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

Form 10-K

☒ **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 PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

Commission File Number: 001-35006

SPECTRUM PHARMACEUTICALS, INC.

(Exact Name of Registrant as Specified in its Charter)

Delaware	**93-0979187**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**

11500 South Eastern Avenue, Suite 220
Henderson, Nevada 89052
(Address of principal executive offices)

(702) 835-6300
(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, $0.001 par value	**SPPI**	**The NASDAQ Global Select 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 Section 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 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.

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. ☐

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

As of June 30, 2021, the aggregate market value of the voting and non-voting common equity held by non-affiliates of the registrant was $353.9 million (based upon the $3.75 per share closing sale price for shares of the registrant's Common Stock as reported by the NASDAQ Global Select Market on June 30, 2021, the last trading date of the registrant's most recently completed second fiscal quarter).

As of March 10, 2022, approximately 177,151,513 shares of the registrant's Common Stock, $0.001 par value, were outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Certain information required by Parts II and III are omitted from this Annual Report on Form 10 K and incorporated by reference to our definitive proxy statement for our 2022 annual meeting of shareholders ("2022 Proxy Statement"), to be filed pursuant to Regulation 14A of the Securities Exchange Act of 1934, as amended, or the Exchange Act. If our 2022 Proxy Statement is not filed within 120 days after the end of the fiscal year covered by this Annual Report on Form 10-K, the omitted information will be included in an amendment to this Annual Report on Form 10-K filed not later than the end of such 120-day period.

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Cautionary Note Concerning Forward-Looking Statements

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"), in reliance upon the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. Forward-looking statements include, without limitation, statements regarding our future product development and commercialization activities and costs, the revenue potential (licensing, royalty and sales) of our products and product candidates, the impact of the ongoing resurgences in Covid-19 infections or new strains of the virus on our business, the success, safety and efficacy of our drug products, revenues and revenue assumptions, clinical studies, including designs and implementation, development and commercialization timelines, product acquisitions, accounting principles, litigation expenses, liquidity and capital resources and trends, and other statements containing forward-looking words, such as, "believes," "may," "could," "would," "will," "expects," "intends," "estimates," "anticipates," "plans," "seeks," "continues," or the negative thereof or variation thereon or similar terminology (although not all forward-looking statements contain these words). Such forward-looking statements are based on the reasonable beliefs of our management as well as assumptions made by and information currently available to our management. All forward-looking statements included in this Form 10-K speak only as of the date of this Form 10-K and readers should not put undue reliance on these forward-looking statements. Forward-looking statements are inherently subject to risks and uncertainties, some of which cannot be predicted or quantified; therefore, our actual results may differ materially from those described in any forward-looking statements. Factors that might cause such a difference include, but are not limited to, those discussed elsewhere in this Annual Report on Form 10-K, and the following factors, among others:

- our ability to successfully develop, obtain regulatory approval, and market our products;
- the approval, or timing of approval, of our products or new indications for our products by the U.S. Food and Drug Administration (the "FDA") and other international regulatory agencies;
- the overall impact of COVID-19 on our business, including on the timing of the completion of the FDA's review of our Biologics License Application ("BLA") of eflapegrastim;
- actions by the FDA and other regulatory agencies, including international agencies;
- the timing and/or results of pending or future clinical trials, and our reliance on contract research organizations;
- our ability to maintain sufficient cash resources to fund our business operations;
- our history of net losses;
- our ability to enter into strategic alliances with partners for manufacturing, development and commercialization;
- our competitors' progress with their drug development programs, which could adversely impact the perceived or actual value of our in-development drugs;
- the ability of our manufacturing partners to meet our product demands and timelines;
- our ability to identify and acquire new product candidates and to successfully integrate those product candidates into our operations;
- our ability to protect our intellectual property rights;
- the impact of legislative or regulatory reform on the pricing for pharmaceutical products;
- the impact of any litigation to which we are, or may become a party;
- our ability, and that of our suppliers, development partners, and manufacturing partners, to comply with laws, regulations and standards that govern or affect the pharmaceutical and biotechnology industries; and
- our ability to maintain the services of our key executives and other personnel.

All subsequent written and oral forward-looking statements attributable to us or by persons acting on our behalf are expressly qualified in their entirety by these cautionary statements. We expressly disclaim any intent or obligation to update information contained in any forward-looking statement after the date thereof to conform such information to actual results or to changes in our opinions or expectations.

In addition, past financial or operating performance is not necessarily a reliable indicator of future performance, and you should not use our historical performance to anticipate results or future period trends. We can give no assurances that

any of the events anticipated by the forward-looking statements will occur or, if any of them do, what impact they will have on our results of operations and financial condition. Except as required by law, we do not undertake to update any such forward-looking statements and expressly disclaim any duty to update the information contained in this Annual Report on Form 10-K.

Unless the context otherwise requires, all references in this Annual Report on Form 10-K to the "Company", "we," "us," "our," "Spectrum" and "Spectrum Pharmaceuticals" refer to Spectrum Pharmaceuticals, Inc. and its subsidiaries and other consolidated entities, as a consolidated entity. We primarily conduct our business activities as Spectrum Pharmaceuticals.

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PART I

Item 1. Business

Company Overview

Spectrum Pharmaceuticals, Inc. ("Spectrum," the "Company," "we," "our," or "us") is a biopharmaceutical company, with a primary strategy comprised of acquiring, developing, and commercializing novel and targeted oncology therapies. Our in-house development organization includes clinical development, regulatory, quality and data management.

We have two drugs in late-stage development:

- Eflapegrastim, a novel long-acting granulocyte colony-stimulating factor ("G-CSF") for the treatment of chemotherapy-induced neutropenia. On August 6, 2021, we announced the receipt of a complete response letter ("CRL"), that cited manufacturing deficiencies related both to the drug substance and drug product manufacturers. We believe we have completed the remediation of these deficiencies and resubmitted the BLA on March 11, 2022;
- Poziotinib, a novel irreversible tyrosine kinase inhibitor under investigation for non-small cell lung cancer ("NSCLC") tumors with various mutations. On December 6, 2021, we announced we submitted our New Drug Application ("NDA") for poziotinib to the FDA for use in patients with previously treated locally advanced or metastatic NSCLC with HER2 exon 20 insertion mutations. The NDA submission is based on the positive results of Cohort 2 from the ZENITH20 clinical trial, which assessed the safety and efficacy of poziotinib. The product has received Fast Track designation and there is currently no treatment specifically approved by the FDA for this indication. On February 11, 2022, we announced that we had received notice that the NDA had been accepted and received a Prescription Drug User Fee Act ("PDUFA") action date of November 24, 2022.

Cancer Background and Market Size

Cancer is a group of diseases characterized by the uncontrolled growth and spread of abnormal cells, which can result in death. The development of cancer is multi-factorial and includes both external factors (tobacco, infectious organisms, chemicals, and radiation) and internal factors (inherited mutations, hormones, immune conditions, and mutations that occur from exposure to environmental factors or errors in making DNA (deoxyribonucleic acid) during normal cell division). These causal factors may act together or in sequence to initiate or promote the development of cancer. Ten or more years often pass between exposure to these factors and the development of detectable cancer. Cancer is treated through surgery, radiation, chemotherapy, hormone therapy, immunotherapy, and/or targeted drug therapy.

According to the American Cancer Society's publication *Cancer Facts & Figures 2021*, cancer is the second leading cause of death in the U.S. (only behind heart disease). In the U.S., approximately 1.9 million new cancer cases are expected to be diagnosed in 2021 and approximately 608,570 persons were expected to die from the disease. Anyone can develop cancer. Since the risk of being diagnosed with cancer increases with age, most cases occur in adults who are middle aged or older. About 80% of all cancers are diagnosed in people 55 years of age or older. In the U.S., approximately 41 out of 100 men and 39 out of 100 women will develop cancer during their lifetime. These probabilities are estimated based on the overall experience of the general population. Individuals within the population may have higher or lower risk because of differences in exposures (e.g., smoking), and/or genetic susceptibility. In addition, currently available treatments are variably

effective for different cancers and individual patients. Together these patients' risks and the treatment limitations suggest a significant current and long-term demand for improved and novel cancer treatments.

Product Portfolio

Our product portfolio consists of in-development drug products for the treatment of cancer patients. Serious adverse effects ("SAEs") in patients from these products could result in the refusal/removal of regulatory approval and have a negative impact on future sales. See our specific SAE risk factor within *Item 1A. Risk Factors — Risks Related to Our Business — Reports of adverse events or safety concerns involving our in-development products or similar agents, could delay or prevent us from obtaining or maintaining regulatory approval or negatively impact sales.*

Product Pipeline

Eflapegrastim

Eflapegrastim (previously referred to as "ROLONTIS") is a novel long-acting G-CSF that employs a proprietary LAPSCOVERY™ technology to enhance the duration of therapeutic effects and reduce the frequency of administration. Eflapegrastim is being investigated for the treatment of chemotherapy-induced neutropenia. In January 2012, we entered into a co-development and commercialization agreement with Hanmi Pharmaceutical Co. Ltd. ("Hanmi") for eflapegrastim worldwide rights, except in Korea, China, and Japan.

Chemotherapy can cause myelosuppression that can lead to neutropenia, a condition where the number of neutrophils or white blood cells are too low, which can lead to infection, hospitalization, and even death. G-CSF stimulates the production of white blood cells by the bone marrow. A recombinant form of G-CSF is used in appropriate cancer patients to accelerate recovery from neutropenia after chemotherapy, allowing higher-intensity treatment regimens to be given at full-dosage and on schedule. The U.S. annual market opportunity for long-acting G-CSF-related drugs is currently approximately $2 billion, based on quarterly reported revenue.

We submitted our BLA for eflapegrastim to the FDA on October 24, 2019. Our BLA is supported by data from two similarly designed Phase 3 clinical trials, ADVANCE and RECOVER, which evaluated the safety and efficacy of eflapegrastim in 643 early-stage breast cancer patients for the treatment of neutropenia due to myelosuppressive chemotherapy. Both studies met the pre-specified endpoint of non-inferiority in duration of severe neutropenia and met all of the secondary endpoints. In addition, the safety profile was similar to pegfilgrastim. On August 6, 2021, we announced the receipt of a CRL based on manufacturing deficiencies identified at both the drug substance and drug product manufacturers. The Company believes these manufacturing deficiencies have been remediated and on March 11, 2022, we resubmitted the BLA for eflapegrastim.

