeling, marketing, promotion, supply, procurement or collection of supply or raw materials, distribution, testing, packaging, purchasing or other commercialization activities, receipt of payment in respect of any of the foregoing, or like activities the purpose of which is to commercially exploit such Product.

"Prohibited Payment" means any bribe, rebate, payoff, influence payment, kickback or other payment or gift of money or anything of value (including meals or entertainment) to any officer, employee or ceremonial office holder of any government or instrumentality thereof, political party or supra-national organization (such as the United Nations), any political candidate, any royal family member or any other person who is connected or associated personally with any of the foregoing that is prohibited under any applicable Law or regulation or otherwise for the purpose of influencing any act or decision of such payee in his official capacity, inducing such payee to do or omit to do any act in violation of his lawful duty, securing any improper advantage or inducing such payee to use his influence with a government or instrumentality thereof to affect or influence any act or decision of such government or instrumentality.

"PZR" has the meaning specified in Section 7.13(d).

"Qualified Capital Securities" means, with respect to any Person, any Capital Security of such Person that is not a Disqualified Capital Security.

"Recipient" means the Agent or any Lender, as applicable.

"Registered Organization" means any "registered organization" as defined in the Code with such additions to such term as may hereafter be made.

"Regulatory Authority" means any Governmental Authority, including the FDA and foreign equivalents thereof if and as applicable, that is concerned with or has regulatory oversight with respect to the use, control, safety, efficacy, reliability, manufacturing, labeling, packaging, handling, storage, marketing, advertising, promotion, distribution, sale or other Product Development and Commercialization Activities relating to any Product of any Credit Party or any of its Subsidiaries.

"Regulatory Authorizations" means any and all clearances, approvals, licenses, registrations, permits and other forms of authorization of any Governmental Authority necessary for Product Development and Commercialization Activities in any country or jurisdiction, forming the basis for distribution of Products (including without limitation, approvals for plasma-derived products, and where applicable supplements and amendments, governmental price and reimbursement approvals and approvals of applications for regulatory exclusivity).

"Related Party" means, with respect to any Person, such Person's Affiliates and the partners, directors, officers, employees, agents, trustees, administrators, managers, advisors and representatives of such Person and such Person's Affiliate.

"Release" means any release, spill, emission, leaking, pumping, pouring, injection, escaping, deposit, disposal, discharge, dispersal, dumping, leaching or migration of any Hazardous Material into the indoor or outdoor environment (including the abandonment or disposal of any barrels, containers or other closed receptacles containing any Hazardous Material), including the movement of any Hazardous Material through the air, soil, surface water or groundwater, in each case, in the United States.

"Relevant Governmental Body" means the Federal Reserve Board or the Federal Reserve Bank of New York, or a committee officially endorsed or convened by the Federal Reserve Board or the Federal Reserve Bank of New York, or any successor thereto.

"Resignation Effective Date" has the meaning specified in Section 10.6(a).

"Resolution Authority" means an EEA Resolution Authority or, with respect to any UK Financial Institution, a UK Resolution Authority.

"Restricted Payment" means (i) the declaration or payment of any dividend (other than dividends payable solely in Capital Securities of a Credit Party or any of its Subsidiaries) on, or the making of any payment or distribution on account of, or setting apart assets for a sinking or other analogous fund for the purchase, redemption, defeasance, retirement or other acquisition of, any class of Capital Securities of a Credit Party or any of its Subsidiaries or any warrants, options or other right or obligation to purchase or acquire any such Capital Securities, whether now or hereafter outstanding or (ii) the making of any other distribution in respect of such Capital Securities, in each case either directly or indirectly, whether in cash, property or obligations of a Credit Party or any of its Subsidiaries or otherwise.

"S&P" means Standard & Poor's Financial Services LLC, a subsidiary of S&P Global Inc., and its successors.

"Sanction" means any international economic sanction administered or enforced by the United States Government (including, without limitation, OFAC), the United Nations Security Council, the European Union or its Member States, Her Majesty's Treasury or other relevant sanctions authority.

"Sanctioned Person" means any Person that is a target of Sanctions, including without limitation, a Person that is (i) listed on OFAC's Specially Designated Nationals and Blocked Persons List, (ii) listed on OFAC's Consolidated Non-SDN List, (iii) a legal entity that is deemed by OFAC to be a Sanctions target based on the ownership of such legal entity by Sanctioned Peron(s), or (iv) a Person that is a Sanctions target pursuant to any list-based, territorial or country-based Sanctions program of a Governmental Authority.

"SEC" means the Securities and Exchange Commission.

"Secured Parties" means, collectively, the Agent and each of the Lenders.

"Security Agreement" means the Security Agreement, dated as of the date hereof, by and among the Borrower, the Subsidiary Guarantors and the Agent, as amended or otherwise modified from time to time.

"SNDA" has the meaning specified in Section 7.13(g).

"SOFR" means a rate equal to the secured overnight financing rate as administered by the SOFR Administrator.

"SOFR Administrator" means the Federal Reserve Bank of New York (or a successor administrator of the secured overnight financing rate).

"SOFR Loan" means a Loan that bears interest at a rate based on Adjusted Term SOFR, other than pursuant to clause (c) of the definition of "ABR".

"Solvent" means, (x) with respect to the Credit Parties and their Subsidiaries on a particular date, that on such date (i) the fair value of the property of the Credit Parties and their Subsidiaries on a consolidated basis is greater than the total amount of liabilities, including Contingent Liabilities, of the Credit Parties and their Subsidiaries on a consolidated basis, (ii) the present fair saleable value of the assets of the Credit Parties and their Subsidiaries on a consolidated basis is not less than the amount that will be required to pay the probable liability of the Credit Parties and their Subsidiaries on a consolidated basis on its debts as they become absolute and matured, (iii) the Borrower does not intend to, and does not believe that it or its Subsidiaries will, incur debts or liabilities beyond the ability of the Credit Parties and their Subsidiaries to pay as such debts and liabilities mature, (iv) the Credit Parties and their Subsidiaries on a consolidated basis are not engaged in business or a transaction, and the Credit Parties on a consolidated basis are not about to engage in a business or a transaction, for which the property of the Credit Parties and their Subsidiaries on a consolidated basis would constitute an unreasonably small capital and (v) the Credit Parties and their Subsidiaries have not executed this Agreement or any other Loan Document or made any transfer or incurred any obligations hereunder, with actual intent to hinder, delay or defraud either present or future creditors; and (y) with respect to the Borrower on a particular date, that on such date (i) the fair value of the property of the Borrower is greater than the total amount of liabilities, including Contingent Liabilities, of the Borrower, (ii) the present fair saleable value of the assets of the Borrower is not less than the amount that will be required to pay the probable liability of the Borrower on its debts as they become absolute and matured, (iii) the Borrower does not intend to incur debts or liabilities beyond the ability of the Borrower to pay as such debts and liabilities mature, (iv) the Borrower is not engaged in business or a transaction, and the Borrower is not about to engage in a business or a transaction, for which the property of the Borrower would constitute an unreasonably small capital and (v) the Borrower have not executed this Agreement or any other Loan Document or made any transfer or incurred any obligations hereunder, with actual intent to hinder, delay or defraud either present or future creditors. The amount of Contingent Liabilities at any time shall be computed as the amount that, in light of all the facts and circumstances existing at such time, can reasonably be expected to become an actual or matured liability.

"Standard Bodies" means any of the organizations that create, sponsor and maintain safety, quality or other standards, including ISO, ANSI, CEN, SCC and the like.

"Stewart" has the meaning specified in Section 7.13(a).

"Subsidiary" means, with respect to any Person, any other Person of which more than 50% of the outstanding Voting Securities (irrespective of whether at the time Capital Securities of any other class or classes of such other Person shall or might have voting power upon the occurrence of any contingency) or the issued Capital Securities of such other Person is at the time directly or indirectly owned or Controlled by such Person, by such Person and one or more other Subsidiaries of such Person, or by one or more other Subsidiaries of such Person. Unless the context otherwise specifically requires, the term "Subsidiary" shall be a reference to a Subsidiary of the Borrower, whether direct or indirect.

"Subsidiary Guarantor" means initially as of the Closing Date, each Subsidiary of the Borrower identified under the caption "SUBSIDIARY GUARANTORS" on the signature pages hereto and, thereafter, each Subsidiary of the Borrower that becomes a "Subsidiary Guarantor" after the Closing Date pursuant to Section 7.8.

"Survey" has the meaning specified in Section 7.13(c).

"Synthetic Lease" means, as applied to any Person, any lease (including leases that may be terminated by the lessee at any time) of any property (whether real, personal or mixed) (i) that is not a capital lease in accordance with GAAP and (ii) in respect of which the lessee retains or obtains ownership of the property so leased for federal income tax purposes, other than any such lease under which that Person is the lessor.

"Systems" means the computers, servers, devices, networks, software, and systems used in connection with the operation of the business of the Borrower or any of its Subsidiaries.

"Taxes" means all present or future taxes, levies, imposts, duties, deductions, withholdings (including backup withholding), assessments, fees or other charges imposed by any Governmental Authority, including any interest, additions to tax or penalties applicable thereto.

"Term SOFR" means,

(a) for any calculation with respect to a SOFR Loan, the Term SOFR Reference Rate for a tenor comparable to the applicable Interest Period on the day (such day, the "Periodic Term SOFR Determination Day") that is two (2) U.S. Government Securities Business Days prior to the first day of such Interest Period, as such rate is published by the Term SOFR Administrator; provided, however, that if as of 5:00 p.m. (New York City time) on any Periodic Term SOFR Determination Day the Term SOFR Reference Rate for the applicable tenor has not been published by the Term SOFR Administrator and a Benchmark Replacement Date with respect to the Term SOFR Reference Rate has not occurred, then Term SOFR will be the Term SOFR Reference Rate for such tenor as published by the Term SOFR Administrator on the first preceding U.S. Government Securities Business Day for which such Term SOFR Reference Rate for such tenor was published by the Term SOFR Administrator so long as such first preceding U.S. Government Securities Business Day is not more than three (3) U.S. Government Securities Business Days prior to such Periodic Term SOFR Determination Day, and

(b) for any calculation with respect to an ABR Loan on any day, the Term SOFR Reference Rate for a tenor of one month on the day (such day, the "ABR Term SOFR Determination Day") that is two (2) U.S. Government Securities Business Days prior to such day, as such rate is published by the Term SOFR Administrator; provided, however, that if as of 5:00 p.m. (New York City time) on any ABR Term SOFR Determination Day the Term SOFR Reference Rate for the applicable tenor has not been published by the Term SOFR Administrator and a Benchmark Replacement Date with respect to the Term SOFR Reference Rate has not occurred, then Term SOFR will be the Term SOFR Reference Rate for such tenor as published by the Term SOFR Administrator on the first preceding U.S. Government Securities Business Day for which such Term SOFR Reference Rate for such tenor was published by the Term SOFR Administrator so long as such first preceding U.S. Government Securities Business Day is not more than three (3) U.S. Government Securities Business Days prior to such ABR SOFR Determination Day;

provided, further, that if Term SOFR determined as provided above (including pursuant to the proviso under clause (a) or clause (b) above) shall ever be less than the Floor, then Term SOFR shall be deemed to be the Floor.

"Term SOFR Adjustment" means with respect to an Available Tenor of (a) one-month's duration, 0.10%, and (b) three-month's duration, 0.2616%.

"Term SOFR Administrator" means CME Group Benchmark Administration Limited (CBA) (or a successor administrator of the Term SOFR Reference Rate selected by the Agent in its reasonable discretion).

"Term SOFR Reference Rate" means the forward-looking term rate based on SOFR.

"Termination Date" means the date on which Payment in Full occurs.

"Trademark" means any trademark, service mark, trade name, logo, symbol, trade dress, domain name, rights in social media accounts, corporate name and other indicator of source or origin, and all applications and registrations therefor, together with all of the goodwill associated therewith.

"Trademark Security Agreement" means any Trademark Security Agreement executed and delivered by any Credit Party and/or any of its Subsidiaries, as applicable, substantially in the form of Exhibit D to the Security Agreement, as amended or otherwise modified from time to time.

"Trade Secrets" shall mean trade secrets and other confidential information data and databases, in each case that derive economic value from not being generally known by the public and not being readily ascertainable by other Persons, and all claims and rights related to any of the foregoing.

"Type", when used in reference to any Loan, refers to whether the rate of interest on such Loan is determined by reference to Adjusted Term SOFR or ABR.

"UCC" means the Uniform Commercial Code as in effect from time to time in the State of New York; provided that, if, with respect to any financing statement or by reason of any provisions of law, the perfection or the effect of perfection or non-perfection of the security interests granted to the Agent, on behalf of the Secured Parties, pursuant to the applicable Loan Document is governed by the Uniform Commercial Code as in effect in a jurisdiction of the United States other than New York, then "UCC" means the Uniform Commercial Code as in effect from time to time in such other jurisdiction for purposes of the provisions of each Loan Document and any financing statement relating to such perfection or effect of perfection or non-perfection.

"UK Financial Institution" means any BRRD Undertaking (as such term is defined under the PRA Rulebook (as amended from time to time) promulgated by the United Kingdom Prudential Regulation Authority) or any person falling within IFPRU 11.6 of the FCA Handbook (as amended from time to time) promulgated by the United Kingdom Financial Conduct Authority, which includes certain credit institutions and investment firms, and certain affiliates of such credit institutions or investment firms.

"UK Resolution Authority" means the Bank of England or any other public administrative authority having responsibility for the resolution of any UK Financial Institution.

"United States" or "U.S." means the United States of America, its fifty states and the District of Columbia.

"U.S. Government Securities Business Day" means any day except for (a) a Saturday, (b) a Sunday or (c) a day on which the Securities Industry and Financial Markets Association recommends that the fixed income departments of its members be closed for the entire day for purposes of trading in United States government securities.

"U.S. Person" means any Person that is a "United States Person" as defined in Section 7701(a)(30) of the Code.

"Voting Securities" means, with respect to any Person, Capital Securities of any class or kind ordinarily having the power to vote for the election of directors, managers or other voting members of the governing body of such Person.

"Warrants" means each certain Warrant to Purchase Common Stock issued by the Borrower on or before the Closing Date to the applicable Hayfin Equity Investors.

"Welfare Plan" means a "welfare plan", as such term is defined in Section 3(1) of ERISA, which any Credit Party or any of its Subsidiaries sponsors, contributes to, or provides benefits under, or has any obligation to contribute or provide benefits under.

"Wholly Owned Subsidiary" means any direct or indirect Subsidiary of the Borrower, all of the outstanding Capital Securities of which (other than any director's qualifying shares or investments by foreign nationals mandated by applicable Laws) are owned directly or indirectly by the Borrower.

"Withholding Agent" means the Credit Parties and the Agent.

"Write-Down and Conversion Powers" means, (i) with respect to any EEA Resolution Authority, the write-down and conversion powers of such EEA Resolution Authority from time to time under the Bail-In Legislation for the applicable EEA Member Country, which write-down and conversion powers are described in the EU Bail-In Legislation Schedule and (ii) with respect to the United Kingdom, any powers of the applicable Resolution Authority under the Bail-In Legislation to cancel, reduce, modify or change the form of a liability of any UK Financial Institution or any contract or instrument under which that liability arises, to convert all or part of that liability into shares, securities or obligations of that person or any other person, to provide that any such contract or instrument is to have effect as if a right had been exercised under it or to suspend any obligation in respect of that liability or any of the powers under that Bail-In Legislation that are related to or ancillary to any of those powers.

SECTION 1.2 Interpretation. For all purposes of this Agreement, except as otherwise expressly provided herein or unless the context otherwise requires,

(a) the terms defined in this Agreement include the plural as well as the singular and vice versa;

(b) words importing gender include all genders;

(c) any reference to a Section, Annex, Schedule or Exhibit refers to a Section of, or Annex, Schedule or Exhibit to, this Agreement;

(d) any reference to "this Agreement" refers to this Agreement, including all Annexes, Schedules and Exhibits hereto, and the words herein, hereof, hereto and hereunder and words of similar import refer to this Agreement and its Annexes, Schedules and Exhibits as a whole and not to any particular Section, Annex, Schedule, Exhibit or any other subdivision;

(e) references to days, months and years refer to calendar days, months and years, respectively;

(f) all references herein to "include" or "including" shall be deemed to be followed by the words "without limitation";

(g) the word "from" when used in connection with a period of time means "from and including" and the word "until" means "to but not including";

(h) the words "asset" and "property" shall be construed to have the same meaning and effect and to refer broadly to any and all assets and properties, whether tangible or intangible, real or personal, including cash, Capital Securities, rights under contractual obligations and permits and any right or interest in any such assets or property; and

(i) the word "will" shall have the same meaning as the word "shall".

Unless otherwise expressly provided herein, references to organizational documents, agreements (including the Loan Documents) and other contractual instruments shall be deemed to include all subsequent amendments, restatements, extensions, supplements and other modifications thereto permitted by the Loan Documents.

SECTION 1.3 Accounting and Financial Determinations. Unless otherwise specified, all accounting terms used in each Loan Document shall be interpreted, and all accounting determinations and computations thereunder (including under Section 8.4 and any definitions used in such calculations) shall be made, in accordance with those generally accepted accounting principles ("GAAP") applied in the preparation of the financial statements referred to in Section 5.1(d). Unless otherwise expressly provided, all financial covenants and defined financial terms shall be computed on a consolidated basis for the Borrower and its Subsidiaries, in each case without duplication. Notwithstanding any other provision contained herein, all terms of an accounting or financial nature used herein shall be construed, and all computations of amounts and ratios referred to herein, and the determination of Indebtedness hereunder, shall be made without giving effect to Financial Accounting Standards Board (FASB) Standard ASC 842 (Leases) (or any other applicable financial accounting standard having a similar result or effect) and related interpretations, in each case, to the extent any lease (or similar arrangement conveying the right to use) would be required to be treated as a capital lease thereunder where such lease (or similar arrangement) would have been treated as an operating lease under GAAP as in effect immediately prior to the effectiveness of the ASC 842.

SECTION 1.4 Divisions. For all purposes under the Loan Documents, in connection with any division or plan of division under Delaware law (or any comparable event under a different jurisdiction's laws): (i) if any asset, right, obligation or liability of any Person becomes the asset, right, obligation or liability of a different Person, then it shall be deemed to have been transferred from the original Person to the subsequent Person, and (ii) if any new Person comes into existence, such new Person shall be deemed to have been organized on the first date of its existence by the holders of its Capital Securities at such time.

SECTION 1.5 Rates. The Agent does not warrant or accept responsibility for, and shall not have any liability with respect to (a) the continuation of, administration of, submission of, calculation of or any other matter related to ABR, the Term SOFR Reference Rate, Adjusted Term SOFR or Term SOFR, or any component definition thereof or rates referred to in the definition thereof, or any alternative, successor or replacement rate thereto (including any Benchmark Replacement), including whether the composition or characteristics of any such alternative, successor or replacement rate (including any Benchmark Replacement) will be similar to, or produce the same value or economic equivalence of, or have the same volume or liquidity as, ABR, the Term SOFR Reference Rate, Adjusted Term SOFR, Term SOFR or any other Benchmark prior to its discontinuance or unavailability, or (b) the effect, implementation or composition of any Conforming Changes. The Agent and its affiliates or other related entities may engage in transactions that affect the calculation of ABR, the Term SOFR Reference Rate, Term SOFR, Adjusted Term SOFR, any alternative, successor or replacement rate (including any Benchmark Replacement) or any relevant adjustments thereto, in each case, in a manner adverse to the Borrower. The Agent may select information sources or services in its reasonable discretion to ascertain ABR, the Term SOFR Reference Rate, Term SOFR, Adjusted Term SOFR or any other Benchmark, in each case pursuant to the terms of this Agreement, and shall have no liability to the Borrower, any Lender or any other person or entity for damages of any kind, including direct or indirect, special, punitive, incidental or consequential damages, costs, losses or expenses (whether in tort, contract or otherwise and whether at law or in equity), for any error or calculation of any such rate (or component thereof) provided by any such information source or service.

ARTICLE II
THE LOANS

SECTION 2.1 Commitments.

(a) On the terms and subject to the conditions of this Agreement, each of the Lenders agrees to make the Closing Date Loans to the Borrower on the Closing Date in an aggregate amount not to exceed the Closing Date Loan Commitment Amount. No amounts paid or prepaid with respect to the Closing Date Loans may be reborrowed. The Closing Date Loan Commitment Amount shall automatically and permanently be reduced to zero immediately after the making of the Closing Date Loans on the Closing Date.

(b) On the terms and subject to the conditions of this Agreement, each of the Lenders agrees to make the Delayed Draw Loan to the Borrower on the Delayed Draw Date in one drawing in an aggregate amount equal to the Delayed Draw Loan Commitment Amount. No amounts paid or prepaid with respect to the Delayed Draw Loan may be reborrowed. The Delayed Draw Loan Commitment Amount shall automatically and permanently be reduced to zero on the earlier to occur of the Delayed Draw Date and the Delayed Draw Commitment Expiration Date.

SECTION 2.2 Borrowing Procedures. Subject to the terms and conditions hereof, the Borrower may irrevocably request that the Loans be made by delivering to the Agent a Loan Request on or before 10:00 a.m. (London, England time) on a Business Day at least twelve (12) Business Days prior to the proposed Closing Date or proposed Delayed Draw Date, as applicable (or such shorter period as the Agent may agree in its sole discretion).

SECTION 2.3 Funding. After receipt of a Loan Request for a Loan pursuant to Section 2.2, each Lender shall, on the Closing Date or on the Delayed Draw Date, as applicable, and subject to the terms and conditions hereof (including the satisfaction of all conditions precedent set forth in Article V hereof), make the applicable Loans to the Borrower, in the amounts set forth opposite such Lender's name on Schedule 2, as applicable; provided that, at the request of the Borrower, the Agent shall cause the proceeds of the Loans to be disbursed, by wire transfer of immediately available funds, in the amount and to the accounts set forth on Schedule 2.3.

SECTION 2.4 Illegality. If any Lender determines that any law has made it unlawful, or that any Governmental Authority has asserted that it is unlawful, for any Lender or its applicable lending office to make, maintain or fund Loans whose interest is determined by reference to SOFR, the Term SOFR Reference Rate, Adjusted Term SOFR or Term SOFR, or to determine or charge interest rates based upon SOFR, the Term SOFR Reference Rate, Adjusted Term SOFR or Term SOFR, then, upon notice thereof by such Lender to the Borrower (through the Agent), (a) any obligation of the Lenders to make SOFR Loans, and any right of the Borrower to continue SOFR Loans or to convert ABR Loans to SOFR Loans, shall be suspended, and (b) the interest rate on which ABR Loans shall, if necessary to avoid such illegality, be determined by the Agent without reference to clause (c) of the definition of "ABR", in each case until such Lender notifies the Agent and the Borrower that the circumstances giving rise to such determination no longer exist. Upon receipt of such notice, (i) the Borrower shall, if necessary to avoid such illegality, upon demand from any Lender (with a copy to the Agent), prepay or, if applicable, convert all SOFR Loans to ABR Loans (the interest rate on which ABR Loans of such Lender shall, if necessary to avoid such illegality, be determined by the Agent without reference to clause (c) of the definition of "ABR"), on the last day of the Interest Period therefor, if all affected Lenders may lawfully continue to maintain such SOFR Loans to such day, or immediately, if any Lender may not lawfully continue to maintain such SOFR Loans to such day, and (ii) if necessary to avoid such illegality, the Agent shall during the period of such suspension compute the ABR without reference to clause (c) of the definition of "ABR," in each case until the Agent is advised in writing by each affected Lender that it is no longer illegal for such Lender to determine or charge interest rates based upon SOFR, the Term SOFR Reference Rate, Adjusted Term SOFR or Term SOFR. Upon any such prepayment or conversion, the Borrower shall also pay accrued interest on the amount so prepaid or converted, together with any additional amounts required pursuant to Section 4.2.

SECTION 2.5 Benchmark Replacement Setting.

(a) Benchmark Replacement.

(i) Notwithstanding anything to the contrary herein or in any other Loan Document, upon the occurrence of a Benchmark Transition Event, the Agent and the Borrower may amend this Agreement to replace the then-current Benchmark with a Benchmark Replacement. Any such amendment with respect to a Benchmark Transition Event will become effective at 5:00 p.m. (New York City time) on the fifth (5th) Business Day after the Agent has posted such proposed amendment to all affected Lenders and the Borrower so long as the Agent has not received, by such time, written notice of objection to such amendment from Lenders comprising the Required Lenders. No replacement of a Benchmark with a Benchmark Replacement pursuant to this Section 2.5(a)(i) will occur prior to the applicable Benchmark Transition Start Date.

(ii) No swap agreement shall be deemed to be a "Loan Document" for purposes of this Section 2.5).

(b) Benchmark Replacement Conforming Changes. In connection with the use, administration, adoption or implementation of a Benchmark Replacement, the Agent will have the right to make Conforming Changes from time to time and, notwithstanding anything to the contrary herein or in any other Loan Document, any amendments implementing such Conforming Changes will become effective without any further action or consent of any other party to this Agreement or any other Loan Document.

(c) Notices; Standards for Decisions and Determinations. The Agent will promptly notify the Borrower and the Lenders of (i) the implementation of any Benchmark Replacement and (ii) the effectiveness of any Conforming Changes in connection with the use, administration, adoption or implementation of a Benchmark Replacement. The Agent will promptly notify the Borrower of the removal or reinstatement of any tenor of a Benchmark pursuant to Section 2.5(d). Any determination, decision or election that may be made by the Agent or, if applicable, any Lender (or group of Lenders) pursuant to this Section 2.5, including any determination with respect to a tenor, rate or adjustment or of the occurrence or non-occurrence of an event, circumstance or date and any decision to take or refrain from taking any action or any selection, will be conclusive and binding absent manifest error and may be made in its or their sole discretion and without consent from any other party to this Agreement or any other Loan Document, except, in each case, as expressly required pursuant to this Section 2.5.

(d) Unavailability of Tenor of Benchmark. Notwithstanding anything to the contrary herein or in any other Loan Document, at any time (including in connection with the implementation of a Benchmark Replacement), (i) if the then-current Benchmark is a term rate (including the Term SOFR Reference Rate) and either (A) any tenor for such Benchmark is not displayed on a screen or other information service that publishes such rate from time to time as selected by the Agent in its reasonable discretion or (B) the administrator of such Benchmark or the regulatory supervisor for the administrator of such Benchmark has provided a public statement or publication of information announcing that any tenor for such Benchmark is not or will not be representative or in compliance with or aligned with the International Organization of Securities Commissions (IOSCO) Principles for Financial Benchmarks, then the Agent may modify the definition of "Interest Period" (or any similar or analogous definition) for any Benchmark settings at or after such time to remove such unavailable, non-representative, non-compliant or non-aligned tenor and (ii) if a tenor that was removed pursuant to clause (i) above either (A) is subsequently displayed on a screen or information service for a Benchmark (including a Benchmark Replacement) or (B) is not, or is no longer, subject to an announcement that it is not or will not be representative or in compliance with or aligned with the International Organization of Securities Com-missions (IOSCO) Principles for Financial Benchmarks for a Benchmark (including a Benchmark Replacement), then the Agent may modify the definition of "Interest Period" (or any similar or analogous definition) for all Benchmark settings at or after such time to reinstate such previously removed tenor.

(e) Benchmark Unavailability Period. Upon the Borrower's receipt of notice of the commencement of a Benchmark Unavailability Period, the Borrower may revoke any pending request for a conversion to or continuation of SOFR Loans to be converted or continued during any Benchmark Unavailability Period and, failing that, the Borrower will be deemed to have converted any such request into a request for a conversion to ABR Loans. During a Benchmark Unavailability Period or at any time that a tenor for the then-current Benchmark is not an Available Tenor, the component of ABR based upon the then-current Benchmark or such tenor for such Benchmark, as applicable, will not be used in any determination of ABR.

ARTICLE III
REPAYMENTS, PREPAYMENTS, INTEREST AND FEES

SECTION 3.1 Applicable Currency for Repayments and Prepayments; Pro Rata Application. The Borrower agrees that the Loans, and any fees or interest accrued or accruing thereon, shall be repaid and prepaid solely in Dollars. Except as otherwise provided in this Agreement, each payment (including each repayment and prepayment) by the Borrower will be deemed to be made ratably in accordance with the Pro Rata Shares of the Lenders, and upon receipt of any such payment the Agent will promptly thereafter distribute like funds relating to any such payment to the Lenders in accordance with their Pro Rata Shares.

SECTION 3.2 Repayments and Prepayments. There will be no scheduled repayments of principal on the Loans prior to the Maturity Date. On the Maturity Date, the Borrower shall repay the entire unpaid principal amount of the Loans in full in cash. Prior thereto, payments and prepayments of the Loans shall be made as set forth below in this Section 3.2. Nothing in this Section 3.2 shall be deemed to (or be construed to) permit or authorize any transaction by any Credit Party that otherwise is prohibited or not specifically permitted by this Agreement or any other Loan Document. Unless otherwise expressly provided herein, all payments, repayments and prepayments described in this Section 3.2 shall be subject to Sections 3.10 and 3.11.

(a) Loans. The Borrower may, upon five (5) Business Days' prior written notice to the Agent, voluntarily prepay the outstanding principal amount of the Loans in whole or in part.

(b) Dispositions. Upon any Disposition by a Credit Party or any of its Subsidiaries (other than a Permitted Disposition), made in any period of twelve (12) consecutive months that, when taken together with all other Dispositions made during such 12-month period, results in aggregate Net Cash Proceeds from such Dispositions that exceed $1,000,000 for such 12-month period, the Borrower shall, within five (5) Business Days of such Person's receipt of such excess proceeds thereof, prepay the outstanding principal amount of the Loans in an amount equal to 100% of such excess Net Cash Proceeds. The provisions of this clause shall not be deemed to be implied consent to any Disposition otherwise prohibited by the terms and conditions of this Agreement.

(c) Events of Loss. Upon the receipt by a Credit Party or any of its Subsidiaries of any Event of Loss, received in any period of 12 consecutive months, that when taken together with all other Events of Loss during such 12-month period, results in aggregate Net Cash Proceeds from such Events of Loss that exceed $1,000,000 for such 12-month period, the Borrower shall, within five (5) Business Days of such Person's receipt of such excess proceeds thereof, prepay the outstanding principal amount of the Loans in an amount equal to 100% of such excess Net Cash Proceeds.

(d) Other Indebtedness. Upon the issuance, sale or other incurrence of any debt securities or other Indebtedness by a Credit Party or any of its Subsidiaries (other than Permitted Indebtedness), the Borrower shall, within five (5) Business Days of such Person's receipt of the proceeds thereof, prepay the outstanding principal amount of the Loans in an amount equal to 100% of the net cash proceeds therefrom. The provisions of this clause shall not be deemed to be implied consent to any such issuance, sale or incurrence otherwise prohibited by the terms and conditions of this Agreement.

(e) Acceleration. Immediately upon any acceleration of the applicable Maturity Date of the Loans pursuant to Section 9.2 or Section 9.3, the Borrower shall repay the Loans in full, unless, pursuant to Section 9.3, only a portion of the Loans are so accelerated (in which case the portion so accelerated shall be so repaid).

(f) Change in Control. Immediately upon the occurrence of a Change in Control, the Borrower shall repay the Loans in full.

(g) Acquisitions. Upon any acquisition by a Credit Party or any of its Subsidiaries, the Borrower shall, within three (3) Business Days of such Person's receipt of any cash payments from vendor indemnities or report providers, prepay the outstanding principal amount of the Loans in an amount equal to 100% of such cash payments. The provisions of this clause shall not be deemed to be implied consent to any acquisition otherwise prohibited by the terms and conditions of this Agreement.

SECTION 3.3 Application. Proceeds of each prepayment or repayment of the Loans shall be applied as set forth in clause (b) of Section 4.4.

SECTION 3.4 Interest Rate. Subject to Section 3.5, (i) each ABR Loan shall bear interest at a rate per annum equal to the ABR *plus* the Applicable Margin and (ii) each SOFR Loan shall bear interest at a rate per annum equal to Adjusted Term SOFR for the Interest Period therefor *plus* the Applicable Margin.

SECTION 3.5 Default Rate. Upon the occurrence and during the continuance of an Event of Default, and continuing until such Event of Default is no longer continuing, upon written notice by the Agent (acting pursuant to the instruction of the Majority Lenders (in their sole discretion)), the Applicable Margin shall be increased by 3.00% per annum.

SECTION 3.6 Payment Dates. Subject to Section 3.12, interest accrued on the Loans shall be payable in cash, without duplication:

(a) on the applicable Maturity Date therefor;

(b) on the date of any payment or prepayment, in whole or in part, of principal outstanding on the Loans, on the principal amount so paid or prepaid;

(c) subject to Section 3.12, on the last day of each Interest Period for the Loans; provided, however that the first such day shall be April 30, 2022;

(d) upon the occurrence and during the continuance of an Event of Default, subject to Section 3.5, on the last day of each calendar month, at the rate set forth in Section 3.5; and

(e) on that portion of the Loans that is accelerated pursuant to Section 9.2 or Section 9.3, immediately upon such acceleration.

Interest accrued on the Loans or any other monetary Obligations after the date such amount is due and payable (whether on the applicable Maturity Date, upon acceleration or otherwise) shall be payable upon demand.

SECTION 3.7 Interest Computation. All interest hereunder shall be computed on the basis of a year of 360 days (or in the case of interest computed by reference to the ABR at times when the ABR is based on the Prime Rate, such interest shall be computed on the basis of a year of 365 days (or 366 days in a leap year)), and in each case shall be payable for the actual number of days elapsed (including the first day but excluding the last day). All interest hereunder on any Loan shall be computed on a daily basis based upon the outstanding principal amount of such Loan as of the applicable date of determination. The applicable ABR or Adjusted Term SOFR shall be determined by the Agent, and such determination shall be conclusive absent manifest error.

SECTION 3.8 Term SOFR Conforming Changes. In connection with the use or administration of Term SOFR, the Agent will have the right to make Conforming Changes from time to time and, notwithstanding anything to the contrary herein or in any other Loan Document, any amendments implementing such Conforming Changes will become effective without any further action or consent of any other party to this Agreement or any other Loan Document. The Agent will promptly notify the Borrower and the Lenders of the effectiveness of any Conforming Changes in connection with the use or administration of Term SOFR.

SECTION 3.9 Fees. The Credit Parties agree, jointly and severally, to pay to the Agent and the Lenders the fees set forth in the Fee Letter.

SECTION 3.10 Early Prepayment Fees. Unless otherwise expressly provided herein, all payments, repayments and prepayments described in Section 3.2 and made at any time prior to the third anniversary of the Closing Date (whether resulting from voluntary or involuntary prepayments or repayments, acceleration (including as a result of the occurrence of any event described in Section 9.1(h) or otherwise)), shall be subject to the payment of Early Prepayment Fees as described below in this Section 3.10. Until Payment in Full occurs, all such Early Prepayment Fees shall continue to be due and payable, including after the occurrence of any Default, acceleration, maturity or otherwise. If all or any portion of the outstanding Loans are repaid or prepaid for any reason on or prior to the third anniversary of the Closing Date, the Borrower shall pay the Early Prepayment Fee to the Agent at the time of such prepayment or repayment, together with any other fees payable hereunder. Early Prepayment Fees shall be nonrefundable once paid.