A company sponsored clinical trial has been initiated to evaluate the administration of eflapegrastim on the same day as chemotherapy. This Phase 1 clinical trial is a randomized, open label, actively controlled study to evaluate the same-day dosing of eflapegrastim on duration of neutropenia when administered at varying intervals following docetaxel and cyclophosphamide (TC) chemotherapy in patients with early-stage breast cancer. On March 4, 2021, at the virtual 38th Annual Miami Breast Cancer Conference®, the Company presented positive early data showing rapid absolute neutrophil count (ANC) recovery in the first three patients dosed in the 30-minute arm of the same-day dosing. This arm met the prespecified interim safety evaluation criteria and therefore supported the expansion of this arm to 15 patients. The study design included an interim safety evaluation that was conducted once the first three patients in each arm (30 minutes, 3 hours, or 5 hours) completed Cycle 1. Based on this review, the 30-minute arm expanded to a total of 15 patients, while the 3- and 5-hour dosing arms have been discontinued. In the 30-minute dosing arm, ANC recovery was more rapid compared to the 3- and 5-hour arms. ANC nadir was also deeper and longer for the 3- and 5-hour arms compared to the 30-minute arm. The overall safety profile for the 30-minute arm was similar to what has been seen previously in large randomized studies with G-CSF given 24 hours after chemotherapy.

Poziotinib

Poziotinib is a novel, pan-HER inhibitor that irreversibly blocks signaling through the Epidermal Growth Factor Receptor (EGFR) family of tyrosine-kinase receptors, including HER1 (erbB1; EGFR), HER2 (erbB2), HER4 (erbB4), and HER receptor mutations. This, in turn, leads to the inhibition of the proliferation of tumor cells that over-express these receptors. Mutations of over-expression/amplification of EGFR family receptors have been associated with a number of different cancers, including NSCLC, breast cancer, and gastric cancer. In March 2015, we entered into a co-development and commercialization agreement with Hanmi for poziotinib worldwide rights, except in Korea and China.

Our clinical development program for poziotinib is focused on previously treated NSCLC, first-line treatment of NSCLC and treatment of other solid tumors with HER2 mutations. NSCLC tumors with HER2 exon 20 insertion mutations are rare and have generally not been responsive to other tyrosine kinase inhibitors. Patients with these mutations have a poor prognosis, and available treatment options are limited. Poziotinib, due to its unique chemical structure and characteristics, is believed to inhibit cell growth of tumors with HER2 exon-20 insertion mutations.

In October 2017, we announced the start of a pivotal Phase 2 global clinical trial with active sites in the U.S., Canada and Europe ("ZENITH20"). The ZENITH20 trial consists of seven cohorts of NSCLC patients. Cohorts 1, 2, 3 and 4 have completed enrollment while Cohorts 5, 6, and 7 are currently enrolling patients. Cohorts 1 (EGFR) and 2 (HER2) include previously treated NSCLC patients with exon 20 mutations. Cohort 3 (EGFR) and 4 (HER2) include first-line NSCLC patients with exon 20 mutations. Cohorts 1- 4 are each independently powered for a pre-specified statistical hypothesis and the primary endpoint is objective response rate ("ORR"). Cohort 5 includes previously treated or treatment-naïve NSCLC patients with EGFR or HER2 exon 20 insertion mutations and is evaluating different dosing regimens. Cohort 6 includes NSCLC patients with classical EGFR mutations who progressed while on treatment with first-line osimertinib and developed an additional EGFR mutation. Cohort 7 includes NSCLC patients with a variety of less common mutations in EGFR or HER2 exons 18-21 or the extracellular or transmembrane domains.

On December 26, 2019, we announced that the pre-specified primary endpoint was not met in Cohort 1 of the ZENITH20 trial evaluating poziotinib in previously treated NSCLC patients with EGFR exon 20 insertion mutations. Cohort 1 enrolled a total of 115 patients who received 16 mg/day of poziotinib. The intent-to-treat analysis showed that 17 patients had a response (by RECIST) and 62 patients had stable disease for a 68.7% disease control rate ("DCR"). The confirmed ORR was 14.8% (95% Confidence Interval ("CI") 8.9%-22.6%). The median duration of response was 7.4 months and the progression free survival was 4.2 months. The safety profile was in-line with other second-generation EGFR tyrosine kinase inhibitors.

On July 27, 2020, we announced that we met the pre-specified primary endpoint for Cohort 2 in the ZENITH20 trial evaluating previously treated NSCLC patients with HER2 exon 20 insertion mutations. Cohort 2 enrolled a total of 90 patients who received an oral, once daily dose of 16 mg of poziotinib. All the patients had failed at least one line of prior systemic therapy with 60 patients (67%) having failed two or more prior therapies, including chemotherapy and immunotherapy. All responses were read independently and confirmed by a central imaging laboratory using RECIST criteria. The intent-to-treat analysis demonstrated a confirmed ORR of 27.8% (95% CI of 18.9%-38.2%). Based on the pre-specified statistical hypothesis for the primary endpoint, the observed lower bound of 18.9% exceeded the pre-specified lower bound of 17% in this heavily pre-treated population. The safety profile was in-line with the type of adverse events seen with other second-generation EGFR tyrosine kinase inhibitors. These results were presented at the European Society for Medical Oncology (ESMO) Virtual Congress 2020 Science Weekend held in September 2020.

In December 2020, we reported that its pre-specified primary endpoint in Cohort 3 evaluating poziotinib in first-line NSCLC patients with EGFR exon 20 insertion mutations was not met. Cohort 3 of the ZENITH20 clinical trial enrolled a total of 79 patients who received an oral once daily dose of 16 mg of poziotinib. The median time of follow up of all patients was 9.2 months with 12 ongoing patients still on treatment. The intent-to-treat analysis showed that 22 patients had a partial response (by RECIST) and 68 patients had stable disease for an 86.1% DCR. 91% of patients experienced tumor reduction with a median reduction of 25.5%. The confirmed ORR was 27.8% (95% CI 18.4-39.1%). Based on the pre-specified statistical hypothesis for the primary endpoint, the observed lower bound of 18.4% did not meet the pre-specified lower bound of >20%. The median duration of response was 6.5 months and the median progression free survival was 7.2 months. The safety profile was similar with the type of adverse events observed with other second-generation EGFR tyrosine kinase inhibitors. Grade 3 treatment related rash was 33% and diarrhea was 23%. 94% of patients had drug interruptions with 6 patients (8%) permanently discontinuing due to adverse events.

In March 2021, we announced that the FDA granted Fast Track designation for Poziotinib based on data from Cohort 2 of ZENITH20, which evaluated previously treated patients with NSCLC with HER2 exon 20 insertion mutations. On December 6, 2021, we announced the submission of its NDA for poziotinib to the FDA for use in patients with previously treated locally advanced or metastatic NSCLC with HER2 exon 20 insertion mutations. The NDA submission is based on the positive results of Cohort 2 from the ZENITH20 clinical trial, which assessed the safety and efficacy of poziotinib. On February 11, 2022, the Company announced that the file had been accepted and an action date of November 24, 2022 had been set.

In March 2022, the Company presented the results of Cohort 4 at the ESMO Targed Anticancer Therapies ("TAT") meeting. Cohort 4 of the ZENITH20 clinical trial enrolled a total of 70 patients, 48 of whom received an oral once daily dose of 16 mg of poziotinib and 22 of who received an oral twice daily dose of 8 mg of poziotinib. The intent-to-treat analysis demonstrated a confirmed ORR of 41% (95% CI of 30%-54%). Based on the pre-specified statistical hypothesis for the primary endpoint, the observed lower bound of 30% exceeded the pre-specified lower bound of 20%. The median duration of

response was 5.7 months and median progression free survival was 5.6 months. The most common treatment related Grade ≥ 3 adverse events were rash (30%), stomatitis (19%), diarrhea (14%), and paronychia (7%). In addition, the incidence of Grade ≥ 3 pneumonitis was low at 3%. The safety profile was consistent with the TKI class.

Manufacturing

We currently do not have internal manufacturing capabilities. All of our products are/were manufactured by third parties that specialize in these services. We expect to continue to contract with third-parties for our manufacturing and packaging requirements, including active pharmaceutical ingredients (API) and finished-dosage products. We believe that our current agreements provide sufficient capacity to support our clinical requirements and the anticipated commercial demand for our products. Where feasible, we maintain secondary supplier sources for our drug products to mitigate the risk of over-reliance on any single supplier. We attempt to prevent supply disruption through our executed supply agreements, appropriate forecasting, and maintaining base stock levels.

Competition

The pharmaceutical industry is characterized by rapidly-evolving technology and intense competition, which we expect to persist. Many companies are engaged in research and development of compounds that are similar to ours — both commercialized and in development, which fosters continuous innovation. In the event that one or more of our competitor's programs are successful, the market for some of our drug products could be reduced or eliminated. Any product for which we obtain FDA approval must also compete for market acceptance and market share.

Our successful marketing of branded products, upon FDA approval, depends primarily on the ability to communicate the effectiveness, safety, and value of the products to healthcare professionals in private practice, group practices, hospitals, academic institutions, and managed care organizations. Competition for branded drugs is less driven by price and is more focused on innovation in treatment of disease, advanced drug delivery, and specific clinical benefits over competitive drug therapies. Unless our products are shown to be differentiated, i.e., have a better safety profile, efficacy, and cost-effectiveness, compared to other alternatives, they may not gain acceptance by medical professionals and may therefore never be commercially successful.

Companies that have products on the market or in research and development that target the same indications as our in-development products or new compounds sought include, among others: Amgen, Inc., Coherus BioSciences, Mylan Pharmaceuticals, Inc., Sandoz, Pfizer, AstraZeneca plc, Takeda Pharmaceutical Company Ltd, Rain Therapeutics Inc., Janssen Research & Development, Taiho Pharmaceutical Co., Ltd., Cullinan Oncology, LLC, Daiichi-Sankyo Co., Ltd., Genentech, Inc., Gilead Sciences, Inc., Jiangsu Hengrui Pharmaceuticals Co., Ltd., and Novartis International AG.

Each of the aforementioned companies may be more advanced in the development of competing drug products. Many of these competitors are large and well-capitalized companies focusing on a wide range of cancer types and have substantially greater resources and expertise than we do.

We believe that the current competitive landscape for each of our key in-development products, is as follows:

(a) **Eflapegrastim** is a novel long-acting G-CSF that employs a proprietary technology that prolongs the duration of biologics, reducing the frequency of administration. There is currently one novel long-acting G-CSF and four biosimilar G-CSFs marketed in the United States including, Neulasta® (pegfilgrastim), marketed by Amgen, Inc., UDENYCA™ (pegfilgrastim-cbqv), a biosimilar marketed by Coherus BioSciences, Fulphila® (pegfilgrastim-jmdb), a biosimilar marketed by Mylan Pharmaceuticals, Inc., and Ziextenzo® (pegfilgrastim-bmez), a biosimilar marketed by Sandoz, and NYVEPRIA™ (pegfilgrastim-apgf), a biosimilar marketed by Pfizer, Inc. In addition, there are several novel products in development that may compete with eflapegrastim if they are approved, including G1 Therapeutics' trilaciclib, BeyondSpring's plinabulin, and Evive Biotech's benegrastim.

(b) **Poziotinib** is a novel investigational, oral, quinazoline-based pan-HER inhibitor that irreversibly blocks signaling through the EGFR family of tyrosine-kinase receptors, including human epidermal growth factor receptor (HER1/ErbB1/EGFR), HER2 (ErbB2), and HER4 (ErbB4), as well as HER receptor mutations. Poziotinib's development program is primarily focused on advanced NSCLC patients harboring exon 20 insertion mutations in HER2(ErbB2). At present there are no FDA approved therapies for metastatic NSCLC patients with HER2 exon 20 insertion mutations.

There are a number of other targeted therapies focused on these subtypes of NSCLC that are in early clinical investigation by our potential competitors, including: TAGRISSO (Osimertinib) — AstraZeneca, Tarlox (tarloxotinib) — Rain Therapeutics Inc., DS-8201a — Daiichi Sankyo, CLN081 — Taiho Pharmaceutical Co., Ltd., and Cullinan Oncology, LLC, and Pyrotinib — Jiangsu Hengrui Pharmaceuticals Co., Ltd.

New drug development is the process whereby drug product candidates are tested for the purpose of filing a NDA or a BLA, in the U.S. (or similar filing in other countries). Obtaining marketing approval from the FDA or similar regulatory authorities outside of the U.S. is an inherently uncertain, lengthy, and expensive process that requires several phases of clinical trials to demonstrate to the satisfaction of the appropriate regulatory authorities that the products are both safe and effective for their respective indications. Our development focus is primarily based on acquiring and developing late-stage development drugs as compared to new drug discovery, which is particularly uncertain and lengthy.

Our in-development products are summarized below:

Eflapegrastim

An investigational long-acting granulocyte colony-stimulating factor (G-CSF) for the treatment of chemotherapy-induced neutropenia.

ROLONTIS® (eflapegrastim)

An investigational long-acting granulocyte colony-stimulating factor (G-CSF) for the treatment of chemotherapy-induced neutropenia. The Biologics License Application (BLA) was filed in December, 2019, with a PDUFA date of October 24, 2020. On October 26, 2020, the company announced that the FDA informed the company that they are deferring action on the application.

Chemotherapy-Induced Neutropenia (RECOVER, ADVANCE)	Preclinical	Phase 1	Phase 2	Phase 3	Approved
Same-day dosing	Preclinical	Phase 1	Phase 2	Phase 3	Approved
Pediatric patients treated with myelosuppressive chemotherapy	Preclinical	Phase 1	Phase 2	Phase 3	Approved

Poziotinib

An investigational orally administered, irreversible tyrosine kinase inhibitor (TKI) for the treatment of solid tumors.

Previously treated EGFR exon 20 insertion mutation positive non-small cell lung cancer (NSCLC)	Preclinical	Phase 1	Phase 2	Phase 3	Approved
Previously treated HER2 exon 20 insertion mutation positive NSCLC	Preclinical	Phase 1	Phase 2	Phase 3	Approved
Treatment naïve EGFR exon 20 insertion mutation positive NSCLC	Preclinical	Phase 1	Phase 2	Phase 3	Approved
Treatment naïve HER2 exon 20 insertion mutation positive NSCLC	Preclinical	Phase 1	Phase 2	Phase 3	Approved
Previously first-line osimertinib treated NSCLC with acquired EGFR mutations (Exploratory)	Preclinical	Phase 1	Phase 2	Phase 3	Approved
Previously treated atypical EGFR or HER2 mutation positive NSCLC (Exploratory)	Preclinical	Phase 1	Phase 2	Phase 3	Approved
Patients with EGFR or HER2 activating mutations in advanced malignancies	Preclinical	Phase 1	Phase 2	Phase 3	Approved

Our research and development expenses for drug development are comprised of our personnel expenses, contracted services with third parties, license fees and milestone payments to third parties, clinical trial costs, laboratory supplies, drug

products, and certain allocations of corporate costs. The below table summarizes our research and development expenses by project in 2021 and 2020:

	Research and Development Expenses for the Year Ended December 31, (in thousands)	
	2021	2020
Eflapegrastim	$14,785	$ 52,101
Poziotinib	37,635	24,254
Anti-CD20-IFNα	1,073	2,876
Other in-development indications/drugs	1,447	789
Total — Direct costs	54,940	80,020
Add: General research and development expenses (including personnel costs that correspond to more than one in-development project)	32,357	29,360
(Less): Reimbursements from development partners	—	(3)
Total research and development expenses from continuing operations	$87,297	$109,377
Total research and development expenses from discontinued operations	$ 59	$ (43)

Patents and Proprietary Rights

Overview

We in-license from third parties certain patents and related intellectual property rights related to our proprietary drug products. Under most of these license arrangements, we are generally responsible for all development, patent filing, prosecution, and maintenance costs, sales, marketing and liability insurance costs related to the drug products.

In addition, these licenses and agreements may require us to make royalty and other payments and to reasonably utilize the underlying technology of applicable patents. If we fail to comply with these and other terms in these licenses and agreements, we could lose the underlying rights to one or more of our potential products, which would adversely affect our product development and harm our business. For more information regarding these arrangements see *Note 7(b), "Financial Commitments & Contingencies and Key License Agreements,"* to our accompanying Consolidated Financial Statements.

The protection, preservation, and infringement-free commercial utilization of these patents and related intellectual property rights are very important to the successful execution of our strategy. However, the issuance of a patent is neither conclusive as to its validity nor as to the enforceable scope of the claims of the patent. Accordingly, our patents and the patents we have licensed may not prevent other companies from developing similar or functionally equivalent products or from successfully challenging the validity of our patents. If our patent applications are not allowed or, even if allowed and issued as patents, if such patents or the patents we have in-licensed are circumvented or not upheld in a court of law or in administrative proceedings, including oppositions, re-examinations or inter parties review, our ability to competitively utilize our patented products and technologies may be significantly reduced. Also, such patents may or may not provide competitive advantages for their respective products or they may be challenged or circumvented by competitors, in which case our ability to commercially sell these products may be diminished.

From time-to-time, we may need to obtain licenses to patents and other proprietary rights held by third parties to develop, manufacture and market our products. If we are unable to timely obtain these licenses on commercially reasonable terms, our ability to commercially exploit such products may be inhibited or prevented.

In-Development Drug Products — Patents and Licenses Summary

We believe that our patents and licenses are critical to operating our business, as summarized below.

Eflapegrastim*:* Composition of matter patents covering eflapegrastim are due to expire in 2025 in the U.S. and in 2024 outside the U.S. We also have a eflapegrastim formulation patent granted in the U.S., Europe, Japan and other countries. The

formulation patent will not expire in the U.S. until 2031. One of these patents is eligible for possible patent term extension following regulatory approval of eflapegrastim. Eflapegrastim is also covered by additional patents and pending applications claiming various aspects of the technology and formulation that are due to expire between 2024 and 2030.

Poziotinib: A composition of matter patent covering poziotinib is due to expire in 2028. Poziotinib is also covered by additional patents and patent applications covering its formulations and synthetic processes which will expire between 2032 and 2034. We have licensed patent applications covering the use of poziotinib that if granted, would expire in 2037.

Patent Protection and Value Maximization

We are constantly evaluating our patent portfolio and are currently assessing and filing patent applications for our drug products and considering new patent applications in order to maximize the life cycle of each of our products.

While the U.S. and the European Union, or EU, are currently the largest potential markets for most of our products, we also have patents issued and patent applications pending outside of the U.S. and Europe. Limitations on patent protection in these countries, and the differences in what constitutes patentable subject matter in countries outside the U.S., may limit the protection we have on patents issued or licensed to us outside of the U.S. In addition, laws of foreign countries may not protect our intellectual property to the same extent as would laws in the U.S.

To minimize our costs and expenses and to maintain effective protection, we usually focus our patent and licensing activities within the U.S., the EU, Canada, and Japan. In determining whether or not to seek a patent or to license any patent in a certain foreign country, we weigh the relevant costs and benefits, and consider, among other things, the market potential and profitability, the scope of patent protection afforded by the law of the jurisdiction and its enforceability, and the nature of terms with any potential licensees. Failure to obtain adequate patent protection for our proprietary drugs and technology would impair our ability to be commercially competitive in these markets.

In conducting our business, we rely upon trade secrets, know-how, and licensing arrangements. We use customary practices for the protection of our confidential and proprietary information such as confidentiality agreements and trade secret protection measures. It is possible that these agreements will be breached or will not be enforceable in every instance, and that we will not have adequate remedies for any such breach. It is also possible that our trade secrets or know-how will otherwise become known or independently developed by competitors. The protection of know-how is particularly important because it is often necessary or useful information that allows us to practice the claims in the patents related to our proprietary drug products.

In addition to the specific intellectual property subjects discussed above, we have a trademark registration in the U.S. for Spectrum Pharmaceuticals, Inc.®. We also have trademarks for the Spectrum Pharmaceuticals' logos. Any other trademarks are the property of their respective owners.

Product Exclusivity

The Patent Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act of 2010 ("PPACA"), provides exclusivity protections for certain innovator biological products and a framework for FDA review and approval of biosimilar and interchangeable versions of innovator biologic products. The PPACA provides that no application for a biosimilar product may be approved until 12 years after the date on which the innovator product was first licensed, and no application may be submitted until four years after the date of the first licensure. Products deemed interchangeable (as opposed to biosimilar) are also eligible for certain exclusivity.

Governmental Regulation

The development, production and marketing of our proprietary and biologic products are subject to regulation for safety, efficacy and quality by numerous governmental authorities in the U.S. and other countries. In the U.S., drugs and biologics are subject to rigorous regulation. The Federal Food, Drug, and Cosmetic Act, as amended from time to time, and the regulations promulgated thereunder, as well as other federal and state statutes and regulations, govern, among other things, the development, approval, manufacture, safety, labeling, storage, record keeping, distribution, promotion, and advertising of our products. Product development and approval within this regulatory framework, including for drugs already at a clinical stage of development, can take many years and require the expenditure of substantial resources, and to obtain FDA approval, a product must satisfy mandatory quality, safety, and efficacy requirements. In addition, each drug-manufacturing establishment must be registered with the FDA. Domestic manufacturing establishments must comply with the FDA's current Good Manufacturing Practices, or cGMP, regulations and are subject to inspections by the FDA. To supply drug ingredients or products for use in the U.S., foreign manufacturing establishments must also comply with cGMP

and are subject to inspections by the FDA or by other regulatory authorities in certain countries under reciprocal agreements with the FDA.

General Information about the Drug Approval Process and Post-Marketing Requirements

The U.S. system of new drug and biologics approval is a rigorous process. Only a small percentage of compounds that enter the pre-clinical testing stage are ever approved for commercialization. Our strategy focuses on in-licensing clinical stage drug products that are already in or about to enter human clinical trials. A late-stage focus helps us to effectively manage the high cost of drug development by focusing on compounds that have already passed the many hurdles in the pre-clinical and early clinical process.

The following general comments about the drug approval process are relevant to the development activities we are undertaking with our proprietary products.

Pre-clinical Testing: During the pre-clinical testing stage, laboratory and animal studies are conducted to show biological activity of a drug or biologic compound against the targeted disease. The compound is evaluated for safety. While some of our compounds are currently in clinical trials, it is possible that additional pre-clinical testing could be requested by a regulatory authority for any of our compounds.