SECTION 3.11 Exit Fees. If all or any portion of the outstanding Loans are repaid or prepaid for any reason, including pursuant to Section 3.2, including after the occurrence of any Default or Event of Default, acceleration, on the Maturity Date or otherwise, the Borrower shall pay the Exit Fee to the Agent at the time of such prepayment or repayment, together with any other fees payable hereunder. Exit Fees shall be nonrefundable once paid.

SECTION 3.12 PIK Interest. So long as no Default has occurred and is continuing, the Borrower will pay "in kind" a portion of the interest on the Loans for the Interest Period ending on each Interest Payment Date in an amount equal to two and one-half percent (2.5%) per annum ("PIK Interest"); provided that (a) by delivery of written notice to the Agent not less than five (5) Business Days prior to any Interest Payment Date, the Borrower may elect not to pay "in kind" all or a portion of the interest on the Loans for the Interest Period ending on such Interest Payment Date and subsequent Interest Payment Dates in an amount up to the PIK Interest and (b) if a Default has occurred and is continuing, Borrower will not be permitted to pay any PIK Interest. Such election shall only relate to interest that is (x) due and payable on such Interest Payment Dates specified in such written notice and (y) accrued during the Interest Period ending on such Interest Payment Dates. Any PIK Interest shall be capitalized and added to the outstanding principal amount of the Loans on the applicable Interest Payment Date.

SECTION 3.13 Capitalized Interest and Fees. For purposes of this Agreement and the other Loan Documents, all amounts capitalized and added to the principal balance of the Loans (including, but not limited to, PIK Interest pursuant to Section 3.12 and capitalized fees pursuant to the Fee Letter) will constitute a portion of the outstanding principal amount of the Loans as of the Closing Date or the applicable Interest Payment Date, as applicable, will bear interest (which shall be due and payable) in accordance with Sections 3.4, 3.5, 3.6 and, to the extent available, 3.12, and will be subject to Early Prepayment Fees and Exit Fees in accordance with Sections 3.10 and 3.11. Notwithstanding anything to the contrary contained in this Agreement or in any other Loan Document, in the event that any Default has occurred and is continuing on any Interest Payment Date, all interest due and payable on such date must be paid in cash, irrespective of any election at any time by the Borrower to pay such interest in the form of PIK Interest.

ARTICLE IV
SOFR AND OTHER PROVISIONS

SECTION 4.1 Increased Costs.

(a) Increased Costs Generally. If any Change in Law shall:

(i) impose, modify or deem applicable any reserve, special deposit, compulsory loan, insurance charge or similar requirement against assets of, deposits with or for the account of, or credit extended or participated in by, any Lender (except any reserve requirement reflected in Adjusted Term SOFR);

(ii) subject any Recipient to any Taxes (other than (A) Indemnified Taxes, (B) Taxes described in clauses (b) through (d) of the definition of Excluded Taxes and (C) Connection Income Taxes) on its loans, loan principal, letters of credit, commitments, or other obligations, or its deposits, reserves, other liabilities or capital attributable thereto; or

(iii) impose on any Lender any other condition, cost or expense (other than Taxes) affecting this Agreement or Loans made by such Lender or any participation therein;

and the result of any of the foregoing shall be to increase the cost to such Lender or such other Recipient of making, converting to, continuing or maintaining any Loan or of maintaining its obligation to make any such Loan, or to increase the cost to such Lender or such other Recipient of participating in, or to reduce the amount of any sum received or receivable by such Lender or other Recipient hereunder (whether of principal, interest or any other amount) then, upon request of such Lender or other Recipient, the Borrower will pay to such Lender or other Recipient, as the case may be, such additional amount or amounts as will compensate such Lender or other Recipient, as the case may be, for such additional costs incurred or reduction suffered.

(b) Capital Requirements. If any Lender determines that any Change in Law affecting such Lender or any lending office of such Lender or such Lender's holding company, if any, regarding capital or liquidity requirements, has or would have the effect of reducing the rate of return on such Lender's capital or on the capital of such Lender's holding company, if any, as a consequence of this Agreement, the Loans made by such Lender to a level below that which such Lender or such Lender's holding company could have achieved but for such Change in Law (taking into consideration such Lender's policies and the policies of such Lender's holding company with respect to capital adequacy), then from time to time the Borrower will pay to such Lender such additional amount or amounts as will compensate such Lender or such Lender's holding company for any such reduction suffered.

(c) Certificates for Reimbursement. A certificate of a Lender setting forth the amount or amounts necessary to compensate such Lender or its holding company, as the case may be, as specified in paragraph (a) or (b) of this Section and delivered to the Borrower, shall be conclusive absent manifest error. The Borrower shall pay such Lender as the case may be, the amount shown as due on any such certificate within ten (10) days after receipt thereof.

(d) Delay in Requests. Failure or delay on the part of any Lender to demand compensation pursuant to this Section shall not constitute a waiver of such Lender's right to demand such compensation; provided that the Borrower shall not be required to compensate a Lender pursuant to this Section for any increased costs incurred or reductions suffered more than nine months prior to the date that such Lender, as the case may be, notifies the Borrower of the Change in Law giving rise to such increased costs or reductions, and of such Lender's intention to claim compensation therefor (except that, if the Change in Law giving rise to such increased costs or reductions is retroactive, then the nine-month period referred to above shall be extended to include the period of retroactive effect thereof).

SECTION 4.2 Compensation for Losses. In the event of (a) the payment of any principal of any SOFR Loan other than on the last day of the Interest Period applicable thereto (including as a result of an Event of Default), (b) the conversion of any SOFR Loan other than on the last day of the Interest Period applicable thereto (including as a result of an Event of Default), (c) the failure to borrow, convert, continue or prepay any SOFR Loan on the date specified in any notice delivered pursuant hereto, or (d) the assignment of any SOFR Loan other than on the last day of the Interest Period applicable thereto as a result of a request by the Borrower, then, in any such event, the Borrower shall compensate each Lender for any loss, cost and expense attributable to such event, including any loss, cost or expense arising from the liquidation or redeployment of funds. A certificate of any Lender setting forth any amount or amounts that such Lender is entitled to receive pursuant to this Section 4.2 shall be delivered to the Borrower and shall be conclusive absent manifest error. The Borrower shall pay such Lender the amount shown as due on any such certificate within ten (10) days after receipt thereof.

SECTION 4.3 Taxes.

(a) Defined Terms. For purposes of this Section, the term "applicable law" includes FATCA.

(b) Payments Free of Taxes. Any and all payments by or on account of any Obligation of a Credit Party under any Loan Document shall be made without deduction or withholding for any Taxes, except as required by applicable law. If any applicable law (as determined in the good faith discretion of an applicable Withholding Agent) requires the deduction or withholding of any Tax from any such payment by any Withholding Agent, then such Withholding Agent shall be entitled to make such deduction or withholding and shall timely pay the full amount deducted or withheld to the relevant Governmental Authority in accordance with applicable law and, if such Tax is an Indemnified Tax, then the sum payable by such Credit Party shall be increased as necessary so that after such deduction or withholding has been made (including such deductions and withholdings applicable to additional sums payable under this Section) the applicable Recipient receives an amount equal to the sum it would have received had no such deduction or withholding been made.

(c) Payment of Other Taxes by the Credit Parties. Each Credit Party agrees that, without duplication, it shall, or shall cause the appropriate Credit Party to, timely pay to the relevant Governmental Authority in accordance with applicable law, or at the option of the Agent timely reimburse it for the payment of, any Other Taxes.

(d) Indemnification by Credit Parties. Each Credit Party agrees that, without duplication, it shall, or shall cause the appropriate Credit Party to, indemnify each Recipient, within ten (10) Business Days after demand therefor, for the full amount of any Indemnified Taxes (including Indemnified Taxes imposed or asserted on or attributable to amounts payable under this Section) payable or paid by such Recipient or required to be withheld or deducted from a payment to such Recipient and any reasonable expenses arising therefrom or with respect thereto, whether or not such Indemnified Taxes were correctly or legally imposed or asserted by the relevant Governmental Authority. A certificate as to the amount of such payment or liability delivered to a Credit Party by a Lender (with a copy to the Agent), or by the Agent on its own behalf or on behalf of a Lender, shall be conclusive absent manifest error.

(e) Indemnification by the Lenders. Each Lender shall severally indemnify the Agent, within ten (10) Business Days after demand therefor, for (i) any Indemnified Taxes attributable to such Lender (but only to the extent that the Borrower has not already indemnified the Agent for such Indemnified Taxes and without limiting the obligation of the Borrower to do so), (ii) any Taxes attributable to such Lender's failure to comply with the provisions of Section 11.11(b) relating to the maintenance of a Participant Register, and (iii) any Excluded Taxes attributable to such Lender, in each case, that are payable or paid by the Agent in connection with any Loan Document, and any reasonable expenses arising therefrom or with respect thereto, whether or not such Taxes were correctly or legally imposed or asserted by the relevant Governmental Authority. A certificate as to the amount of such payment or liability delivered to any Lender by the Agent shall be conclusive absent manifest error. Each Lender hereby authorizes the Agent to set off and apply any and all amounts at any time owing to such Lender under any Loan Document or otherwise payable by the Agent to such Lender from any other source against any amount due to the Agent under this paragraph (e).

(f) Evidence of Payments. As soon as practicable after any payment of Taxes by any Credit Party to a Governmental Authority pursuant to this Section, such Credit Party shall deliver to the Agent the original or a certified copy of a receipt issued by such Governmental Authority evidencing such payment, a copy of the return reporting such payment or other evidence of such payment satisfactory to the Agent (acting on the instructions of the Majority Lenders acting reasonably).

(g) Status of Lenders.

(i) Any Lender that is entitled to an exemption from or reduction of withholding Tax with respect to payments made under any Loan Document shall deliver to the Borrower and the Agent, at the time or times reasonably requested by the Borrower or the Agent, such properly completed and executed documentation reasonably requested by the Borrower or the Agent as will permit such payments to be made without withholding or at a reduced rate of withholding. In addition, any Lender, if reasonably requested by the Borrower or the Agent, shall deliver such other documentation prescribed by applicable law or reasonably requested by the Borrower or the Agent as will enable the Borrower or the Agent to determine whether or not such Lender is subject to backup withholding or information reporting requirements. Notwithstanding anything to the contrary in the preceding two sentences, the completion, execution and submission of such documentation (other than such documentation set forth in paragraphs (g)(ii)(A), (ii)(B) and (ii)(D) of this Section) shall not be required if in such Lender's reasonable judgment such completion, execution or submission would subject such Lender to any material unreimbursed cost or expense or would materially prejudice the legal or commercial position of such Lender.

(ii) Without limiting the generality of the foregoing,

(A) any Lender that is a U.S. Person shall deliver to the Borrower and the Agent on or about the date on which such Lender becomes a Lender under this Agreement (and from time to time thereafter upon the reasonable request of the Borrower or the Agent), executed copies of IRS Form W-9 certifying that such Lender is exempt from U.S. federal backup withholding tax;

(B) any Foreign Lender shall, to the extent it is legally entitled to do so, deliver to the Borrower and the Agent (in such number of copies as shall be requested by the recipient) on or about the date on which such Foreign Lender becomes a Lender under this Agreement (and from time to time thereafter upon the reasonable request of the Borrower or the Agent), whichever of the following is applicable:

(1) in the case of a Foreign Lender claiming the benefits of an income tax treaty to which the United States is a party (x) with respect to payments of interest under any Loan Document, executed copies of IRS Form W-8BEN or IRS Form W-8BEN-E establishing an exemption from, or reduction of, U.S. federal withholding Tax pursuant to the "interest" article of such tax treaty and (y) with respect to any other applicable payments under any Loan Document, IRS Form W-8BEN or IRS Form W-8BEN-E establishing an exemption from, or reduction of, U.S. federal withholding Tax pursuant to the "business profits" or "other income" article of such tax treaty;

(2) in the case of a Foreign Lender claiming that its extension of credit will generate U.S. effectively connected income, executed copies of IRS Form W-8ECI;

(3) in the case of a Foreign Lender claiming the benefits of the exemption for portfolio interest under Section 881(c) of the Code, (x) a certificate substantially in the form of Exhibit E-1 hereto to the effect that such Foreign Lender is not a "bank" within the meaning of Section 881(c)(3)(A) of the Code, a "10 percent shareholder" of the Borrower within the meaning of Section 871(h)(3)(B) of the Code, or a "controlled foreign corporation" related to the Borrower as described in Section 881(c)(3)(C) of the Code (a "U.S. Tax Compliance Certificate") and (y) executed copies of IRS Form W-8BEN or IRS Form W-8BEN-E; or

(4) to the extent a Foreign Lender is not the beneficial owner, executed copies of IRS Form W-8IMY, accompanied by IRS Form W-8ECI, IRS Form W-8BEN, IRS Form W-8BEN-E, a U.S. Tax Compliance Certificate substantially in the form of Exhibit E-2 or Exhibit E-3 hereto, IRS Form W-9, and/or other certification documents from each beneficial owner, as applicable; provided that if the Foreign Lender is a partnership and one or more direct or indirect partners of such Foreign Lender are claiming the portfolio interest exemption, such Foreign Lender may provide a U.S. Tax Compliance Certificate substantially in the form of Exhibit E-4 hereto on behalf of each such direct and indirect partner;

(C) any Foreign Lender shall, to the extent it is legally entitled to do so, deliver to the Borrower and the Agent (in such number of copies as shall be requested by the recipient) on or about the date on which such Foreign Lender becomes a Lender under this Agreement (and from time to time thereafter upon the reasonable request of the Borrower or the Agent), executed copies of any other form prescribed by applicable law as a basis for claiming exemption from or a reduction in U.S. federal withholding Tax, duly completed, together with such supplementary documentation as may be prescribed by applicable law to permit the Borrower or the Agent to determine the withholding or deduction required to be made; and

(D) if a payment made to a Lender under any Loan Document would be subject to U.S. federal withholding Tax imposed by FATCA if such Lender were to fail to comply with the applicable reporting requirements of FATCA (including those contained in Section 1471(b) or 1472(b) of the Code, as applicable), such Lender shall deliver to the Borrower and the Agent at the time or times prescribed by law and at such time or times reasonably requested by the Borrower or the Agent such documentation prescribed by applicable law (including as prescribed by Section 1471(b)(3)(C)(i) of the Code) and such additional documentation reasonably requested by the Borrower or the Agent as may be necessary for the Borrower and the Agent to comply with their obligations under FATCA and to determine that such Lender has complied with such Lender's obligations under FATCA or to determine the amount, if any, to deduct and withhold from such payment. Solely for purposes of this clause (D), "FATCA" shall include any amendments made to FATCA after the date of this Agreement.

Each Lender agrees that if any form or certification it previously delivered expires or becomes obsolete or inaccurate in any respect, it shall update such form or certification or promptly notify the Borrower and the Agent in writing of its legal inability to do so.

(h) Treatment of Certain Refunds. If any party determines, in its sole discretion exercised in good faith, that it has received a refund of any Taxes as to which it has been indemnified pursuant to this Section (including by the payment of additional amounts pursuant to this Section), it shall pay to the indemnifying party an amount equal to such refund (but only to the extent of indemnity payments made under this Section with respect to the Taxes giving rise to such refund), net of all out-of-pocket expenses (including Taxes) of such indemnified party and without interest (other than any interest paid by the relevant Governmental Authority with respect to such refund). Such indemnifying party, upon the request of such indemnified party, shall repay to such indemnified party the amount paid over pursuant to this paragraph (h) (plus any penalties, interest or other charges imposed by the relevant Governmental Authority) in the event that such indemnified party is required to repay such refund to such Governmental Authority. Notwithstanding anything to the contrary in this paragraph (h), in no event will the indemnified party be required to pay any amount to an indemnifying party pursuant to this paragraph (h) the payment of which would place the indemnified party in a less favorable net after-Tax position than the indemnified party would have been in if the Tax subject to indemnification and giving rise to such refund had not been deducted, withheld or otherwise imposed and the indemnification payments or additional amounts with respect to such Tax had never been paid. This paragraph shall not be construed to require any indemnified party to make available its Tax returns (or any other information relating to its Taxes that it deems confidential) to the indemnifying party or any other Person.

(i) Survival. Each party's obligations under this Section shall survive the resignation or replacement of the Agent or any assignment of rights by, or the replacement of, a Lender and the repayment, satisfaction or discharge of all obligations under any Loan Document.

SECTION 4.4 Payments, Computations; Proceeds of Collateral, Etc. The parties hereto agree as follows:

(a) Unless otherwise expressly provided in a Loan Document, all payments by the Borrower pursuant to each Loan Document shall be made without setoff, deduction or counterclaim not later than 11:00 a.m. (New York City time) on the date due in same day or immediately available funds to such account as the Agent shall specify from time to time by notice to the Borrower. Funds received after that time shall be deemed to have been received by the Agent on the next succeeding Business Day. All interest and fees shall be computed on the basis of the actual number of days (including the first day but excluding the last day) occurring during the period for which such interest or fee is payable over a year comprised of 360 days. Payments due on other than a Business Day shall be made on the next succeeding Business Day and such extension of time shall be included in computing interest and fees in connection with that payment.

(b) All amounts received as a result of the exercise of remedies under the Loan Documents (including from the proceeds of collateral securing the Obligations) or under applicable Law shall be applied upon receipt to the Obligations as follows: (i) first, to the payment in full in cash of all interest (including interest accruing after the commencement of a proceeding in bankruptcy, insolvency or similar law, whether or not permitted as a claim under such law) and fees owing under the Loan Documents, and all costs and expenses owing to the Agent and the Lenders (or any of them) pursuant to the terms of the Loan Documents, until paid in full in cash, (ii) second, after payment in full in cash of the amounts specified in clause (b)(i), to the payment of the principal amount of the Loans then outstanding, (iii) third, after payment in full in cash of the amounts specified in clauses (b)(i) and (b)(ii), to the payment of all other Obligations owing to the Agent and the Lenders (or any of them), and (iv) fourth, after payment in full in cash of the amounts specified in clauses (b)(i) through (b)(iii), and following the Termination Date, to the Borrower or any other Person lawfully entitled to receive such surplus.

SECTION 4.5 Setoff. Each Lender and the Agent shall, upon the occurrence and during the continuance of any Default described in clauses (i) through (iv), inclusive, of Section 9.1(h) or, upon the occurrence and during the continuance of any other Event of Default, have the right to appropriate and apply to the payment of the Obligations owing to it (whether or not then due), and (as security for such Obligations) each Credit Party and each of its Subsidiaries hereby grants to each Lender and the Agent a continuing security interest in, any and all balances, credits, deposits, accounts (other than Excluded Accounts) or moneys of each Credit Party and each of its Subsidiaries then or thereafter maintained with such Lender or the Agent, as applicable. Each Lender and the Agent agrees promptly to notify the Borrower after any such appropriation and application made by such Lender or the Agent, as applicable; provided that, the failure to give such notice shall not affect the validity of such setoff and application. The rights of each Lender and the Agent under this Section are in addition to other rights and remedies (including other rights of setoff under applicable Law or otherwise) which such Lender or the Agent, as applicable, may have.

SECTION 4.6 Inability to Determine Rates. Subject to Section 2.5, if, on or prior to the first day of any Interest Period for any SOFR Loan:

(a) the Agent determines (which determination shall be conclusive and binding absent manifest error) that "Adjusted Term SOFR" cannot be determined pursuant to the definition thereof, or

(b) the Majority Lenders determine that for any reason in connection with any request for a SOFR Loan or a conversion thereto or a continuation thereof that Adjusted Term SOFR for any requested Interest Period with respect to a proposed SOFR Loan does not adequately and fairly reflect the cost to such Lenders of funding such Loan, and the Majority Lenders have provided notice of such determination to the Agent, the Agent will promptly so notify the Borrower and each Lender.

Upon notice thereof by the Agent to the Borrower, any obligation of the Lenders to make SOFR Loans, and any right of the Borrower to continue SOFR Loans or to convert ABR Loans to SOFR Loans, shall be suspended (to the extent of the affected SOFR Loans or affected Interest Periods) until the Agent (with respect to clause (b), at the instruction of the Majority Lenders) revokes such notice. Upon receipt of such notice, (i) the Borrower may revoke any pending request for a borrowing of, conversion to or continuation of SOFR Loans (to the extent of the affected SOFR Loans or affected Interest Periods) or, failing that, the Borrower will be deemed to have con-verted any such request into a request for a Borrowing of or conversion to ABR Loans in the amount specified therein and (ii) any outstanding affected SOFR Loans will be deemed to have been converted into ABR Loans at the end of the applicable Interest Period. Upon any such conversion, the Borrower shall also pay accrued interest on the amount so converted, together with any additional amounts required pursuant to Section 4.2. Subject to Section 2.5, if the Agent determines (which determination shall be conclusive and binding absent manifest error) that "Adjusted Term SOFR" cannot be determined pursuant to the definition thereof on any given day, the interest rate on ABR Loans shall be determined by the Agent without reference to clause (c) of the definition of "ABR" until the Agent revokes such determination.

SECTION 4.7 Sharing of Payments. If any Lender will, by exercising any right of setoff or counterclaim or otherwise, obtain payment in respect of any principal of or interest on the Loans or other obligations hereunder resulting in such Lender receiving payment of a proportion of the aggregate amount of its Loans and accrued interest thereon or other such obligations greater than its Pro Rata Share thereof as provided herein, then the Lender receiving such greater proportion will (a) notify the Agent of such fact, and (b) purchase (for cash at face value) participations in the Loans and such other obligations of the other Lenders, or make such other adjustments as will be equitable, so that the benefit of all such payments will be shared by the Lenders ratably in accordance with the aggregate amount of principal of and accrued interest on their respective Loans and other amounts owing them; provided that, (i) if any such participations are purchased and all or any portion of the payment giving rise thereto is recovered, such participations will be rescinded and the purchase price restored to the extent of such recovery, without interest; and (ii) the provisions of this Section will not be construed to apply to (i) any payment made by the Borrower pursuant to and in accordance with the express terms of this Agreement or (ii) any payment obtained by a Lender as consideration for the assignment of or sale of a participation in its Loans to any assignee or participant, other than to the Borrower or any of their respective Subsidiaries (as to which the provisions of this subsection will apply).

ARTICLE V
CONDITIONS PRECEDENT

SECTION 5.1 Conditions to the Borrowing of the Closing Date Loans. The obligation of the Lenders to make the Closing Date Loans on the Closing Date shall be subject to the execution and delivery of this Agreement by the parties hereto, the delivery of a Loan Request for the Closing Date Loans pursuant to Section 2.2, and the prior or concurrent satisfaction of each of the conditions precedent set forth below in this Section 5.1.

(a) Secretary's Certificate, Etc. The Agent shall have received from each Credit Party (x) a copy of a good standing certificate (to the extent such concept it applicable in any relevant jurisdiction), dated a date reasonably close to the Closing Date, for each such Person and (y) a certificate, dated as of the Closing Date, duly executed and delivered by such Person's Secretary, Assistant Secretary, or other Authorized Officer, director, managing member or general partner, as applicable, as to:

(i) resolutions of each such Person's board of directors (or other managing body, in the case of other than a corporation) then in full force and effect authorizing the execution, delivery and performance of each Loan Document to be executed by such Person and the transactions contemplated hereby and thereby;

(ii) the incumbency and signatures of those of its officers, managing member or general partner, as applicable, authorized to act with respect to each Loan Document to be executed by such Person;

(iii) the full force and validity of each Organic Document of such Person and copies thereof; and

(iv) certifying that each copy document relating to it specified in this Section 5.1(a) is correct, complete and in full force and effect and has not been amended or superseded as at the date no earlier than the Closing Date;

in each case, upon which certificates the Agent may conclusively rely until it shall have received a further certificate of the Secretary, Assistant Secretary, director, managing member or general partner, as applicable, of any such Person cancelling or amending the prior certificate of such Person.

(b) Closing Date Certificate. The Agent shall have received a certificate, dated as of the Closing Date and duly executed and delivered by an Authorized Officer of the Borrower (the "Closing Date Certificate"), which certificate shall be in form and substance satisfactory to the Agent (acting on the instructions of the Majority Lenders acting reasonably) and shall, among other things, represent and warrant that the statements made therein are true and correct as of such date, and, at the time such certificate is delivered, such statements shall in fact be true and correct. The statements in such certificate shall include: (i) (x) the representations and warranties set forth herein and in each Loan Document shall, in each case, be true and correct in all material respects as of the Closing Date (unless stated to relate solely to an earlier date, in which case such representations and warranties shall be true and correct in all material respects as of such earlier date); provided that any representations and warranties that are by their terms qualified by materiality, Material Adverse Effect or similar qualification shall be true and correct in all respects, and (y) no Default or Event of Default under and as defined in this Agreement shall have occurred and then be continuing and (ii) all of the conditions set forth in this Section 5.1 have been satisfied. All documents and agreements required to be appended to the Closing Date Certificate, if any, shall be in form and substance satisfactory to the Agent, shall have been executed and delivered by the requisite parties, and shall be in full force and effect.

(c) Delivery of Notes. The Agent shall have received Notes for each Lender that has requested as such, evidencing the Closing Date Loans, which Notes shall be duly executed and delivered by an Authorized Officer of the Borrower.

(d) Financial Information, Etc. The Agent shall have received, which such receipt shall include the Company's uploading of such information to the Electronic Data Gathering, Analysis, and Retrieval system ("EDGAR"), the SEC's public database:

(i) audited consolidated financial statements of the Borrower and its Subsidiaries for the Fiscal Year ended December 31, 2020;

(ii) unaudited consolidated financial statements of the Borrower and its Subsidiaries for the fiscal period ended September 30, 2021;

(iii) draft consolidated financial statements of the Borrower and its Subsidiaries for the Fiscal Year ended December 31, 2021; and

(iv) such other financial information as to the Borrower and each of its Subsidiaries and their respective businesses, assets and liabilities as the Agent may reasonably request.

(e) Compliance Certificate. The Agent shall have received a Compliance Certificate, dated as of the Closing Date, duly executed (and with all schedules thereto duly completed) and delivered by the chief financial or accounting Authorized Officer of the Borrower.

(f) Solvency, Etc. The Agent shall have received a solvency certificate duly executed and delivered by the chief financial or accounting Authorized Officer of the Borrower, dated as of the Closing Date, in form and substance satisfactory to the Agent.

(g) Fee Letter. The Agent shall have received the Fee Letter, dated as of the Closing Date, duly executed and delivered by the Borrower, the Agent and the Lenders.

(h) Security Agreement, Etc. The Agent shall have received executed counterparts of the Security Agreement, dated as of the Closing Date, duly executed and delivered by the Credit Parties together with:

(i) certificates (in the case of Capital Securities that are securities (as defined in the UCC)) evidencing all of the issued and outstanding Capital Securities owned by each Credit Party, which certificates in each case shall be accompanied by undated instruments of transfer duly executed in blank, or, if any Capital Securities (in the case of Capital Securities that are uncertificated securities (as defined in the UCC)), confirmation and evidence satisfactory to the Agent that the security interest therein has been transferred to and perfected by the Agent in accordance with Articles 8 and 9 of the UCC and all laws otherwise applicable to the perfection of the pledge of such Capital Securities;

(ii) financing statements suitable in form for naming each Credit Party as a debtor and the Agent for the benefit of the Secured Parties as the secured party, or other similar instruments or documents to be filed under the UCC of all jurisdictions as may be necessary or, in the opinion of the Agent, desirable to perfect the security interests of the Secured Parties pursuant to the Security Agreement; and

(iii) any Patent Security Agreement, Trademark Security Agreement or Copyright Security Agreement required to be provided under the Security Agreement, each dated as of the Closing Date, duly executed and delivered by an Authorized Officer of the applicable Credit Party.

(i) Intercompany Subordination Agreement. The Agent shall have received executed counterparts of the Intercompany Subordination Agreement, duly executed and delivered by each Credit Party and each of their respective Subsidiaries.

(j) Material Agreements. Copies of all Material Agreements shall have been made available to the Agent upon its request.

(k) Opinion of Counsel. The Agent shall have received a legal opinion, dated as of the Closing Date and addressed to the Agent and the Lenders, from independent legal counsel to the Credit Parties, in each case, in form and substance reasonably acceptable to the Agent.

(l) Fees, Expenses, Etc. The Agent shall have received for its own account and for the account of the Lenders and all fees, costs and expenses due and payable pursuant to Section 11.3, the Fee Letter or any other Loan Documents, including all closing costs and fees and all unpaid reasonable and documented expenses of the Agent and the Lenders incurred in connection with the transactions contemplated hereby (including the Agent's legal fees and expenses).

(m) Anti-Terrorism Laws and Beneficial Ownership. The Agent shall have received, as applicable, (i) all documentation and other information required by bank regulatory authorities under applicable "know your customer" and anti-money laundering rules and regulations, including the Patriot Act and (ii) if the Borrower qualifies as a "legal entity customer" under the Beneficial Ownership Regulation, at least five (5) Business Days prior to the Closing Date, a Beneficial Ownership Certification.

(n) No Material Adverse Effect. As of the Closing Date, (i) the representations and warranties set forth herein and in each Loan Document are true and correct in all material respects; provided that any representations and warranties that are by their terms qualified by materiality, Material Adverse Effect or similar qualification shall be true and correct in all respects, (ii) no Default or Event of Default shall have then occurred and be continuing, and (iii) no Material Adverse Effect shall have occurred since December 31, 2020.

(o) Satisfactory Legal Form. All documents executed or submitted pursuant hereto by or on behalf of any Credit Party shall be satisfactory in form and substance to the Agent, and the Agent and its counsel shall have received all information, approvals, resolutions, opinions, documents or instruments as the Agent may reasonably request.

(p) Debt Securities and Credit Facilities; Senior Secured Loans. The Agent shall have received a certificate from an Authorized Officer of the Borrower certifying that, as of the time of the Closing Date Loans on the Closing Date (i) neither any Credit Party nor any of their respective Subsidiaries has issued, or authorized the issuance of, any debt securities or entered into, or authorized the entrance into, any other credit facilities and (ii) the Obligations constitute the sole secured obligations and sole Indebtedness of the Credit Parties (other than Permitted Indebtedness).

(q) Perfection Certificate. The Agent shall have received a Perfection Certificate, dated as of the Closing Date, duly executed (and with all schedules thereto duly completed) and delivered by the Authorized Officer of the Borrower.

(r) Organizational Chart. The Borrower shall have provided an accurate and complete organization chart reflecting all of the direct and indirect subsidiaries of the Borrower (including the applicable ownership percentages of each entity) as of the Closing Date, and the Agent and the Majority Lenders, in their sole discretion, shall have been satisfied with the direct and indirect equity ownership of the Credit Parties.

(s) Warrants. Prior to or substantially concurrently with the making of the Closing Date Loans on the Closing Date, the Warrants shall shave been issued to the applicable Hayfin Equity Investors.

(t) Controlled Accounts. Each Credit Party shall deliver evidence that all deposit accounts, lockboxes, disbursement accounts, investment accounts or other similar accounts of the Credit Parties (other than Excluded Accounts) are Controlled Accounts.

(u) Mortgages. The Credit Parties shall deliver a Mortgage with respect to the Boca Facility.

(v) Insurance. The Agent shall have received (i) certificates of insurance evidencing that the insurance required to be maintained pursuant to Section 7.4 is in full force and effect, together with endorsements satisfying the requirements of the last paragraph of Section 7.4, in each case, in form and substance satisfactory to the Agent (acting on the instructions of the Majority Lenders acting reasonably); and (ii) certified copies of the insurance policies (or binders in respect thereof), from one or more insurance companies satisfactory to the Agent, required to be maintained pursuant to Section 7.4.

(w) Payoff and Release Documents. The Agent shall have received evidence that all existing indebtedness of all Credit Parties and any Subsidiaries thereof has been (or will be, substantially concurrently with the borrowing of the Closing Date Loan) paid in full, including but not limited to (i) executed counterparts of a payoff letter, duly executed and delivered by each applicable Credit Party and/or Subsidiary and any Person extending such indebtedness to such Credit Parties and/or Subsidiaries, (ii) UCC-3 termination statements, if any, necessary to release all Liens and other rights of any Person in any collateral described in the Security Agreement previously granted by any Person, together with such other UCC-3 termination statements as the Agent may reasonably request from any Credit Party or any Subsidiary thereof, as applicable, (iii) executed agreements, if any, necessary to release all Liens and other rights of any Person in any Intellectual Property previously granted by any Person and (iv) such other discharge, release and termination documents as the Agent may reasonably request from any Credit Party or any Subsidiary thereof, necessary to release all Liens in any other collateral described in the Security Agreement previously granted by any Person, in each case, in form and substance satisfactory to the Agent.

SECTION 5.2 Conditions to the Borrowing of the Delayed Draw Loan. The obligation of the Lenders to make the Delayed Draw Loan on the Delayed Draw Date shall be subject to the delivery of a Loan Request for the Delayed Draw Loan pursuant to Section 2.2, and the prior or concurrent satisfaction of each of the conditions precedent set forth below in this Section 5.2.

(a) Closing Date Certificate. The Agent shall have received a certificate, dated as of the Delayed Draw Date and duly executed and delivered by an Authorized Officer of the Borrower (the "Delayed Draw Date Certificate"), which certificate shall be in form and substance satisfactory to the Agent (acting on the instructions of the Majority Lenders acting reasonably) and shall, among other things, represent and warrant that the statements made therein are true and correct as of such date, and, at the time such certificate is delivered, such statements shall in fact be true and correct. The statements in such certificate shall include, among others, (i) (x) the representations and warranties set forth herein and in each Loan Document shall, in each case, be true and correct in all material respects as of the Delayed Draw Date (unless stated to relate solely to an earlier date, in which case such representations and warranties shall be true and correct in all material respects as of such earlier date); provided that any representations and warranties that are by their terms qualified by materiality, Material Adverse Effect or similar qualification shall be true and correct in all respects, and (y) no Default or Event of Default under and as defined in this Agreement shall have occurred and then be continuing and (ii) all of the conditions set forth in this Section 5.2 have been satisfied. All documents and agreements required to be appended to the Delayed Draw Date Certificate, if any, shall be in form and substance satisfactory to the Agent, shall have been executed and delivered by the requisite parties, and shall be in full force and effect.

(b) Delivery of Notes. The Agent shall have received Notes for each Lender that has requested as such, evidencing the Delayed Draw Date Loan, which Notes shall be duly executed and delivered by an Authorized Officer of the Borrower.

(c) Compliance Certificate. The Agent shall have received a Compliance Certificate, dated as of the Delayed Draw Date, duly executed (and with all schedules thereto duly completed) and delivered by the chief financial or accounting Authorized Officer of the Borrower, evidencing, as of the Delayed Draw Date, the Borrower's and its Subsidiaries' compliance with the conditions set forth in Section 5.2(d) and Section 8.4, in each case immediately prior to the incurrence of the Delayed Draw Loan.