Investigational New Drug Application ("IND"): After certain pre-clinical studies are completed, an IND application is submitted to the FDA to request the ability to begin human testing of the drug or biologic. An IND becomes effective thirty days after the FDA receives the application (unless the FDA notifies the sponsor of a clinical hold), or upon prior notification by the FDA.

Phase 1 Clinical Trials: These trials typically involve small numbers of healthy volunteers or patients and usually define a drug candidate's safety profile, including the safe dosage range.

Phase 2 Clinical Trials: In Phase 2 clinical trials, controlled studies of human patients with the targeted disease are conducted to assess the drug's effectiveness. These studies are designed primarily to determine the appropriate dose levels, dose schedules and route(s) of administration, and to evaluate the effectiveness of the drug or biologic on humans, as well as to determine if there are any side effects on humans to expand the safety profile following Phase 1. These clinical trials, and Phase 3 trials discussed below, are designed to evaluate the product's overall benefit-risk profile, and to provide information for physician labeling.

Phase 3 Clinical Trials: This Phase usually involves a larger number of patients with the targeted disease. Investigators (typically physicians) monitor the patients to determine the drug candidate's efficacy and to observe and report any adverse reactions that may result from long-term use of the drug on a large, more widespread, patient population. During the Phase 3 clinical trials, typically the drug candidate is compared to either a placebo or a standard treatment for the target disease.

New Drug Application or Biologics License Application: After completion of all three clinical trial Phases, if the data indicates that the drug is safe and effective, a NDA or BLA is filed with the FDA requesting FDA approval to market the new drug as a treatment for the target disease.

Fast Track and Priority Review: The FDA has established procedures for accelerating the approval of drugs to be marketed for serious or life-threatening diseases for which the manufacturer can demonstrate the potential to address unmet medical needs.

Abbreviated New Drug Application ("ANDA"): An ANDA is an abbreviated new drug application for generic drugs created by the Hatch-Waxman Act. When a company files an ANDA, it must make a patent certification regarding the patents covering the branded product listed in the FDA's Orange Book. The ANDA drug development process generally takes less time than the NDA drug development process since the ANDA process usually does not require new clinical trials establishing the safety and efficacy of the drug product.

Breakthrough Therapy Designation ("BTD"): A BTD is available from the FDA for drugs or drug combinations used to treat serious or life-threatening disease conditions based on preliminary clinical evidence that the drug may offer substantial improvement over existing therapies. FDA may grant priority approval to breakthrough drug indications. FDA may also grant accelerated approval and priority review for drugs that fill an unmet medical need. An advantage to this designation is that clinical trials may use surrogate endpoints to predict clinical benefit, requiring less time than other objective endpoints such as overall survival.

NDA/BLA and ANDA Approval: The FDA approves drugs and biologics that are subject to NDA and BLA review based on data in the application demonstrating the product is safe and effective in its proposed use(s) and that the product's

benefits outweigh its risks. The FDA will also review the NDA or BLA applicant's manufacturing process and controls to ensure they are adequate to preserve the drug's identity, strength, quality, and purity. Finally, the FDA will review and approve the product's proposed labeling. As for the ANDA approval process, these "abbreviated" applications are generally not required to include pre-clinical or clinical data to establish safety and effectiveness. Rather, an ANDA must demonstrate both chemical equivalence and bio-equivalence (the rate and extent of absorption in the body) to the innovator drug — unless a bio-equivalence waiver is granted by the FDA.

Postmarketing requirements (PMRs): PMR refers to postmarketing requirements, studies or clinical trials the sponsor is required to conduct. These studies might be required for a number of reasons including:

- Postmarketing studies or clinical trials to demonstrate clinical benefit for drugs approved under the accelerated approval requirements
- Deferred pediatric studies, where studies are required under the Pediatric Research Equity Act (PREA)
- Studies or clinical trials to demonstrate safety and efficacy in humans that must be conducted at the time of use of products approved under the Animal Efficacy Rule

Phase 4 Clinical Trials: After a drug has been approved by the FDA, Phase 4 studies may be conducted to explore additional patient populations, compare the drug to a competitor, or to further study the risks, benefits and optimal use of a drug. These studies may be a requirement as a condition of the initial approval of the NDA or BLA.

Post-Approval Studies Requirements under FDAAA: The Food and Drug Administration Amendments Act of 2007, or FDAAA, significantly added to the FDA's authority to require post-approval studies. Under the FDAAA, if the FDA becomes aware of new safety information after approval of a product, they may require us to conduct further clinical trials to assess a known serious risk, signals of serious risk or to identify an unexpected serious risk. If required to conduct a post-approval study, periodic status reports must be submitted to the FDA. Failure to conduct such post-approval studies in a timely manner may result in administrative action being taken by FDA, including substantial civil fines.

Risk Evaluation and Mitigation Strategy Authority under FDAAA: The FDAAA also gave the FDA authority to require the implementation of a Risk Evaluation and Mitigation Strategy, or REMS, for a product when necessary to minimize known and preventable safety risks associated with the product. The FDA may require the submission of a REMS before a product is approved, or after approval based on "new safety information," including new analysis of existing safety information. A REMS may include a medication guide, patient package insert, a plan for communication with healthcare providers, or other elements as the FDA deems are necessary to assure safe use of the product, which could include imposing certain restrictions on distribution or use of a product. A REMS must include a timetable for submission of assessments of the strategy at specified time intervals. Failure to comply with a REMS, including the submission of a required assessment, may result in substantial civil or criminal penalties.

Other Issues Related to Product Safety: Adverse events that are reported after marketing approval also can result in additional limitations being placed on a product's use and, potentially, withdrawal of the product from the market. In addition, under the FDAAA, the FDA has authority to mandate labeling changes to products at any point in a product's life cycle based on new safety information derived from clinical trials, post-approval studies, peer-reviewed medical literature, or post-market risk identification and analysis systems data.

FDA Enforcement

The development of drug and biologic products, as well as the marketing of approved drugs and biologics, is subject to substantial continuing regulation by the FDA, including regulation of adverse event reporting, manufacturing practices and the advertising and promotion of the product. Failure to comply with the FDA and other governmental regulations can result in fines, unanticipated compliance expenditures, recall or seizure of products, total or partial suspension of production and/or distribution, suspension of the FDA's review of NDAs, BLAs, ANDAs or other product applications, enforcement actions, injunctions and criminal prosecution. Under certain circumstances, the FDA also has the authority to revoke previously granted drug approvals.

With respect specifically to information submitted to the FDA in support of marketing applications, the FDA, under its Fraud, Untrue Statements of Material Facts, Bribery and Illegal Gratuities Policy, can significantly delay the approval of a marketing application, or seek to withdraw an approved application where it identifies fraud or discrepancies in regulatory submissions. Such actions by the FDA may significantly delay or suspend substantive scientific review of a pending application during validity assessment or remove approved products from the market until the assessment is complete and questions regarding reliability of the data are resolved. In addition, the Generic Drug Enforcement Act of 1992 (the "Generic

Drug Enforcement Act") established penalties for wrongdoing in connection with the development or submission of an ANDA. Under the Generic Drug Enforcement Act, the FDA has the authority to permanently or temporarily bar companies or individuals from submitting or assisting in the submission of an ANDA, and to temporarily deny approval and suspend applications to market generic drugs. The FDA may also suspend the distribution of all drugs approved or developed in connection with certain wrongful conduct and/or withdraw approval of an ANDA and seek civil penalties.

Healthcare Reform

Continuing studies of the proper utilization, safety and efficacy of pharmaceuticals and other health care products are being conducted by industry, government agencies and others. Such studies, which increasingly employ sophisticated methods and techniques, can call into question the utilization, safety and efficacy of previously marketed products and in some cases have resulted, and may in the future result, in the discontinuance of their marketing.

The Patient Centered Outcomes Research Institute, or the Institute, a private, non-profit corporation created as a result of the PPACA, is tasked with assisting patients, clinicians, purchasers, and policy-makers in making informed health decisions. One of the Institute's initiatives will be to conduct comparative clinical effectiveness research, which is defined as "research evaluating and comparing health outcomes and the clinical effectiveness, risks, and benefits of two or more medical treatments, services, and items." It is important to note that the Institute would not be permitted to mandate coverage, reimbursement, or other policies for any public or private payer, however, the outcome of the Institute's initiatives could influence prescriber behavior.

Foreign Regulation

Whether or not we obtain FDA approval for a product, we must obtain approval of a product 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/region to country/region, 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 also may vary, sometimes significantly, from country/region to country/region.

Under the EU regulatory systems, we may submit marketing authorization applications either under a centralized procedure or decentralized procedure or the mutual recognition procedure. The centralized procedure is mandatory for medicines produced by a biotechnological process. The procedure is also mandatory for new active substances which are indicated for treatment of several diseases or conditions, including cancer and orphan conditions. Companies may apply for centralized assessment if the product contains a new active substance or the product constitutes significant therapeutic, scientific or technical innovation or the granting of authorization under the centralized procedure is in the interests of the EU patients. A centralized marketing authorization is valid in all EU member states. This marketing authorization is issued in the form of a European Commission decision which is legally binding in its entirety to which it is addressed.

Directive 2004/27/EC introduced two parallel procedures to the centralized procedure to allow a product to be progressively authorized in each of the member states of the EU. They are the decentralized procedure and the mutual recognition procedure. The mutual recognition procedure applies where the product has already been authorized in a member state of the EU that will act as reference member state. The national marketing authorization granted by the reference member state forms the basis for mutual recognition in the member states chosen by the applicant. In the decentralized procedure, the product in question is not authorized in any one the EU member states. In such a situation, the applicant company will request a member state to act as the reference member state to lead the scientific assessment for the benefit/risk balance for agreement by the concerned member states. In both cases, the concerned member states have up to 90 days to accept or raise reasoned objections to the assessment made by the reference member state.

In addition, pricing and reimbursement is subject to negotiation and regulation in most countries outside the U.S. Increasingly, adoption of a new product for use in national health services is subject to health technology assessment under the national rules and regulations to establish the clinical effectiveness and cost-effectiveness of a new treatment. In some countries, in order to contain health care expenditures, reference price is introduced in order for the national healthcare providers to achieve a price comparable to the reference price in the same therapeutic category. We may therefore face the risk that the resulting prices would be insufficient to generate an acceptable return to us.

Third Party Reimbursement and Pricing Controls

In the U.S. and elsewhere, sales of pharmaceutical products depend in significant part on the availability of reimbursement to the consumer from third-party payers, such as government and private insurance plans. Third-party payers

are increasingly challenging the prices charged for medical products and services. It is time-consuming and expensive for us to go through the process of seeking coverage from Medicare and private payers. Our products may not be considered cost effective, and coverage and reimbursement may not be available or sufficient to allow us to sell our products on a competitive and profitable basis.