(d) Minimum Net Sales. Net Sales of BIVIGAM®, ASCENIV™, Nabi-HB® and any by-products produced during the fractionation of human plasma by Borrower including, but not limited to, cryoprecipitate, Fraction V paste and Fraction I and Fraction IV intermediates for the two consecutive Fiscal Quarters ending on the most recent test date prior to the Delayed Draw Date set forth below are greater than or equal to the corresponding amount set forth opposite such test date:

Test Date	Minimum Net Sales
March 31, 2022	$ 45,000,000
June 30, 2022	$ 50,000,000
September 30, 2022	$ 55,000,000
December 31, 2022	$ 60,000,000

ARTICLE VI
REPRESENTATIONS AND WARRANTIES

In order to induce the Agent and the Lenders to enter into this Agreement, each Credit Party hereby jointly and severally represents and warrants to the Agent and the Lenders as follows:

SECTION 6.1 Organization, Etc. Each Credit Party (i) is validly organized and existing and in good standing under the laws of the jurisdiction of its incorporation or organization (to the extent such concept it applicable in any relevant jurisdiction), (ii) is duly qualified to do business and is in good standing as a foreign entity in each jurisdiction where the nature of its business requires such qualification and (iii) has full power and authority and holds all requisite Permits required to enter into and perform its Obligations under each Loan Document to which it is a party, to own and hold under lease its property and to conduct its business substantially as currently conducted by it; except in the cases of clauses (ii) and (iii), where the failure to do so could not reasonably be expected to result in a Material Adverse Effect.

SECTION 6.2 Due Authorization, Non-Contravention, Etc. The execution, delivery and performance by each Credit Party and each of its Subsidiaries of each Loan Document executed or to be executed by it are in each case within such Person's powers, have been duly authorized by all necessary action, and do not:

(a) contravene (i) any Organic Documents of such Credit Party or such Subsidiary, (ii) any court decree or order binding on or affecting such Credit Party or such Subsidiary, or (iii) any law or governmental regulation binding on or affecting such Credit Party or such Subsidiary; or

(b) result in (i) or require the creation or imposition of, any Lien on a Credit Party's or any of its Subsidiaries' properties (except Permitted Liens) or (ii) a default under any contractual restriction binding on or affecting a Credit Party or any of its Subsidiaries.

SECTION 6.3 Government Approval, Regulation, Exclusivities, Etc.

(a) Each Credit Party and each Subsidiary involved in Product Development and Commercialization Activities has all Regulatory Authorizations material to its business and operations.

(b) Each Credit Party, each Subsidiary (as applicable) and, to the knowledge of the Credit Parties, each licensee of a Credit Party or a Subsidiary of any Intellectual Property, is in compliance with, and at all times during the past five (5) years, has materially complied with, all Healthcare Laws, the failure of compliance with which, individually or together with any other such failures, could reasonably be expected to result in a Material Adverse Effect. No Credit Party or any Subsidiary thereof has received any written notice from any Regulatory Authority citing action or inaction by any Credit Party or any Subsidiary thereof that would constitute a violation of any applicable Healthcare Law, which could reasonably be expected to result in a Material Adverse Effect.

SECTION 6.4 Validity, Etc. Each Loan Document to which a Credit Party or any of its Subsidiaries is a party constitutes the legal, valid and binding obligations of such Person enforceable against such Person in accordance with its respective terms (except, in any case, as such enforceability may be limited by applicable bankruptcy, insolvency, reorganization or similar laws affecting creditors' rights generally and by principles of equity).

SECTION 6.5 Financial Information. The consolidated financial statements of the Borrower and its Subsidiaries furnished to the Agent pursuant to Section 5.1(d) and Sections 7.1(a) and (b) have been prepared in accordance with GAAP consistently applied, and present fairly the consolidated financial condition of the Persons covered thereby as at the dates thereof and the results of their operations for the periods then ended.

SECTION 6.6 No Material Adverse Effect. Since December 31, 2020, there has been no event, occurrence or other circumstance that has resulted in a Material Adverse Effect.

SECTION 6.7 Litigation, Labor Matters and Environmental Matters.

(a) Except as set forth on Schedule 6.7(a), there are no actions, suits or proceedings by or before any arbitrator or Governmental Authority pending against or threatened against or affecting any Credit Party or any of its Subsidiaries, which could reasonably be expected to result in a Material Adverse Effect.

(b) There are no material labor controversies pending against or threatened, in writing, against or affecting any Credit Party or any of its Subsidiaries.

(c) No Credit Party or any Subsidiary thereof, nor any of their respective facilities or operations is subject to any outstanding written order, consent decree or settlement agreement with any Person relating to any Environmental Law, any Environmental Claim, or any Hazardous Materials Activity that, individually or in the aggregate, could reasonably be expected to result in a Material Adverse Effect. There are and, to the knowledge of the Credit Parties, have been, no conditions, occurrences, or Hazardous Materials Activities which would reasonably be expected to form the basis of an Environmental Claim against the Borrower or any of its Subsidiaries that, individually or in the aggregate, could reasonably be expected to result in a Material Adverse Effect. To the knowledge of the Credit Parties, no predecessor of the Borrower or any of its Subsidiaries has filed any notice under any Environmental Law indicating past or present treatment of Hazardous Materials at any facility of the Borrower or such Subsidiary, which could reasonably be expected to form the basis of an Environmental Claim against the Borrower or any of its Subsidiaries that, individually or in the aggregate, could reasonably be expected to result in a Material Adverse Effect (but, for the avoidance of doubt, the Borrower has not undertaken any investigation of or made any inquiries to, or relating to, any of its or its Subsidiaries' predecessors), and neither the Borrower's nor any of its Subsidiaries' operations involves the generation, transportation, treatment, storage or disposal of hazardous waste, as defined under 40 C.F.R. Parts 260 270 or any state equivalent, which could reasonably be expected to form the basis of an Environmental Claim against the Borrower or any of its Subsidiaries that, individually or in the aggregate, could reasonably be expected to result in a Material Adverse Effect. No event or condition has occurred or is occurring with respect to any Credit Party relating to any Environmental Law, any Release of Hazardous Materials, or any Hazardous Materials Activity which, individually or in the aggregate, has resulted in, or could reasonably be expected to result in, a Material Adverse Effect.

SECTION 6.8 Subsidiaries. Schedule 6.8 sets forth the name and jurisdiction of incorporation or formation of each direct and indirect Subsidiary of the Borrower. Except as set forth on Schedule 6.8, neither the Borrower nor any of its Subsidiaries owns or holds, whether beneficially or of record, any Capital Securities of any other Person. All of the outstanding Capital Securities of the Borrower's Subsidiaries as set forth on Schedule 6.8 have been validly issued, are fully paid and nonassessable and are owned directly or indirectly by the Borrower free and clear of all Liens except for Permitted Liens.

SECTION 6.9 Ownership of Properties. Each Credit Party and each of its Subsidiaries owns (i) in the case of owned real property, good and marketable fee title to, and (ii) in the case of owned personal property, good and valid title to, or, in the case of leased real or personal property, valid and enforceable leasehold interests (as the case may be) in, all of its properties and assets, tangible and intangible, of any nature whatsoever, free and clear in each case of all Liens or claims, except for non-consensual Permitted Liens.

SECTION 6.10 Taxes. Each Credit Party and each of its Subsidiaries has filed all income and other material Tax returns and reports required by law to have been filed by it and each Credit Party has paid all Taxes owed (whether or not shown on any such Tax returns), except any such Taxes which are being diligently contested in good faith by appropriate proceedings and for which adequate reserves in accordance with GAAP shall have been set aside on its books and that are set forth on Schedule 6.10. Neither any Credit Party nor any of their respective Subsidiaries is (or has ever been) a "United States real property holding corporation" within the meaning of Section 897(c)(2) of the Code.

SECTION 6.11 Pension Plans, Etc. As of the date hereof, (i) none of the assets of any Credit Party or any of their respective Subsidiaries constitute "plan assets" of one or more such plans within the meaning of 29 C.F.R. Section 2510.3-101, as modified by Section 3(42) of ERISA, (ii) no Credit Party nor any Subsidiaries thereof constitutes a "governmental plan" within the meaning of Section 3(32) of ERISA, and (iv) transactions by or with a Credit Party are not subject to any statute, rule or regulation regulating investments of, or fiduciary obligations with respect to, "governmental plans" within the meaning of Section 3(32) of ERISA. Except as would not reasonably be expected to result in a Material Adverse Effect: (i) each Welfare Plan, Plan and each Pension Plan has been established and operated in compliance with applicable Law, (ii) no ERISA Event has occurred with respect to any Pension Plan or Multiemployer Plan and (iii) no Credit Party, nor any Subsidiary thereof has any Contingent Liability with respect to any post-retirement benefit under a Welfare Plan, other than (1) liability for continuation coverage described in Part 6 of Title I of ERISA or similar state law, (2) benefits through the end of the month of termination of employment, to the extent provided under the terms of the applicable Welfare Plan and underlying insurance policy, (3) death or disability benefits attributable to deaths or disabilities occurring at or prior to termination of employment, and (4) conversion rights, and has complied with the terms of such Welfare Plan. No formal steps have been taken to terminate any Pension Plan, and no contribution failure has occurred with respect to any Pension Plan sufficient to give rise to a Lien on any Credit Party, any Subsidiary thereof or, to its knowledge, any ERISA Affiliate under Section 303(k) of ERISA or under Section 430(k) of the Code.

SECTION 6.12 Accuracy of Information. None of the factual information heretofore or contemporaneously furnished in writing to the Agent or any Lender by or on behalf of any Credit Party or any of its Subsidiaries in connection with this Agreement or any other Loan Document or any transaction contemplated hereby or thereby, when taken as a whole, contains any untrue statement of a material fact, or omits to state any material fact necessary to make any information, in the light of the circumstances under which they were made, not materially misleading; provided that, with respect to projected or pro forma financial information, the Borrower represents only that such information was prepared in good faith based upon assumptions believed as of the date hereof to be reasonable (it being understood that such projected information may vary from actual results and that such variances may be material).

SECTION 6.13 Regulations U and X. No Credit Party and none of its Subsidiaries is engaged in the business of extending credit for the purpose of buying or carrying margin stock, and no proceeds of any of the Loans will be used to purchase or carry margin stock or otherwise for a purpose which violates, or would be inconsistent with, F.R.S. Board Regulation U or Regulation X. Terms for which meanings are provided in F.R.S. Board Regulation U or Regulation X or any regulations substituted therefor, as from time to time in effect, are used in this Section with such meanings.

SECTION 6.14 Solvency. The Borrower is Solvent, and the Credit Parties and their Subsidiaries taken as a whole, on a consolidated basis, are Solvent.

SECTION 6.15 Collateral and Intellectual Property.

(a) Schedule 6.15(a) sets forth (i) a complete and accurate list of all (A) applied for, issued or registered Patents, (B) registered Trademarks (including domain names) and any pending registrations for Trademarks and (C) Copyrights and any other registered Intellectual Property, in each case that is owned or co-owned by, or exclusively or non-exclusively licensed to, any Credit Party or any Subsidiary thereof, including its name/title, current owner, registration, patent or application number, and registration or application date, and (ii) all agreements pursuant to which a Credit Party or any of its Subsidiaries obtains a license to any Intellectual Property that is material to the business of such Credit Party or its Subsidiary (excluding licenses for computer software that is commercially available to the public that are generally available for an annual or one-time license fee of no more than $250,000). For each item of Intellectual Property listed on Schedule 6.15(a), the applicable Credit Party or Subsidiary has, where relevant, indicated the following: the countries in each case in which such item is patented, registered or applied for, the application numbers, the registration or patent numbers, the filing and registration dates, and the owner of such item of Intellectual Property.

(b) Each Credit Party and each of its Subsidiaries owns or has a valid license to all Intellectual Property used in, material to or otherwise necessary for the operation of the business of such Credit Party and Subsidiary, free and clear of any and all Liens other than Permitted Liens and all Intellectual Property set forth or required to be set forth on Schedule 6.15(a) is in full force and effect, and has not expired, lapsed or been forfeited, cancelled or abandoned except as set forth on Schedule 6.15(a). Each Credit Party and each of its Subsidiaries is the exclusive owner of all right, title and interest in and to, all such Intellectual Property that is owned or purported to be owned by such Person.

(c) Each Credit Party and each of its Subsidiaries has taken commercially reasonable measures consistent with commercially reasonable practices in the industry in which it operates to maintain and protect its Intellectual Property, and there are no unpaid maintenance or renewal fees payable by such Person that are currently overdue for any of such registered Intellectual Property.

(d) There is no proceeding challenging the validity or enforceability of any Intellectual Property set forth on Schedule 6.15(a), no Credit Party nor any of its Subsidiaries is involved in any such proceeding with any Person and none of the Intellectual Property set forth on Schedule 6.15(a) is the subject of any Other Administrative Proceeding.

(e) Each item of Intellectual Property owned by a Credit Party or any Subsidiary thereof is valid, enforceable and, where registered, subsisting and such Intellectual Property licensed to a Credit Party or any Subsidiary thereof is, to the knowledge of such Credit Party or Subsidiary, valid, enforceable and subsisting and no event has occurred, and nothing has been done or omitted to have been done by the Credit Parties that could reasonably be expected to affect the validity or enforceability of such Intellectual Property.

(f) Except for as set forth on Schedule 6.15(c)(i), to the knowledge of the Credit Parties, no third party is infringing, misappropriating or otherwise violating any Intellectual Property of any Credit Party or Subsidiary.

(g) With respect to each license agreement listed on Schedule 6.15(a), and except as set forth thereon, such license agreement (i) is in full force and effect and is binding upon and enforceable against the Credit Party or Subsidiary party thereto and all other parties party thereto in accordance with its terms, (ii) has not been amended or modified and (iii) has not suffered a default thereunder. No Credit Party nor any Subsidiary thereof has taken any action that could reasonably be expected to permit any other Person party to any Material Agreement to have, and no such Person otherwise has, any defenses, counterclaims or rights of setoff thereunder.

(h) No Credit Party or Subsidiary is infringing, misappropriating or otherwise violating the Intellectual Property rights of any other Person. Except as set forth on Schedule 6.15(c)(ii), no Credit Party nor any Subsidiary thereof has received written notice from any third party alleging that the conduct of its business (including the development, manufacture, use, sale or other commercialization of any Product) currently infringes, misappropriates or otherwise violates any Intellectual Property of that third party and the conduct of its business (including the development, manufacture, use, sale or other commercialization of any Product).

(i) (i) Each Credit Party's exact legal name is that indicated on the Perfection Certificate and on the signature page hereof, (ii) each Credit Party is an organization of the type and is organized in the jurisdiction set forth in the Perfection Certificate, (iii) the Perfection Certificate accurately sets forth its organizational identification number or accurately states that it has none, (iv) the Perfection Certificate accurately sets forth as of the Closing Date its place of business, or, if more than one, its chief executive office as well as its mailing address (if different than its chief executive office), (v) each Credit Party (and each of its predecessors) has not, in the five (5) years prior to the Closing Date, changed its jurisdiction of formation, organizational structure or type, or any organizational number assigned by its jurisdiction and (vi) all other information set forth on the Perfection Certificate pertaining to each Credit Party and each Subsidiary thereof is accurate and complete in all material respects as of the Closing Date. If any Credit Party is not now a Registered Organization but later becomes one, it shall promptly notify the Agent of such occurrence and provide the Agent with such Credit Party's organizational identification number. The Agent and the Lenders hereby agree that the Perfection Certificate shall be updated or deemed to be updated after the Closing Date to reflect information provided in any written notice delivered by any Credit Party to the Lenders pursuant to Section 8.17; provided that any update to the Perfection Certificate by any Credit Party pursuant to Section 8.17 shall not relieve any Credit Party of any other Obligation under this Agreement.

(j) Each Credit Party (i) has good title to, has rights in, and the power to transfer each item of the Collateral, upon which it purports to grant a Lien under any Collateral Document, free and clear of any and all Liens except Permitted Liens, except for such minor irregularities or defects in title that do not materially interfere with the Credit Parties' ability to conduct their business as currently conducted, including any material loss of rights and (ii) it has no deposit accounts maintained at a bank or other depository or financial institution located in the United States other than the deposit or current accounts described in the Perfection Certificate delivered to Agent in connection herewith.

SECTION 6.16 Data Privacy.

(a) Each Credit Party and each of its Subsidiaries is, and for the past three years has been, in material compliance with (A) all Healthcare Laws; and (B) all Material Agreements (or portions thereof) to which the Borrower or any of its Subsidiaries is a party that are applicable to Data Activities, including the Borrower's and each of its Subsidiaries' contractual commitments to third-party analytics and advertising providers (collectively, "Privacy Agreements"). The Borrower and each of its Subsidiaries has delivered to the Agent accurate and complete copies of all Privacy Agreements.

(b) Each Credit Party and each of its Subsidiaries takes commercially reasonable steps to protect Personal Data in its possession or control against damage or loss, and against unauthorized access, acquisition, use, modification, disclosure or other misuse, except to the extent that failure to take such steps would not reasonably result in a Material Adverse Effect. To the knowledge of the Credit Parties, in the past three (3) years, there has been no unauthorized access, use, or disclosure by a third-party of Personal Data in the possession or control of any Credit Party or any of its Subsidiaries with regard to any Personal Data of such Credit Party or such Subsidiary, except to the extent any such unauthorized access or use, either individually or in the aggregate, would not reasonably be expected to have a Material Adverse Effect.

(c) [Reserved]

(d) The Borrower and each of its Subsidiaries has, for the past three years, implemented applicable written policies relating to Data Activities, including, without limitation, a publicly posted website privacy policy, annual privacy statements required under the Gramm-Leach-Bliley Act or applicable Healthcare Law, and a comprehensive information security program that includes appropriate written information security policies ("Privacy and Data Security Policies"). The Borrower and each of its Subsidiaries has made available a true, correct, and complete copy of each Borrower Privacy and Data Security Policy in effect at any time over the past three years. For the past three years, the Borrower and each of its Subsidiaries has been and is in material compliance with all such Privacy and Data Security Policies, and neither the Borrower nor any of its Subsidiaries engages in any undisclosed collection of Personal Data on its website or any third-party websites. Neither the execution, delivery, or performance of this Agreement, nor the consummation of any of the transactions contemplated under this Agreement, nor the Agent's or any Lender's possession, use, or disclosure of Personal Data will materially violate any of the Privacy Agreements, Privacy and Data Security Policies, or any applicable Healthcare Laws.

(e) For the past three years, the Borrower and each of its Subsidiaries have provided notifications to, and have obtained consent from, Persons regarding its Data Activities where such notice or consent is required by Healthcare Laws. The Borrower and each of its Subsidiaries have, for the past three years, collected all Personal Data in accordance with its Privacy Policies and Healthcare Laws, and the Borrower's and each of its Subsidiaries' collection of such Personal Data or any other data from third parties is in accordance with any requirements from such third parties, including written website terms and conditions. In the past three years, neither the Borrower nor any of its Subsidiaries have (i) received direct written communication from any website owner or operator that the Borrower's or any of its Subsidiaries' access to such website is unauthorized; (ii) entered into a written agreement with any website owner or operator prohibiting scraping activity; (iii) accessed any website's information through illicitly circumventing a password requirement or similar technological barrier; or (iv) scraped any data from a website that has a clickwrap agreement prohibiting such activity.

(f) There is no pending, nor in the past three years has there been any, complaint, audit, proceeding, investigation, or claim against the Borrower or any of its Subsidiaries initiated by (a) any person or entity; (b) the United States Federal Trade Commission, any state attorney general or similar state official; (c) any other Governmental Authority, in the case of clauses (a) through (e), inclusive, alleging that any Data Activity of any Credit Party or any Subsidiary thereof: (A) is in violation of any applicable Healthcare Laws, (B) is in violation of any Privacy Agreements, (C) is in violation of any Privacy and Data Security Policies, or (D) otherwise constitutes an unfair, deceptive, or misleading trade practice.

(g) For the past three years, the Borrower and each of its Subsidiaries have taken all commercially reasonable steps (including, without limitation, implementing, maintaining, and monitoring compliance with government-issued or industry standard measures with respect to administrative, technical and physical security) to ensure that all Personal Data in its possession or control is protected against damage, loss, and against unauthorized access, acquisition, use, modification, disclosure or other misuse. To the knowledge of the Credit Parties, in the past three years there has been no material unauthorized access, use, or disclosure of Personal Data in the possession or control of the Borrower or any of its Subsidiaries and any of its contractors with regard to any Personal Data obtained from or on behalf of the Borrower and each of its Subsidiaries.

(h) For the past three years, the Borrower and each of its Subsidiaries have taken commercially reasonable steps and implemented commercially reasonable measures and procedures to ensure that the Borrower's and each of its Subsidiaries' Systems are free from malware and other harmful code, including, but not limited to, the use of commercially available up to date antivirus software. For the past three years there have been no material successful unauthorized intrusions or breaches of the security of the Borrower's or any of its Subsidiaries' Systems or any unauthorized access, use, damage to or disclosure of the Borrower's or any of its Subsidiaries' information or Intellectual Property which, individually or in the aggregate, has resulted in, or could reasonably be expected to result in, a Material Adverse Effect.

(i) For the past three years, the Borrower and each of its Subsidiaries have contractually required all third parties, including vendors, affiliates, and other persons providing services to the Borrower and each of its Subsidiaries that have access to or receive Personal Data from or on behalf of the Borrower and each of its Subsidiaries to comply with all applicable Healthcare Laws, and to take all commercially reasonable steps to ensure that all of the Borrower's and each of its Subsidiaries' Personal Data in such third parties' possession or control is protected against damage, loss, and against unauthorized access, acquisition, use, modification, disclosure or other misuse.

(j) For the past three years, the Borrower and each of its Subsidiaries has been in material compliance with all U.S. federal and state laws and regulations pertaining to sales, marketing, and electronic communications, including, without limitation, the CAN-SPAM Act, the Telephone Consumer Protection Act, and the Telemarketing Sales Rule.

SECTION 6.17 Material Agreements. Set forth on Schedule 6.17 is a complete and accurate list of each Material Agreement of the Credit Parties and their Subsidiaries. After giving effect to the consummation of the transactions contemplated by this Agreement, each such Material Agreement is a valid and binding obligation of the applicable Credit Party and, to the knowledge of the Credit Parties, each other party thereto, and is in full force and effect, and neither the applicable Credit Party nor, to the knowledge of the Credit Parties, any other party thereto is in material breach thereof or default thereunder, except where such breach or default (which default has not been cured or waived) could not reasonably be expected to give rise to any cancellation, termination or acceleration right of the applicable counterparty thereto. No Credit Party or any Subsidiary thereof has received any written notice from any party thereto asserting or, to the knowledge of the Credit Parties threatening to assert, circumstances that could reasonably be expected to result in the cancellation, termination or invalidation of any such Material Agreement.

SECTION 6.18 Permits. The Credit Parties and their Subsidiaries have all material Permits, including Environmental Permits, necessary or required for the ownership, operation and conduct of its business and the distribution of the Products. All such Permits are validly held and there are no material defaults thereunder.

SECTION 6.19 Regulatory Matters. With respect to each Product:

(a) Set forth on Schedule 6.19(a) is a complete and accurate list of all material Regulatory Authorizations relating to the Credit Parties and their Subsidiaries, the conduct of their business, and the Products. All such material Regulatory Authorizations are (i) legally and beneficially owned exclusively by the Credit Parties and their Subsidiaries, as applicable, free and clear of all Liens other than Permitted Liens, and (ii) as applicable, validly registered and on file with the applicable Governmental Authority, in material compliance with all filing and maintenance requirements (including any fee requirements) thereof, and are in good standing, valid and enforceable with the applicable Governmental Authority. All material required notices, registrations and listings, applications, supplemental applications or notifications, reports (including recalls, field alerts, and other reports of adverse experiences) and other required material filings with respect to the Products for the last five (5) years have been timely filed with the FDA and all other applicable Governmental Authorities.

(b) (i) All material regulatory filings required by any Regulatory Authority or in respect of any Regulatory Authorization with respect to any Product or any Product Development and Commercialization Activities in the last five (5) years have been made, and all such filings are materially complete and correct and have complied in all material respects with all applicable Healthcare Laws, (ii) all clinical and pre-clinical trials, if any, of investigational Products have been and are being conducted by the Credit Parties and their Subsidiaries in material accordance with all applicable Healthcare Laws along with appropriate monitoring of clinical investigator trial sites for their compliance, and (iii) the Credit Parties and their Subsidiaries have disclosed to the Agent all such material regulatory filings and all material communications between representatives of the Credit Parties (and their Subsidiaries) and any Regulatory Authority.

(c) The Credit Parties, their Subsidiaries and the agents thereof are and for the past three (3) years have been in compliance in all material respects with all applicable statutes, rules and regulations (including all Healthcare Laws and Regulatory Authorizations) of all applicable Governmental Authorities, including the FDA and all other Regulatory Authorities, with respect to each Product and all Product Development and Commercialization Activities related thereto.

(d) Except as set forth on Schedule 6.19(d), no Credit Party nor any of its Subsidiaries has received from any Regulatory Authority any material written notice of non-compliance, potential non-compliance or adverse findings with respect to any Product or any Product Development and Commercialization Activities related thereto, including any FDA Form 483, notices of violations or potential violations, Warning Letters, untitled letters, criminal proceeding notices under Section 305 of the FD&C Act, or any other similar communication from any Regulatory Authority within the last three (3) years. Except as set forth on Schedule 6.19(d), there have been no recalls, market withdrawals, field notifications or corrections, detentions, seizures, notifications or allegations of misbranding or adulteration or safety alerts conducted, requested, or threatened by any Regulatory Authority, or (for example in the case of a recall) initiated by Credit Party or any of its Subsidiaries, relating to any Products within the last five (5) years. No Credit Party nor any of its Subsidiaries has received any written notification that remains unresolved from the FDA or any other Regulatory Authority indicating any material breach or violation of any applicable Regulatory Authorization, including that any of the Products are misbranded or adulterated as defined in the FD&C Act, or the rules and regulations promulgated thereunder, within the last five (5) years.

(e) No Credit Party, nor any of its Subsidiaries, nor any officer, employee or agent thereof, has made an untrue statement of a material fact or fraudulent statements to the FDA or any other Regulatory Authority, failed to disclose a material fact required to be disclosed to the FDA or any other Regulatory Authority, or committed an act, made a statement, or failed to make a statement that, at the time such disclosure was made (or was not made), could reasonably be expected to provide a basis for the FDA or any other Regulatory Authority to invoke its policy respecting Fraud, Untrue Statements of Material Facts, Bribery and Illegal Gratuities, set forth in 56 Fed. Reg. 46191 (September 10, 1991) or any similar policy.

(f) Except as set forth on Schedule 6.19(f), no Credit Party nor any of its Subsidiaries has received any written notice that the FDA or any other applicable Regulatory Authority has commenced or initiated, or threatened to commence or initiate, any action to withdraw any Regulatory Authorization, requested a recall of any Products or commenced or initiated or threatened to commence or initiate, any action to enjoin any Product Development and Commercialization Activities of such Credit Party or such Subsidiary.

(g) Except as set forth on Schedule 6.19(g), the clinical, preclinical, safety and other studies and tests conducted by or on behalf of or sponsored by the Credit Parties and their Subsidiaries, or in respect of which any Products or Product candidates under development have participated, were (and if still pending, are) being conducted in material accordance with all applicable Regulatory Authorizations and Healthcare Laws.

(h) The transactions contemplated by the Loan Documents (or contemplated by the conditions to effectiveness of any Loan Document) will not impair any Credit Party's or any of its Subsidiaries' ownership of or rights under (or the license or the right to use, as the case may be) any Regulatory Authorizations relating to the Products in any material manner, and no consent or other authorization of any Governmental Authority is required in connection with the transactions contemplated hereby, including the Liens granted in connection herewith and the exercise of rights and remedies with respect thereto.

SECTION 6.20 Transactions with Affiliates. Except as set forth on Schedule 6.20, no Credit Party and none of its Subsidiaries has entered into, renewed, extended or been a party to, any transaction (including the purchase, sale, lease, transfer or exchange of property or assets of any kind or the rendering of services of any kind) with any Affiliate during the three (3)-year period prior to the Closing Date, which would not be permitted pursuant to Section 8.11.

SECTION 6.21 Investment Company Act. No Credit Party and none of its Subsidiaries is an "investment company" or is "controlled" by an "investment company," as such terms are defined in, or subject to regulation under, the Investment Company Act of 1940, as amended.

SECTION 6.22 OFAC. No Credit Party, any of its Subsidiaries, any Related Party, any of their respective directors, officers, or employees nor any agents or other persons acting on behalf of any of the foregoing (a) is currently the target of any Sanctions, (b) is located, organized or residing in any Designated Jurisdiction, (c) is or has been (within the previous five (5) years) engaged in any transaction with, or for the benefit of, any Person who is now or was then the target of Sanctions or who is located, organized or residing in any Designated Jurisdiction or (d) is or has ever been in violation of or subject to an investigation relating to Sanctions. No Loans, and none of the proceeds from the Loans, have been or will be used, directly or indirectly, to lend, contribute or provide to, or has been or will be otherwise made available to fund, any activity or business in any Designated Jurisdiction or to fund any activity or business of any Person located, organized or residing in any Designated Jurisdiction or who is the subject of any Sanctions, or in any other manner that will result in any violation by any Person (including the Agent, any Lender and its and their respective Affiliates) of Sanctions.

SECTION 6.23 Anti-Corruption. No Credit Party, any of its Subsidiaries, any Related Party, or any of their respective directors, officers, or employees or any agents or other persons acting on behalf of any of the foregoing, directly or indirectly, has (a) violated or is in violation of any applicable anti-corruption law, (b) made, offered to make, promised to make or authorized the payment or giving of, directly or indirectly, any Prohibited Payment or (c) been subject to any investigation by any Governmental Authority with regard to any actual or alleged Prohibited Payment.

SECTION 6.24 Deposit and Disbursement Accounts. Schedule 6.24 contains a list of all banks and other financial institutions at which any Credit Party or any of its Subsidiaries maintains deposit accounts, lockboxes, disbursement accounts, investment accounts or other similar accounts, and Schedule 6.24 correctly identifies the name, address and telephone number of each bank or financial institution, the name in which the account is held, the type of account, and the complete account number therefor. Each such account (other than each Excluded Account) is a Controlled Account.

SECTION 6.25 Registration Rights. Except as set forth on Schedule 6.25, no Credit Party and none of its Subsidiaries has granted or agreed to grant any registration rights, including piggyback rights, to any Person.

SECTION 6.26 Royalty and Other Payments. Except as set forth on Schedule 6.26, no Credit Party and none of its Subsidiaries is obligated to pay any royalty, milestone payment, deferred payment or any other contingent payment in respect of any Product.

SECTION 6.27 Sale and Leaseback. No Credit Party and none of its Subsidiaries has entered, directly or indirectly, into any agreement or arrangement providing for the sale or transfer by it of any property (now owned or hereafter acquired) to a Person and the subsequent lease or rental of such property or other similar property from such Person.

SECTION 6.28 Senior Secured Obligations. The Obligations constitute the sole senior secured obligations and sole Indebtedness (except as set forth in Schedule 8.2(c)) of the Credit Parties and their Subsidiaries as of the time of receipt of the Closing Date Loans on the Closing Date.

SECTION 6.29 Beneficial Ownership Certification. The information included in the Beneficial Ownership Certification is true and correct in all respects.

SECTION 6.30 Supply and Manufacturing.

(a) To the knowledge of the Credit Parties, the Products have at all times been manufactured in sufficient quantities and of a sufficient quality to satisfy demand of the Products, without the occurrence of any event causing inventory of the Products to have become exhausted prior to satisfying such demand or any other event in which the manufacture and release to the market of the Products does not satisfy the sales demand for the Products and which has resulted in, or could reasonably be expected to result in, a Material Adverse Effect.

(b) To the knowledge of the Credit Parties, no manufacturer of any Product is currently subject to a Form 483 that prevents the manufacturing, testing, and release of such Product and that, with respect to any such Form 483, all scientific and technical violations or other issues relating to good manufacturing practice requirements documented therein, and any disputes regarding any such violations or issues, have been corrected or otherwise resolved.

ARTICLE VII
AFFIRMATIVE COVENANTS

The Credit Parties hereby jointly and severally covenant and agree for the benefit of the Agent and the Lenders that, until the Termination Date has occurred, the Credit Parties will perform or cause to be performed by each of their respective Subsidiaries, as applicable, the obligations set forth below.

SECTION 7.1 Financial Information, Reports, Notices, Etc. The Borrower will furnish the Agent copies of the following financial statements, reports, notices and information:

(a) as soon as available and in any event within forty-five (45) days after the end of each Fiscal Quarter (excluding the last Fiscal Quarter of each Fiscal Year), an unaudited consolidated balance sheet of the Borrower and its Subsidiaries as of the end of such Fiscal Quarter, and consolidated statements of income and cash flow of the Borrower and its Subsidiaries for such period, including (in each case), in comparative form the figures for the corresponding Fiscal Quarter in, and year to date portion of, the immediately preceding Fiscal Year, certified as complete and correct by the chief financial or accounting Authorized Officer of the Borrower and its Subsidiaries (subject to normal year-end audit adjustments); provided that such financial statements, reports and information shall be deemed to be furnished to the Agent upon uploading such statements, reports and information publicly to EDGAR prior to the date that is forty-five (45) days after the end of such Fiscal Quarter;

(b) as soon as available and in any event within ninety (90) days after the end of each Fiscal Year, a copy of the consolidated balance sheet of the Borrower and its Subsidiaries, and the related consolidated statements of income and cash flow of the Borrower and its Subsidiaries for such Fiscal Year, setting forth in comparative form the figures for the immediately preceding Fiscal Year, audited (without any Impermissible Qualification) by independent public accountants acceptable to the Agent, which shall include a calculation of the financial covenants set forth in Section 8.4 and stating that, in performing the examination necessary to deliver the audited financial statements of the Borrower, no knowledge was obtained of any Event of Default; provided that such financial statements, reports and information shall be deemed to be furnished to the Agent upon uploading such statements, reports and information publicly to EDGAR prior to the date that is ninety (90) days after the end of such Fiscal Year;

(c) (i) within ten (10) days after the end of each calendar month, a Compliance Certificate, executed by the chief financial or accounting Authorized Officer of the Borrower, showing compliance with the financial covenant set forth in Section 8.4(a) and (ii) concurrently with the delivery of the financial information required to be delivered pursuant to clauses (a) and (b) above, a Compliance Certificate, executed by the chief financial or accounting Authorized Officer of the Borrower, (x) showing compliance with the financial covenant set forth in Section 8.4(b), (y) stating that no Default has occurred and is continuing (or, if a Default has occurred, specifying the details of such Default and the action that the Borrower or any of its Subsidiaries has taken or proposes to take with respect thereto) and (z) stating that no Subsidiary has been formed or acquired since the delivery of the last Compliance Certificate (or, if a Subsidiary has been formed or acquired since the delivery of the last Compliance Certificate, a statement that such Subsidiary has complied with Section 7.8);

(d) as soon as available and in any event within sixty (60) days after the end of each Fiscal Year, an annual budget, a business plan and financial forecasts of the Borrower and its Subsidiaries for the then-current Fiscal Year of the Borrower, in form and substance as approved by the board of directors (or equivalent) of the Borrower, which shall include a projection of income and a projected cash flow statement for each Fiscal Quarter in such Fiscal Year and a projected balance sheet as of the end of each Fiscal Quarter in such Fiscal Year, in each case prepared in reasonable detail, with appropriate presentation and discussion (in reasonable detail) of the principal assumptions upon which such budgets and projections are based, which shall be accompanied by the statement of an Authorized Officer of the Borrower to the effect that such budget and projections are based on reasonable and good faith estimates and assumptions made by the management of the Borrower for the respective periods covered thereby;

(e) as soon as possible and in any event within five (5) Business Days after the Borrower obtains knowledge of the occurrence of a Default, a statement of an Authorized Officer of the Borrower setting forth details of such Default, event or occurrence and the action which the Borrower has taken and proposes to take with respect thereto;

(f) as soon as possible and in any event within five (5) Business Days after the Borrower obtains knowledge of (i) the occurrence of any material adverse development with respect to any litigation, action, proceeding or labor controversy described in Schedule 6.7(a) and in the following clause (ii), (ii) the commencement of any litigation, action, proceeding or labor controversy of the type and materiality described in Section 6.7 or alleging actual violations of any Healthcare Laws or (iii) notice of or the occurrence of, as applicable, any communications or activity of the type described in Sections 6.19(d), (e) or (f), notice thereof and, to the extent the Agent or any Lender requests, copies of all material documentation relating thereto;

(g) as soon as possible and in any event within five (5) Business Days after the Borrower obtains knowledge of any return, recovery, dispute or claim related to any Product or inventory that involves more than $2,500,000, written notice thereof from an Authorized Officer of the Borrower which notice shall include any statement setting forth details of such return, recovery, dispute or claim;

(h) as soon as possible and in any event within five (5) Business Days after becoming aware of (i) the institution of any formal steps by any Person to terminate any Pension Plan, (ii) the failure of a Credit Party or any Subsidiary thereof to make a required contribution to any Pension Plan if such failure is sufficient to give rise to a Lien such Credit Party or such Subsidiary under Section 303(k) of ERISA or under Section 430(k) of the Code, (iii) the taking of any action with respect to a Pension Plan which could reasonably be expected to result in the requirement that any such Person furnish a bond or other security to the PBGC or such Pension Plan, or (iv) the occurrence of any ERISA Event or event with respect to any Pension Plan which could reasonably be expected to result in the incurrence by a Credit Party or any of its Subsidiaries of any material liability, fine or penalty, notice thereof and copies of all documentation relating thereto, written notice thereof from an Authorized Officer of the Borrower, which notice shall include a statement setting forth details of such events;

(i) promptly upon receipt thereof, copies of all "management letters" (or equivalent) submitted to the Borrower or any of its Subsidiaries by the independent public accountants referred to in Section 7.1(b) in connection with each audit made by such accountants; and

(j) such other financial and other information as the Agent or any Lender may from time to time reasonably request (including information and reports in such detail as the Agent or any Lender may request with respect to the terms of and information provided pursuant to the Compliance Certificate).

SECTION 7.2 Maintenance of Existence; Compliance with Contracts, Laws, Etc. Each Credit Party will, and will cause each of its Subsidiaries to, (i) preserve and maintain its legal existence (except as otherwise permitted by Section 8.8), (ii) perform in all material respects its obligations under Material Agreements to which it is a party, and (iii) comply in all material respects with all applicable Laws, rules, regulations and orders, including all Healthcare Laws and the payment (before the same become delinquent) of all Taxes imposed upon such Credit Party or such Subsidiary or upon its property, except to the extent being diligently contested in good faith by appropriate proceedings and for which adequate reserves in accordance with GAAP have been set aside on the books of such Credit Party or such Subsidiary.

SECTION 7.3 Maintenance of Properties. Each Credit Party will, and will cause each of its Subsidiaries to, maintain, preserve, protect and keep its respective properties in good repair, working order and condition (ordinary wear and tear excepted), and make necessary material repairs, renewals and replacements so that the business carried on by such Credit Party or such Subsidiary may be properly conducted at all times, unless the Disposition of such property is otherwise permitted by Section 8.8 or Section 8.9.

SECTION 7.4 Insurance. Each Credit Party will, and will cause each of its Subsidiaries to, maintain:

(a) insurance on its property with financially sound and reputable insurance companies against loss and damage in at least the amounts (and with only those deductibles) customarily maintained, and against such risks as are typically insured against in the same general area, by Persons of comparable size engaged in the same or similar business as such Credit Party or such Subsidiary; and

(b) all worker's compensation, employer's liability insurance or similar insurance as may be required under the laws of any state or jurisdiction in which it may be engaged in business.

Without limiting the foregoing, all insurance policies required pursuant to this Section shall (i) name the Agent, for the benefit of the Secured Parties, as mortgagee (in the case of property insurance) or loss payee or additional insured (in the case of liability insurance), as applicable, and provide that no cancellation or material modification of the policies will be made without the prior written notice to the Agent and (ii) be in addition to any requirements to maintain specific types of insurance contained in the other Loan Documents. If any Credit Party or any of its Subsidiaries fails to provide or pay for any such insurance, the Agent may but is not obligated to, obtains the same at such Credit Party's or such Subsidiary's expense.

SECTION 7.5 Books and Records. Each Credit Party will, and will cause each of its Subsidiaries to, keep books and records that accurately reflect all of its business affairs and transactions and permit the Agent, any Lenders or any of their respective representatives, at reasonable times and intervals upon reasonable notice to the Borrower, to visit such Credit Party's or such Subsidiary's offices, to discuss such Credit Party's or such Subsidiary's financial matters with its officers and employees, and its independent public accountants (and the Credit Parties hereby authorize such independent public accountant to discuss such Credit Party's or such Subsidiary's financial matters with the Agent, any Lenders or any of their respective representatives whether or not any representative of such Credit Party or such Subsidiary, as applicable, is present) and to examine (and photocopy extracts from) any of its books and records. The Credit Parties will, and will cause each of their Subsidiaries to, pay all fees and expenses of the Agent or such Lender, including any fees of such independent public accountant incurred in connection with the Agent's or any Lender's exercise of its rights pursuant to this Section; provided, however, that in the absence of a Default and an Event of Default, the Credit Parties shall not be responsible for the costs associated with more than one such visit or inspection during any Fiscal Year.

SECTION 7.6 Environmental Law Covenant. Each Credit Party will, and will cause each of its Subsidiaries to, (i) use and operate all of its and their businesses, facilities and properties in material compliance with all Environmental Laws, and keep and maintain all Environmental Permits and remain in compliance therewith and (ii) promptly notify the Agent of, and provide the Agent with copies of all material claims, complaints, notices or inquiries relating to, any actual or alleged non-compliance with any Environmental Laws or Environmental Permits or any actual or alleged Environmental Liabilities. Each Credit Party will, and will cause each of its Subsidiaries to, promptly resolve, remedy and mitigate any such non-compliance or Environmental Liabilities, and shall keep the Agent informed as to the progress of same.

SECTION 7.7 Use of Proceeds. Proceeds of the Loans shall be used only (i) to refinance in full the existing debt of the Credit Parties, (ii) to advance the commercial sales of the Borrower's FDA-approved products through the procurement of raw materials for the manufacturing of BIVIGAM® and ASCENIV™, (iii) to expand the Borrower's plasma collection facility network, (iv) to scale the manufacturing capacity of the Boca Facility and make continuous improvements thereto in order to adhere to cGMP compliance, (v) to explore business development opportunities, (vi) to acquire inventory, (vii) for general corporate purposes and (viii) to pay transaction costs and expenses under the Loan Documents.

SECTION 7.8 Future Guarantors, Security, Etc. Each Credit Party agrees that:

(a) it will, and will cause each of its Subsidiaries, existing as of the Closing Date to, execute any documents, Mortgages and Mortgage Instruments, UCC-1 financing statements, UCC-3 termination statements, agreements and instruments, and take all further action that may be required under applicable Law, or that the Agent may reasonably request, in order to effectuate the transactions contemplated by the Loan Documents and in order to grant, preserve, protect and perfect the validity and first priority (subject to Permitted Liens) of the Liens created or intended to be created by the Loan Documents; including, without limitation, actions in any non-U.S. jurisdiction or required by the laws of any non-U.S. jurisdiction to create any security interests in assets of the Credit Parties located or titled outside of the United States or to perfect or make enforceable any security interests in any Collateral;

(b) it will cause each of its Subsidiaries that is acquired or organized by it after the Closing Date, on or within thirty (30) days of such acquisition or organization (or such longer period as the Agent may agree in its sole discretion), to (i) execute a supplement (in form and substance satisfactory to the Agent (acting on the instructions of the Majority Lenders acting reasonably)) to each applicable Loan Document (including the Security Agreement, the Intercompany Subordination Agreement, the Patent Security Agreement, the Trademark Security Agreement, the Copyright Security Agreement and other security documents, and the Subsidiary Guaranty) in favor of the Agent and the other Secured Parties, (ii) execute or deliver such other UCC-1 financing statements, UCC-3 termination statements, documents, Mortgages, Mortgage Instruments and Leasehold Mortgages, agreements and instruments as the Agent may reasonably request, and (iii) take all further action that may be required under applicable Law, or that the Agent may reasonably request, in order to effectuate the transactions contemplated by the Loan Documents and in order to grant, preserve, protect and perfect the validity and first priority (subject to Permitted Liens) of the Liens created or intended to be created by the Loan Documents; provided that no Mortgage or Mortgage Instruments will be required with respect to any real property having a fair market value of less than $1,250,000;

(c) it will promptly notify the Agent of any real property subsequently (i) acquired by it or any of its Subsidiaries and will provide the Agent with a description of such real property, the acquisition date thereof and the purchase price therefor, and if reasonably requested by the Agent, execute and deliver Mortgages and Mortgage Instruments in order to grant perfected and first priority Liens on such real property and (ii) leased by it or any of its Subsidiaries and will provide the Agent with a description of such real property, a copy of the lease agreement therefor, and if reasonably requested by the Agent, execute and deliver Leasehold Mortgages in order to grant perfected and first priority Liens on such real property, Landlord Consents and/or SNDAs; provided that no Mortgage or Mortgage Instruments will be required with respect to any real property having a fair market value of less than $1,250,000;

(d) it will, and will cause each of its Subsidiaries to, at its cost and expense, promptly secure the Obligations by pledging or creating, or causing to be pledged or created, perfected Liens with respect to such of its assets and properties as the Agent shall designate, it being agreed that it is the intent of the parties that the Obligations shall at all times be secured by, among other things, substantially all the assets of Credit Parties and such Subsidiaries (including personal property acquired subsequent to the Closing Date), in each case, located in the United States and in any non-U.S. jurisdiction;

(e) it will, and will cause each of its Subsidiaries, to, at its cost and expense, promptly upon acquisition, filing or issuance of any Patent, Trademark, Copyright, Product Agreement or other Material Intellectual Property anywhere in the world, notify the Agent of such acquisition, filing or issuance of any Patent, Trademark, Copyright, Product Agreement or other Material Intellectual Property and execute a supplement (in form and substance satisfactory to the Agent (acting on the instructions of the Majority Lenders acting reasonably)) to each applicable Loan Document (including the Security Agreement, the Copyright Security Agreement, the Patent Security Agreement, the Trademark Security Agreement and other security documents); and

(f) all Liens described above in this Section 7.8 will be created under the Loan Documents in form and substance satisfactory to the Agent (acting on the instructions of the Majority Lenders acting reasonably), and each Credit Party will, and will cause each of its Subsidiaries to, deliver or cause to be delivered to the Agent all such instruments and documents (including legal opinions and lien searches) as the Agent shall reasonably request to evidence compliance with this Section 7.8.

SECTION 7.9 Obtaining of Permits, Etc. With respect to Products, each Credit Party will, and will cause each of its Subsidiaries to, obtain, maintain and preserve, and take all necessary action to timely renew all Permits (including Key Permits) and accreditations which are necessary in the proper conduct of its business.

SECTION 7.10 Product Licenses. Each Credit Party will, and will cause each of its Subsidiaries to, (i) maintain each Permit, including each Regulatory Authorization, from, or file any notice or registration in, each jurisdiction in which such Credit Party or such Subsidiary is required to obtain any Permit or Regulatory Authorization or to file any notice or registration, in order to sell or distribute the Products and (ii) upon request of the Agent, promptly provide evidence of same to the Agent.

SECTION 7.11 Maintenance of Regulatory Authorizations, Contracts, Intellectual Property, Etc. With respect to the Products, each Credit Party will, and will cause each of its Subsidiaries to, (i) maintain in full force and effect all Regulatory Authorizations, contract rights, or other rights necessary for the operations of its business, (ii) notify the Agent, promptly after learning thereof, of any Product recalls, safety alerts, corrections, withdrawals, marketing suspensions, removals or the like conducted, to be undertaken or issued by such Credit Party, such Subsidiary or its respective suppliers whether or not at the request, demand or order of any Governmental Authority or otherwise with respect to any Product, or any basis for undertaking or issuing any such action or item, (iii) maintain in full force and effect, and pay all costs and expenses relating to, all Material Intellectual Property owned or Controlled by such Credit Party or such Subsidiary and all Material Agreements, (iv) notify the Agent, promptly after learning thereof, of any infringement or other violation by any Person of its Intellectual Property and aggressively pursue any such infringement or other violation except in any specific circumstances where both (x) such Credit Party or such Subsidiary is able to demonstrate that it is not commercially reasonable to do so and (y) not doing so does not materially adversely affect any Product, (v) use commercially reasonable efforts to pursue and maintain in full force and effect legal protection for all new Intellectual Property developed or Controlled by such Credit Party or such Subsidiary, (vi) notify the Agent, promptly after learning thereof, of (x) any claim by any Person that the conduct of such Credit Party's or such Subsidiary's business (including the development, manufacture, use, sale or other commercialization of any Product) infringes any Intellectual Property of such Credit Party or such Subsidiary and, if requested by the Agent, use commercially reasonable efforts to resolve such claim, or (y) any event, circumstance, act or omission that could reasonably be expected to cause any representation or warranty contained in Section 6.19 to be incorrect in any material respect if such representation or warranty was to be made at the time such Credit Party or such Subsidiary learned of such event, circumstance, act or omission and (vii) notify the Agent, promptly after learning thereof, if any Patents constituting Material Intellectual Property are challenged or found invalid by any relevant Governmental Authority.

SECTION 7.12 Cash Management. Each Credit Party will, and will cause each of its Subsidiaries to:

(a) maintain all deposit accounts, disbursement accounts, investment accounts (and other similar accounts) and lockboxes (other than Excluded Accounts) with a bank or financial institution that has executed and delivered to the Agent a Controlled Account Agreement in form and substance reasonably acceptable to the Agent; each such deposit account, disbursement account, investment account (or similar account) and lockbox (each, a "Controlled Account") shall be a cash collateral account, with all cash, checks and other similar items of payment in such account securing payment of the Obligations, and the Credit Parties shall have granted a Lien to the Agent, for the benefit of the Secured Parties, over such Controlled Accounts; and

(b) deposit promptly, and in any event no later than (i) five (5) Business Days after the date of receipt thereof, all cash, checks, drafts or other similar items of payment relating to or constituting payments made in respect of any and all accounts and other rights and interests into Controlled Accounts; and

(c) at any time after the occurrence and during the continuance of an Event of Default, at the request of the Agent, the Credit Parties and their Subsidiaries will cause all payments constituting proceeds of accounts to be directed into lockbox accounts under Controlled Account Agreements in form and substance satisfactory to the Agent.

SECTION 7.13 Post-Closing Covenants.

(a) Notices of Commencement. As soon as possible, but in no event later than the earlier of (i) the date that is forty-five (45) days following the Closing Date and (ii) the date on which Stewart Title Company ("Stewart"), as the title insurance company, is prepared to issue the Boca Facility Title Policy, the Credit Parties shall have delivered to the Agent and Stewart all applicable documents necessary to evidence the termination of the Notices of Commencement identified on Schedule 7.13(a), including, but not limited to (i) owner's affidavits identifying all parties who gave notice to owner, (ii) contractor's final affidavits, together with final waiver and releases of liens from each of the subcontractors and materialmen who gave notice to owner or who are listed as unpaid in the contractor's final affidavits, (iii) terminations of notice of commencement in compliance with Section 713.132, Florida Statutes and (iv) final lien waiver and releases from the general contractor(s).

(b) Environmental Matters. As soon as possible but in no event later than forty-five (45) days following the Closing Date, the Credit Parties shall deliver to the Agent a Phase I Environmental Site Assessment Report and such other reports, in form, scope and substance satisfactory to the Agent, and certified to the Agent and Lenders ("Environmental Reports") regarding environmental matters relating to the Boca Facility. In the event that any Environmental Report identifies any environmental issues and/or recommendations to address such issues, the Credit Parties shall implement the recommendations as stated in such Environmental Report and shall deliver documentation in form, scope and substance that is satisfactory to the Agent demonstrating that the identified environmental issues have been addressed.

(c) Survey. As soon as possible but in no event later than forty-five (45) days following the Closing Date, the Credit Parties shall deliver to the Agent a 2021 ALTA/NSPS Land Title Survey prepared by a licensed surveyor reasonably satisfactory to the Agent and Stewart, in form, scope and substance satisfactory to Agent, certified to the Agent, Lenders and Stewart and sufficient to remove the standard title survey exceptions (the "Survey") for the Boca Facility.

(d) Property Zoning Report. As soon as possible but in no event later than forty-five (45) days following the Closing Date, the Credit Parties shall deliver to the Agent a zoning report, in form, scope and substance satisfactory to the Agent, and certified to the Agent and Lenders (the "PZR") for the Boca Facility.

(e) Title Insurance Policy; Mortgage. Within forty-five (45) days following the Closing Date, and subject to the consent of the Agent, the Credit Parties shall have (i) caused the Mortgage for the Boca Facility to be properly recorded in the public records of Palm Beach County, (ii) caused the UCC-1 financing statement relating to the Boca Facility to be filed with the Secretary of State of the State of Delaware, (iii) caused the ALTA mortgagee title insurance policy in a form acceptable to the Agent to be issued with respect to the Boca Facility and insuring the first priority lien of the Mortgage encumbering the Boca Facility (the "Boca Facility Title Policy") and (iv) delivered such other Mortgage Instruments as required by the Agent or Stewart in connection with the Mortgage.

(f) Landlord Lien Waivers. Within ninety (90) days following the Closing Date, the Credit Parties shall use commercially reasonable efforts to deliver the Landlord Consents from the landlords under the leases listed on Schedule 7.13(f).

(g) SNDAs. Within ninety (90) days following the Closing Date (or such later date as may be consented to by the Agent in its sole discretion), the Credit Parties shall use commercially reasonable efforts to deliver subordination, non-disturbance and attornment agreements in form, scope and substance satisfactory to the Agent (each, an "SNDA") with respect to the leased locations listed on Schedule 7.13(g) or written confirmation, including via email, from the landlords under the leases for such leased locations that there is no mortgage, deed of trust or other security interest encumbering the premises on which such leased locations are located.

(h) Leasehold Mortgages.

(i) As soon as possible but in no event later than thirty (30) days following the Closing Date, the Credit Parties shall have delivered confirmation to the Agent of whether Home Center Properties, LLC, a Georgia limited liability company (the "Marietta Landlord") intends to consent to the granting of a Leasehold Mortgage with respect to that certain leased real property located at 166 Ernest W. Barrett Parkway, NW, Marietta, GA (the "Marietta Facility").

(ii) In the event that the Marietta Landlord consents to the granting of a Leasehold Mortgage, as soon as possible but in no event later (y) than forty-five (45) days following the date of such confirmation, the Credit Parties shall have delivered to Agent a leasehold title insurance commitment, Survey, Environmental Report and PZR with respect to the Marietta Facility in form and substance reasonably satisfactory to the Agent and (z) one hundred twenty (120) days following the date of such confirmation a Leasehold Mortgage with respect to the Marietta Facility. In the event that any Environmental Report identifies any environmental issues and/or recommendations to address such issues, the Credit Parties shall implement the recommendations as stated in such Environmental Report and shall deliver documentation in form, scope and substance that is satisfactory to the Agent demonstrating that the identified environmental issues have been addressed.

(iii) In the event that the Marietta Landlord rejects the request for a Leasehold Mortgage, then as soon as possible but in no event later than ninety (90) days following such rejection, the Credit Parties shall use commercially reasonable efforts to deliver to the Agent a Landlord Consent and SNDA with respect to the Marietta Facility.

(i) Intellectual Property. Within ninety (90) days following the Closing Date, the Borrower shall record assignments in the United States Patent and Trademark Office and the United States Copyright Office, as and to the extent applicable, to assign all Material Intellectual Property to one or more Subsidiary Guarantor, and shall provide evidence to the Agent of submission of such recordations.

(j) Certain Material Agreements. Within one hundred eighty (180) days following the Closing Date, the Borrower shall use commercially reasonable efforts assign all of its rights and obligations under each Material Agreement listed on Schedule 7.13(j) to the applicable Subsidiary Guarantor listed on such schedule, and shall provide evidence to the Agent of such assignment; provided that no such assignment shall be required (x) to the extent the Borrower, in its business or commercial judgment, believes that such Material Agreement cannot be assigned without such assignment giving rise to federal, state or other governmental regulatory, legal, compliance or commercial risks or concerns or (y) as otherwise agreed by the Agent in writing; provided, further, that if the Borrower's board of directors (the "Board") determines that the Borrower's performance of the covenant contained in this Section 7.13(j) would be inconsistent with the Board's fiduciary duties under applicable Law, this Section 7.13(j) shall not apply.

ARTICLE VIII
NEGATIVE COVENANTS

The Credit Parties hereby jointly and severally covenant and agree for the benefit of the Agent and the Lenders that until the Termination Date has occurred unless the Majority Lenders shall otherwise consent in writing, the Credit Parties will perform or cause to be performed by each of their respective Subsidiaries, as applicable, the obligations set forth below.

SECTION 8.1 Business Activities. No Credit Party will, nor will it permit any of its Subsidiaries to, engage in any business activity except those business activities engaged in on the date of this Agreement and activities reasonably related, incidental or complimentary thereto.

SECTION 8.2 Indebtedness. No Credit Party will, nor will it permit any of its Subsidiaries to, create, incur, assume or permit to exist any Indebtedness, other than the following ("Permitted Indebtedness"):

(a) Indebtedness in respect of the Obligations;

(b) unsecured Indebtedness of any Credit Party pursuant to Hedging Agreements entered into in such Credit Party's ordinary course of business for the purpose of hedging currency risks or interest rate risks (and not for speculative purposes) and in an aggregate notional amount for all such Hedging Agreements not in excess of $500,000;

(c) unsecured Indebtedness existing as of the Closing Date which is identified in Schedule 8.2(c);

(d) purchase money Indebtedness and Capitalized Lease Liabilities incurred by any Credit Party in an aggregate amount at any time outstanding, when combined with the aggregate principal amount of all Indebtedness incurred pursuant to Section 8.2(i), not to exceed $1,000,000;

(e) Indebtedness (i) arising from customary agreements for indemnification related to sales of goods (ii) representing deferred compensation to employees of a Credit Party or any of its Subsidiaries incurred in the ordinary course of business consistent with past practice, and (iii) representing customer deposits and advance payments received in the ordinary course of business from customers for goods purchased in the ordinary course of business;

(f) Indebtedness incurred in connection with cash management services, including treasury, depository, overdraft, credit or debit card, purchasing cards, electronic funds transfer, automatic clearing house arrangements, cash pooling arrangements, netting services, merchant services and other similar arrangements of Borrower or any Subsidiary, in each case in the ordinary course of business; provided that at no time shall such Indebtedness exceed $500,000 in the aggregate;

(g) unsecured Indebtedness in the nature of account or trade payables originated in the ordinary course of business;

(h) (i) intercompany Indebtedness of any Credit Party or owing to another Credit Party subject to the Intercompany Subordination Agreement and (ii) unsecured guarantees of outstanding Permitted Indebtedness made in the ordinary course of business by the Borrower or any other Credit Party of obligations of any Credit Party permitted hereunder in an aggregate amount not to exceed $500,000 at any time outstanding; provided that to the extent that any such Permitted Indebtedness is subordinated to the Obligations, such guarantees are similarly subordinated;

(i) (i) Indebtedness of the Borrower or any Subsidiary Guarantor incurred to finance the acquisition, construction or improvement of any fixed or capital assets; provided that (x) such Indebtedness is incurred prior to or within two hundred seventy (270) days after such acquisition or the completion of such construction or improvement and (y) the aggregate principal amount of Indebtedness permitted by this Section 8.2(i), when combined with the aggregate principal amount of all purchase money Indebtedness and Capitalized Lease Liabilities incurred pursuant to Section 8.2(d), does not exceed $1,000,000 at any time outstanding and (ii) extensions, renewals, refinancings and replacements thereof; provided that no such extension, renewal, refinancing or replacement shall result in an increase in the outstanding principal amount of such Indebtedness;

(j) Indebtedness incurred in connection with letters of credit that are secured solely by cash or cash equivalents and issued on behalf of the Borrower in an aggregate amount outstanding not to exceed $750,000 at any time;

(k) Indebtedness at any time incurred in connection with financing insurance premiums in respect of insurance policies insuring assets or businesses of any Credit Party written or arranged in the ordinary course of business consistent with past practice, in each case, in an aggregate amount at any time outstanding not to exceed $5,000,000; and

(l) other unsecured Indebtedness in an aggregate amount not to exceed $2,500,000. provided that, no Indebtedness otherwise permitted by clauses (d) or (i) of this Section 8.2 shall be assumed, created or otherwise incurred if at the time of such assumption, creation or incurrence, a Default has occurred and is then continuing or could reasonably be expected to result therefrom.

SECTION 8.3 Liens. No Credit Party will, nor will it permit any of its Subsidiaries to, create, incur, assume or permit to exist any Lien upon any of its property (including Capital Securities of any Person), revenues or assets, whether now owned or hereafter acquired, except for the following ("Permitted Liens"):

(a) Liens securing payment of the Obligations;

(b) Liens existing on the Closing Date which are disclosed in Schedule 8.3(b);

(c) Liens in favor of carriers, warehousemen, mechanics, materialmen and landlords granted in the ordinary course of business for amounts not overdue or being diligently contested in good faith by appropriate proceedings and for which adequate reserves in accordance with GAAP shall have been set aside on its books;

(d) Liens incurred or deposits made in the ordinary course of business in connection with worker's compensation, unemployment insurance or other forms of governmental insurance or benefits, or to secure performance of tenders, statutory obligations, bids, leases or other similar obligations (other than for borrowed money) entered into in the ordinary course of business or to secure obligations on surety and appeal bonds or performance bonds;

(e) judgment Liens in existence for less than thirty (30) days after the entry thereof or with respect to which execution has been stayed or the payment of which is covered in full (subject to a customary deductible) by insurance maintained with responsible insurance companies and which do not otherwise result in an Event of Default under Section 9.1(f);

(f) easements, rights-of-way, zoning restrictions, minor defects or irregularities in title and other similar encumbrances not interfering in any material respect with the value or use of the property to which such Lien is attached;

(g) Liens for Taxes not yet due and payable or being diligently contested in good faith by appropriate proceedings and for which adequate reserves in accordance with GAAP shall have been set aside on its books;

(h) purchase money security interests in real property, improvements thereto, equipment or other assets hereafter acquired (or, in the case of improvements, constructed) by the Borrower or any Subsidiary Guarantor; provided that (i) such security interests secure Indebtedness permitted by Section 8.2(d) or Section 8.2(i), (ii) such security interests are incurred, and the Indebtedness secured thereby is created, within two hundred seventy (270) days after such acquisition (or construction) (or in the case of the first or any successive extensions, renewals or refinancings of the underlying Indebtedness, such security interests are incurred and the security is created within thirty (30) days after the incurrence of such new Indebtedness), (iii) the Indebtedness secured thereby does not exceed the cost of such real property, improvements or equipment at the time of such acquisition (or construction) and (iv) such security interests do not apply to any other property or assets of the Borrower or any Subsidiary;

(i) any interest or title of a lessor under any lease entered into by the Borrower or any of its Subsidiaries as lessees in the ordinary course of business and covering only the assets so leased;

(j) Liens in favor of customs and revenue authorities arising as a matter of law to secure payment of customs duties in connection with the importation of goods; and

(k) Liens arising solely by virtue of any statutory or common law provision relating to bankers' liens, rights of set-off or similar rights.

SECTION 8.4 Financial Covenants.

(a) Minimum Liquidity. The Credit Parties shall maintain at all times Liquidity in an amount equal to or greater than $6,000,000.

(b) Minimum Net Sales. As of the last day of each Fiscal Quarter set forth below, Net Sales for the twelve (12) consecutive month period ending on the last day of such Fiscal Quarter shall not be less than the corresponding amount set forth opposite such Fiscal Quarter:

Fiscal Quarter Ending	Net Sales
June 30, 2022	$ 75,000,000
September 30, 2022	$ 75,000,000
December 31, 2022	$ 90,000,000
March 31, 2023	$ 90,000,000
June 30, 2023	$ 110,000,000
September 30, 2023	$ 110,000,000
December 31, 2023	$ 130,000,000
March 31, 2024	$ 130,000,000
June 30, 2024	$ 150,000,000
September 30, 2024	$ 150,000,000
December 31, 2024	$ 175,000,000
March 31, 2025	$ 175,000,000
June 30, 2025	$ 200,000,000
September 30, 2025	$ 200,000,000
December 31, 2025	$ 215,000,000
March 31, 2026	$ 215,000,000
June 30, 2026	$ 230,000,000
September 30, 2026	$ 230,000,000
December 31, 2026 and each Fiscal Quarter thereafter	$ 250,000,000

SECTION 8.5 Investments. No Credit Party will, nor will it permit any of its Subsidiaries to, purchase, make, incur, assume or permit to exist any Investment in any other Person, except ("Permitted Investments"):

(a) Investments existing on the Closing Date and identified in Schedule 8.5(a);

(b) any purchase or other acquisition by the Borrower or any other Credit Party of assets or of the Capital Securities of any Subsidiary of the Borrower or such other Credit Party that becomes a Credit Party hereunder, in each case, acquired pursuant to a Permitted Acquisition;

(c) Cash Equivalent Investments;

(d) Investments received in connection with the bankruptcy or reorganization of, or settlement of delinquent accounts and disputes with, customers and suppliers, in each case in the ordinary course of business;

(e) Investments consisting of any deferred portion of the sales price received by a Credit Party or any of its Subsidiaries in connection with any Disposition permitted under Section 8.9;

(f) Investments in and loans to any Credit Party;

(g) Investments constituting (i) accounts receivable arising, (ii) trade debt granted, or (iii) deposits made in connection with the purchase price of goods or services, in each case in the ordinary course of business;

(h) employee loans, travel advances and guarantees in accordance with the Borrower's usual and customary practices with respect thereto (if permitted by applicable Laws) which in the aggregate shall not exceed $750,000 outstanding at any time;

(i) cash deposits in the Donor Accounts provided that, at any given time, the aggregate account balance of all Donor Accounts shall not exceed $1,000,000; and

(j) Investments permitted pursuant to Section 8.23.

SECTION 8.6 Restricted Payments, Etc. No Credit Party will, nor will it permit any of its Subsidiaries to, declare or make a Restricted Payment, or make any deposit for any Restricted Payment, other than:

(a) Restricted Payments made by Subsidiaries of the Borrower to the Borrower;

(b) dividends with respect to the Borrower's Capital Securities payable solely in shares of its Qualified Capital Securities (or the equivalent thereof);

(c) the Borrower's purchase, redemption, retirement, or other acquisition of shares of its Capital Securities with the proceeds received from a substantially concurrent issue of new shares of its Qualified Capital Securities; and

(d) dividends paid by any Subsidiary Guarantor to any other Credit Party (other than the Borrower or any Subsidiary that is required to become a Subsidiary Guarantor but has not yet done so).

SECTION 8.7 Issuance of Capital Securities. No Credit Party will, nor will it permit any of its Subsidiaries to, issue any Capital Securities (whether for value or otherwise) to any Person other than:

(a) in the case of Subsidiaries of the Credit Parties, Qualified Capital Securities issued to a Credit Party so long as such issuance could not reasonably be expected to result in a Default or an Event of Default; and

(b) the issuance of Qualified Capital Securities of the Borrower so long as such issuance could not reasonably be expected to result in an Event of Default.

SECTION 8.8 Consolidation, Merger, Etc. No Credit Party will, nor will it permit any of its Subsidiaries to, liquidate or dissolve, consolidate with, or merge or amalgamate into or with, any other Person, or purchase or otherwise acquire any other Person or all or substantially all of the assets of any other Person (or any division thereof) (other than a Permitted Acquisition), except that so long as no Default or Event of Default has occurred and is continuing (or could reasonably be expected to occur) any Subsidiary (other than the Borrower) of a Credit Party may liquidate or dissolve voluntarily into, and may merge or amalgamate with and into, a Credit Party; provided, that such Credit Party is the surviving entity; and provided, further, that immediately following any such merger or amalgamation, the Credit Parties directly or indirectly hold the same or greater percentage of the issued and outstanding Capital Securities of such Subsidiary as the Credit Parties held immediately prior to such merger or amalgamation.

SECTION 8.9 Permitted Dispositions. No Credit Party will, nor will it permit any of its Subsidiaries to, Dispose of any of its assets (including accounts receivable and Capital Securities) to any Person in one transaction or series of transactions except for Permitted Dispositions.

SECTION 8.10 Modification of Certain Agreements. No Credit Party will, nor will it permit any of its Subsidiaries to, amend, supplement, waive or otherwise modify, consent to any amendment, supplement, waiver or other modification of, or enter into any forbearance from exercising any rights with respect to the terms or provisions contained in (i) any Organic Documents of a Credit Party or any of its Subsidiaries that could reasonably be expected to result in a Material Adverse Effect or in a manner that could reasonably be expected to be adverse to the interests of the Agent or any of the Lenders without the consent of the Agent or (ii) any Material Agreement, Product Agreement or any documents relating thereto, in any such case in this clause (ii), in a manner that could be adverse to the interests of the Agent or any of the Lenders without the consent of the Agent. No Credit Party will, nor will it permit any of its Subsidiaries to, amend or otherwise modify, or waive any rights under, any other document, instrument or agreement if, in any such case, such amendment, modification or waiver could be adverse to the interests of the Agent or any of the Lenders without the consent of the Agent.

SECTION 8.11 Transactions with Affiliates. No Credit Party will, nor will it permit any of its Subsidiaries to, enter into or cause or permit to exist any arrangement, transaction or contract (including for the purchase, lease or exchange of property or the rendering of services) with any of its other Affiliates, unless such arrangement, transaction or contract (i) is on fair and reasonable terms no less favorable to such Credit Party or such Subsidiary than it could obtain in an arm's-length transaction with a Person that is not an Affiliate, (ii) is of the kind which would be entered into by a prudent Person in the position of such Credit Party or such Subsidiary with a Person that is not one of its Affiliates and (iii) the value of such arrangements, transactions and contracts in the aggregate do not exceed $500,000 on an annual basis.