The PPACA enacted significant reforms, including revising the definition of "average manufacturer price" for reporting purposes, increasing Medicaid rebates, expanding the 340B drug discount program, and making changes to affect the Medicare Part D coverage gap, or "donut hole." In the coming years, additional significant changes could be made to governmental healthcare programs, and to the U.S. healthcare system as a whole, that may result in significantly increased demand for rebates, decreased pricing flexibility, diminished negotiating flexibility, coverage and reimbursement limitations based upon comparative and cost-effectiveness reviews, and other measures that could significantly impact the success of our products.

In many foreign markets, including the countries in the EU, pricing of pharmaceutical products is subject to governmental control. In the U.S., there have been, and we expect that there will continue to be, a number of federal and state proposals to implement similar governmental pricing controls or product coverage limitations.

Employees

As of December 31, 2021, we had 164 employees (as compared to 176 employees as of December 31, 2020), 163 of whom were full-time employees, 7 of whom hold an M.D. degree and 29 of whom hold a Ph.D. degree.

We are an equal opportunity employer and we maintain policies that prohibit unlawful discrimination based on race, color, religion, gender, sexual orientation, gender identity/expression, national origin/ancestry, age, disability, marital and veteran status.

We are proud to employ a diverse workforce that, as December 31, 2021, was 66% non-white and 47% women. In addition, as of December 31, 2021, women made up 17% of our senior leadership team. We strive to build and nurture a culture where all employees feel valued and embrace unique points of view.

We believe that the success of our business will depend, in part, on our ability to attract and retain uniquely qualified personnel. We seek to provide people-focused policies that provide for the health, safety and welfare of our employees and their families, as well as professional development and training programs for our team members. In connection with the ongoing pandemic during 2020, we implemented the following policies:

- Instituted a remote work mandate for all staff and provided technical support and training to enable employees to continue to perform their responsibilities while working remotely;
- Implemented safety procedures for all staff, which includes on site and essential travel training for those applicable employees;
- Provided full coverage for all COVID related medical expenses for all eligible employees and their family members, and paid time off for any employee that missed time due to the COVID-19 pandemic including for the care of family members; and
- Modified our flexible spending and 401(k) plans to allow employees more financial flexibility during the economic downturn resulting from the pandemic.

We provide competitive compensation packages designed to attract and retain high-quality employees. All of our employees are eligible for cash bonuses and grants of equity awards. We regularly evaluate our compensation programs with an independent compensation consultant and utilize industry benchmarking in an effort to ensure competitiveness compared to similar biotechnology and biopharmaceutical companies with which we compete for talent, as well as fair and equitable across our workforce with respect to gender, race, and other personal characteristics. In addition, we provide a variety of programs and services to help employees balance their career and home life, including an attractive mix of healthcare, insurance, and other benefit plans. We deliver a benefits program that is designed to keep our employees and their families healthy, which includes not only medical, dental and vision benefits, but also legal services, supplemental life insurance, pet insurance, paid parental leave, dependent care, mental health services, company sponsored fitness programs, and other wellness benefits and incentives.

We also value career development for all employees, and we provide reimbursement and time for employees to attend professional development courses ranging from technical training, competency-based workshops and leadership development programs facilitated by external partners who are experts in their respective fields. Direct managers also take an active role in

identifying individualized development plans to assist employees in realizing their full potential and creating opportunities for promotions and added responsibilities that enhance the engagement and retention of our workforce.

Our employees are not part of any collective bargaining agreements and we believe that we have good relations with our employees.

General Information

We are a Delaware corporation. We originally incorporated in Colorado in December 1987 as Americus Funding Corporation. We changed our corporate name in August 1996 to NeoTherapeutics, Inc., and reincorporated in Delaware in June 1997. We changed our corporate name in December 2002 to Spectrum Pharmaceuticals, Inc.

Our principal executive office is located at 11500 South Eastern Avenue, Suite 220, Henderson, Nevada 89052. Our telephone number is (702) 835-6300. Our website is located at *www.sppirx.com*. The information that can be accessed through our website is not incorporated by reference into this Annual Report on Form 10-K and should not be considered to be a part hereof.

We make our proxy statements, annual reports on Form 10-K, quarterly reports on Form 10-Q, and current reports on Form 8-K (and related amendments to these reports, as applicable) available on our website free of charge as soon as practicable after filing or furnishing with the Securities and Exchange Commission, or the SEC.

All such reports are also available free of charge via EDGAR through the SEC website at *www.sec.gov*. In addition, the public may read and copy materials filed by us with the SEC at the SEC's public reference room located at 100 F Street, NE, Washington, D.C., 20549. Information regarding operation of the SEC's public reference room can be obtained by calling the SEC at 1-800-732-0330.

Item 1A. Risk Factors

Before deciding to invest in our company, or to maintain or increase your investment, you should carefully consider the risks described below, in addition to the other information contained in this Annual Report on Form 10-K and other reports we have filed with the SEC. The risks and uncertainties described below are not the only ones we face. Additional risks and uncertainties not presently known to us, or that we currently deem immaterial, may also affect our business operations. If any of these risks are realized, our business, financial condition, or results of operations could be seriously harmed and in that event, the market price for our common stock could decline, and you may lose all or part of your investment.

These risk factors should be considered in connection with evaluating the forward-looking statements contained in this Annual Report on Form 10-K. These factors could cause actual results and conditions to differ materially from those projected in our forward-looking statements.

SUMMARY OF RISK FACTORS

You should carefully consider the following risk factors and all other information contained herein as well as the information included in this Annual Report on Form 10-K and other reports and filings made with the SEC in evaluating our business and prospects. Risks and uncertainties, in addition to those we describe below, that are not presently known to us or that we currently believe are immaterial may also impair our business operations. If any of the following risks occur, our business and financial results could be harmed and the price of our common stock could decline. You should also refer to the other information contained in this Annual Report on Form 10-K, including our Consolidated Financial Statements and the related Notes.

Risks Related to Our Business

- If we are unable to continue to successfully develop poziotinib, eflapegrastim, or any of our other pipeline products, our business, prospects, operating results, and financial condition will be materially harmed.
- Clinical trials may fail to demonstrate the safety and efficacy of our drug products, which could prevent or significantly delay obtaining regulatory approval.
- We currently generate no revenue from commercial sales and future commercial sales may not be sufficient to sustain our business operations.
- The COVID-19 pandemic and any similar future outbreaks could materially and adversely impact or disrupt our business and our financial condition, results of operations, cash flows and performance.

- The pharmaceutical and biotechnology industries are intensely competitive. We are aware of several competitors attempting to develop and market products competitive to our in-development products, which may reduce or eliminate our commercial opportunities in the future.
- Our supply of APIs, and drug products is and will remain dependent upon the production capabilities of contract manufacturing organizations ("CMOs") and other third-parties for related supplies and logistical services. Some of these vendors are based overseas. If our CMOs and other suppliers are not able to meet our requirements or FDA scrutiny, we may be unable to obtain approval for our products. Even if we do obtain approval for our products, we may be limited in our ability to meet demand for our products, ensure regulatory compliance, or maximize profit on the future sale of our products. Any manufacturing-related disruptions could create significant demand on our limited capital resources, and there can be no assurance that we would be able to continue as a going concern. In addition, our dependence on these ex-U.S. vendors also subjects us to business interruption risks related to COVID-19, and/or similar outbreaks, which could have a material adverse impact on us.
- Our future sales will depend on coverage and reimbursement from third-party payers and a reduction in the coverage and/or reimbursement for our products could have a material adverse effect on our product sales, business and results of operations.
- A breakdown or breach of our information technology systems and cybersecurity efforts could subject us to liability, reputational damage or interrupt the operation of our business.
- Reports of adverse events or safety concerns involving our in-development products or similar agents, could delay or prevent us from obtaining or maintaining regulatory approval or negatively impact sales.
- Our dependence on key executives, scientists and sales and marketing personnel could impact the development and management of our business.
- Competition for patients in conducting clinical trials may prevent or delay product development and strain our limited financial resources.

Risks Related to Our Industry

- If we are unable to obtain regulatory approval for our product candidates, or if we fail to comply with governmental regulations, we will be limited in our ability to commercialize our products and product candidates domestically or abroad and/or will be subject to penalties.
- Even after we receive regulatory approval to market our drug products, the market may not be receptive to our drug products upon their commercial introduction, which would negatively impact our ability to achieve profitability.
- Guidelines and recommendations from various organizations can reduce the use of our products.
- Legislative or regulatory reform of the healthcare system and pharmaceutical industry related to pricing, coverage or reimbursement may hurt our ability to sell our products profitably or at all.
- If our marketing violates federal or state health care fraud and abuse laws, we may be subject to civil or criminal penalties, including exclusion from participation in government health care programs.
- We could be adversely affected by violations of the FCPA and other worldwide anti-bribery laws.
- Governmental pricing regulations could adversely affect our negotiated pricing, or limit product coverage and reimbursements may adversely impact our operating results and our business.

Risks Related to Our Common Stock

- Future issuances of our common stock or other dilutive instruments, may materially and adversely affect the price of our common stock and cause dilution to our existing stockholders.
- The market price and trading volume of our common stock fluctuate significantly and could result in substantial losses for individual investors.
- If our common stock continues to trade below $1, our stock could be delisted.
- Provisions of our charter, and bylaws may make it more difficult for someone to acquire control of us or replace current management even if doing so would benefit our stockholders, which may lower the price an acquirer or investor would pay for our stock.

Risks Relating to Our Intellectual Property

- In-license patents and proprietary technologies from third parties may be difficult or expensive to obtain.
- If we are unable to adequately protect our technology or enforce our patent rights, our business could suffer, and intellectual property rights don't necessarily address all potential threats.
- If we fail to comply with our obligations in the agreements under which we license intellectual property rights from third parties or otherwise experience disruptions to our business relationships with our licensors, we could lose intellectual property rights that are important to our business.
- An inability to protect our patents or trade secrets will have an adverse effect on our business, and patent terms may be inadequate to protect us from competitors.
- Changes in U.S. patent law may diminish the value of our patents, and the costs of maintaining our patents can be costly, complex, and uncertain and we may be subject to infringement claims.
- We may be subject to claims that our employees, consultants or independent contractors have wrongfully used or disclosed confidential information of third parties or that our employees have wrongfully used or disclosed alleged trade secrets of their former employers.
- We may be involved in additional lawsuits to defend or enforce our patents, which could be expensive, time-consuming and unsuccessful.
- We may be subject to claims challenging the inventorship of our patents and other intellectual property, and may be subject to federal regulations such as "march-in" rights that limit our exclusive rights or ability to contract with non-US manufacturers.

General Risk Factors

- Lack of effective internal controls over financial reporting could result in material misstatements that affects investor confidence negatively, which in turn could cause the trading price of our common stock to decline.
- Earthquakes or other natural or man-made disasters and business interruptions could adversely affect our business.
- We are subject to the risks of securities and related litigation, which may expose us to substantial liabilities and could seriously harm our business.
- Global, market and economic conditions may negatively impact our business, financial condition and share price.

For a more complete discussion of the material risks facing our business, see below.

Risks Related to Our Business

If we are unable to continue to successfully develop poziotinib, eflapegrastim, or any of our other pipeline products, our business, prospects, operating results, and financial condition will be materially harmed.

The announcement of any negative or unexpected data, any delay in our anticipated timelines for filing for regulatory approval, or a significant advancement of a competitor, may cause our stock price to decline significantly and may have an adverse impact on our business, financial condition and prospects. In addition, clinical trial results are frequently susceptible to varying interpretations that may delay, limit or prevent regulatory approvals. There is no assurance that data from our clinical trials will support filings for regulatory approval of any of our pipeline products, or even if approved, that these drugs will become commercially successful for all approved indications. In addition, we may experience significant setbacks in our advanced clinical trials, even after promising results in earlier trials, including unexpected adverse events. Any deficiencies in the our clinical trial operations or other unexpected adverse events impacting such trials could cause increased costs, program delays or both, which may harm our business.

If one of our pipeline products fails at any stage of development, or we otherwise determine to discontinue development of that product, we will not have the anticipated revenues from that product, and we may not receive any return of our investment on it. Consequently, our stock price could decline significantly and there could be an adverse impact on our business, financial condition, results of operations and prospects.

For example, in October of 2019 we announced that we had submitted the BLA for eflapegrastim and in August 2021, we received a Complete Response Letter from the FDA regarding our BLA, citing deficiencies related to manufacturing and

indicating that a reinspection will be necessary. We believe we have completed the remediation of these deficiencies and resubmitted the BLA on March 11, 2022. In addition, the company announced the submission of the poziotinib NDA in December 2021. In February of 2022, the company announced that the FDA accepted the NDA and reiterated the importance of having the confirmatory trial substantially enrolled at the time of approval and requested additional information around dosing. Due to the uncertainty of the regulatory approval process, we may not be successful at developing these drugs or receiving approval.

Clinical trials may fail to demonstrate the safety and efficacy of our drug products, which could prevent or significantly delay obtaining regulatory approval.

Prior to receiving approval to commercialize any of our drug products, we must demonstrate with substantial evidence from well-controlled clinical trials, and to the satisfaction of the FDA, and other regulatory authorities in the U.S. and other countries, that each of the products is both safe and effective. For each drug product, we will need to demonstrate its efficacy and monitor its safety throughout the process. If such development is unsuccessful, our business and reputation would be harmed and our stock price would be adversely affected.

We are currently conducting multiple clinical trials for our products. Each of our clinical trials requires investment of substantial financial and personnel resources. The commencement and completion of these clinical trials may be delayed by various factors, including scheduling conflicts with participating clinicians and clinical institutions, difficulties in identifying and enrolling patients who meet trial eligibility criteria, failure of patients to complete the clinical trial, delays in accumulating the required number of clinical events for data analysis, delay or failure to obtain the required approval to conduct a clinical trial at a prospective site, and shortages of available drug supply.

All of our drug products are prone to the risks of failure inherent in drug development. Clinical trials of new drug products sufficient to obtain regulatory marketing approval are expensive, uncertain, and take years to complete. We may not be able to successfully complete clinical testing within the time frame we have planned, or at all. Moreover, the outcome of a clinical trial is often uncertain. We may experience numerous unforeseen events during, or as a result of, the clinical trial process that could delay or prevent us from receiving regulatory approval or commercializing our drug products. In this regard, reports of adverse events or concerns involving any of our products could interrupt, delay or halt clinical trials of such products or could result in our inability to obtain regulatory approvals for such products. In addition, the results of pre-clinical studies and early-stage clinical trials of our drug products do not necessarily predict the results of later-stage clinical trials. Later-stage clinical trials may fail to demonstrate that a drug product is safe and effective despite having progressed through initial clinical testing. Even if we believe the data collected from clinical trials of our drug products is promising, data are susceptible to varying interpretations, and such data may not be sufficient to support approval by the FDA or any other U.S. or foreign regulatory approval. Pre-clinical and clinical data can be interpreted in different ways.

Accordingly, FDA officials could interpret such data in different ways than we or our partners do which could delay, limit or prevent regulatory approval. The FDA, other regulatory authorities, our institutional review boards, our contract research organizations, or we may suspend or terminate our clinical trials for our drug products. Any failure or significant delay in completing clinical trials for our drug products, or in receiving regulatory approval for the sale of any drugs resulting from our drug products, may severely harm our business and reputation and may cause our stock price to decline. Even if we receive FDA and other regulatory approvals, our drug products may later exhibit adverse effects that may limit or prevent their widespread use, may cause the FDA to revoke, suspend or limit their approval, or may force us to withdraw products derived from those drug products from the market. Furthermore, there is the risk that additional post-marketing requirements may be imposed by the FDA in the future on our products.

Moreover, the commencement and completion of clinical trials may be delayed by many factors that are beyond our control, including:

- delays obtaining regulatory approval to commence a trial;
- delays in reaching agreement on acceptable terms with contract research organizations (“CROs”), and clinical trial sites;
- delays in obtaining institutional review board, or IRB, approval at each site;
- slower than anticipated patient enrollment or our inability to recruit and enroll patients to participate in clinical trials for various reasons, including the ongoing COVID-19 pandemic;
- our inability to retain patients who have initiated a clinical trial;
- scheduling conflicts with participating clinicians and clinical institutions;

- lack of funding to start or continue the clinical trial, including as a result of unforeseen costs due to enrollment delays, requirements to conduct additional trials and studies and increased expenses associated with our CROs and other third parties;
- negative or inconclusive results;
- deficiencies in the conduct of the clinical trial, including failure to conduct the clinical trial in accordance with regulatory requirements, good clinical practice, or clinical protocols;
- deficiencies in the clinical trial operations or trial sites resulting in the imposition of a clinical hold;
- patient noncompliance with the protocol;
- adverse medical events or side effects experienced by patients during the clinical trials as a result of or resulting from the clinical trial treatments;
- fatalities or other adverse events arising during a clinical trial due to medical problems that may not be related to clinical trial treatments;
- our ability to sustain the quality or stability of the applicable product candidate in compliance with acceptable standards;
- our inability to produce or obtain sufficient quantities of the applicable product candidate to complete the clinical trials;
- changes in governmental regulations or administrative actions that adversely affect our ability to continue to conduct or complete clinical trials;
- negative or problematic FDA inspections of our clinical operations or manufacturing operations; and
- real or perceived lack of effectiveness or safety.

We could encounter delays if a clinical trial is suspended or terminated by us, the IRBs of the clinical trial sites in which such trials are being conducted, or by the FDA or other regulatory authorities. Such authorities may impose such a suspension or termination due to a number of factors, including failure to conduct the clinical trial in accordance with regulatory requirements or our clinical protocols, inspection of the clinical trial operations or trial site by the FDA or other regulatory authorities resulting in the imposition of a clinical hold, unforeseen safety issues or adverse side effects, failure to demonstrate a benefit from using a drug, changes in governmental regulations or administrative actions or lack of adequate funding to continue the clinical trial. Any delays, interruptions or halts in our clinical trials involving any of our products or other adverse events negatively impacting our ability to obtain regulatory approvals for such products in a timely manner could adversely affect our overall profitability, results of operations and financial condition and prospects.

We currently generate no revenue from commercial sales and future commercial sales may not be sufficient to sustain our business operations.

We will not generate any future revenue until our pipeline products, including the late-stage development products eflapegrastim and poziotinib, are approved for commercial sale by the FDA and/or other regulatory agencies. There is no guarantee as to when, if ever, our pipeline products will be approved for commercial sale. Accordingly, we may need to raise additional capital to fund our business operations. To the extent that additional capital is raised through the sale of equity or convertible debt securities, it could result in further dilution to our stockholders and adversely impact our stock price.

The ongoing COVID-19 pandemic and the future outbreak of other highly infectious or contagious diseases, could materially and adversely impact or disrupt our business and our financial condition, results of operations, cash flows and performance.

The COVID-19 pandemic and mitigation measures also have had an adverse impact on global economic conditions which could have an adverse effect on our business and financial condition, including impairment of our ability to raise capital when needed. The trading prices for biopharmaceutical companies' stock have been highly volatile as a result of the COVID-19 pandemic. In addition, the continued spread of COVID-19 could cause a recession, depression, or other sustained adverse market event which could materially and adversely affect our business and the value of our common shares.

We have maintained our operations during the COVID-19 pandemic by requiring most of our employees to work remotely. Only those employees performing essential activities that must be completed on-site are allowed in our facilities. These modifications to business activity may negatively impact productivity and cause disruptions and delays to our business. Longer term remote working environments could increase our cyber security risk, create data accessibility concerns, and make us more susceptible to communication disruptions. When we reopen our facilities, we could encounter delays in connection with implementing precautionary measures to mitigate the risk of exposing our employees to COVID-19.

Although the COVID-19 pandemic has not materially affected our clinical development programs to date, certain of our clinical programs have seen slower enrollment and there have also been delays in initiating new studies as a result of the COVID-19 pandemic. These delays are not seen across all our trials and are specific to certain trials enrolling at certain sites. In the future, the COVID-19 pandemic could further adversely affect our ability to enroll and recruit patients in current and future clinical trials, as well as delay data collection and analysis, any of which could cause a delay or denial of regulatory approval of our product candidates. Our success is dependent on our ability to advance our development programs into later stages of clinical development. Many pharmaceutical and biotechnology companies have indicated that their clinical trials will be delayed and enrollment of current and ongoing trials will suffer as a result of the COVID-19 pandemic. We anticipate the potential for delays in the initiation and enrollment of planned clinical trials until the pandemic resolves.

On October 26, 2020, we announced that the FDA had deferred action on the BLA for eflapegrastim due to its inability to conduct an inspection of the Hanmi manufacturing facility in South Korea as a result of travel restrictions associated with the COVID-19 pandemic. In early June 2021, the FDA conducted the pre-approval inspection of the Hanmi manufacturing facility. In August 2021, we received a Complete Response Letter from the FDA regarding our BLA, citing deficiencies related to manufacturing and indicating that a reinspection will be necessary. We believe we have completed the remediation of these deficiencies and resubmitted the BLA on March 11, 2022. However, we cannot guarantee that we, together with our contract manufacturers, will be able to remediate the cited deficiencies in a timely manner, or at all, and we cannot predict whether the COVID-19 pandemic will again delay or even prevent the FDA from completing any reinspections that may be required in connection with a resubmission of the BLA for efapegrastim.

The COVID-19 pandemic could also adversely affect our supply chain for other third party vendors for research supplies, development activities including manufacturing of drug product for our clinical studies and testing of drug material. If any of the vendors in our supply chain of products or services are severely affected from the COVID-19 pandemic, it will adversely affect our ability to continue our research and development activities and also continue our clinical trial activities. Disruptions to our business operations or operations of our third-party manufacturers and CROs on which we rely to conduct our clinical trials could be significant and of undetermined length. Significant restrictions or bans on travel could impede, delay, limit or prevent our employees and CROs from continuing research and development activities.