SECTION 8.12 Restrictive Agreements, Etc. No Credit Party will, nor will it permit any of its Subsidiaries to, enter into any agreement (i) prohibiting the creation or assumption of any Lien upon its properties, revenues or assets, whether now owned or hereafter acquired, or limiting in any way granting to the Secured Parties (or any of them) a Lien on any of its assets, (ii) restricting the ability of a Credit Party or any of its Subsidiaries to amend or otherwise modify any Loan Document, (iii) containing any provision which could reasonably be expected to be violated or breached by a party hereunder by the performance by such party of any of its obligations hereunder or under any other Loan Document, (iv) encumbering or restricting the ability of a Credit Party or any of its Subsidiaries to (a) make any payments, directly or indirectly, to the Borrower, including by way of dividends, advances, repayments of Indebtedness owed to the Borrower, reimbursements of management and other intercompany charges, expenses and accruals or other returns on investments, (b) make loans or advances to the Borrower or (c) transfer any of its assets or properties to the Borrower. The foregoing prohibitions shall not apply to restrictions contained in (x) any Loan Document or (y) in the case of clause (i), any agreement governing any Indebtedness permitted by clause (e) of Section 8.2 as to the assets financed with the proceeds of such Indebtedness.

SECTION 8.13 Sale and Leaseback. No Credit Party will, nor will it permit any of its Subsidiaries to, directly or indirectly enter into any agreement or arrangement providing for the sale or transfer by it of any property (now owned or hereafter acquired) to a Person and the subsequent lease or rental (whether by it or any Credit Party or any of their Subsidiaries) of such property or other similar property from such Person.

SECTION 8.14 Product Sales. No Credit Party will, nor will it permit any of its Subsidiaries to, sell or distribute Products or permit any sale or distribution where a Credit Party or any of its Subsidiaries is required to obtain any Permit, or to file any notice or registration in any jurisdiction prior to any such sale or distribution, in each case, until such Credit Party or such Subsidiary has obtained such required Permit or filed such notice or registration.

SECTION 8.15 Outbound Licenses.

(a) No Credit Party will, nor will it permit any of its Subsidiaries to, on or after the Closing Date, grant any license to any Intellectual Property other than a license that is not perpetual, is entered into for the purpose of Product Development and Commercialization Activities and:

(i) is in the ordinary course of business, on commercially reasonable terms, is consistent with past practice;

(ii) is (A) on a non-exclusive basis or (B) on an exclusive basis so long as each such exclusive license is limited to a particular geographic area (other than the U.S.);

(iii) will not prevent, restrict or otherwise impair such Credit Party's or such Subsidiary's or the Agent's ability to use or otherwise monetize such Intellectual Property;

(iv) will not prevent or impair the ability of the Agent or the Lenders from fully exercising their rights under any of the Loan Documents in the event of a disposition or liquidation (including in connection with a foreclosure) of the rights, assets or properties that are the subject of such license; and

(v) will not prevent, restrict or otherwise impair the Agent's ability to assume such Credit Party's or such Subsidiary's rights under such license.

SECTION 8.16 Inbound Licenses.

No Credit Party will, nor will it permit any of its Subsidiaries to, enter into or become or remain bound by any inbound license agreement requiring any such Person, (a) during any twelve (12) month period during the term of such license agreement, to make aggregate payments in excess of $2,500,000 when taken together with all other inbound licenses agreements of any such Credit Party and all of its respective Subsidiaries (determined on a consolidated basis) or (b) on or prior to the Maturity Date, to make aggregate payments in excess of $2,500,000 when taken together with all other payments which may become payable on or prior to the Maturity Date pursuant to all other inbound license agreements of any such Credit Party and all of its respective Subsidiaries (determined on a consolidated basis).

SECTION 8.17 Change in Name, Location, Executive Office, or Executive Management; Change in Fiscal Year. No Credit Party will, nor will it permit any of its Subsidiaries to, (i) change its legal name or any trade name used to identify it in the conduct of its business or ownership of its properties, (ii) change its jurisdiction of organization or legal structure, (iii) relocate its chief executive office, principal place of business or any other office in which it maintains books or records relating to its business (including the establishment of any new office or facility), (iv) change its federal taxpayer identification number or organizational number (or equivalent) without ten (10) days' prior written notice to the Agent, (v) replace its chief financial officer without ten (10) days' prior written notice to the Agent or (vi) change its Fiscal Year or any of its Fiscal Quarters.

SECTION 8.18 Negative Pledge. No Credit Party will, nor will it permit any of its Subsidiaries to, create, permit or suffer to exist any Lien (whether such interest is based on common law, statute, other law or contract and whether junior or equal or superior in priority to the security interests and Liens created by the Loan Documents) upon any of its property (including Capital Securities of any Person), revenues or assets, whether now owned or hereafter acquired, except Permitted Liens. No Credit Party will, nor will it permit any of its Subsidiaries to, incur senior secured obligations other than the Obligations incurred hereunder.

SECTION 8.19 Sanctions.

(a) No Credit Party will, and no Credit Party will permit any of its Affiliates to, use any proceeds of the Loans for the purpose of: (i) providing financing to or otherwise making funds directly or indirectly available to any Sanctioned Person, or (ii) providing financing to or otherwise funding any transaction which would be prohibited by Sanctions or would otherwise cause the Agent or any of the Lenders to be in breach of any Sanction.

(b) No Credit Party will, and no Credit Party will permit any of its Affiliates to, fund any repayment of the credit with proceeds derived from any transaction that would be prohibited by Sanctions or would otherwise cause the Agent or any of the Lenders to be in breach of any Sanction.

SECTION 8.20 USRPHC Status. No Credit Party will, nor will it permit any of its Subsidiaries to, become a "United States real property holding corporation" within the meaning of Section 897(c)(2) of the Code.

SECTION 8.21 Hazardous Materials. No Credit Party will, nor will it permit any of its Subsidiaries to, cause or suffer to exist a Release of any Hazardous Material at, on, under, to or from any real estate that would violate any Environmental Law, form the basis for any Environmental Liabilities or otherwise adversely affect the value or marketability of any real estate (whether or not owned by any Credit Party or any Subsidiary of any Credit Party), other than such violations, Environmental Liabilities and effects that would not, in the aggregate, reasonably be expected to result in a material liability.

SECTION 8.22 Passive Holding Company. Following the Closing Date and prior to the Termination Date, the Borrower will use commercially reasonable efforts to not conduct, transact or otherwise engage in any active trade or business or operations (collectively, "Business Operations"); provided that the foregoing will not prohibit the Borrower from the following: (i) the maintenance of its legal existence and obligations that are incidental thereto (including the ability to incur reasonable fees, costs, expenses and other liabilities directly relating to such maintenance), (ii) obligations that are limited to obligations under the Loan Documents to which it is a party, (iii) the making of contributions to (or other equity investments in) its direct Subsidiaries, which contributions shall be subordinated to the Obligations, (iv) participating in tax, accounting and other administrative and fiduciary matters as a direct owner of its direct Subsidiaries, in accordance with the terms of the Loan Documents, (v) providing customary compensation, indemnification and insurance coverage to officers and directors (or equivalent), (vi) subject to Sections 7.13(i) and (j), the ownership of assets, employment of employees and performance of Material Agreements owned, employed or existing, as applicable, as of the date hereof and all activities incidental or related thereto, (vii) obtaining, maintaining and performing Permits and Regulatory Authorizations from Governmental Authorities, (viii) owning cash or cash equivalents, (ix) making any public offering of its common stock or any other issues of its common stock, (x) engaging in payment of dividends not otherwise prohibited by the Loan Documents, (xi) providing indemnification to officers and directors, (xii) employing employees or engaging independent contractors, and (xiii) conducting any Business Operations (and any activities that are incidental or related thereto) that the Borrower in its business or commercial judgment determines is necessary, reasonable or appropriate for the operation of the Borrower's business, including entering into any contract or agreement; provided, further, that if the Board determines that the Borrower's performance of the covenant contained in this Section 8.22 would be inconsistent with the Board's fiduciary duties under applicable Law, this Section 8.22 shall not apply.

SECTION 8.23 Blood Center Acquisitions/Investments. No Credit Party will, nor will it permit any of its Subsidiaries to make acquisitions, payments, Investments or capital expenditures in respect of the buildout, construction, acquisition or lease (other than leases existing as of the Closing Date, in the form existing as of the Closing Date) of blood plasma collection centers in the United States (each, a "Blood Center Acquisition/Investment"), other than Blood Center Acquisitions/Investments made by any Subsidiary Guarantor; provided that immediately prior to, and after giving effect thereto, no Default or Event of Default shall have occurred and be continuing or could reasonably be expected to result therefrom on a pro forma basis after giving effect to such acquisition, and the Borrower and its Subsidiaries shall be (i) in compliance with the most recent financial covenant tests set forth in each of Section 8.4(a) and 8.4(b) and (ii) projected by the Company (in good faith and based on reasonable assumptions) to be in compliance with the financial covenants set forth in each of Section 8.4(a) and 8.4(b) on each date in the twelve (12) months following such acquisition; provided further that (A) the costs of such Blood Center Acquisitions/Investments do not (and are not projected in the aggregate prior to the Maturity Date to) exceed $12,000,000 in the aggregate since the Closing Date, (B) the Borrower shall have provided the Agent not less than thirty (30) days' written notice prior to the commencement or consummation, as the case may be, of each such Blood Center Acquisitions/Investments, (C) the Borrower shall have provided to the Agent all documentation relating to each such Blood Center Acquisition/Investment as the Agent shall reasonably request and (D) prior to the commencement or consummation, as the case may be, of each such Blood Center Acquisition/Investment the Borrower shall have taken, and shall have caused each other Credit Party and any Subsidiary thereof, as applicable, to have taken, all such action, including without limitation the execution and delivery to the Agent of all documentation as the Agent shall reasonably request to perfect the Agent's first priority security interest in all assets (including, without limitation, Mortgages, Leasehold Mortgages and Landlord Consents in respect of real property) in which the Borrower, any Credit Party or any of their respective Subsidiaries has an interest or will acquire an interest in connection with each such Blood Center Acquisition/Investment.

ARTICLE IX
EVENTS OF DEFAULT

SECTION 9.1 Listing of Events of Default. Each of the following events or occurrences described in this Article shall constitute an "Event of Default".

(a) Non-Payment of Obligations. (i) The Borrower shall default in the payment or prepayment when due of any principal or interest on the Loans, or (ii) any Credit Party or any Subsidiary thereof, shall default in the payment or prepayment of any fee described in Article III or any other monetary Obligation, and in the case of clause (ii) such default shall continue unremedied for a period of five (5) Business Days after such amount was due.

(b) Breach of Representation or Warranty. Any representation or warranty made or deemed to be made by a Credit Party or its Subsidiaries in any Loan Document (including any certificates delivered pursuant to Article V) is or shall be incorrect in any material respect when made or deemed to have been made or, in the case of any representation or warranty that, by its terms, is qualified by materiality, Material Adverse Effect or similar qualification, such representation or warranty is or shall be incorrect in any respect when made or deemed made.

(c) Non-Performance of Certain Covenants and Obligations. A Credit Party or any of its Subsidiaries shall default in the due performance or observance of any of its obligations under Sections 7.1(a), 7.1(b), 7.1(c), 7.7, 7.8, 7.11 or 7.12 or Article VIII.

(d) Non-Performance of Other Covenants and Obligations. A Credit Party or any of its Subsidiaries shall default in the due performance and observance of any other covenant, obligation or agreement contained in any Loan Document (other than any default of the type contemplated by any other subsection of this Section 9.1) executed by it, and such default shall continue unremedied for a period of thirty (30) days after the earlier to occur of (i) notice thereof given to the Borrower by the Agent or the Majority Lenders or (ii) the date on which a Credit Party or any of its Subsidiaries has knowledge of such default.

(e) Default on Other Indebtedness. A default shall occur in the payment of any amount when due (subject to any applicable grace period), whether by acceleration or otherwise, of any principal or stated amount of, or interest or fees on, any Indebtedness (other than Indebtedness permitted under Section 8.2(a)) of any Credit Party or any of its Subsidiaries having a principal or stated amount, individually or in the aggregate, in excess of $2,500,000, or a default shall occur in the performance or observance of any obligation or condition with respect to such Indebtedness if the effect of such default is to accelerate the maturity of any such Indebtedness or such default shall continue unremedied for any applicable period of time sufficient to permit the holder or holders of such Indebtedness, or any trustee or agent for such holders, to cause or declare such Indebtedness to become due and payable or to require such Indebtedness to be prepaid, redeemed, purchased or defeased, or require an offer to purchase or defease such Indebtedness to be made, prior to its expressed maturity.

(f) Judgments. Any judgment or order for the payment of money individually or in the aggregate in excess of $2,500,000 (exclusive of any amounts fully covered by insurance (less any applicable deductible) and as to which the insurer has acknowledged its responsibility to cover such judgment or order) shall be rendered against any Credit Party or any of its Subsidiaries and such judgment shall not have been vacated or discharged or stayed or bonded pending appeal within thirty (30) days after the entry thereof or enforcement proceedings shall have been commenced by any creditor upon such judgment or order.

(g) Change in Control. Any Change in Control shall occur.

(h) Bankruptcy, Insolvency, Etc. Any Credit Party or any of its Subsidiaries shall:

(i) become insolvent or generally fail to pay, or admit in writing its inability or unwillingness generally to pay, debts as they become due;

(ii) apply for, consent to, or acquiesce in the appointment of a trustee, receiver, sequestrator or other custodian for any substantial part of the property of any thereof, or make a general assignment for the benefit of creditors;

(iii) in the absence of such application, consent or acquiescence in or permit or suffer to exist the appointment of a trustee, receiver, sequestrator or other custodian for a substantial part of the property of any thereof, and such trustee, receiver, sequestrator or other custodian shall not be discharged within sixty (60) days; provided that, the Credit Parties and their Subsidiaries hereby expressly authorize the Agent to appear in any court conducting any relevant proceeding during such sixth (60) day period to preserve, protect and defend its rights under the Loan Documents;

(iv) permit or suffer to exist the commencement of any bankruptcy, reorganization, debt arrangement or other case or proceeding under any bankruptcy or insolvency law or any dissolution, winding up or liquidation proceeding, in respect thereof, and, if any such case or proceeding is not commenced by a Credit Party or any of its Subsidiaries, such case or proceeding shall be consented to or acquiesced in by a Credit Party or any of its Subsidiaries or shall result in the entry of an order for relief or shall remain for sixty (60) days undismissed; provided that, the Credit Parties and their Subsidiaries hereby expressly authorize the Agent to appear in any court conducting any such case or proceeding during such sixty (60) day period to preserve, protect and defend its rights under the Loan Documents; or

(v) take any action authorizing, or in furtherance of, any of the foregoing in clause (ii), (iii) or (iv) above.

(i) Impairment of Security, Etc. Any Loan Document or any Lien granted thereunder shall (except in accordance with its terms), in whole or in part, terminate, cease to be effective or cease to be the legally valid, binding and enforceable obligation of a Credit Party or any of its Subsidiaries party thereto; any Credit Party or any of its Subsidiaries shall, directly or indirectly, contest in any manner such effectiveness, validity, binding nature or enforceability; or, except as permitted under any Loan Document, any Lien securing any Obligation shall, in whole or in part, cease to be a perfected first priority Lien, except to the extent that any such loss of perfection results from the failure of the Agent to maintain possession of certificates actually delivered to or representing securities pledged under this Agreement or any other Loan Documents.

(j) Material Adverse Effect. Any circumstance occurs that has or could reasonably be expected to have a Material Adverse Effect.

(k) Regulatory Matters. If any of the following events or circumstances occur: (i) the FDA or the Department of Justice (DOJ) on its behalf, or any other Governmental Authority (A) makes a final determination that any Product lacks a required Regulatory Authorization or otherwise takes a regulatory or enforcement action that until and unless successfully resolved through Credit Party responsive action and remediation, dispute resolution, appeal, or other action prohibits or enjoins, the commercial distribution of Product by Credit Party under the then-held Regulatory Authorization, or (B) enters a consent decree with respect to, any Credit Party or any of its Subsidiaries or any of their Products that causes such Credit Party or such Subsidiary to discontinue operating in any applicable jurisdiction or (ii) any Credit Party or any of its Subsidiaries enters into a settlement agreement with the FDA and DOJ or any other Governmental Authority that results in aggregate liability as to any single or related series of transactions, incidents or conditions, in excess of $2,500,000.

(l) Pension Plans. Any of the following events shall occur with respect to any Pension Plan:

(i) the institution of any steps by any Credit Party or any Subsidiary thereof to terminate a Pension Plan if, as a result of such termination, any such Credit Party or any such Subsidiary could reasonably be expected to be required to make a contribution to such Pension Plan, or could reasonably expect to incur a liability or obligation to such Pension Plan;

(ii) a contribution failure occurs with respect to any Pension Plan sufficient to give rise to a Lien on any Credit Party or any ERISA Affiliate under Section 303(k) of ERISA or under Section 430(k) of the Code that would reasonably be expected to result in a Material Adverse Effect; or

(iii) any ERISA Event shall occur that, when taken together with all other ERISA Events that have occurred, could reasonably be expected to result in a Material Adverse Effect.

(m) Key Permit Events. Any Key Permit or any Credit Party's or any of its Subsidiaries' material rights or interests thereunder is terminated or amended or determined, in each case, so as to be ineffective in any manner adverse to any of the Products or a Credit Party or any of its Subsidiaries in any manner that could be reasonably expected to be material and adverse to the interests of the Agent or any of the Lenders.

(n) Material Agreements. Any default or event of default shall occur under any Material Agreement, or any Material Agreement shall cease, for any reason, to be in full force and effect other than upon expiration thereof in accordance with its terms unless the Credit Party party thereto determines in the exercise of its good faith business judgment that termination thereof by Credit Party is not materially adverse to such Credit Party, or any party to any Material Agreement (other than a Credit Party) shall challenge or repudiate its obligations under such Material Agreement or the enforceability of such Material Agreement, in each case, to the extent that any such occurrence could be reasonably expected to be material and adverse to the interests of the Agent or any of the Lenders.

SECTION 9.2 Action if Bankruptcy. If any Event of Default described in Section 9.1(h) with respect to any Credit Party or any of its Subsidiaries shall occur, and the outstanding principal amount of the Loans and all other Obligations shall automatically be and become immediately due and payable, without notice, demand or presentment to or on any Person.

SECTION 9.3 Action if Other Event of Default. If any Event of Default (other than any Event of Default described in Section 9.1(h)) shall occur for any reason, whether voluntary or involuntary, and be continuing, the Agent or the Majority Lenders may, by notice to the Borrower declare all or any portion of the outstanding principal amount of the Loans and other Obligations to be due and payable whereupon the full unpaid amount of the Loans and other Obligations which shall be so declared due and payable shall be and become immediately due and payable, without further notice, demand or presentment to or on any Person.

ARTICLE X
ADMINISTRATIVE AGENT

SECTION 10.1 Appointment. Each of the Lenders hereby irrevocably appoints Hayfin Services LLP to act on its behalf as the Agent hereunder and under the other Loan Documents and authorizes the Agent to take such actions on its behalf and to exercise such powers as are delegated to the Agent by the terms hereof or thereof, together with such actions and powers as are reasonably incidental thereto. The provisions of this Article X are solely for the benefit of the Agent and the Lenders, and neither any Credit Party nor any of its respective Subsidiaries will have rights as a third-party beneficiary of any of such provisions. It is understood and agreed that the use of the term "agent" herein or in any other Loan Documents (or any other similar term) with reference to the Agent is not intended to connote any fiduciary or other implied (or express) obligations arising under agency doctrine of any applicable Law. Instead, such term is used as a matter of market custom and is intended to create or reflect only an administrative relationship between contracting parties.

SECTION 10.2 Rights as a Lender. The Person serving as the Agent hereunder will have the same rights and powers in its capacity as a Lender as any other Lender and may exercise the same as though it were not the Agent, and the term "Lender" or "Lenders" will, unless otherwise expressly indicated or unless the context otherwise requires, include the Person serving as the Agent hereunder in its individual capacity. Such Person and its Affiliates may accept deposits from, lend money to, own securities of, act as the financial advisor or in any other advisory capacity for, and generally engage in any kind of business with, the Borrower or any of its Affiliates as if such Person were not the Agent hereunder and without any duty to account therefor to the Lenders.

SECTION 10.3 Exculpatory Provisions.

(a) The Agent will not have any duties or obligations except those expressly set forth herein and in the other Loan Documents, and its duties hereunder are administrative in nature. Without limiting the generality of the foregoing, the Agent:

(i) will not be subject to any fiduciary or other implied duties, regardless of whether a Default has occurred and is continuing;

(ii) will not have any duty to take any discretionary action or exercise any discretionary powers, except discretionary rights and powers expressly contemplated hereby or by the other Loan Documents that the Agent is required to exercise as directed in writing by the Majority Lenders (or such other number or percentage of the Lenders as will be expressly provided for herein or in the other Loan Documents); provided that the Agent will not be required to take any action that, in its opinion or the opinion of its counsel, may expose the Agent to liability or that is contrary to any Loan Document or applicable Law, including for the avoidance of doubt any action that may be in violation of the automatic stay under any debtor relief law; and

(iii) will not, except as expressly set forth herein and in the other Loan Documents, have any duty to disclose, and will not be liable for the failure to disclose, any information relating to any Credit Party or any of its Subsidiaries or Affiliates that is communicated to or obtained by the Person serving as the Agent or any of its Affiliates in any capacity.

(b) The Agent will not be liable for any action taken or not taken by it (i) with the consent or at the request of the Majority Lenders (or such other number or percentage of the Lenders as will be necessary, or as the Agent believes in good faith will be necessary, under the circumstances as provided in Sections 9.2, 9.3, and 11.1) or (ii) in the absence of its own gross negligence or willful misconduct as determined by a court of competent jurisdiction by final and nonappealable judgment. The Agent will be deemed not to have knowledge of any Default or Event of Default unless and until notice describing such Default or Event of Default is given to the Agent in writing by the Borrower or a Lender.

(c) The Agent will not be responsible for or have any duty to ascertain or inquire into (i) any statement, warranty or representation made in or in connection with this Agreement or any other Loan Document, (ii) the contents of any certificate, report or other document delivered hereunder or thereunder or in connection herewith or therewith, (iii) the performance or observance of any of the covenants, agreements or other terms or conditions set forth herein or therein or the occurrence of any Default, (iv) the validity, enforceability, effectiveness or genuineness of this Agreement, any other Loan Document or any other agreement, instrument or document or (v) the satisfaction of any condition set forth in Article V or elsewhere herein, other than to confirm receipt of items expressly required to be delivered to the Agent.

SECTION 10.4 Reliance by Agent. The Agent will be entitled to rely upon, and will not incur any liability for relying upon, any notice, request, certificate, consent, statement, instrument, document or other writing (including any electronic message, Internet or intranet website posting or other distribution) believed by it to be genuine and to have been signed, sent or otherwise authenticated by the proper Person. The Agent also may rely upon any statement made to it orally or by telephone and believed by it to have been made by the proper Person, and will not incur any liability for relying thereon. In determining compliance with any condition hereunder to the making of the Loans that by its terms must be fulfilled to the satisfaction of a Lender, the Agent may presume that such condition is satisfactory to such Lender unless the Agent has received notice to the contrary from such Lender prior to the making of such Loans. The Agent may consult with legal counsel (who may be counsel for the Borrower or any of its Affiliates), independent accountants and other experts selected by it, and will not be liable for any action taken or not taken by it in accordance with the advice of any such counsel, accountants or experts.

SECTION 10.5 Delegation of Duties. The Agent may perform any and all of its duties and exercise its rights and powers hereunder or under any other Loan Document by or through any one or more sub-agents appointed by the Agent. The Agent and any such sub-agent may perform any and all of its duties and exercise its rights and powers by or through their respective Affiliates. The exculpatory provisions of this Article X will apply to any such sub-agent and to the Affiliates of the Agent and any such sub-agent and will apply to their respective activities in connection with the syndication of the facility as well as activities as the Agent. The Agent will not be responsible for the negligence or misconduct of any sub-agents except to the extent that a court of competent jurisdiction determines in a final and nonappealable judgment that the Agent acted with gross negligence or willful misconduct in the selection of such sub-agents.

SECTION 10.6 Resignation of Agent.

(a) The Agent may at any time give notice of its resignation to the Lenders and the Borrower. Upon receipt of any such notice of resignation, the Majority Lenders will have the right, with the consent of the Borrower (unless an Event of Default is in existence), to appoint a successor. If no such successor will have been so appointed by the Majority Lenders and will have accepted such appointment within thirty (30) days after the retiring Agent gives notice of its resignation (or such earlier day as will be agreed by the Majority Lenders) (the "Resignation Effective Date"), then the retiring Agent may (but will not be obligated to), on behalf of the Lenders, appoint a successor Agent meeting the qualifications set forth above. Whether or not a successor has been appointed, such resignation will become effective in accordance with such notice on the Resignation Effective Date.

(b) With effect from the Resignation Effective Date (i) the retiring Agent will be discharged from its duties and obligations hereunder and under the other Loan Documents (except that in the case of any Collateral held by the Agent on behalf of the Lenders under any of the Loan Documents, the retiring Agent will continue to hold such Collateral until such time as a successor Agent is appointed) and (ii) except for any indemnity payments owed to the retiring Agent, all payments, communications and determinations provided to be made by, to or through the Agent will instead be made by or to each Lender directly, until such time, if any, as the Majority Lenders appoint a successor Agent as provided for above. Upon the acceptance of a successor's appointment as the Agent hereunder, such successor will succeed to and become vested with all of the rights, powers, privileges and duties of the retiring Agent (other than any rights to indemnity payments owed to the retiring Agent), and the retiring Agent will be discharged from all of its duties and obligations hereunder or under the other Loan Documents. The fees payable by the Borrower to a successor Agent will be the same as those payable to its predecessor unless otherwise agreed among the Borrower and such successor. After the retiring Agent's resignation hereunder and under the other Loan Documents, the provisions of this Article X, Section 11.3 and Section 11.4 will continue in effect for the benefit of such retiring Agent, its sub-agents and their respective Affiliates in respect of any actions taken or omitted to be taken by any of them while the retiring Agent was acting as the Agent.

SECTION 10.7 Non-Reliance on Agent and Other Lenders. Each Lender acknowledges that it has, independently and without reliance upon the Agent or any other Lender or any of their respective Affiliates and based on such documents and information as it has deemed appropriate, made its own credit analysis and decision to enter into this Agreement. Each Lender also acknowledges that it will, independently and without reliance upon the Agent or any other Lender or any of their respective Affiliates and based on such documents and information as it will from time to time deem appropriate, continue to make its own decisions in taking or not taking action under or based upon this Agreement, any other Loan Document or any related agreement or any document furnished hereunder or thereunder.

SECTION 10.8 Agent May File Proofs of Claim. In case of the pendency of any insolvency proceeding or any other judicial proceeding relative to the Borrower, the Agent (irrespective of whether the principal of the Loans will then be due and payable as herein expressed or by declaration or otherwise and irrespective of whether the Agent has made any demand on the Borrower) will be entitled and empowered (but not obligated), by intervention in such proceeding or otherwise:

(a) to file and prove a claim for the whole amount of the principal and interest owing and unpaid in respect of the Loans and all other Obligations that are owing and unpaid hereunder or under any other Loan Document to file such other documents as may be necessary or advisable in order to have the claims of the Lenders and the Agent (including any claim for the reasonable compensation, expenses, disbursements and advances of the Lenders and the Agent and their respective agents and counsel and all other amounts due the Lenders and the Agent under Sections 3.9, 3.10, 3.11, 11.3 and 11.4) allowed in such judicial proceeding; and

(b) to collect and receive any monies or other property payable or deliverable on any such claims and to distribute the same; and any custodian, receiver, assignee, trustee, liquidator, sequestrator or other similar official in any such judicial proceeding is hereby authorized by each Lender to make such payments to the Agent and, in the event that the Agent consents to the making of such payments directly to the Lenders, to pay to the Agent any amount due for the reasonable compensation, expenses, disbursements and advances of the Agent and its agents and counsel, and any other amounts due the Agent under Sections 3.9, 3.10, 3.11, 11.3 and 11.4.

SECTION 10.9 Collateral and Guaranty Matters.

(a) Without limiting the provisions of Section 10.8, the Lenders irrevocably authorize the Agent, at its option and in its discretion:

(i) to release any Lien on any property granted to or held by the Agent under any Loan Document (A) on the Termination Date (or such other date on which all Obligations then outstanding have been paid in full), (B) that is sold or otherwise disposed of or to be sold or otherwise disposed of as part of or in connection with any sale or other disposition permitted under the Loan Documents or (C) subject to Section 11.1, if approved, authorized or ratified in writing by the Majority Lenders; and

(ii) to release any Guarantor from its obligations under its Guaranty if such Person ceases to be a Subsidiary as a result of a transaction permitted under the Loan Documents.

Upon request by the Agent at any time, the Majority Lenders will confirm in writing the Agent's authority to release or subordinate its interest in particular types or items of Collateral, or to release any Guarantor from its obligations under its Guaranty pursuant to this Section 10.9.

(b) The Agent will not be responsible for or have a duty to ascertain or inquire into any representation or warranty regarding the existence, value or collectability of the Collateral, the existence, priority or perfection of the Agent's Lien thereon, or any certificate prepared by the Borrower in connection therewith, nor will the Agent be responsible or liable to the Lenders for any failure to monitor or maintain any portion of the Collateral.

(c) The Agent is authorized on behalf of all the Lenders, without the necessity of any notice to or further consent from the Lenders, from time to time to take any action with respect to any Collateral or any Security Agreement which may be necessary to perfect and maintain perfected the Liens on the Collateral granted pursuant to any such Security Agreement or protect and preserve the Agent's ability to enforce the Liens or realize upon the Collateral.

SECTION 10.10 Erroneous Payments.

If a payment is made by the Agent (or its Affiliates) in error (whether known to the recipient or not) or if a Lender or another recipient of funds is not otherwise entitled to receive such funds at such time of such payment or from such Person in accordance with the Loan Documents, then such Lender or recipient shall forthwith on demand repay to the Agent the portion of such payment that was made in error (or otherwise not intended (as determined by the Agent) to be received) in the amount made available by the Agent (or its Affiliate) to such Lender or recipient, with interest thereon, for each day from and including the date such amount was made available by the Agent (or its Affiliate) to it to but excluding the date of payment to the Agent, at the greater of the Federal Funds Rate and a rate determined by the Agent in accordance with banking industry rules on interbank compensation; provided that, without limiting any other rights or remedies (whether at law or in equity), the Agent may not make any such demand under this Section 10.10 with respect to such payment unless such demand is made within sixty (60) days of the date of receipt of such payment by the applicable Lender. Each Lender and other party hereto waives the discharge for value defense in respect of any such payment.

ARTICLE XI
MISCELLANEOUS PROVISIONS

SECTION 11.1 Waivers, Amendments, Etc. Except as otherwise provided herein or in any other Loan Document, (i) no amendment to any provision of this Agreement or any of the other Loan Documents will in any event be effective unless the same is in writing and signed by the Borrower (and/or any Guarantor or other party thereto, as applicable), the Agent and the Majority Lenders (or the Agent with the written consent of the Majority Lenders) and (ii) no waiver of any provision of this Agreement or any other Loan Document, or consent to any departure by a Credit Party, any of its Subsidiaries or other party therefrom, will in any event be effective unless the same is in writing and signed by the Agent and the Majority Lenders (or the Agent with the consent of the Majority Lenders). Any such amendment, waiver or consent will be effective only in the specific instance and for the specific purpose for which given; provided that, notwithstanding the foregoing provisions of this Section 11.1, any term or provision of Article X (other than the provisions of Section 10.6 pertaining to the Borrower's consent) may be amended without the agreement or consent of, or prior notice to, a Credit Party or any of its Subsidiaries; provided that such amendment does not add any additional obligations or burdens on such Credit Party or such Subsidiary.

No failure or delay on the part of the Agent or the Lenders in exercising any power or right under any Loan Document shall operate as a waiver thereof, nor shall any single or partial exercise of any such power or right preclude any other or further exercise thereof or the exercise of any other power or right. No notice to or demand on the Borrower or any other Subsidiary in any case shall entitle it to any notice or demand in similar or other circumstances. No waiver or approval by the Agent or the Lenders under any Loan Document shall, except as may be otherwise stated in such waiver or approval, be applicable to subsequent transactions. No waiver or approval hereunder shall require any similar or dissimilar waiver or approval thereafter to be granted hereunder.

SECTION 11.2 Notices; Time. All notices and other communications provided under any Loan Document shall be in writing or by facsimile and addressed, delivered or transmitted, if to the Borrower or the Agent, to the applicable Person at its address or facsimile number set forth on Schedule 11.2 hereto, or at such other address or facsimile number as may be designated by such party in a notice to the other parties. Any notice, if mailed and properly addressed with postage prepaid or if properly addressed and sent by pre-paid courier service, shall be deemed given when received; any notice, if transmitted by facsimile or email, shall be deemed given when the confirmation of transmission thereof is received by the transmitter. Unless otherwise indicated, all references to the time of a day in a Loan Document shall refer to New York City time.

SECTION 11.3 Payment of Costs and Expenses. The Credit Parties agree to, jointly and severally, pay promptly on demand all expenses of the Agent and the Lenders (or any of them) (including the reasonable fees and out-of-pocket expenses of DLA Piper LLP (US), counsel to the Agent and the Lenders and of one local counsel in each relevant jurisdiction, if any, who may reasonably be retained by or on behalf of the Agent and the Lenders (or any of them)) in connection with:

(a) the negotiation, preparation, execution and delivery of (i) each Loan Document, including schedules and exhibits, whether or not the transactions contemplated hereby are consummated and (ii) any amendments, waivers, consents, supplements or other modifications to any Loan Document as may from time to time be entered into after the Closing Date;

(b) the filing or recording of any Loan Document (including any financing statements) and all amendments, supplements, amendment and restatements and other modifications to any thereof, searches made after the date hereof in jurisdictions where financing statements (or other documents evidencing Liens in favor of the Agent and the other Secured Parties) have been recorded and any and all other documents or instruments of further assurance required to be filed or recorded by the terms of any Loan Document; and

(c) the preparation and review of the form of any document or instrument relevant to any Loan Document, including any amendments or other modifications thereto.

The Credit Parties agree to, jointly and severally, pay, and to save the Agent and the Lenders harmless from all liability for, any stamp or other taxes which may be payable in connection with the execution or delivery of each Loan Document, the Loans or the issuance of the Notes. The Credit Parties also agree to reimburse the Agent and the Lenders upon demand for all reasonable and documented or invoiced out-of-pocket expenses (including reasonable attorneys' fees and legal expenses of counsel to Agent and the Lenders (or any of them)) incurred by the Agent and the Lenders (or any of them) in connection with (i) the negotiation of any restructuring or "work-out" with the Borrower, whether or not consummated, of any Obligations and (ii) the enforcement of any Obligations.

SECTION 11.4 Indemnification. Reimbursement by the Borrower.