The pharmaceutical and biotechnology industries are intensely competitive. We are aware of several competitors attempting to develop and market products competitive to our in-development products, which may reduce or eliminate our commercial opportunities in the future.

The pharmaceutical and biotechnology industries are intensely competitive and subject to rapid and significant technological changes. A number of companies are pursuing the development of pharmaceuticals and products that target the same diseases and conditions that our pipeline products target. We cannot predict with accuracy the timing or impact of the introduction of potentially competitive products or their possible effect on our future sales. Certain potentially competitive products to our in-development products are in various stages of development, some of which have pending applications for approval with the FDA or have been approved by regulatory authorities in other countries. Also, there are many ongoing studies with currently marketed products and other developmental products, which may yield new data that could adversely impact the use of our products upon potential FDA approval. Some of our in-development products may become obsolete before we recover the expenses incurred in their development. The introduction of competitive products or the development of technological advances that compete with our products could significantly reduce anticipated future sales, which, in turn would adversely impact our financial and operating results.

Our supply of APIs and drug products is and will remain dependent upon the production capabilities of CMOs and other third-parties for related supplies and logistical services. Some of these vendors are based overseas. If our CMOs and other suppliers are not able to meet our requirements or FDA scrutiny, we may be unable to obtain approval for our products. Even if we do obtain approval for our products, we may be limited in our ability to meet demand for our products, ensure regulatory compliance, or maximize profit on the future sale of our products. Any manufacturing-related disruptions could create significant demand on our limited capital resources, and there can be no assurance that we would be able to continue as a going concern. In addition, our dependence on these ex-U.S. vendors also subjects us to business interruption risks related to COVID-19, and/or similar outbreaks, which could have a material adverse impact on us.

We have no internal manufacturing capacity for APIs or our drug products. We therefore have entered into agreements with CMOs and other suppliers to supply us with APIs and our finished drug products. Success in the development and marketing of our drug products depends, in part, upon our ability to maintain, expand and enhance these existing relationships and establish new sources of supply. The manufacture of APIs and finished drug products, including the acquisition of compounds used in the manufacture of the finished drug products, may require considerable lead times. We have little or no control over the production processes of third-party manufacturers, CMOs or other suppliers. Some of the third-party manufacturing facilities used in the production of APIs and our drug products are located outside of the U.S. and require FDA approval, which our third-party manufacturers may have limited experience with obtaining. Our CMOs and other suppliers are subject to inspection by the FDA and may receive observations that they may not be able to resolve in a timely or effective manner, which could impact whether our products can be approved on a timely basis, if at all. We recently received a Complete Response Letter from the FDA on August 6, 2021 for our eflapegrastim BLA that cited various manufacturing deficiencies at our API and our fill-and-finish suppliers. There is no guarantee that the remediation efforts will be found to be acceptable by the FDA.

The manufacture of pharmaceutical products requires significant expertise and capital investment, including the development of manufacturing and testing techniques, process controls, and scaling of production to meet commercial requirements. Manufacturers of pharmaceutical products often encounter difficulties during preparation for production, including technical challenges production costs, yields, quality control and assurance. If manufacturing deficiencies are noted by the FDA at any of the manufacturing facilities utilized in our products, there can be no assurance that we, or our CMOs, can resolve these manufacturing deficiencies on a timely basis, if at all. Any manufacturing-related disruptions could create significant demand on our limited capital resources, and there can be no assurance that we would be able to continue as a going concern.

Our ability to source APIs and drug products is also dependent on providers of logistical services who may be subject to disruptions that we cannot predict or sufficiently plan around. Accordingly, while we do not currently anticipate shortages of supply, circumstances could arise in which we will not have adequate supplies to timely meet our requirements or market demand for a particular drug product could outstrip the ability of our supply source to timely manufacture and deliver the product, thereby causing us to lose sales. In addition, our ability to make a profit on the sale of our drug products depends on our ability to obtain favorable pricing for these arrangements.

If problems arise during the manufacture of a batch of our drug products, that batch of product may have to be discarded. This could, among other things, lead to increased costs, lost revenue, damage to customer relations, time and expense spent investigating the cause of the problem and, depending on the cause, similar losses with respect to other batches or products. If problems are not discovered before the product is released to the market, recall and product liability costs may also be incurred. To the extent that one of our suppliers experiences significant manufacturing problems, this could have a material adverse effect on our revenues and profitability.

Reliance on CMOs entails risks to which we would not be subject if we manufactured products ourselves, including reliance on the third party for regulatory compliance and adherence to the FDA's current Good Manufacturing Practice ("cGMP") requirements, the possible breach of the manufacturing agreement by the CMO and the possibility of termination or non-renewal of the agreement by the CMO, based on its own business priorities, at a time that is costly or inconvenient for us. Before we can obtain marketing approval for our drug products, our CMO facilities must be approved by the FDA and typically pass a pre-approval inspection. In order to obtain FDA approval, the FDA must conclude that all of the suppliers' manufacturing methods, equipment and processes comply with cGMP requirements.

The cGMP requirements govern organization and personnel, buildings and facilities, equipment, control of components and drug product containers and closures, production and process controls, packaging and labeling control, holding and distribution, laboratory controls, records and reports, and returned and salvaged drug products. In addition, our CMOs will be subject to on-going periodic inspection by the FDA and corresponding state and foreign agencies for compliance with their

cGMP requirements, regulations and other regulatory standards. We do not have control over our CMOs' compliance with these regulations and standards. Any failure of our third party manufacturers or us to comply with applicable regulations, including an FDA pre-approval inspection, periodic on-going inspection by the FDA and cGMP requirements, could result in sanctions being imposed on them or us, including warning letters, fines, injunctions, civil penalties, failure of regulatory authorities to grant marketing approval of our products, delay, suspension or withdrawal of approvals, license revocation, seizures or recalls of product, operation restrictions and criminal prosecutions, any of which could significantly and adversely affect our business.

Finally, our business could be adversely impacted by the effects of the COVID-19 pandemic, or by other public health emergencies. We source some of our APIs and other materials from Asia, including China and South Korea. Due to our current reliance on these vendors for eflapegrastim and poziotinib supply, we risk disruption in our supply chain (including restrictions on export or shipment), depending on the severity of the coronavirus outbreak and the potential government restrictions placed on our vendors or their transports.

If our suppliers fail to deliver materials and services needed for commercial manufacturing in a timely and sufficient manner or fail to comply with applicable regulations, and if we fail to timely identify and qualify alternative suppliers, our business, financial condition and results of operations would be harmed and the market price of our common stock and other securities could decline.

We must rely on all of our suppliers to comply with relevant regulatory and other legal requirements, including the production of API in accordance with the FDA's cGMP for drug products. Although we conduct our own inspections and review and/or approve investigations of each supplier, there can be no assurance that the FDA, upon inspection, would find that the supplier is complying with the cGMP requirements, where applicable. If a supplier fails to comply with these requirements or the comparable requirements in foreign countries, regulatory authorities may subject them or us to regulatory action, including criminal prosecutions, fines and suspension of the manufacture of our products. If we are required to find a new or additional supplier, we will need to evaluate that supplier's ability to provide material that meets regulatory requirements, including cGMP requirements, as well as our specifications and quality requirements, which would require significant time and expense and could delay the production of our drug products. In general, if any of our suppliers is unwilling or unable to meet its supply obligations or if we encounter delays or difficulties in our relationships with manufacturers or suppliers, and we are unable to secure an alternative supply source in a timely manner and on favorable terms, our business, financial condition, and results of operations may be harmed and the market price of our common stock may decline.

Our future sales will depend on coverage and reimbursement from third-party payers and a reduction in the coverage and/or reimbursement for our products could have a material adverse effect on our product sales, business and results of operations.

Upon FDA approval, sales of our products are dependent on the availability and extent of coverage and reimbursement, or level of reimbursement, from third-party payers, including government programs and private insurance plans. Governments and private payers may regulate prices, reimbursement levels and/or access to our products to contain costs or to affect levels of use. We rely in large part on the reimbursement of our products through government programs such as Medicare and Medicaid in the U.S., and a reduction in the coverage and/or reimbursement for our products could have a material adverse effect on our product sales, business and results of operations.

A substantial portion of our U.S. business is expected to rely on reimbursement from the U.S. federal government under Medicare Part B coverage. Most of our products furnished to Medicare beneficiaries in both a physician office setting and hospital outpatient setting will be reimbursed under the Medicare Part B Average Sales Price ("ASP") payment methodology. ASP-based reimbursement of our products under Medicare may be below or could fall below the cost that some medical providers pay for such products, which could materially and adversely affect sales of our products. We also face risks relating to the reporting of pricing data that affect the U.S. reimbursement of and discounts for our products. ASP data are calculated by the manufacturer based on a formula defined by statute and regulation and are then submitted to the Centers for Medicare & Medicaid Services ("CMS"), the agency responsible for administering the Medicare program, on a quarterly basis.

CMS uses those ASP data to determine the applicable reimbursement rates for our products under Medicare Part B. However, the statute, regulations and CMS guidance do not define specific methodologies for all aspects of the reporting of ASP data. For example, CMS has not provided specific guidance regarding administrative fees paid to group purchasing organizations (each a "GPO" and, collectively "GPOs") in the ASP calculation. CMS directs that manufacturers make

"reasonable assumptions" in their calculation of ASP data in the absence of specific CMS guidance on a topic. As a result, we are required to apply our reasonable judgment to certain aspects of calculating ASP data. If our submitted ASP data are incorrect, we may become subject to substantial fines and penalties or other government enforcement actions, which could have a material adverse impact on our business and results of operations.

A breakdown or breach of our information technology systems and cybersecurity efforts could subject us to liability, reputational damage or interrupt the operation of our business.

We rely upon our sophisticated information technology systems and infrastructure to operate our business. In the ordinary course of business, we collect, store and transmit large amounts of confidential information (including, but not limited to, personal information and intellectual property), and we deploy and operate an array of technical and procedural controls to maintain the confidentiality and integrity of such confidential information. Data privacy breaches by those who access our systems, whether by employees or others, may pose a risk that sensitive data, including intellectual property, trade secrets or personal information belonging to us, our patients, employees, customers or other business partners, may be exposed to unauthorized persons or to the public or otherwise used for unauthorized purposes. We could also experience a business interruption, noncompliance with data privacy laws, theft of confidential information, or reputational damage from industrial espionage attacks, malware or other cyber-attacks, which may compromise our system infrastructure or lead to data leakage, either internally or at our third-party providers. Such attacks are of ever-increasing levels of sophistication, frequency and intensity, and have become increasingly difficult to detect. There can be no assurance that our efforts to protect our data and information technology systems will prevent breakdowns or breaches in our systems (or that of our third-party providers). Any such interruption or breach of our systems or improper use of confidential data could adversely affect our business operations, financial condition, and/or result in the loss of critical or sensitive confidential information or intellectual property, and could result in financial, legal, business and reputational harm to us.