(a) In consideration of the execution and delivery of this Agreement by the Agent and the Lenders, the Credit Parties hereby, jointly and severally, indemnify, agree to defend, exonerate and hold the Agent, the Lenders and each of their respective officers, directors, employees and agents (collectively, the "Indemnified Parties") free and harmless from and against any and all actions, causes of action, suits, losses, costs, liabilities, obligations and damages, and expenses incurred in connection therewith (irrespective of whether any such Indemnified Party is a party to the action for which indemnification hereunder is sought), including reasonable attorneys' and professionals' fees and disbursements, of one primary counsel for all Indemnified Parties (and, in the case of an actual or perceived conflict of interest where the Indemnified Party affected by such conflict notifies the Borrower of the existence of such conflict and thereafter retains its own counsel, another counsel for each such affected Indemnified Party), and one local counsel in each relevant jurisdiction, whether incurred in connection with actions between the parties hereto or the parties hereto and third parties (collectively, the "Indemnified Liabilities"), incurred by the Indemnified Parties or any of them as a result of, or arising out of, or relating to (i) the entering into and performance of any Loan Document by any of the Indemnified Parties or (ii) any Environmental Liability, any actual or alleged breach of or non-compliance with Environmental Laws or Environmental Permits, any Hazardous Materials, or any other decision, act, omission or matter relating to the environment, natural resources, health, safety or welfare; provided that such indemnity shall not, as to any Indemnified Party, be available to the extent that such Indemnified Liabilities (A) are determined by a court of competent jurisdiction by final and non-appealable judgment to have resulted from the gross negligence or willful misconduct of such Indemnified Party, (B) result from a claim brought by any Credit Party against an Indemnified Party for breach in bad faith of such Indemnified Party's obligations hereunder or under any other Loan Document, if such Credit Party has obtained a final and nonappealable judgment in its favor on such claim as determined by a court of competent jurisdiction or (C) result from a claim not involving an act or omission of any Credit Party and that is brought by an Indemnified Party against another Indemnified Party (other than against the Agent in its capacity as such).

(b) If and to the extent that the foregoing indemnification may be unenforceable for any reason, the Credit Parties agree to, jointly and severally, make the maximum contribution to the payment and satisfaction of each of the Indemnified Liabilities which is permissible under applicable Law. To the fullest extent permitted by applicable Law, no party hereunder shall assert, and each hereby waives, any claim against any other party hereunder, on any theory of liability, for special, indirect, consequential or punitive damages (as opposed to direct or actual damages) arising out of, in connection with, or as a result of, this Agreement, any other Loan Document or any agreement or instrument contemplated hereby, the transactions contemplated hereby or thereby, or the use of the proceeds thereof. No Indemnified Party shall be liable for any damages arising from the use by unintended recipients of any information or other materials distributed by it through telecommunications, electronic or other information transmission systems in connection with this Agreement or the other Loan Documents or the transactions contemplated hereby or thereby. All amounts due under this Section shall be payable promptly after demand therefor. This Section 11.4 shall not apply to Taxes, other than any Taxes that represent losses, claims, damages, etc. arising from any non-Tax claim.

(c) Reimbursement by the Lenders. To the extent that the Borrower for any reason fails to pay any amount required under Section 11.3 or subsection (a) of this Section to be paid by it to the Agent (or any sub-agent thereof) or any Affiliate thereof, each Lender severally agrees to pay to the Agent (or any such sub-agent) or such Affiliate, as the case may be, such Lender's Pro Rata Share (determined as of the time that the applicable unreimbursed expense or indemnity payment is sought based on each Lender's Pro Rata Share at such time) of such unpaid amount (including any such unpaid amount in respect of a claim asserted by such Lender); provided that the unreimbursed expense or indemnified loss, claim, damage, liability or related expense, as the case may be, was incurred by or asserted against the Agent (or any such sub-agent), or such Affiliate acting for the Agent (or any such sub-agent) in connection with such capacity. The obligations of the Lenders under this subsection (b) are subject to the provisions of Section 11.6.

SECTION 11.5 Survival. The obligations of the Borrower under Section 4.1, Section 4.2, Section 4.3, Section 11.3, Section 11.4 and this Section 11.5, shall in each case survive any assignment by the Lender and the occurrence of the Termination Date. The representations and warranties made by the Borrower in each Loan Document shall survive the execution and delivery of such Loan Document.

SECTION 11.6 Obligations Several. The obligations of the Lenders under the Loan Documents are several. The failure of any Lender or the Agent to carry out its obligations thereunder will not relieve any other Lender or the Agent of any obligations thereunder, nor will any Lender or the Agent be responsible for the obligations of, or any action taken or omitted by, any other Person hereunder or thereunder. Nothing contained in any Loan Documents will be deemed to cause any Lender or the Agent to be considered a partner or a joint venture with any other Lender or Lenders or the Agent.

SECTION 11.7 Severability. Any provision of any Loan Document which is prohibited or unenforceable in any jurisdiction shall, as to such provision and such jurisdiction, be ineffective to the extent of such prohibition or unenforceability without invalidating the remaining provisions of such Loan Document or affecting the validity or enforceability of such provision in any other jurisdiction.

SECTION 11.8 Headings. The various headings of each Loan Document are inserted for convenience only and shall not affect the meaning or interpretation of such Loan Document or any provisions thereof.

SECTION 11.9 Execution, Effectiveness, Etc.

(a) Execution in Counterparts. This Agreement may be executed by the parties hereto in several counterparts, each of which shall be an original and all of which shall constitute together but one and the same agreement.

(b) Effectiveness. This Agreement shall become effective when counterparts hereof executed on behalf of the Borrower and the Lenders shall have been received by the Agent.

(c) Electronic Signatures. Delivery of an executed counterpart of a signature page to this Agreement by email (e.g. "pdf" or "tiff") or telecopy shall be effective as delivery of a manually executed counterpart of this Agreement. Any signature (including, without limitation, (x) any electronic symbol or process attached to, or associated with, a contract or other record and adopted by a Person with the intent to sign, authenticate or accept such contract or record and (y) any facsimile or "pdf" signature) hereto or the other Loan Documents or to any other certificate, agreement or document related to any Loan Document or the transactions contemplated hereby or by any other Loan Document, and any contract formation or record-keeping, in each case, through electronic means, shall have the same legal validity and enforceability as a manually executed signature or use of a paper-based record-keeping system to the fullest extent permitted by applicable Law, including the Federal Electronic Signatures in Global and National Commerce Act, the New York State Electronic Signatures and Records Act, or any similar state law based on the Uniform Electronic Transactions Act, and the parties hereto hereby waive any objection to the contrary.

SECTION 11.10 Governing Law; Entire Agreement. EACH LOAN DOCUMENT AND ANY CLAIMS, CONTROVERSY, DISPUTE OR CAUSE OF ACTION (WHETHER IN CONTRACT OR TORT OR OTHERWISE) BASED UPON, ARISING OUT OF OR RELATING TO THIS AGREEMENT OR ANY OTHER LOAN DOCUMENT CONTEMPLATED HEREBY AND THEREBY SHALL BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH, THE INTERNAL LAWS OF THE STATE OF NEW YORK (INCLUDING FOR SUCH PURPOSE SECTIONS 5-1401 AND 5-1402 OF THE GENERAL OBLIGATIONS LAW OF THE STATE OF NEW YORK). THE LOAN DOCUMENTS CONSTITUTE THE ENTIRE UNDERSTANDING AMONG THE PARTIES HERETO WITH RESPECT TO THE SUBJECT MATTER THEREOF AND SUPERSEDE ANY PRIOR AGREEMENTS, WRITTEN OR ORAL, WITH RESPECT THERETO.

SECTION 11.11 Register; Successors and Assigns.

(a) The Agent, acting solely for this purpose as a non-fiduciary agent of the Borrower, shall maintain at one of its offices in the United States a copy of each Assignment and Assumption delivered to it and register for the recordation of the names and addresses of the Lenders, and principal amounts (and stated interest) of the Loans owing to, each Lender pursuant to the terms hereof from time to time (the "Register"). The entries in the Register shall be conclusive absent manifest error, and the Borrower, the Agent and the Lenders shall treat each Person whose name is recorded in the Register pursuant to the terms hereof as a Lender hereunder for all purposes under this Agreement. The Register shall be available for inspection by any Credit Party and any Lender, at any reasonable time and from time to time upon reasonable prior notice.

(b) This Agreement shall be binding upon and shall inure to the benefit of the parties hereto and their respective successors and assigns; provided that, the Credit Parties may not assign or transfer their rights or obligations hereunder without the prior written consent of the Agent. The Lenders may freely assign, participate or otherwise transfer any or all of their rights and/or obligations hereunder and/or under the other Loan Documents; provided that, except in the case of an assignment to a Lender, an Affiliate of a Lender or related funds, (i) so long as no Event of Default has occurred and is continuing, there shall be no assignment, sale or participation to a Competitor or Disqualified Institution without the written consent of the Borrower (such consent not to be unreasonably withheld or delayed and such consent to be deemed to have been given if the Borrower has not responded within five (5) Business Days of a request for such consent), and (ii) any such assignment, sale or participation shall (when aggregated with all other substantially simultaneous assignments, sales and participations) be in a minimum amount of $1,000,000 (or, if less, the entire remaining amount of such Lender's then outstanding Loans). In the event of any assignment, the Lender making such assignment shall provide prompt notice thereof to the Agent so such assignment can be reflected on the Register. Each Lender that sells a participation shall, acting solely for this purpose as a non-fiduciary agent of the Borrower, maintain a register on which it enters the name and address of each participant and the principal amounts (and stated interest) of each participant's interest in the Loans or other obligations under the Loan Documents (the "Participant Register"); provided that no Lender shall have any obligation to disclose all or any portion of the Participant Register (including the identity of any participant or any information relating to a participant's interest in any commitments, loans or its other obligations under any Loan Document) to any Person except to the extent that such disclosure is necessary to establish that such commitment, loan or other obligation is in registered form under Section 5f.103-1(c) of the United States Treasury Regulations. The entries in the Participant Register shall be conclusive absent manifest error, and such Lender shall treat each Person whose name is recorded in the Participant Register as the owner of such participation for all purposes of this Agreement notwithstanding any notice to the contrary. For the avoidance of doubt, the Agent (in its capacity as the Agent) shall have no responsibility for maintaining a Participant Register. Each participant shall be entitled to the benefits of Sections 4.1, 4.2 and 4.3 (subject to the requirements and limitations therein, including the requirements under Section 4.3(g) (it being understood that the documentation required under Section 4.3(g) shall be delivered to the participating Lender)) to the same extent as if it were a Lender and had acquired its interest by assignment; provided that such participant shall not be entitled to receive any greater payment under Section 4.3, with respect to any participation, than its participating lender would have been entitled to receive, except to the extent that such entitlement to receive a greater payment results from a Change in Law that occurs after the participant acquired the applicable participation.

SECTION 11.12 Other Transactions. Nothing contained herein shall preclude the Agent or any of the Lenders, from engaging in any transaction, in addition to those contemplated by the Loan Documents, with a Credit Party, any of its Subsidiaries or any of their Affiliates in which such Credit Party or such Affiliate is not restricted hereby from engaging with any other Person.

SECTION 11.13 Forum Selection and Consent to Jurisdiction. ANY LITIGATION BASED HEREON, OR ARISING OUT OF, UNDER, OR IN CONNECTION WITH, ANY LOAN DOCUMENT, OR ANY COURSE OF CONDUCT, COURSE OF DEALING, STATEMENTS (WHETHER ORAL OR WRITTEN) OR ACTIONS OF THE AGENT, THE LENDERS (OR ANY OF THEM), OR ANY CREDIT PARTY (OR ANY OF ITS SUBSIDIARIES) IN CONNECTION HEREWITH OR THEREWITH SHALL BE BROUGHT AND MAINTAINED IN THE COURTS OF THE BOROUGH OF MANHATTAN IN THE CITY OF NEW YORK IN THE STATE OF NEW YORK OR IN THE UNITED STATES DISTRICT COURT FOR THE SOUTHERN DISTRICT OF NEW YORK; PROVIDED THAT, ANY SUIT SEEKING ENFORCEMENT AGAINST ANY COLLATERAL OR OTHER PROPERTY MAY BE BROUGHT, AT THE AGENT'S OR SUCH LENDER'S OPTION, IN THE COURTS OF ANY JURISDICTION WHERE SUCH COLLATERAL OR OTHER PROPERTY MAY BE FOUND. EACH PARTY IRREVOCABLY CONSENTS TO THE SERVICE OF PROCESS BY REGISTERED MAIL, POSTAGE PREPAID, OR BY PERSONAL SERVICE WITHIN OR WITHOUT THE STATE OF NEW YORK AT THE ADDRESS FOR NOTICES SPECIFIED IN SECTION 11.2. EACH PARTY HEREBY EXPRESSLY AND IRREVOCABLY WAIVES, TO THE FULLEST EXTENT PERMITTED BY LAW, ANY OBJECTION WHICH IT MAY HAVE OR HEREAFTER MAY HAVE TO THE LAYING OF VENUE OF ANY SUCH LITIGATION BROUGHT IN ANY SUCH COURT REFERRED TO ABOVE AND ANY CLAIM THAT ANY SUCH LITIGATION HAS BEEN BROUGHT IN AN INCONVENIENT FORUM. TO THE EXTENT THAT ANY PARTY HAS OR HEREAFTER MAY ACQUIRE ANY IMMUNITY FROM JURISDICTION OF ANY COURT OR FROM ANY LEGAL PROCESS (WHETHER THROUGH SERVICE OR NOTICE, ATTACHMENT PRIOR TO JUDGMENT, ATTACHMENT IN AID OF EXECUTION OR OTHERWISE) WITH RESPECT TO ITSELF OR ITS PROPERTY, SUCH PARTY HEREBY IRREVOCABLY WAIVES TO THE FULLEST EXTENT PERMITTED BY LAW SUCH IMMUNITY IN RESPECT OF ITS OBLIGATIONS UNDER THE LOAN DOCUMENTS.

SECTION 11.14 Waiver of Jury Trial. THE AGENT, EACH OF THE LENDERS, AND THE CREDIT PARTIES HEREBY KNOWINGLY, VOLUNTARILY AND INTENTIONALLY WAIVE TO THE FULLEST EXTENT PERMITTED BY LAW ANY RIGHTS THEY MAY HAVE TO A TRIAL BY JURY IN RESPECT OF ANY LITIGATION BASED HEREON, OR ARISING OUT OF, UNDER, OR IN CONNECTION WITH, EACH LOAN DOCUMENT, OR ANY COURSE OF CONDUCT, COURSE OF DEALING, STATEMENTS (WHETHER ORAL OR WRITTEN) OR ACTIONS OF THE AGENT, THE LENDERS OR THE CREDIT PARTIES IN CONNECTION THEREWITH. EACH PARTY ACKNOWLEDGES AND AGREES THAT IT HAS RECEIVED FULL AND SUFFICIENT CONSIDERATION FOR THIS PROVISION (AND EACH OTHER PROVISION OF EACH OTHER LOAN DOCUMENT TO WHICH IT IS A PARTY) AND THAT THIS PROVISION IS A MATERIAL INDUCEMENT FOR THE AGENT AND THE LENDERS ENTERING INTO THE LOAN DOCUMENTS.

SECTION 11.15 Interest Rate Limitation. Notwithstanding anything to the contrary contained in any Loan Document, the interest paid or agreed to be paid under the Loan Documents shall not exceed the maximum rate of non-usurious interest permitted by applicable Law (the "Maximum Rate"). If the Agent or any Lender shall receive interest in an amount that exceeds the Maximum Rate, the excess interest shall be applied to the principal of the Loans or, if it exceeds such unpaid principal, refunded to the Borrower. In determining whether the interest contracted for, charged, or received by the Agent or a Lender exceeds the Maximum Rate, such Person may, to the extent permitted by applicable Law, (a) characterize any payment that is not principal as an expense, fee, or premium rather than interest, (b) exclude voluntary prepayments and the effects thereof, and (c) amortize, prorate, allocate, and spread in equal or unequal parts the total amount of interest throughout the contemplated term of the Obligations hereunder.

SECTION 11.16 Acknowledgment and Consent to Bail-In of Affected Financial Institutions. Notwithstanding anything to the contrary in any Loan Document or in any other agreement, arrangement or understanding among any such parties, each party hereto acknowledges that any liability of any Affected Financial Institution arising under any Loan Document, to the extent such liability is unsecured, may be subject to the Write-Down and Conversion Powers of the applicable Resolution Authority and agrees and consents to, and acknowledges and agrees to be bound by:

(a) the application of any Write-Down and Conversion Powers by the applicable Resolution Authority to any such liabilities arising hereunder which may be payable to it by any party hereto that is an Affected Financial Institution; and

(b) the effects of any Bail-In Action on any such liability, including, if applicable:

(i) a reduction in full or in part or cancellation of any such liability;

(ii) a conversion of all, or a portion of, such liability into shares or other instruments of ownership in such Affected Financial Institution, its parent undertaking, or a bridge institution that may be issued to it or otherwise conferred on it, and that such shares or other instruments of ownership will be accepted by it in lieu of any rights with respect to any such liability under this Agreement or any other Loan Document; or

(iii) the variation of the terms of such liability in connection with the exercise of the Write-Down and Conversion Powers of the applicable Resolution Authority.

SECTION 11.17 Judgment Currency.

(a) If, for the purposes of obtaining judgment in any court, it is necessary to convert a sum due hereunder in one currency (the "first currency") into another currency (the "other currency"), the parties hereto agree, to the fullest extent permitted by law, that the rate of exchange used shall be that at which, in accordance with normal banking procedures, the Agent could purchase the first currency with such other currency at the applicable buying spot rate of exchange in the New York foreign exchange market on the Business Day immediately preceding that on which any such judgment, or any relevant part thereof, is given.

(b) The obligations of the Credit Parties in respect of any sum due to the Agent hereunder or under the other Loan Documents shall, notwithstanding any judgment in a currency other than Dollars, be discharged only to the extent that on the Business Day following receipt by the Agent of any sum adjudged to be so due in such other currency the Agent may, in accordance with normal banking procedures, purchase Dollars with such other currency. If the amount of Dollars so purchased is less than the sum originally due to the Agent in Dollars, the Credit Parties agree, jointly and severally, to the fullest extent that it may effectively do so, as a separate obligation and notwithstanding any such judgment, to indemnify the Agent against such loss. If the amount of Dollars so purchased exceeds the sum originally due to the Agent in Dollars, the Agent shall remit such excess to the Credit Parties.

SECTION 11.18 Early Prepayment Fee and Exit Fee. The parties hereto acknowledge and agree that, to the extent the Early Prepayment Fee and/or the Exit Fee is applicable to any repayment or prepayment of principal of any Loan at any time, such Early Prepayment Fee and/or the Exit Fee is not intended to be a penalty assessed as a result of any such repayment or prepayment of the Loans, but rather is the product of a good faith, arm's length commercial negotiation between the Borrower and the Lenders relating to the mutually satisfactory compensation payable to the Lenders by the Borrower in respect of the Loans made hereunder. In furtherance of the foregoing, to the fullest extent permitted by applicable Law, the Credit Parties hereby jointly and severally waive any rights or claims any of them may have under any such applicable Law (whether or not in effect on the Closing Date) that would prohibit or restrict the payment of the Early Prepayment Fee and/or the Exit Fee under any of the circumstances provided herein or in any other Loan Document, including payment after acceleration of the Loans.

SECTION 11.19 USA PATRIOT Act. The Agent and the Lenders hereby notify the Credit Parties that pursuant to the requirements of the Patriot Act, they are required to obtain, verify and record information that identifies each Credit Party, which information includes the name and address of each Credit Party and other information that shall allow such Person to identify such Credit Party in accordance with the Patriot Act. Promptly following any written request therefor, the Borrower shall deliver to the Agent such information and documentation in respect of any Credit Party reasonably requested by the Agent or any Lender for purposes of compliance by the Agent or such Lender with applicable "know your customer" requirements under the Patriot Act, the Beneficial Ownership Regulation or other applicable anti-money laundering laws.

SECTION 11.20 Confidentiality. Each of the Agent and the Lenders agree to maintain the confidentiality of the Information (as defined below), except that Information may be disclosed (a) to its Affiliates and to its Related Parties (it being understood that the Persons to whom such disclosure is made have a need-to-know such Information, will be informed of the confidential nature of such Information and instructed to keep such Information confidential); (b) to the extent required or requested by any regulatory authority purporting to have jurisdiction over such Person or its Related Parties (including any self-regulatory authority, such as the National Association of Insurance Commissioners); (c) to the extent required by applicable Laws or by any subpoena or similar legal process; (provided, that the Agent and the Lenders will, to the extent permitted by applicable Laws, notify the Borrower promptly in writing so that the Borrower may seek a protective order or other appropriate remedy (at Borrower's sole cost and expense) and, in the event no such protective order or remedy is obtained, the Agent and the Lenders shall only furnish that portion of the Information which it is advised by counsel is legally required by applicable Laws and will exercise its reasonable efforts to obtain reliable assurance that confidential treatment will be accorded the Information); (d) to any other party hereto; (e) in connection with the exercise of any remedies hereunder or under any other Loan Document or any action or proceeding relating to this Agreement or any other Loan Document or the enforcement of rights hereunder or thereunder; (f) subject to an agreement containing provisions substantially the same as (or no less restrictive than) those of this Section, to (i) any assignee of or participant in, or any prospective assignee of or participant in, any of its rights and obligations under this Agreement, or (ii) any actual or prospective party (or its Related Parties) to any swap, derivative or other transaction under which payments are to be made by reference to the Borrower and its obligations, this Agreement or payments hereunder; (g) on a confidential basis to (i) any rating agency in connection with rating the Borrower or its Subsidiaries or any credit facility or (ii) the CUSIP Service Bureau or any similar agency in connection with the issuance and monitoring of CUSIP numbers with respect to any credit facility; (h) with the written consent of the Borrower; or (i) to the extent such Information (x) becomes publicly available other than as a result of a breach of this Section, or (y) becomes available to the Agent, any Lender, or any of their respective Affiliates on a nonconfidential basis from a source other than the Borrower who did not acquire such information as a result of a breach of this Section. In addition, the Agent and the Lenders may disclose the existence of this Agreement and information about this Agreement (for the avoidance of doubt, excluding Information) to market data collectors, similar service providers to the lending industry and service providers to the Agents or any Lender in connection with the administration of this Agreement, the other Loan Documents, and the Commitments.

For purposes of this Section, "Information" means all information received from the Borrower or any of its Subsidiaries relating to the Borrower or any of its Subsidiaries or any of their respective businesses, regardless of whether such Information is marked or indicated as being confidential (provided the confidentiality of such Information is reasonably apparent on its face), other than any such information that is available to the Agent or any Lender on a nonconfidential basis prior to disclosure by the Borrower or any of its Subsidiaries. Information includes, but is not limited to, technical, marketing, financial, personnel, planning, statistical, pricing, purchasing, product and health care data and information, customer, member and supplier lists and information, and other non-public, proprietary and confidential information, including cost and pricing data, operations, systems, programs, inventions, techniques, trade secrets, know-how, and other intellectual property, processes, analyses, plans, designs, financial information and marketing information, any other information of or relating to the Borrower's or any of its Subsidiaries' business, and any analysis, compilation, study, notes, copies, summaries, derivative works, reports or other material prepared by the Agent or Lender (regardless of the form in which it is maintained) that contains or otherwise reflects any information disclosed or made available by Borrower or any of its Subsidiaries to Agent or Lender (collectively, "Derivatives"). Confidential Information may be disclosed orally, in writing, by visual observation, electronically or fixed in any tangible medium of expression. Any Person required to maintain the confidentiality of Information as provided in this Section shall be considered to have complied with its obligation to do so if such Person has exercised the same degree of care to maintain the confidentiality of such Information as such Person would accord to its own confidential information, and promptly notifies the Credit Parties upon discovery of any loss or unauthorized disclosure of any Information. Agent and the Lenders shall be responsible for the breach of this Agreement by any Person to whom Information is disclosed pursuant to this Agreement.

Agent and the Lenders acknowledge that they may become aware of material, non-public information concerning the Credit Parties in the course of the discussions and negotiations contemplated herein. Accordingly, Agent and the Lenders agree not to: (i) effect or seek, offer or propose (whether publicly or otherwise) to effect, or cause or participate in or in any way assist any other person to effect or seek, offer or propose (whether publicly or otherwise) to effect or participate in any trading of any securities (or beneficial ownership thereof) of the Credit Parties, (ii) disclose or "tip" material, non-public information concerning the Credit Parties to any person or entity, (iii) give trading advice of any kind to any person or entity concerning the Credit Parties or (iv) except with the prior written consent of the Credit Parties, take any action that might force the other Credit Parties to make a public announcement under applicable securities laws.

Upon expiration or termination of this Agreement and repayment in full of all Obligations, Agent and the Lenders shall promptly return to the Credit Parties all copies of the Information of Discloser then in its possession; provided, however, that Agent and the Lenders may promptly destroy any Information in its possession (including, without limitation, any Derivatives) in lieu of returning such materials. Agent and the Lenders hereby agree to certify in a letter to the Credit Parties that such return or destruction required hereunder have been accomplished. Notwithstanding the foregoing, Agent and the Lenders may retain a copy of Information in its confidential legal files. Agent and the Lenders' obligation to maintain the confidentiality of Information shall survive for a period of five (5) years following the termination of this Agreement.

No license or other right under any patent, trademark, copyright, trade secret, know-how or other intellectual property right is being granted by any Credit Party hereunder except the right to use Information in accordance with the terms of this Agreement. All Information is provided "AS IS" and without any warranty, express, implied or otherwise regarding its accuracy or performance.

ARTICLE XII
GUARANTEE

SECTION 12.1 The Guarantee. Each of the Subsidiary Guarantors and any other Person that becomes a Subsidiary Guarantor after the Closing Date hereby guarantees to the Agent and the Lenders, and their respective successors, endorsees, transferees and assigns, the full and prompt payment in full when due (whether at stated maturity, by required prepayment, declaration, acceleration, demand or otherwise) and performance of the indebtedness, liabilities and other obligations of the Borrower to the Agent and the Lenders under or in connection with this Agreement, the Notes and the other Loan Documents, including all unpaid principal of the Loans, all interest accrued thereon, all fees due under this Agreement and all other amounts payable by the Borrower to the Agent and the Lenders hereunder or in connection herewith. The terms "indebtedness," "liabilities" and "obligations" are used herein in their most comprehensive sense and include any and all advances, debts, obligations and liabilities, now existing or hereafter arising, whether voluntary or involuntary and whether due or not due, absolute or contingent, liquidated or unliquidated, determined or undetermined, and whether recovery upon such indebtedness, liabilities and obligations may be or hereafter become unenforceable or shall be an allowed or disallowed claim in any insolvency proceeding and including interest that accrues after the commencement by or against any Credit Party or any of its Subsidiaries of any insolvency proceeding naming such Credit Party or such Subsidiary as the debtor in such insolvency proceeding. The foregoing indebtedness, liabilities and other obligations of the Borrower, and all other indebtedness, liabilities and obligations to be paid or performed by the Subsidiary Guarantors in connection with this Section 12.1 shall hereinafter be collectively referred to as the "Guaranteed Obligations."

SECTION 12.2 Obligations Unconditional. The obligations of the Subsidiary Guarantors under Section 12.1 are absolute and unconditional, irrespective of the value, genuineness, validity, regularity or enforceability of the obligations of the Borrower under this Agreement or any other agreement or instrument referred to herein, or any substitution, release or exchange of any other guarantee of or security for any of the Guaranteed Obligations, and, to the fullest extent permitted by law, irrespective of any other circumstance whatsoever that might otherwise constitute a legal or equitable discharge or defense of a surety or guarantor, it being the intent of this Section 12.1 that the obligations of the Subsidiary Guarantors hereunder shall be absolute and unconditional under any and all circumstances other than the Payment in Full of the Guaranteed Obligations. Without limiting the generality of the foregoing, it is agreed that the occurrence of any one or more of the following shall not alter or impair the liability of the Subsidiary Guarantors hereunder, which shall remain absolute and unconditional as described above:

(a) at any time or from time to time, without notice to the Subsidiary Guarantors, the time for any performance of or compliance with any of the Guaranteed Obligations shall be extended, or such performance or compliance shall be waived;

(b) any of the acts mentioned in any of the provisions of this Agreement or any other agreement or instrument referred to herein shall be done or omitted;

(c) the maturity of any of the Guaranteed Obligations shall be accelerated, or any of the Guaranteed Obligations shall be modified, supplemented or amended in any respect, or any right under this Agreement or any other Loan Document shall be waived or any other guarantee of any of the Guaranteed Obligations or any security therefor shall be released or exchanged in whole or in part or otherwise dealt with; or

(d) any Lien or security interest granted to, or in favor of, the Secured Parties as security for any of the Guaranteed Obligations shall fail to be perfected.

Each of the Subsidiary Guarantors hereby expressly waives diligence, presentment, demand of payment, protest and all notices whatsoever, and any requirement that the Agent or the Lenders exhaust any right, power or remedy or proceed against the Borrower under this Agreement or any other agreement or instrument referred to herein, or against any other Person under any other guarantee of, or security for, any of the Guaranteed Obligations.

SECTION 12.3 Reinstatement. The obligations of the Subsidiary Guarantors under this Article XII shall be automatically reinstated if and to the extent that for any reason any payment by or on behalf of the Borrower in respect of the Guaranteed Obligations is rescinded or must be otherwise restored by any holder of any of the Guaranteed Obligations, whether as a result of any proceedings in bankruptcy or reorganization or otherwise, and each of the Subsidiary Guarantors agrees that it will indemnify the Agent and the Lenders on demand for all reasonable costs and expenses (including reasonable fees of one primary counsel and one local counsel in each relevant jurisdiction) incurred by such Persons in connection with such rescission or restoration, including any such costs and expenses incurred in defending against any claim alleging that such payment constituted a preference, fraudulent transfer or similar payment under any bankruptcy, insolvency or similar law.

SECTION 12.4 Subrogation. Until the Guaranteed Obligations shall be satisfied in full (other than inchoate indemnification, expense reimbursement obligations and other contingent obligations for which no claim has been asserted), no Subsidiary Guarantor shall directly or indirectly exercise, (i) any rights that it may acquire by way of subrogation under this Article XII, by any payment hereunder or otherwise, (ii) any rights of contribution, indemnification, reimbursement or similar suretyship claims arising out of this Article XII or (iii) any other right which it might otherwise have or acquire (in any way whatsoever) which could entitle it at any time to share or participate in any right, remedy or security of the Agent or any Lender as against the Borrower or other Credit Parties (or any of their Subsidiaries), whether in connection with this Article XII, any of the other Loan Documents or otherwise. If any amount shall be paid to the Subsidiary Guarantors on account of the foregoing rights at any time when all the Guaranteed Obligations shall not have been paid in full, such amount shall be held in trust for the benefit of the Agent and the Lenders and shall forthwith be paid to the Agent to be credited and applied to the Guaranteed Obligations, whether matured or unmatured, in accordance with the terms of the Loan Documents.

SECTION 12.5 Remedies. Each of the Subsidiary Guarantors agrees that, as between any Subsidiary Guarantor, on one hand, and the Agent and the Lenders, on the other hand, the obligations of the Borrower under this Agreement and under the other Loan Documents may be declared to be forthwith due and payable as provided in Article IX (and shall be deemed to have become automatically due and payable in the circumstances provided in Article IX) for purposes of Section 12.1 notwithstanding any stay, injunction or other prohibition preventing such declaration (or such obligations from becoming automatically due and payable) as against the Borrower and that, in the event of such declaration (or such obligations being deemed to have become automatically due and payable), such obligations (whether or not due and payable by the Borrower) shall forthwith become due and payable by the Subsidiary Guarantors for purposes of Section 12.1.

SECTION 12.6 Instrument for the Payment of Money. Each of the Subsidiary Guarantors hereby acknowledges that the guarantee in this Article XII constitutes an instrument for the payment of money, and consents and agrees that the Agent and the Lenders, at their sole option, in the event of a dispute by any Subsidiary Guarantor in the payment of any moneys due hereunder, shall have the right to proceed by motion for summary judgment in lieu of complaint pursuant to N.Y. Civ. Prac. L&R § 3213.

SECTION 12.7 Continuing Guarantee. The guarantee in this Article XII is a continuing guaranty and agreement of subordination relating to any Guaranteed Obligations, including Guaranteed Obligations which may exist continuously or which may arise from time to time under successive transactions, and each of the Subsidiary Guarantors expressly acknowledges that the guarantee in this Article XII shall remain in full force and effect notwithstanding that there may be periods in which no Guaranteed Obligations exist. The guarantee in this Article XII shall continue in effect and be binding upon the Subsidiary Guarantors until payment and performance in full of the Guaranteed Obligations (other than inchoate indemnification, expense reimbursement obligations and other contingent obligations for which no claim has been asserted).

SECTION 12.8 General Limitation on Guarantee Obligations. In any action or proceeding involving any provincial, territorial or state corporate law, or any state or federal bankruptcy, insolvency, reorganization or other law affecting the rights of creditors generally, if the obligations of the Borrower or any Subsidiary Guarantor under Section 12.1 would otherwise be held or determined to be void, invalid or unenforceable, or subordinated to the claims of any other creditors, on account of the amount of its liability under Section 12.1, then, notwithstanding any other provision hereof to the contrary, the amount of such liability shall, without any further action by the Subsidiary Guarantors, the Agent, the Lenders or any other Person, be automatically limited and reduced to the highest amount that is valid and enforceable and not subordinated to the claims of other creditors as determined in such action or proceeding.

[SIGNATURE PAGES FOLLOW]

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by their respective officers thereunto duly authorized as of the day and year first above written.

BORROWER:

ADMA BIOLOGICS, INC.

By /s/ Brian Lenz
Name: Brian Lenz
Title: Executive Vice President, Chief Financial Officer, and Secretary

SUBSIDIARY GUARANTORS:

ADMA BIOMANUFACTURING, LLC

By /s/ Brian Lenz
Name: Brian Lenz
Title: Vice President, Chief Financial Officer

ADMA PLASMA BIOLOGICS, INC.

By /s/ Brian Lenz
Name: Brian Lenz
Title: Vice President, Chief Financial Officer

ADMA BIOCENTERS GEORGIA INC.

By /s/ Brian Lenz
Name: Brian Lenz
Title: Vice President, Chief Financial Officer

[*Signature Page to Credit Agreement and Guaranty (ADMA Biologics)*]

AGENT:

HAYFIN SERVICES LLP

By /s/ Vikas Melita
Authorised Signatory

[*Signature Page to Credit Agreement and Guaranty (ADMA Biologics)*]

LENDERS:

Signed for and on behalf of **Hayfin Healthcare Opportunities LuxCo S.à r.l.**

/s/ Lina Kavoliune

Name: Lina Kavoliune
Position: Manager

Signed for and on behalf of **Hayfin SOF III LuxCo S.à.r.l.**

/s/ Lina Kavoliune

Name: Lina Kavoliune
Position: Manager

Signed for and on behalf of **Hayfin Chief LuxCo S.à.r.l.**

/s/ Lina Kavoliune

Name: Lina Kavoliune
Position: Manager

Signed for and on behalf of **Hayfin Big Cypress LuxCo S.à.r.l.**

/s/ Lina Kavoliune

Name: Lina Kavoliune
Position: Manager

Signed for and on behalf of **SunHay LuxCo S.à.r.l.**

/s/ Lina Kavoliune

Name: Lina Kavoliune
Position: Manager

[*Signature Page to Credit Agreement and Guaranty (ADMA Biologics)*]

Signed for and on behalf of **Hayfin Opal 2020 (A) LP**,
acting by its manager Hayfin Management Limited

/s/ Tej Kumar GUJADHUR

Name: Tej Kumar GUJADHUR
Position: Director

Signed for and on behalf of **Hayfin Opal 2020 (B) LP**,
acting by its manager Hayfin Management Limited

/s/ Tej Kumar GUJADHUR

Name: Tej Kumar GUJADHUR
Position: Director

Signed for and on behalf of **Hayfin Hamilton LuxCo S.à.r.l.**

/s/ Lina Kavoliune

Name: Lina Kavoliune
Position: Manager

[*Signature Page to Credit Agreement and Guaranty (ADMA Biologics)*]

Exhibit 10.25

EXECUTION VERSION

SECURITY AGREEMENT

THIS SECURITY AGREEMENT (as amended, supplemented or otherwise modified from time to time, this "Agreement"), dated as of March 23, 2022, is made by and among ADMA BIOLOGICS, INC., a Delaware corporation (the "Borrower"), the Subsidiaries of the Borrower named in the signature pages hereto or having joined this Agreement pursuant to Section 23 (each a "Subsidiary Guarantor" and, together with the Borrower, each a "Grantor" and, collectively, the "Grantors"), and HAYFIN SERVICES LLP, as administrative agent for the Lenders referred to below (in such capacity, together with its successors and assigns, the "Agent").

WHEREAS, the Borrower, certain other Credit Parties from time to time party thereto, the lenders from time to time party thereto (the "Lenders") and the Agent are parties to that certain Credit Agreement and Guaranty, dated as of the date hereof (as amended, supplemented or otherwise modified from time to time, the "Credit Agreement"), pursuant to which the Borrower will incur Indebtedness and the other Obligations and the Subsidiary Guarantors will guarantee such Indebtedness and other Obligations (the "Guaranty").

WHEREAS, it is a condition precedent to the making of the Loans by the Lenders under the Credit Agreement that the Grantors enter into this Agreement and grant to the Agent, for itself and for the ratable benefit of the other Secured Parties, the security interests hereinafter provided to secure the obligations of the Borrower and the Subsidiary Guarantors described below.

NOW, THEREFORE, the parties hereto agree as follows:

SECTION 1 Definitions; Interpretation.

(a) Terms Defined in Credit Agreement. All capitalized terms used in this Agreement (including in the recitals hereof) and not otherwise defined herein shall have the meanings assigned to them in the Credit Agreement.

(b) Certain Defined Terms. As used in this Agreement, the following terms shall have the following meanings:

"Accounts" means any and all of any Grantor's accounts, as such term is defined in Section 9-102 of the UCC.

"Agreement" has the meaning set forth in the preamble to this Agreement.

"Bailee Letter" means a bailment agreement substantially in the form of Exhibit F or otherwise in form and substance satisfactory to the Agent.

"Books" means all books, records and other written, electronic or other documentation in whatever form maintained now or hereafter by or for any Grantor in connection with the ownership of its assets or the conduct of its business or evidencing or containing information relating to the Collateral, including: (i) ledgers; (ii) records indicating, summarizing, or evidencing any Grantor's assets (including Inventory and Rights to Payment), business operations or financial condition; (iii) computer programs and software; (iv) computer discs, tapes, files, manuals, spreadsheets; (v) computer printouts and output of whatever kind; (vi) any other computer prepared or electronically stored, collected or reported information and equipment of any kind; and (vii) any and all other rights now or hereafter arising out of any contract or agreement between any Grantor and any service bureau, computer or data processing company or other Person charged with preparing or maintaining any of any Grantor's books or records or with credit reporting, including with regard to any such Grantor's Accounts.

"Chattel Paper" means any and all of any Grantor's chattel paper, as such term is defined in Section 9-102 of the UCC, including all Electronic Chattel Paper.

"Collateral" has the meaning set forth in Section 2(a).

"Commercial Tort Claims" means any and all of any Grantor's commercial tort claims, as such term is defined in Section 9-102 of the UCC, including any such claims described in Schedule 1.

"Control Agreement" means any control agreement or other agreement with any securities intermediary, bank, depository or other Person establishing the Agent's control with respect to any Deposit Accounts, Securities Accounts, lockboxes, disbursement accounts, investment accounts or similar accounts, Letter-of-Credit Rights or Investment Property, for purposes of Article 8 or Sections 9-104, 9-106 and 9-107 of the UCC.

"Deposit Account" means any deposit account, as such term is defined in Section 9-102 of the UCC, maintained by or for the benefit of any Grantor, whether or not restricted or designated for a particular purpose.

"Documents" means any of any Grantor's documents, as such term is defined in Section 9-102 of the UCC.

"Electronic Chattel Paper" means any and all of any Grantor's electronic chattel paper, as such term is defined in Section 9-102 of the UCC.

"Equipment" means any and all of any Grantor's equipment, including any and all fixtures, as such terms are defined in Section 9-102 of the UCC.

"Exchange Act" means the Securities Exchange Act of 1934.

"Excluded Accounts" means any (a) Deposit Account or Securities Account specially and exclusively used in the ordinary course of business for payroll, payroll taxes and other employee wage and benefit payments to or for the benefit of any Grantor or any of their respective Subsidiaries' employees, which accounts are funded only in the ordinary course of business and not in excess of any amounts necessary to fulfill payroll obligations that are then currently owing, (b) 401(k) accounts, escrow accounts and trust accounts and any other accounts the pledge or encumbrance of which would be prohibited by applicable Law, (c) Deposit Account or Securities Account that is a zero-balance disbursement account, (d) Deposit Account or Securities Account with an average daily balance not in excess of $100,000 individually or $250,000 in the aggregate and (e) Deposit Account into which payments with respect to Governmental Payors are deposited and for which assignment is prohibited under applicable Law ("Governmental Payment Account") (but not including any Deposit accounts into which such Governmental Payor deposited payments are swept).

"Excluded Property" has the meaning set forth in Section 2(a).

"General Intangibles" means any and all of any Grantor's general intangibles, as such term is defined in Section 9-102 of the UCC.

"Goods" means any and all of any Grantor's goods, as such term is defined in Section 9-102 of the UCC.

"Governmental Payor" means a federal or state healthcare program including, without limitation, Medicare or Medicaid.

"Grantors" has the meaning set forth in the preamble to this Agreement.

"Guaranty" has the meaning set forth in the recitals to this Agreement.

"Instruments" means any and all of any Grantor's instruments, as such term is defined in Section 9-102 of the UCC.

"Intellectual Property Collateral" means the following properties and assets owned or held by any Grantor or in which any Grantor otherwise has any interest, now existing or hereafter acquired or arising:

(i) all Patents, including domestic and foreign Patents, all licenses relating to any of the foregoing and all income and royalties with respect to any licenses (including such Patents and licenses described in Schedule 2), together with all rights to sue and collect damages for past, present or future infringement thereof, all rights arising therefrom and pertaining thereto and all reissues, divisions, continuations, renewals and extensions in part thereof;

(ii) all Copyrights, including domestic and foreign Copyrights, together with underlying works of authorship (including titles), whether or not the underlying works of authorship have been published and whether said Copyrights are statutory or arise under the common law, and all other rights and works of authorship, all licenses relating to any of the foregoing and all income and royalties with respect to any licenses (including the Copyrights and licenses described in Schedule 2), and all income and royalties with respect thereto, and all other rights, Claims and demands in any way relating to any such Copyrights or works, including royalties and rights to sue and collect damages for past, present or future infringement thereof, and all rights arising therefrom and pertaining thereto;

(iii) all Trademarks, including state (including common law), federal and foreign trademarks, service marks and trade names, and applications for registration of such Trademarks, all licenses relating to any of the foregoing and all income and royalties with respect to any licenses (including the Trademarks and licenses described in Schedule 2), whether registered or unregistered and wherever registered, all rights to sue for past, present or future infringement or unconsented use thereof, all rights arising therefrom and pertaining thereto and all reissues, extensions and renewals thereof,, other than any "intent to use" application for registration of a Trademark filed pursuant to Section 1(b) of the Lanham Act, 15 U.S.C. § 1051, prior to the filing of a "Statement of Use" pursuant to Section 1(d) of the Lanham Act or an "Amendment to Allege Use" pursuant to Section 1(c) of the Lanham Act with respect thereto, to the extent that, and during the period in which, the grant of a security interest therein would impair the validity or enforceability of any registration that issues from such intent-to-use application under applicable federal law, together with all rights to sue and collect damages for past, present and future infringement thereof, all rights arising therefrom and pertaining thereto;

(iv) all Trade Secrets, trade dress, trade styles, logos, other source of business identifiers, mask-works, mask-work registrations, mask-work applications, software, confidential and proprietary information, customer lists, license rights, advertising materials, operating manuals, methods, processes, know-how, algorithms, formulae, databases, quality control procedures, product, service and technical specifications, operating, production and quality control manuals, sales literature, drawings, specifications, blue prints, descriptions, inventions, name plates, catalogs, internet websites, and internet domain names and associated URL addresses, together with all rights to sue and collect damages for past, present and future infringement thereof, all rights arising therefrom and pertaining thereto;

(v) the entire goodwill of or associated with the businesses now or hereafter conducted by such Grantor connected with and symbolized by any of the aforementioned properties and assets; and

(vi) all other intellectual property and proprietary rights, or other similar property and all other general intangibles associated with or arising out of any of the aforementioned properties and assets and not otherwise described above, including rights to sue for or collect damages for any past, present or future infringement of any of the foregoing.

"Intellectual Property Security Agreement" means each Patent Security Agreement in substantially the form of Exhibit C, each Trademark Security Agreement in substantially the form of Exhibit D, each Copyright Security Agreement in substantially the form of Exhibit E or any amendment thereto, in form and substance satisfactory to the Agent, supplementary to this Agreement and prepared for purposes of recordation with the U.S. Copyright Office or the U.S. Patent and Trademark Office, as applicable.

"Inventory" means any of any Grantor's inventory, as such term is defined in Section 9-102 of the UCC.

"Investment Property" means any of any Grantor's investment property, as such term is defined in Section 9-102 of the UCC.

"IP License" means all contractual obligations, whether written or oral, granting any right, title and interest in any Intellectual Property.

"Joinder Agreement" has the meaning set forth in Section 23.

"Joining Grantor" has the meaning set forth in Section 23.

"Landlord Consent" means a landlord waiver substantially in the form of Exhibit G or otherwise in form and substance reasonably satisfactory to the Agent and the applicable landlord.

"Letter-of-Credit Rights" means any and all of any Grantor's letter-of-credit rights, as such term is defined in Section 9-102 of the UCC.

"Partnership and LLC Collateral" means any and all limited, limited liability and general partnership interests and limited liability company interests of any type or nature (including any such interests in the Borrower's direct or indirect Subsidiaries now or hereafter owned by any Grantor), whether now existing or hereafter acquired or arising, including any such interests specified in Schedule 3.

"Pledge Supplement" has the meaning specified in Section 3(h).

"Pledged Collateral" means any and all (i) Pledged Shares; (ii) additional capital stock or other Capital Securities of the direct or indirect Subsidiaries of the Borrower), whether certificated or uncertificated; (iii) other Investment Property of any Grantor; (iv) warrants, options or other rights entitling any Grantor to acquire any interest in capital stock or other Capital Securities of such Subsidiaries or any other Person; (v) Partnership and LLC Collateral; (vi) Instruments; (vii) securities, property, interest, dividends and other payments and distributions issued as an addition to, in redemption of, in renewal or exchange for, in substitution or upon conversion of, or otherwise on account of, any of the foregoing; (viii) certificates and instruments now or hereafter representing or evidencing any of the foregoing; (ix) rights, interests and claims with respect to the foregoing, including under any and all related agreements, instruments and other documents and (x) cash and non-cash proceeds of any of the foregoing, in each case whether presently existing or owned or hereafter arising or acquired and wherever located, and as from time to time received or receivable by, or otherwise paid or distributed to or acquired by, any Grantor.

"Pledged Collateral Agreements" has the meaning specified in Section 5(q)(i).

"Pledged Shares" means all of the issued and outstanding Capital Securities, whether certificated or uncertificated, of the Borrower's direct or indirect Subsidiaries now or hereafter owned by any Grantor, including each Subsidiary identified on Schedule 3 (as amended or supplemented from time to time).

"Proceeds" means all proceeds, as such term is defined in Section 9-102 of the UCC.

"Rights to Payment" means any and all of any Grantor's Accounts and any and all of any Grantor's rights and claims to the payment or receipt of money or other forms of consideration of any kind in, to and under or with respect to its Chattel Paper, Documents, General Intangibles, Instruments, Investment Property, Letter-of-Credit Rights, Proceeds and Supporting Obligations.

"Secured Obligations" means all Obligations, whether in respect of Indebtedness or other obligations of the Grantors to any Secured Party under the Credit Agreement, the Notes, the Guarantee or any of the other Loan Documents or otherwise.

"Secured Parties" means the Agent and the Lenders.

"Securities Account" means securities account, as such term is defined in Section 8-501 of the UCC, maintained by or for the benefit of any Grantor, whether or not restricted or designated for a particular purpose.

"Supporting Obligations" means all supporting obligations, as such term is defined in Section 9-102 of the UCC.

"UCC" means the Uniform Commercial Code in effect in the State of New York, as amended from time to time.

(c) Terms Defined in UCC. Where applicable and except as otherwise defined herein, terms used in this Agreement shall have the meanings assigned to them in the UCC; provided, however, that to the extent that the UCC is used to define any term herein and such term is defined differently in different Articles of the UCC, the definition of such term contained in Article 9 shall govern.

(d) Interpretation. The rules of interpretation set forth in Section 1.2 of the Credit Agreement shall be applicable to this Agreement and are incorporated herein by this reference.

SECTION 2 Security Interest.

(a) Grant of Security Interest. As security for the payment and performance of the Secured Obligations, each Grantor hereby grants to the Agent, for itself and on behalf of and for the ratable benefit of the other Secured Parties, a security interest in all of such Grantor's right, title and interest in, to and under all of such Grantor's personal property, wherever located and whether now existing or owned or hereafter acquired or arising, including the following property (collectively, the "Collateral"): (i) all Accounts; (ii) all Chattel Paper; (iii) all Commercial Tort Claims; (iv) all Deposit Accounts; (v) all Books and Documents; (vi) all Equipment; (vii) all General Intangibles; (viii) all Instruments; (ix) all Inventory; (x) all Investment Property; (xi) all Letter-of-Credit Rights; (xii) all other Goods; (xiii) all Intellectual Property Collateral; (xiv) all Rights to Payment; (xv) all Pledged Collateral; (xvi) all money; (xvii) all products and Proceeds of any and all of the foregoing; (xviii) all Supporting Obligations of any and all of the foregoing and (xviii) all IP Licenses; provided that the following property shall be excluded from the Collateral (collectively, the "Excluded Property"):

(A) motor vehicles or any other property or equipment subject to certificate of title laws or the perfection of a security interest in which is excluded from the UCC in the relevant jurisdiction;

(B) Excluded Accounts;

(C) any property to the extent that (i) the grant of a security interest therein is prohibited by or in violation of any law, rule or regulation applicable to such Grantor, or requires a consent not obtained of any Governmental Authority pursuant to any applicable law or regulation, or (ii) any grant of a security interest therein is prohibited by, constitutes a breach or default under, requires any consent not obtained under, or results in the termination of (or a termination right for any party thereto (other than the applicable Grantor)) any permit, lease, license, contract or agreement; provided, that such property shall not be excluded under this clause (ii) to the extent that such prohibition would be rendered unenforceable or otherwise deemed ineffective with respect to the creation of the security interest hereunder pursuant to Sections 9-406, 9-407, 9-408 or 9-409 of the UCC; provided, further that in the case of clauses (i) and (ii), such assets shall be included (and such security interest shall attach) immediately at such time as the contractual or legal prohibition shall no longer be applicable and to the extent severable, shall attach immediately to any portion of such property not subject to the provisions specified in clause (i) or (ii) above;

(D) any application for registration of a Trademark filed with the U.S. Patent and Trademark Office on an intent-to-use basis for which, and solely during the period in which, an amendment to allege use or a statement of use has not been filed under 15 U.S.C. Section 1051(c) or 15 U.S.C. Section 1051(d), respectively, or if filed, has not been deemed in conformance with 15 U.S.C. Section 1051(a) and accepted by the U.S. Patent and Trademark Office as set forth in the defined term "Intellectual Property Collateral";

(E) assets subject to capital leases, purchase money financing or similar arrangements permitted under the Credit Agreement (i) if the contractual provisions governing the relevant capital lease, purchase money financing or similar arrangement prohibits (or would require the consent of any Person other than the Borrower and its Affiliates which has not been obtained) the grant and/or perfection of a first priority Lien thereon to secure the Obligations or (ii) to the extent that any applicable law prohibits the creation of a Lien thereon, but only, with respect to the prohibition in (i) and (ii), to the extent, and for as long as, such prohibition is not terminated or rendered unenforceable or otherwise deemed ineffective by the UCC;

(F) Governmental Payment Accounts;

(G) any assets to the extent that such grant of a Lien thereon would reasonably be expected to result in material adverse tax consequences to the Grantors, as reasonably determined by the Borrower;

(H) any Capital Securities in partnerships, joint ventures and non-wholly owned Subsidiaries which cannot be pledged without the consent of one or more third parties (other than the Borrower or any of their Subsidiaries (after giving effect to any applicable anti-assignment provision of the UCC or other applicable law)) which has not been obtained or violates applicable law (provided, that (x) such requirement existed at the time of the acquisition of such asset and was not incurred in contemplation thereof and (y) such acquisition was permitted by the Loan Documents); and

(I) any other assets where the cost (or other consequences) of creating, attaching or perfecting of Lien thereon exceeds the practical benefit to the Secured Parties afforded thereby, as reasonably determined by the Agent and the Borrower;

provided, further, that the exclusions set forth in the foregoing clauses shall not apply to any Proceeds, products, substitutions or replacements of the foregoing property unless such Proceeds, products, substitutions or replacements would themselves constitute property excluded pursuant to foregoing clauses.

(b) Grantors Remain Liable. Notwithstanding anything herein to the contrary, (i) each Grantor shall remain liable under any contracts, agreements and other documents included in the Collateral, to the extent set forth therein, to perform all of its duties and obligations thereunder to the same extent as if this Agreement had not been executed, (ii) the exercise by the Agent of any of the rights granted to the Agent hereunder shall not release any Grantor from any of its duties or obligations under any such contracts, agreements and other documents included in the Collateral, and (iii) neither the Agent nor any other Secured Party shall have any obligation or liability under any such contracts, agreements and other documents included in the Collateral by reason of this Agreement, nor shall the Agent or any other Secured Party be obligated to perform any of the obligations or duties of any Grantor thereunder or to take any action to collect or enforce any such contract, agreement or other document included in the Collateral hereunder.

(c) Continuing Security Interest. Each Grantor agrees that this Agreement shall create a continuing security interest in the Collateral which shall remain in effect until terminated in accordance with Section 24.

SECTION 3 Perfection and Priority.

(a) Financing Statements, Etc. Each Grantor hereby authorizes the Agent (or its designee) to file at any time and from time to time any financing statements describing the Collateral (including describing the Collateral as “all assets” or “all personal property” of such Grantor, or words of similar effect), and each Grantor shall execute and deliver to the Agent, and each Grantor hereby authorizes the Agent (or its designee) to file (with or without such Grantor’s signature), at any time and from time to time, all amendments to financing statements, continuation financing statements, termination statements, Intellectual Property Security Agreements, assignments, fixture filings, affidavits, reports, notices and all other documents and instruments, in form satisfactory to the Agent, as the Agent or the Majority Lenders may reasonably request, to perfect, continue the perfection of, maintain the priority of or provide notice of the Agent’s security interest in the Collateral and to accomplish the purposes of this Agreement. Without limiting the generality of the foregoing, each Grantor (i) ratifies and authorizes the filing by the Agent (or its designee) of any financing statements filed with respect to the Collateral prior to the date hereof and (ii) shall from time to time take the actions specified in subsections (b) through (i) below.

(b) Delivery of Pledged Collateral. Each Grantor hereby agrees to deliver to or for the account of the Agent, at the address and to the Person to be designated by the Agent, the certificates, instruments and other writings representing any Pledged Collateral, to the extent certificated, which shall be in suitable form for transfer by delivery, or shall be accompanied by duly executed instruments of transfer or assignment in blank, in form satisfactory to the Agent. If any Grantor becomes entitled to receive or receives any Pledged Collateral after the date hereof, such Grantor shall accept the foregoing as the agent for the Agent, shall hold it in trust for the Agent, shall segregate it from other property or funds of such Grantor and shall promptly deliver the same and all certificates, instruments and other writings representing such Pledged Collateral forthwith to or for the account of the Agent, at the address and to the Person to be designated by the Agent, which shall be in suitable form for transfer by delivery, or shall be accompanied by duly executed instruments of transfer or assignment in blank in form satisfactory to the Agent.

(c) Transfer of Security Interest Other Than by Delivery. If for any reason Pledged Collateral cannot be delivered to or for the account of the Agent as provided in Section 3(b), each applicable Grantor shall promptly take such other steps as may be necessary or as reasonably requested from time to time by the Agent to effect a transfer of a perfected first priority security interest in and pledge of the Pledged Collateral to the Agent for itself and on behalf of and for the ratable benefit of the other Secured Parties pursuant to the UCC. As soon as practicable, each such Grantor shall thereafter deliver the Pledged Collateral to or for the account of the Agent as provided in Section 3(b).

(d) Intellectual Property Collateral.

(i) Each Grantor shall execute and deliver to the Agent, concurrently with the execution of this Agreement, such Intellectual Property Security Agreements as the Agent may reasonably request, and record or cause to be recorded (including by giving authorization to the Agent to so record) such Intellectual Property Security Agreements with the U.S. Copyright Office or the U.S. Patent and Trademark Office and any other intellectual property offices that the Agent may require, as applicable, and take any such other action as may be necessary, or as the Agent may request, to perfect the Agent's security interest in such Intellectual Property Collateral.

(ii) Promptly following the creation or other acquisition of any Intellectual Property Collateral created or acquired by any Grantor after the date hereof which is registered or becomes registered or the subject of an application for registration with the U.S. Copyright Office or the U.S. Patent and Trademark Office, as applicable, such Grantor shall modify this Agreement by amending Schedule 2 to include any Intellectual Property Collateral which becomes part of the Collateral and which was not included on Schedule 2 as of the date hereof and record such Intellectual Property Security Agreement with the U.S. Copyright Office or the U.S. Patent and Trademark Office and any other intellectual property offices that the Agent may request, as applicable, and take (or cause to be taken) such other action as may be necessary, or as the Agent or the Majority Lenders may request, to perfect the Agent's security interest in such Intellectual Property Collateral.

(e) Documents, Etc. Each Grantor shall deliver to the Agent, or an agent designated by it, appropriately endorsed or accompanied by appropriate instruments of transfer or assignment, all Documents and Chattel Paper, and all other Rights to Payment at any time evidenced by promissory notes, trade acceptances or other instruments, not already delivered hereunder pursuant to this Section 3. Upon the reasonable request of the Agent, the Grantors shall mark all Documents and Chattel Paper with such legends as the Agent shall reasonably specify.

(f) Bailees. Any Person (other than the Agent) at any time and from time to time holding all or any portion of the Collateral shall be deemed to, and shall, hold the Collateral as the agent of, and as pledge holder for, the Agent. At any time and from time to time, the Agent may give notice to any such Person holding all or any portion of the Collateral that such Person is holding the Collateral as the agent and bailee of, and as pledge holder for, the Agent, and obtain such Person's written acknowledgment thereof, in form and substance satisfactory to the Agent. Without limiting the generality of the foregoing, each Grantor will join with the Agent in notifying any Person who has possession of any Collateral of the Agent's security interest therein and obtaining an acknowledgment from such Person that it is holding the Collateral for the benefit of the Agent.

(g) Control. Each Grantor will cooperate with the Agent in obtaining control (as defined in the UCC) of or otherwise obtaining a perfected security interest in the Collateral consisting of any Deposit Accounts, Electronic Chattel Paper, Investment Property or Letter-of-Credit Rights, including delivery of Control Agreements, in form and substance satisfactory to the Agent, as the Agent may request, to perfect, continue the perfection of, maintain the priority of or provide notice of the Agent's security interest in such Collateral.

(h) Additional Capital Securities. In the event that any Grantor acquires any Pledged Collateral after the date hereof, such Grantor shall deliver to the Agent a pledge supplement, duly executed by such Grantor and substantially in the form of Exhibit B (the "Pledge Supplement"), together with all schedules thereto, reflecting such additional Pledged Collateral, and the certificates and other documents required to be delivered pursuant to Section 3(b) in respect of such additional Pledged Collateral. Notwithstanding the foregoing, it is understood and agreed that the security interest of the Agent shall attach to such Pledged Collateral immediately upon any Grantor's acquisition of rights therein and shall not be affected by the failure of any Grantor to deliver a Pledge Supplement.

(i) Further Assurances. Each Grantor agrees to, at its own expense, promptly execute and deliver all further instruments and documents and take all other commercially reasonable actions as the Agent may reasonably request to perfect, preserve and protect any security interest granted or purported to be granted hereby or to enable the Agent to exercise and enforce its rights and remedies hereunder with respect to any Collateral.

SECTION 4 Representations and Warranties. Each Grantor represents and warrants to each Secured Party that:

(a) Location of Chief Executive Office and Collateral. Such Grantor's chief executive office and principal place of business (as of the date of this Agreement) is located at the address set forth in Schedule 1, and all other locations (as of the date of this Agreement) where such Grantor conducts business or Collateral is kept are set forth in Schedule 1.

(b) Locations of Books. All locations where Books pertaining to the Rights to Payment of such Grantor are kept, including all equipment necessary for accessing such Books and the names and addresses of all service bureaus, computer or data processing companies and other Persons keeping any Books or collecting Rights to Payment for such Grantor, are set forth in Schedule 1.

(c) Jurisdiction of Organization and Names. Such Grantor's jurisdiction of organization is set forth in Schedule 1, and such Grantor's exact legal name is as set forth in the signature pages of this Agreement. All trade names and trade styles under which such Grantor presently conducts its business operations are set forth in Schedule 1, and, except as set forth in Schedule 1, such Grantor has not, at any time in the last five years: (i) been known as or used any other corporate, trade or fictitious name; (ii) changed its name; (iii) been the surviving or resulting corporation in a merger or consolidation; or (iv) acquired through asset purchase or otherwise any business of any Person.

(d) Collateral. Such Grantor has rights in or the power to transfer the Collateral, and such Grantor is the sole and complete owner of the Collateral (or, in the case of after-acquired Collateral, at the time such Grantor acquires rights in such Collateral, will be the sole and complete owner thereof), free from any Liens other than Permitted Liens.

(e) Enforceability; Priority of Security Interest.

(i) This Agreement creates a security interest which is enforceable against the Collateral in which such Grantor now has rights and will create a security interest which is enforceable against the Collateral in which such Grantor hereafter acquires rights at the time such Grantor acquires any such rights; and

(ii) the Agent has a perfected and first priority security interest in the Collateral in which such Grantor now has rights, and will have a perfected and first priority security interest in the Collateral in which such Grantor hereafter acquires rights at the time such Grantor acquires any such rights, in each case, for the Agent's own benefit and for the ratable benefit of the other Secured Parties, subject to Permitted Liens and securing the payment and performance of the Secured Obligations.

(f) Other Financing Statements. Other than (i) financing statements filed in connection with any Permitted Liens and (ii) financing statements in favor of the Agent for itself and on behalf of the other Secured Parties, no effective financing statement naming such Grantor as debtor, assignor, grantor, mortgagor, pledgor or the like and covering all or any part of the Collateral is on file in any filing or recording office in any jurisdiction.

(g) Rights to Payment.

(i) The Rights to Payment of such Grantor represent valid, binding and enforceable obligations of the account debtors or other Persons obligated thereon, representing undisputed, bona fide transactions completed in accordance with the terms and provisions contained in any documents related thereto unless such Rights to Payment are being disputed in good faith by such Grantor and the amount in dispute does not exceed $150,000 in the aggregate, and are and will be genuine and what they purport to be;

(ii) such Grantor has not assigned any of its rights under any of its Rights to Payment except as provided in this Agreement or as set forth in the other Loan Documents; and

(iii) all Rights to Payment of such Grantor comply in all material respects with all applicable laws concerning form, content and manner of preparation and execution.

(h) Inventory. No Inventory of such Grantor is stored with any bailee, warehouseman or similar Person or on any premises leased to such Grantor, no such Inventory has been consigned to such Grantor or consigned by such Grantor to any Person, nor is any such Inventory held by such Grantor for any Person under any "bill and hold" or other arrangement, except as set forth in Schedule 1.

(i) Intellectual Property. Except as set forth in Schedule 2, such Grantor does not (directly or through any Subsidiary) own, possess or use under any licensing arrangement (other than software that is commercially available to the public) any Intellectual Property, nor is there currently pending before any Governmental Authority any application for registration of any Intellectual Property. The Intellectual Property owned by each Grantor is valid and enforceable, and where the subject of a registration or application for registration, subsisting. Neither the use of any Intellectual Property of any Grantor, nor the operation of any Grantor's business infringes, misappropriates or otherwise violates the Intellectual Property of any other Person. The Grantors exclusively own, or have a valid, enforceable license to, all Intellectual Property used in, necessary for or otherwise material to the operation of the business of the Grantors. Each employee, contractor or other Person responsible for the development, invention or creation of any Intellectual Property owned or purported to be owned by a Grantor has executed a valid, enforceable agreement with such Grantor, whereby such employee, contractor or other Person has assigned to such Grantor, pursuant to present, affirmative assignment language, all right, title and interest in and to such Intellectual Property.

(j) Equipment. None of the Equipment that constitutes Collateral is leased from or to any Person, except as set forth in Schedule 1 or as otherwise disclosed to the Agent and the Lenders.

(k) Deposit Accounts. The names and addresses of all financial institutions at which such Grantor maintains its Deposit Accounts, and the account numbers and account names of such Deposit Accounts, are set forth in Schedule 1.

(l) Instrument Collateral. (i) Such Grantor has not previously assigned any interest in any Instruments held by such Grantor (other than such interests as will be released on or before the date hereof), (ii) no Person other than such Grantor owns an interest in such Instruments (whether as joint holders, participants or otherwise), and (iii) no material default exists under or in respect of such Instruments.

(m) Pledged Shares, Partnership and LLC Collateral and other Pledged Collateral. (i) All of the Pledged Shares and Partnership and LLC Collateral of such Grantor have been, and upon issuance any additional Pledged Collateral consisting of Pledged Shares, Partnership and LLC Collateral or any other Capital Securities of such Grantor, will be, duly and validly issued, and are and will be fully paid and non-assessable, subject in the case of Partnership and LLC Collateral to future assessments required under applicable law and any applicable partnership or operating agreement, (ii) such Grantor is or, in the case of any such additional Pledged Collateral, will be, the legal record and beneficial owner thereof, (iii) there are no restrictions on the transferability of such Pledged Collateral or such additional Pledged Collateral to the Agent or with respect to the foreclosure, transfer or disposition thereof by the Agent, except as provided under applicable securities or "Blue Sky" laws, (iv) the Pledged Shares and Partnership and LLC Collateral of such Grantor constitute 100% of the issued and outstanding Capital Securities of all directly and indirectly owned Subsidiaries of such Grantor, and no securities convertible into or exchangeable for any Capital Securities of any such Subsidiary, or any options, warrants or other commitments entitling any Person to purchase or otherwise acquire any Capital Securities of any such Subsidiary, are issued and outstanding, (v) any and all Pledged Collateral Agreements which affect or relate to the voting or giving of written consents with respect to any of the Pledged Shares pledged by such Grantor, and any and all other Pledged Collateral Agreements relating to the Partnership and LLC Collateral of such Grantor, have been disclosed in writing to the Agent and the Lenders, and (vi) as to each such Pledged Collateral Agreement relating to the Partnership and LLC Collateral of such Grantor (A) such agreement contains the entire agreement between the parties thereto with respect to the subject matter thereof, has not been amended or modified, and is in full force and effect in accordance with its terms, (B) there exists no material violation or material default under any such agreement by such Grantor or, to the best knowledge of such Grantor party thereto, the other parties thereto, and (C) such Grantor has not knowingly waived or released any of its material rights under or otherwise consented to a material departure from the terms and provisions of any such agreement.

(n) Other Investment Property; Instruments; and Chattel Paper. All Securities Accounts of such Grantor and other Investment Property of such Grantor are set forth in Schedule 1, and all Instruments and Chattel Paper held by such Grantor are also set forth in Schedule 1.

(o) Control Agreements. No Control Agreements exist with respect to any Collateral held by such Grantor other than any Control Agreements in favor of the Agent.

(p) Letter-of-Credit Rights. Such Grantor does not have any Letter-of-Credit Rights except as set forth in Schedule 1.

(q) Commercial Tort Claims. Such Grantor does not have any Commercial Tort Claims except as set forth in Schedule 1.

(r) Leases. Such Grantor is not and will not become a lessee, sublessee or licensee under any real property lease, sublease, license or other agreement governing the location of Collateral at the premises of another Person, including those agreements set forth under the heading, "Real Estate Leases" on Schedule 6.17 to the Credit Agreement (together with any amendments, modifications, supplements, addenda, replacements and renewals thereof, each, a "Lease") pursuant to which the lessor or such other Person may obtain any rights in any of the Collateral unless such Grantor uses commercially reasonable efforts to obtain a Leasehold Mortgage from the lessor thereof in favor of Agent in accordance with the terms and provisions of the Credit Agreement.

SECTION 5 Covenants. So long as any of the Secured Obligations (other than inchoate indemnification and expense reimbursement obligations for which no claim has been asserted) remain outstanding, each Grantor agrees that:

(a) Defense of Collateral. Such Grantor will appear in and defend any action, suit or proceeding which may affect to a material extent its title to, or right or interest in, or the Agent's right or interest in, the Collateral.

(b) Preservation of Collateral. Such Grantor will do and perform all reasonable acts that may be necessary and appropriate to maintain, preserve and protect the Collateral.

(c) Compliance with Laws, Etc. Such Grantor will comply with all laws, regulations and ordinances, and all policies of insurance, relating to the possession, operation, maintenance and control of the Collateral having a value in excess of $150,000 in the aggregate.

(d) Location of Books and Chief Executive Office. Such Grantor will: (i) keep all Books pertaining to the Rights to Payment of such Grantor at the locations set forth in Schedule 1; and (ii) give at least ten (10) days' prior written notice to the Agent of (A) any changes in any location where Books pertaining to the Rights to Payment of such Grantor are kept, including any change of name or address of any service bureau, computer or data processing company or other Person preparing or maintaining any such Books or collecting Rights to Payment for such Grantor or (B) any changes in the location of such Grantor's chief executive office or principal place of business.

(e) Location of Collateral. Such Grantor will:

(i) keep the Collateral held by such Grantor at the locations set forth in Schedule 1 or at such other locations as may be disclosed in writing to the Agent pursuant to clause (ii) and will not remove any such Collateral from such locations (other than in connection with sales of Inventory in the ordinary course of such Grantor's business, other dispositions permitted hereunder or under the Credit Agreement and movements of Collateral from one disclosed location to another disclosed location within the United States), except upon at least ten (10) days' prior written notice of any removal to the Agent; and

(ii) give the Agent at least ten (10) days' prior written notice of any change in the locations set forth in Schedule 1.

(f) Change in Name, Identity or Structure. No Grantor will (i) change its legal name or any trade name used to identify it in the conduct of its business or ownership of its properties, (ii) change its jurisdiction of organization or legal structure, (iii) relocate its chief executive office, principal place of business or any office in which it maintains books or records relating to its business (including the establishment of any new office or facility), (iii) change its registration as an organization or (iv) otherwise make any changes in its identity or structure in any manner which might make any financing statement filed hereunder incorrect or misleading.

(g) Maintenance of Records. Such Grantor will keep separate, accurate and complete Books with respect to the Collateral held by or owned by such Grantor, disclosing the Agent's security interest hereunder.

(h) Disposition of Collateral. Such Grantor will not surrender or lose possession of (other than to the Agent), sell, lease, rent, or otherwise dispose of or transfer any of the Collateral held by or owned by such Grantor or any right or interest therein, other than Permitted Dispositions.

(i) Liens. Such Grantor will keep the Collateral held by such Grantor free of all Liens except Permitted Liens.

(j) Leased Premises; Collateral Held by Warehouseman, Bailee, Etc. Except for the Landlord Consents, SNDAs and Leasehold Mortgage required to be delivered pursuant to Section 7.13 of the Credit Agreement, such Grantor hereby agrees to use commercially reasonable efforts to deliver to the Agent, within sixty (60) days after the Closing Date (or such later date as the Agent may agree to in its sole discretion) from each Person from whom such Grantor leases any premises, and from each other Person at whose premises any Collateral held by such Grantor is at any time present (including any bailee, warehouseman or similar Person), any such Bailee Letter, Leasehold Mortgage, collateral access, subordination, consent and estoppel agreements as the Agent may reasonably require, in form and substance satisfactory to the Agent. With respect to any new Lease or modification or amendment to a Lease, each Grantor will use commercially reasonable efforts to include therein a waiver of the lessor lien rights, including a waiver of all statutory lien rights, to the Collateral and a requirement for such lessor to enter into a Landlord Consent and deliver a SNDA in form and substance satisfactory to the Agent. Further, with respect to any new Lease or other agreements or arrangements entered into or occurring after the date hereof, each Grantor hereby agrees to use commercially reasonable efforts to deliver to Agent from each Person from whom such Grantor leases any premises, and from each other Person at whose premises any Collateral held by such Grantor is at any time present (including any bailee, warehouseman or similar Person), any such Bailee Letter, Landlord Consent, SNDA, Leasehold Mortgage, collateral access, subordination, consent and estoppel agreements as the Agent may reasonably require, in form and substance satisfactory to the Agent.

(k) Rights to Payment. Such Grantor will:

(i) as may be required under the Credit Agreement, furnish to the Agent full and complete reports, in form and substance satisfactory to the Agent, with respect to the Accounts;

(ii) if any Accounts of such Grantor arise from contracts with the United States or any department, agency or instrumentality thereof, promptly notify the Agent thereof and execute any documents and instruments and take any other steps reasonably requested by the Agent in order that all monies due and to become due thereunder shall be assigned to the Agent and notice thereof given to the Federal authorities under the Federal Assignment of Claims Act;

(iii) upon the written request of the Agent upon the occurrence and during the continuation of an Event of Default (A) notify all or any designated portion of the account debtors and other obligors on the Rights to Payment of such Grantor of the security interest hereunder, and (B) notify the account debtors and other obligors on the Rights to Payment or any designated portion thereof that payment shall be made directly to the Agent or to such other Person or location as the Agent shall specify; and

(iv) upon the occurrence and during the continuation of any Event of Default, establish such lockbox or similar arrangements for the payment of the Accounts and other Rights to Payment of such Grantor as the Agent shall require.

(l) Instruments, Investment Property, Etc. Upon the written request of the Agent, such Grantor will (i) promptly deliver to the Agent, or an agent designated by it, appropriately endorsed or accompanied by appropriate instruments of transfer or assignment, all Instruments, Documents, Chattel Paper and certificated Capital Securities with respect to any Investment Property held by such Grantor, all letters of credit of such Grantor, and all other Rights to Payment held by such Grantor at any time evidenced by promissory notes, trade acceptances or other instruments, (ii) cause any securities intermediaries to show on their books that the Agent is the entitlement holder with respect to any Investment Property held by such securities intermediary on behalf of such Grantor, and/or obtain Control Agreements in favor of the Agent from such securities intermediaries, in form and substance satisfactory to the Agent, with respect to any such Investment Property, as reasonably requested by the Agent, and (iii) provide such notice, obtain such acknowledgments and take all such other action, with respect to any Chattel Paper, Documents and Letter-of-Credit Rights held by such Grantor, as the Agent shall reasonably specify.

(m) Deposit Accounts and Securities Accounts. Such Grantor will give the Agent prompt notice of the establishment of any new Deposit Account and of any new Securities Account established by such Grantor with respect to any Investment Property held by such Grantor.

(n) Inventory. Other than those locations identified in Schedule 1, such Grantor will not (i) store any Inventory with a bailee, warehouseman or similar Person or on premises leased to such Grantor, (ii) dispose of any Inventory on a bill-and-hold, guaranteed sale, sale and return, sale on approval, consignment or similar basis, or (iii) acquire any Inventory from any Person on any such basis.

(o) Intellectual Property Collateral. Such Grantor:

(i) will not allow or suffer any Intellectual Property Collateral held by such Grantor to lapse or become abandoned, nor any registration thereof to be terminated, forfeited, expired or dedicated to the public, except as reasonable and appropriate in accordance with prudent business practices;

(ii) will diligently prosecute all applications for Patents and Trademarks, and file and prosecute any and all continuations, continuations-in-part, applications for reissue, applications for certificate of correction and like matters as reasonable and appropriate in accordance with prudent business practice, and promptly and timely pay any and all maintenance, license, registration and other fees, Taxes and expenses incurred in connection with any Intellectual Property Collateral held by such Grantor; and

(iii) will not license any Intellectual Property Collateral to any third party except to the extent expressly permitted by the Credit Agreement.

(p) Notices, Reports and Information. Such Grantor will (i) promptly notify the Agent of any other modifications of or additions to the information contained in Schedule 1 (including any acquisition or holding of an interest in any Chattel Paper, Commercial Tort Claims and Letter-of-Credit Rights); (ii) promptly notify the Agent of any claim made or asserted against the Collateral having a value in excess of $150,000 in the aggregate by any Person and of any change in the composition of the Collateral or other event which could materially adversely affect the value of the Collateral or the Agent's security interest thereon; (iii) promptly furnish to the Agent such listings, descriptions and schedules with respect to the Equipment and Inventory of such Grantor, and such other reports and other information in connection with the Collateral, as the Agent may reasonably request in writing, all in reasonable detail; and (iv) upon the reasonable written request of the Agent make such demands and requests for information and reports as such Grantor is entitled to make in respect of the Collateral.

(q) Shareholder Agreements and Other Agreements. Such Grantor shall:

(i) comply in all material respects with all of its obligations under any shareholders agreement, operating agreement, partnership agreement, voting trust, proxy agreement or other agreement or understanding (collectively, the "Pledged Collateral Agreements") to which it is a party and shall enforce all of its rights thereunder;

(ii) take all actions necessary to cause each such Pledged Collateral Agreement relating to Partnership and LLC Collateral to (A) not include in its Pledged Collateral Agreements any provision that any Capital Securities in such Partnership and LLC Collateral be a "security" as defined under Article 8 of the UCC; and (B) provide specifically at all times that no consent of any member, manager, partner or other Person shall be a condition to the admission as a member or partner of any transferee (including the Agent) that acquires ownership of such Partnership and LLC Collateral as a result of the exercise by the Agent of any remedy hereunder or under applicable Law;

(iii) not take vote or enable to take any other action to certificate any Pledged Shares or Partnership and LLC Collateral of any Grantor to the extent such Pledged Shares or Partnership and LLC Collateral is not certificated as of the Closing Date, unless such Grantor delivers a certificate evidencing such Capital Security to the Agent in accordance with this Agreement; and

(iv) not vote to enable or take any other action to: (A) amend or terminate, or waive compliance with any of the terms of, any such Pledged Collateral Agreement, certificate or articles of incorporation, bylaws or other organizational documents in any way that materially changes the rights of such Grantor with respect to any such Pledged Collateral in a manner materially adverse to the Agent or the other Secured Parties or that adversely affects the validity, perfection or priority of the Agent's security interest therein.

(v) Additionally, such Grantor agrees that no such Partnership and LLC Collateral (A) shall be dealt in or traded on any securities exchange or in any securities market, (B) shall constitute an investment company security, or (C) shall be held by such Grantor in a Securities Account.

(r) Insurance. Such Grantor shall:

(i) carry and maintain in full force and effect, at the expense of such Grantor and with financially sound and reputable insurance companies, insurance with respect to the Collateral held by such Grantor in such amounts, with such deductibles and covering such risks in accordance with Section 7.4 of the Credit Agreement. Upon the reasonable written request of the Agent, and in any event not less often than annually, such Grantor shall furnish the Agent with full information as to the insurance carried by it and, if so requested, copies of all such insurance policies. All insurance policies required under this subsection (r) shall provide that they shall not be terminated or cancelled without at least thirty (30) days' prior written notice to the applicable Grantor and the Agent (or ten (10) days' prior written notice if the Agent consents to such shorter notice). Receipt of notice of termination or cancellation of any such insurance policies or reduction of coverages or amounts thereunder shall entitle the Agent to renew any such policies, cause the coverages and amounts thereof to be maintained at levels required pursuant to the first sentence of this subsection (r) or otherwise to obtain similar insurance in place of such policies, in each case at the expense of the Grantors; and

(ii) give prompt notice to the Agent if there is an Event of Loss in connection with any Collateral of such Grantor and make any mandatory prepayments of the Loans to the extent required by Section 3.2(c) of the Credit Agreement.

SECTION 6 Rights to Payment and Pledged Collateral.

(a) Collection of Rights to Payment. Until the Agent exercises its rights hereunder to collect any Rights to Payment of any Grantor, each such Grantor shall endeavor in the first instance diligently to collect all amounts due or to become due on or with respect to the Rights to Payment held by such Grantor. At the request of the Agent, upon the occurrence and during the continuation of any Event of Default, all remittances received by such Grantor shall be held in trust for the Agent and, in accordance with the Agent's instructions, remitted to the Agent or deposited to an account with the Agent in the form received (with any necessary endorsements or instruments of assignment or transfer) to be applied to the repayment of the Loans in accordance with the terms of the Credit Agreement.

(b) Pledged Collateral. Unless and until an Event of Default has occurred and is continuing, each Grantor shall be entitled to receive and retain for its own account any cash dividend on or other cash distribution or payment, if any, in respect of the Pledged Collateral, to the extent consistent with the Credit Agreement or the Guaranty, as applicable; provided, however, that, except in connection with transactions permitted under Section 8.5 or Section 8.6 of the Credit Agreement, such Grantor shall not be entitled to receive (i) cash paid, payable or otherwise distributed in redemption of, or in exchange for or in substitution of, any Pledged Collateral held by such Grantor, or (ii) dividends and other distributions paid or payable in cash in respect of any such Pledged Collateral in connection with a partial or total liquidation or dissolution of any Person whose ownership interests constitute Pledged Collateral or in connection with a reduction of capital, capital surplus or paid-in-surplus or any other type of recapitalization involving any such Person. At the written request of the Agent, upon the occurrence and during the continuation of any Event of Default, the Agent shall be entitled to receive all distributions and payments of any nature with respect to any Pledged Collateral, and all such distributions or payments received by such Grantor shall be held in trust for the Agent and, in accordance with the Agent's instructions, remitted to the Agent or deposited to an account with the Agent in the form received (with any necessary endorsements or instruments of assignment or transfer). Following the occurrence and continuation of an Event of Default, any such distributions and payments with respect to any such Pledged Collateral held in any Securities Account shall be held and retained in such Securities Account, in each case as part of the Collateral hereunder. Additionally, the Agent shall have the right, upon the occurrence and continuation of an Event of Default, following prior written notice to any applicable Grantor, to vote and to give consents, ratifications and waivers with respect to any Pledged Collateral held by such Grantor, and to exercise all rights of conversion, exchange, subscription or any other rights, privileges or options pertaining thereto, as if the Agent were the absolute owner thereof; provided that the Agent shall have no duty to exercise any of the foregoing rights afforded to it and shall not be responsible to such Grantor or any other Person for any failure to do so or delay in doing so.

(c) Voting Prior to an Event of Default. Unless and until an Event of Default has occurred and is continuing, each Grantor shall have the right to vote the Pledged Collateral held by such Grantor and to give consents, ratifications and waivers in respect thereof, and shall retain the power to control the direction, management and policies of any Person comprising such Pledged Collateral to the same extent as such Grantor would if such Pledged Collateral were not pledged to the Agent pursuant to this Agreement; provided, however, that no vote shall be cast or consent, waiver or ratification given or action taken which would have the effect of materially impairing the position or interest of the Agent and the other Secured Parties in respect of such Pledged Collateral or which would alter the voting rights with respect to the stock or other ownership interest in or of any such Person or be inconsistent with or violate any provision of this Agreement, the Credit Agreement, or any other Loan Documents. If applicable, such Grantor shall be deemed the beneficial owner of all such Pledged Collateral for purposes of Sections 13 and 16 of the Exchange Act and agrees to file all reports required to be filed by beneficial owners of securities thereunder. The Agent shall execute and deliver (or cause to be executed and delivered) to each Grantor all such proxies and other instruments as such Grantor may reasonably request for the purpose of enabling such Grantor to exercise the voting and other rights which it is entitled to exercise pursuant to this subsection (c) and to receive the distributions which it is authorized to receive and retain pursuant to this subsection (c).

(d) Certain Other Administrative Matters. Following the occurrence and continuation of an Event of Default, the Agent may cause any of the Pledged Collateral to be transferred into its name or into the name of its nominee or nominees (subject to the revocable rights specified in this Section 6). The Agent shall at all times have the right to exchange uncertificated Pledged Collateral for certificated Pledged Collateral, and to exchange certificated Pledged Collateral for certificates of larger or smaller denominations, for any purpose consistent with this Agreement.

SECTION 7 Authorization; Agent Appointed Attorney-in-Fact. In addition to (and not in limitation of) any other right or remedy provided to the Agent hereunder, the Agent shall have the right to, in the name of any Grantor, or in the name of the Agent or otherwise, without notice to or assent by any such Grantor, and each Grantor hereby constitutes and appoints the Agent (and any of the Agent's officers or employees or agents designated by the Agent) as such Grantor's true and lawful attorney-in-fact, with full power and authority to:

(a) file any of the financing statements which must be filed to perfect or continue to perfect, maintain the priority of or provide notice of the Agent's security interest in the Collateral;

(b) take possession of and endorse any notes, acceptances, checks, drafts, money orders or other forms of payment or security and collect any Proceeds of any Collateral;

(c) sign and endorse any invoice or bill of lading relating to any of the Collateral, warehouse or storage receipts, drafts against customers or other obligors, assignments, notices of assignment, verifications and notices to customers or other obligors;

(d) notify the U.S. Postal Service and other postal authorities to change the address for delivery of mail addressed to such Grantor to such address as the Agent may designate; and, without limiting the generality of the foregoing, establish with any Person lockbox or similar arrangements for the payment of the Rights to Payment of such Grantor;

(e) receive, open and dispose of all mail addressed to such Grantor;

(f) send requests for verification of Rights to Payment to the customers or other obligors of such Grantor;

(g) contact, or direct such Grantor to contact, all account debtors and other obligors on the Rights to Payment of such Grantor and instruct such account debtors and other obligors to make all payments directly to the Agent;

(h) assert, adjust, sue for, compromise or release any claims under any policies of insurance;

(i) exercise dominion and control over, and refuse to permit further withdrawals from, any Deposit Accounts of such Grantor maintained with the Agent, any Lender or any other bank, financial institution or other Person;

(j) notify each Person maintaining lockbox or similar arrangements for the payment of the Rights to Payment of such Grantor to remit all amounts representing collections on such Rights to Payment directly to the Agent;

(k) ask, demand, collect, receive and give acquittances and receipts for any and all Rights to Payment of such Grantor, enforce payment or any other rights in respect of the Rights to Payment and other Collateral, grant consents, agree to any amendments, modifications or waivers of the agreements and documents governing such Rights to Payment and other Collateral, and otherwise file any claims, take any action or institute, defend, settle or adjust any actions, suits or proceedings with respect to the Collateral, as the Agent may deem necessary or desirable to maintain, preserve and protect the Collateral, to collect the Collateral or to enforce the rights of the Agent with respect to the Collateral;

(l) execute any and all applications, documents, papers and instruments necessary for the Agent to use the Intellectual Property Collateral and grant or issue any exclusive or non-exclusive license or sublicense with respect to any Intellectual Property Collateral;

(m) execute any and all endorsements, assignments or other documents and instruments necessary to sell, lease, assign, convey or otherwise transfer title in or dispose of the Collateral;

(n) execute and deliver to any securities intermediary or other Person any entitlement order or other notice, document or instrument which the Agent may deem necessary or advisable to maintain, protect, realize upon and preserve the Deposit Accounts and Investment Property of such Grantor and the Agent's security interest therein; and

(o) execute any and all such other documents and instruments, and do any and all acts and things for and on behalf of such Grantor, in each case which the Agent may deem necessary or advisable to maintain, protect, realize upon and preserve the Collateral and the Agent's security interest therein and to accomplish the purposes of this Agreement.

The Agent agrees that, except upon the occurrence and continuation of an Event of Default, it shall not exercise the power of attorney, or any rights granted to the Agent, pursuant to clauses (b) through (o). The foregoing power of attorney is coupled with an interest and irrevocable so long as the Secured Obligations (other than inchoate indemnification and expense reimbursement obligations for which no claim has been asserted) have not been Paid In Full. Each Grantor hereby ratifies, to the extent permitted by law, all that the Agent shall lawfully and in good faith do or cause to be done by virtue of and in compliance with this Section 7.

SECTION 8 Agent Performance of Grantor Obligations. The Agent may perform or pay any obligation which any Grantor has agreed to perform or pay under or in connection with this Agreement, and such Grantor shall reimburse the Agent on written demand for any amounts paid, or costs incurred, by the Agent pursuant to this Section 8.

SECTION 9 Agent's Duties. Notwithstanding any provision contained in this Agreement, the Agent shall have no duty to exercise any of the rights, privileges or powers afforded to it and shall not be responsible to any Grantor or any other Person for any failure to do so or delay in doing so. Beyond the exercise of reasonable care to assure the safe custody of Collateral in the Agent's possession and the accounting for moneys actually received by the Agent hereunder and as otherwise required by applicable law, the Agent shall have no duty or liability to exercise or preserve any rights, privileges or powers pertaining to the Collateral.

SECTION 10 Remedies.

(a) Remedies. Upon the occurrence and during the continuation of any Event of Default, the Agent shall have, in addition to all other rights and remedies granted to it in this Agreement, the Credit Agreement, the Guaranty or any other Loan Document, all rights and remedies of a secured party under the UCC and other applicable laws. Without limiting the generality of the foregoing, each Grantor agrees that:

(i) The Agent may collect, receive, appropriate and realize upon all or any part of the Collateral, and demand, give receipt for, settle, renew, extend, exchange, compromise, adjust, or sue for all or any part of the Collateral, as the Agent may determine.

(ii) The Agent may require such Grantor to assemble all or any part of the Collateral and make it available to the Agent, at any place and time designated by the Agent.

(iii) The Agent may use or transfer any of such Grantor's rights and interests in any Intellectual Property Collateral, by license, by sublicense (to the extent permitted by an applicable license) or otherwise, on such conditions and in such manner as the Agent may reasonably determine.

(iv) The Agent may secure the appointment of a receiver of the Collateral or any part thereof (to the extent and in the manner provided by applicable law).

(v) The Agent may withdraw (or cause to be withdrawn) any and all funds from any Deposit Accounts or Securities Accounts.

(vi) The Agent may sell, resell, lease, use, assign, transfer or otherwise dispose of any or all of the Collateral in its then condition or following any commercially reasonable preparation or processing (utilizing in connection therewith any of such Grantor's assets, without charge or liability to the Agent therefor) at public or private sale, by one or more contracts, in one or more parcels, at the same or different times, for cash or credit or for future delivery without assumption of any credit risk, all as the Agent deems advisable in accordance with the UCC or other applicable law; provided, however, that such Grantor shall be credited with the net proceeds of sale only when such proceeds are finally collected by the Agent. The Agent and each of the other Secured Parties shall have the right upon any such public sale, and, to the extent permitted by law, upon any such private sale, to purchase the whole or any part of the Collateral so sold, free of any right or equity of redemption, which right or equity of redemption such Grantor hereby releases, to the extent permitted by law. The Agent shall give such Grantor such notice of any public or private sale as may be required by the UCC or other applicable law. Such Grantor recognizes that the Agent may be unable to make a public sale of any or all of the Pledged Collateral, by reason of prohibitions contained in applicable securities laws or otherwise, and expressly agrees that a private sale to a restricted group of purchasers for investment and not with a view to any distribution thereof shall be considered a commercially reasonable sale.

(vii) Neither the Agent nor any other Secured Party shall have any obligation to clean up or otherwise prepare the Collateral for sale. The Agent has no obligation to attempt to satisfy the Secured Obligations by collecting them from any other Person liable for them and the Agent and the other Secured Parties may release, modify or waive any Collateral provided by any other Person to secure any of the Secured Obligations, all without affecting the Agent's or any other Secured Party's rights against such Grantor. Such Grantor waives any right it may have to require the Agent or any other Secured Party to pursue any third Person for any of the Secured Obligations. The Agent and the other Secured Parties may comply with any applicable state or federal law requirements in connection with a disposition of the Collateral and compliance will not be considered adversely to affect the commercial reasonableness of any sale of the Collateral so long as the Agent and the Secured Parties have complied with the UCC or other applicable law in connection with the disposition of any Collateral. The Agent may sell the Collateral without giving any warranties as to the Collateral. The Agent may specifically disclaim any warranties of title or the like. This procedure will not be considered adversely to affect the commercial reasonableness of any sale of the Collateral. If the Agent sells any of the Collateral upon credit, such Grantor will be credited only with payments actually made by the purchaser, received by the Agent and applied to the indebtedness of the purchaser. In the event the purchaser fails to pay for the Collateral, the Agent may resell the Collateral and the Grantors shall be credited with the proceeds of the sale.

(b) License. For the purpose of enabling the Agent to exercise its rights and remedies under this Section 10 or otherwise in connection with this Agreement, each Grantor hereby grants to the Agent an irrevocable, non-exclusive and assignable license (exercisable without payment or royalty or other compensation to such Grantor) to use, license or sublicense any Intellectual Property Collateral.

(c) Application of Proceeds. The cash proceeds actually received from the sale or other disposition or collection of any Grantor's Collateral, and any other amounts received in respect of such Collateral the application of which is not otherwise provided for herein, shall be applied as provided in Section 4.4(b) of the Credit Agreement. Any surplus thereof which exists after payment and performance in full of the Secured Obligations shall be promptly paid over to such Grantor or otherwise disposed of in accordance with the UCC or other applicable law. Each Grantor shall remain liable to the Agent and the other Secured Parties for any deficiency which exists after any sale or other disposition or collection of Collateral.

SECTION 11 Certain Waivers. Each Grantor waives, to the fullest extent permitted by law, (a) any right of redemption with respect to the Collateral, whether before or after sale hereunder, and all rights, if any, of marshalling of the Collateral or other collateral or security for the Secured Obligations; (b) any right to require the Agent or the other Secured Parties (i) to proceed against any Person, (ii) to exhaust any other collateral or security for any of the Secured Obligations, (iii) to pursue any remedy in the Agent's or any of the other Secured Parties' power, or (iv) to make or give any presentments, demands for performance, notices of nonperformance, protests, notices of protests or notices of dishonor in connection with any of the Collateral; and (c) all claims, damages, and demands against the Agent or the other Secured Parties arising out of the repossession, retention, sale or application of the proceeds of any sale of the Collateral.

SECTION 12 Notices. All notices or other communications hereunder shall be given in the manner and to the addresses specified in Section 11.2 of the Credit Agreement. Any notice, if mailed and properly addressed with postage prepaid or if properly addressed and sent by pre-paid courier service, shall be deemed given when received; any notice, if transmitted by facsimile or email, shall be deemed given when the confirmation of transmission thereof is received by the transmitter.

SECTION 13 No Waiver; Cumulative Remedies. No failure on the part of the Agent or any other Secured Party to exercise, and no delay in exercising, any right, remedy, power or privilege hereunder shall operate as a waiver thereof, nor shall any single or partial exercise of any such right, remedy, power or privilege preclude any other or further exercise thereof or the exercise of any other right, remedy, power or privilege. The rights and remedies under this Agreement are cumulative and not exclusive of any rights, remedies, powers and privileges that may otherwise be available to the Agent or any other Secured Party.

SECTION 14 Binding Effect. This Agreement shall be binding upon, inure to the benefit of and be enforceable by each Grantor, the Agent, each Secured Party and their respective successors and permitted assigns and shall bind any Person who becomes bound as a debtor, agent or secured party to this Agreement.

SECTION 15 Governing Law. THIS AGREEMENT AND ANY CLAIMS, CONTROVERSY, DISPUTE OR CAUSE OF ACTION (WHETHER IN CONTRACT OR TORT OR OTHERWISE) BASED UPON, ARISING OUT OF OR RELATING TO THIS AGREEMENT OR ANY OTHER LOAN DOCUMENT CONTEMPLATED HEREBY SHALL BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH, THE INTERNAL LAWS OF THE STATE OF NEW YORK (INCLUDING FOR SUCH PURPOSE SECTIONS 5-1401 AND 5-1402 OF THE GENERAL OBLIGATIONS LAW OF THE STATE OF NEW YORK).

SECTION 16 Submission to Jurisdiction.

(a) Submission to Jurisdiction. Any litigation based hereon, or arising out of, under, or in connection with, this Agreement, or any course of conduct, course of dealing, statements (whether oral or written) or actions of the Agent or any Grantor (or any of their Subsidiaries) in connection herewith shall be brought and maintained in the courts of the Borough of Manhattan in the City of New York in the State of New York or in the United States District Court for the Southern District of New York; provided that any suit seeking enforcement against any Collateral or other property may be brought, at the Agent's option, in the courts of any jurisdiction where such Collateral or property may be found.

(b) Waiver of Venue. Each party hereby expressly and irrevocably waives, to the fullest extent permitted by law, any objection which it may have or hereafter may have to the laying of venue of any such litigation brought in any such court referred to above and any claim that any such litigation has been brought in an inconvenient forum. To the extent that any party has or hereafter may acquire any immunity from jurisdiction of any court or from any legal process (whether through service or notice, attachment prior to judgment, attachment in aid of execution or otherwise) with respect to itself or its property, such party hereby irrevocably waives to the fullest extent permitted by law such immunity in respect of its obligations, including the Secured Obligations, hereunder.

(c) Service of Process. Each party irrevocably consents to the service of process by registered mail, postage prepaid, or by personal service within or without the State of New York at the address for notices specified in Section 11.2 of the Credit Agreement. Nothing in this Agreement will affect the right of any party hereto to serve process in any other manner permitted by applicable law.

SECTION 17 Waiver of Jury Trial and Judicial Reference Provision. EACH PARTY HERETO HEREBY KNOWINGLY, VOLUNTARILY AND INTENTIONALLY WAIVES TO THE FULLEST EXTENT PERMITTED BY LAW ANY RIGHTS THEY MAY HAVE TO A TRIAL BY JURY IN RESPECT OF ANY LITIGATION BASED HEREON, OR ARISING OUT OF, UNDER, OR IN CONNECTION WITH, THIS AGREEMENT, OR ANY COURSE OF CONDUCT, COURSE OF DEALING, STATEMENTS (WHETHER ORAL OR WRITTEN) OR ACTIONS OF ANY SUCH PARTY IN CONNECTION HEREWITH. EACH PARTY ACKNOWLEDGES AND AGREES THAT IT HAS RECEIVED FULL AND SUFFICIENT CONSIDERATION FOR THIS PROVISION (AND EACH OTHER PROVISION OF EACH OTHER LOAN DOCUMENT TO WHICH IT IS A PARTY) AND THAT THIS PROVISION IS A MATERIAL INDUCEMENT FOR THE AGENT AND THE LENDERS ENTERING INTO THE LOAN DOCUMENTS.

If any action or proceeding is filed in a court of the State of California by or against any party hereto in connection with any of the transactions contemplated by this Agreement or any other Loan Document, (a) the court shall, and is hereby directed to, make a general reference pursuant to California Code of Civil Procedure Section 638 to a referee (who shall be a single active or retired judge) to hear and determine all of the issues in such action or proceeding (whether of fact or of law) and to report a statement of decision, provided that at the option of any party to such proceeding, any such issues pertaining to a "provisional remedy" as defined in California Code of Civil Procedure Section 1281.8 shall be heard and determined by the court, and (b) each Grantor shall be solely responsible to pay all fees and expenses of any referee appointed in such action or proceeding.

SECTION 18 Entire Agreement; Amendment. This Agreement constitutes the entire understanding among the parties hereto with respect to the subject matter hereof and supersedes any prior agreements, written or oral, with respect thereto. This Agreement shall not be amended except by the written agreement of the parties as provided in the Credit Agreement.

SECTION 19 Severability. Any provision of this Agreement which is prohibited or unenforceable in any jurisdiction shall, as to such provision and such jurisdiction, be ineffective to the extent of such prohibition or unenforceability without invalidating the remaining provisions of this Agreement or affecting the validity or enforceability of such provision in any other jurisdiction.

SECTION 20 Counterparts. This Agreement may be executed by the parties hereto in several counterparts, each of which shall be an original and all of which shall constitute together but one and the same agreement. Delivery of an executed counterpart of a signature page to this Agreement by email (e.g. “pdf” or “tiff”) or telecopy shall be effective as delivery of a manually executed counterpart of this Agreement.

SECTION 21 Incorporation of Provisions of the Credit Agreement. To the extent the Credit Agreement contains provisions of general applicability to the Loan Documents, including any such provisions contained in Article XI thereof, such provisions are incorporated herein by this reference.

SECTION 22 No Inconsistent Requirements. Each Grantor acknowledges that this Agreement and the other Loan Documents may contain covenants and other terms and provisions variously stated regarding the same or similar matters, and agrees that all such covenants, terms and provisions are cumulative and all shall be performed and satisfied in accordance with their respective terms.

SECTION 23 Joinder. At such time following the date hereof as any Person (an “Joining Grantor”) is required to join this Agreement pursuant to the terms of Section 7.8 of the Credit Agreement, such Joining Grantor shall execute and deliver to the Agent a joinder agreement substantially in the form of Exhibit A (a “Joinder Agreement”), signifying its agreement to be bound by the provisions of this Agreement as a Grantor to the same extent as if such Joining Grantor had originally executed this Agreement as of the date hereof.

SECTION 24 Termination. Upon the Payment In Full of all Secured Obligations (other than inchoate indemnification and expense reimbursement obligations for which no claim has been asserted), the security interests created by this Agreement shall automatically terminate and the Agent shall promptly execute and deliver to each Grantor (at such Grantor’s expense) such documents and instruments reasonably requested by such Grantor as necessary to evidence the termination and release of all security interests given by such Grantor to the Agent hereunder.

[Remainder of page intentionally left blank; signature pages follow]

IN WITNESS WHEREOF, the parties hereto have duly executed this Agreement as of the date first above written.

BORROWER:

ADMA BIOLOGICS, INC.

By /s/ Brian Lenz
Name: Brian Lenz
Title: Executive Vice President, Chief Financial Officer, and Secretary

SUBSIDIARY GUARANTORS:

ADMA BIOMANUFACTURING, INC.

By /s/ Brian Lenz
Name: Brian Lenz
Title: Vice President, Chief Financial Officer

ADMA PLASMA BIOLOGICS, INC.

By /s/ Brian Lenz
Name: Brian Lenz
Title: Vice President, Chief Financial Officer

ADMA BIOCENTERS GEORGIA INC.

By /s/ Brian Lenz
Name: Brian Lenz
Title: Vice President, Chief Financial Officer

[Signature Page to Security Agreement (ADMA Biologics)]

AGENT:

HAYFIN SERVICES LLP, as the Agent

By /s/ Vikas Mehta_
Name: Vikas Mehta
Title: Authorised Signatory

[Signature Page to Security Agreement (ADMA Biologics)]

EXHIBIT 21.1

ADMA BioCenters Georgia Inc.

Jurisdiction of incorporation:	Delaware
Name under which business conducted:	ADMA BioCenters Georgia Inc.

ADMA Plasma Biologics, Inc.

Jurisdiction of incorporation:	Delaware
Name under which business conducted:	ADMA Plasma Biologics, Inc.

ADMA BioManufacturing, LLC

Jurisdiction of incorporation:	Delaware
Name under which business conducted:	ADMA BioManufacturing, LLC

Exhibit 23.1

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the registration statements on Form S-8 (File Nos. 333-263345, 333-254770, 333-237658, 333-229921, 333-224492, 333-220058, 333-204590 and 333-193635) and Form S-3 (File Nos. 333-256643, 333-234107 and 333-225048) of ADMA Biologics, Inc. and subsidiaries (the "Company") of our report, dated March 24, 2022, on our audits of the Company's consolidated financial statements as of December 31, 2021 and 2020 and for the years then ended, included in this Annual Report on Form 10-K of ADMA Biologics, Inc. and subsidiaries for the year ended December 31, 2021.

/s/ CohnReznick LLP

Holmdel, New Jersey

March 24, 2022

Exhibit 31.1

CERTIFICATION OF THE PRINCIPAL EXECUTIVE OFFICER
PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Adam S. Grossman, certify that:

1. I have reviewed this Annual Report on Form 10-K of ADMA Biologics, Inc. for the year ended December 31, 2021;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

    (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

    (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

    (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

    (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

    (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

    (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

March 24, 2022

/s/ Adam S. Grossman

Name: Adam S. Grossman
Title: President and Chief Executive Officer
(Principal Executive Officer)

Exhibit 31.2

CERTIFICATION OF THE PRINCIPAL FINANCIAL OFFICER
PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Brian Lenz, certify that:

1. I have reviewed this Annual Report on Form 10-K of ADMA Biologics, Inc. for the year ended December 31, 2021;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

    (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

    (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

    (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

    (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

    (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

    (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

March 24, 2022

/s/ Brian Lenz

Name: Brian Lenz
Title: Executive Vice President and Chief Financial Officer
(Principal Financial Officer)

Exhibit 32.1

CERTIFICATION OF THE PRINCIPAL EXECUTIVE OFFICER
PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the annual report of ADMA Biologics, Inc., a Delaware corporation (the "Company"), on Form 10-K for the year ended December 31, 2021, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Adam S. Grossman, President and Chief Executive Officer of the Company, hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to my knowledge:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

March 24, 2022

/s/ Adam S. Grossman

Name: Adam S. Grossman
Title: President and Chief Executive Officer
(Principal Executive Officer)

Exhibit 32.2

CERTIFICATION OF THE PRINCIPAL FINANCIAL OFFICER
PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the annual report of ADMA Biologics, Inc., a Delaware corporation (the "Company"), on Form 10-K for the year ended December 31, 2021, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Brian Lenz, Chief Financial Officer of the Company, hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to my knowledge:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

March 24, 2022

/s/ Brian Lenz

Name: Brian Lenz
Title: Executive Vice President and Chief Financial Officer
(Principal Financial Officer)