We are also subject to various laws and regulations globally regarding privacy and data protection, including laws and regulations relating to the collection, storage, handling, use, disclosure, transfer and security of personal data. The legislative and regulatory environment regarding privacy and data protection is continuously evolving and developing and the subject of significant attention globally. We are subject to the EU's General Data Protection Regulation, which became effective in May 2018, and the California Consumer Privacy Act of 2018, which became effective in January 2020, each of which contemplate substantial penalties. Failure to comply with these laws could result in significant penalties and could have a material adverse effect on our business and results of operations.

Reports of adverse events or safety concerns involving our in-development products or similar agents, could delay or prevent us from obtaining or maintaining regulatory approval or negatively impact sales.

Our in-development products may cause SAEs. In addition to the risk associated with known SAEs, discovery of previously unknown problems with a product, including adverse events of unanticipated severity or frequency, could interrupt, delay or halt clinical trials of such products, including the FDA-required post-approval studies, and could result in the FDA or other regulatory authorities denying or withdrawing approval of our products for any or all indications. The FDA, other regulatory authorities or we may suspend or terminate clinical trials at any time. We may also be required to update the package inserts based on reports of adverse events or safety concerns or implement a REMS, which could adversely affect such product's acceptance in the market. In addition, the public perception of our products might be adversely affected, which could harm our business and results of operations and cause the market price of our common stock to decline, even if the concern relates to another company's product or product candidate. Our planned trials to demonstrate efficacy in a variety of indications and to better manage side effect profiles of certain of our products may not be successful and there are no assurances that patients receiving our products will not experience SAEs in the future.

Future reports of SAEs or safety concerns involving any of our products could adversely affect our business, results of operations and prospects.

Our dependence on key executives, scientists and sales and marketing personnel could impact the development and management of our business.

We are highly dependent upon our ability to attract and retain qualified scientific, technical sales and marketing and managerial personnel. There is intense competition for qualified personnel in the pharmaceutical and biotechnology industries, and we cannot be sure that we will be able to continue to attract and retain the qualified personnel necessary, particularly as business prospects change, for the development and management of our business. Although we do not believe the loss of one individual would materially harm our business, our business might be harmed by the loss of the services of

multiple existing personnel, as well as the failure to recruit additional key scientific, technical and managerial personnel in a timely manner. Much of the know-how we have developed resides in our scientific and technical personnel and is not readily transferable to other personnel. We do not have employment agreements with most of our key scientific, technical, or managerial employees, though we have employment agreements with each of our named executive officers. Furthermore, our common stock is currently trading at a price below the exercise price of most of our outstanding stock options. As a result, these "underwater" options are less useful as a motivation and retention tool for our existing employees.

A significant portion of our revenue has historically been derived from a limited number of distributors — and is expected to persist for our in-development drugs upon potential FDA approval.

We expect that a significant portion of our future revenue will depend on sales to a limited number of distributors. Any distributors we may use comprise a significant part of the distribution network for pharmaceutical products in the U.S. and a small number of large distributors and wholesalers control a significant share of the market, which can increase competitive and pricing pressures on pharmaceutical manufacturers, including us. In addition, wholesalers may apply pricing pressure through their fee-for-service arrangements. Any reduction in the prices we receive for our products could adversely impact our revenues and financial condition. In addition, any individual distributor could choose to stop selling some or all of our products at any time, and without notice. If we lose our relationship with any of our future significant distributors, we would experience disruption and delays in marketing our products and could also experience declines in our revenues, which in turn could materially adversely impact our financial condition.

Our efforts to acquire or in-license and develop additional drug products may fail and/or our in-licensed products may fail to perform as we anticipate, which might limit our ability to grow our business.

To remain competitive and grow our business, our long-term strategy includes the acquisition or in-license of additional drug products. We are actively seeking to acquire, or in-license, additional commercial drug products as well as drug products that have demonstrated positive pre-clinical and/or clinical data. We have certain criteria that we are looking for in any drug product acquisition and in-license and we may not be successful in locating and acquiring, or in-licensing, additional desirable drug products on acceptable terms.

To accomplish our acquisition and in-license strategy, we intend to commit efforts, funds and other resources to research and development and business development. Even with acquired and in-licensed drug products, a high rate of failure is inherent in the development of such products. We must make ongoing substantial expenditures without any assurance that our efforts will be commercially successful. Failure can occur at any point in the process, including after significant funds have been invested. For example, promising new drug product candidates may fail to reach the market or may only have limited commercial success because of efficacy or safety concerns, failure to achieve positive clinical outcomes, inability to obtain necessary regulatory approvals, limited scope of approved uses, excessive costs to manufacture, the failure to establish or maintain intellectual property rights, limited payer coverage or infringement of the intellectual property rights of others.

In addition, many other large and small companies within the pharmaceutical and biotechnology industry seek to establish collaborative arrangements for product research and development, or otherwise acquire products in late-stage clinical development, in competition with us. We face additional competition from public and private research organizations, academic institutions and governmental agencies in establishing collaborative arrangements for drug products in late-stage clinical development. Many of the companies and institutions that compete against us have substantially greater capital resources, research and development staffs and facilities than we have, and greater experience in conducting business development activities. These entities represent significant competition to us as we seek to expand our portfolio through the in-license or acquisition of compounds. Finally, while it is not feasible to predict the actual cost of acquiring and developing additional drug products, that cost could be substantial and we may need to obtain additional financing for such purpose, which may further dilute existing stockholders.

Our business depends upon the continued customer support efforts of distributors.

In the U.S., we plan to sell our products to a small number of distributors who in turn will sell-through to patient health care providers. These distributors will also provide multiple logistics services relating to the distribution of drug products, including transportation, warehousing, cross-docking, inventory management, packaging and freight-forwarding. We will not promote products to these distributors and they do not set or determine demand for products. The use of distributors involves certain risks, including, but not limited to, risks that these distributors will:

- not provide us with accurate or timely information regarding their inventories, the number of patients who are using our products or complaints about our products;

- not purchase sufficient inventory on hand to fulfill end user orders in a timely manner;
- be unable to satisfy financial obligations to us or others; and
- cease operations.

Any such actions may result in decreased sales of our products, upon potential FDA approval, which would harm our business.

Adverse economic conditions may have material adverse consequences on our business, results of operations and financial condition as well as our ability to raise additional capital.

Unpredictable and unstable changes in economic conditions, including recession, inflation, increased government intervention, or other changes, may adversely affect our general business strategy. In recent years, we have funded our operations through a combination of equity and debt offerings and sales of our pharmaceutical products. Based on our current plans and expectations, we believe that we will require additional funding to achieve our goals. We may need to raise these additional funds through public or private debt or equity financings, and any adverse economic conditions could adversely affect our ability to raise funds. If our business deteriorates, we may not be able to maintain compliance with any covenants or representations and warranties in any such financings, which could result in reduced availability of such financings, an event of default under such financings, or could make other sources of financing unavailable to us. Any such event would have a material adverse impact on our business, results of operations and financial condition.

While we believe we have adequate capital resources to meet our current working capital and capital expenditure requirements, an economic downturn or an increase in our expenses could require us to seek additional financing on less than attractive rates or on terms that are excessively dilutive to existing stockholders. Failure to secure any necessary financing in a timely manner and on favorable terms could have a material adverse effect on our growth strategy, financial performance and stock price and could require us to delay or abandon clinical development plans or plans to acquire additional technology.

Volatile economic conditions may not only limit our access to capital, but may also make it difficult for our customers and us to accurately forecast and plan future business activities, and they could cause businesses to slow spending on our products, which would delay and lengthen future sales cycles. Furthermore, during challenging economic times, our customers may face issues gaining timely access to sufficient credit, which could result in an impairment of their ability to make timely payments to us. In addition, adverse economic conditions could also adversely impact our suppliers' ability to provide us with materials which would negatively impact on our business, financial condition, and results of operations.

We are a small company relative to our principal competitors, and our limited financial resources may limit our ability to develop and market our drug products.

Many companies, both public and private, including well-known pharmaceutical companies and smaller niche-focused companies, are developing products to treat many, if not all, of the diseases we are pursuing or are currently distributing drug products that directly compete with the drugs that we sell or that we intend to develop, market and distribute.

Competition for branded or proprietary drugs is less driven by price and is more focused on innovation in the treatment of disease, advanced drug delivery and specific clinical benefits over competitive drug therapies. We may not be successful in any or all of our current clinical studies; or if successful, and if one or more of our drug products is approved by the FDA, we may encounter direct competition from other companies who may be developing products for similar or the same indications as our drug products.

Companies that have products on the market or in research and development that target the same indications as our in-development products or new compounds sought include, among others: Amgen, Inc., Coherus BioSciences, Mylan Pharmaceuticals, Inc., Sandoz, Pfizer, AstraZeneca plc, Takeda Pharmaceutical Company Ltd., Janssen Research & Development, Taiho Pharmaceutical Co., Ltd., Cullinan Oncology, LLC, Daiichi-Sankyo Co., Ltd., Genentech, Inc., Gilead Sciences, Inc., Jiangsu Hengrui Pharmaceuticals Co., Ltd., and Novartis International AG.

Many of our competitors are large and well-capitalized companies focusing on a wide range of diseases and drug indications, and have substantially greater financial, research and development, marketing, human and other resources than we do. Furthermore, large pharmaceutical companies have significantly more experience than we do in pre-clinical testing, human clinical trials and regulatory approval procedures, among other things. As a result, our competitors may be more successful than us in developing their products, obtaining regulatory approvals and marketing their products to consumers.

If actual future payments for allowances for discounts, returns, rebates and chargebacks exceed the estimates we made at the time of the sale of our products, our financial position, results of operations, and cash flows may be materially and negatively impacted.

On March 1, 2019, we completed the sale of the Commercial Product Portfolio to Acrotech. We contractually retained all obligations related to our estimated allowances for discounts, returns, rebates and chargebacks for sales made on and prior to such date. Our former FUSILEV, MARQIBO, and BELEODAQ customers are permitted to return purchased products to us beginning at their expiration date and within six months thereafter. Our former EVOMELA customers are permitted to return purchased product beginning at six months prior to its expiration date, and within 12 months following its expiration date (as well as for overstock inventory, as determined by end-users). We authorize returns for damaged products and exchanges for expired products in accordance with our returned goods policy and procedures. Also, like our competitors, we also give credits for chargebacks to wholesale customers that have contracts with us for their sales to hospitals, GPOs, pharmacies or other retail customers. The product revenue we recognized through March 1, 2019 was net of estimated allowances for discounts, returns, rebates and chargebacks. Such estimates required subjective and complex judgment due to the need to make estimates about matters that are inherently uncertain. Based on industry practice, pharmaceutical companies, including us, have liberal return policies.

A chargeback is the difference between the price the wholesaler pays us (wholesale acquisition cost, or WAC) and the price that the wholesaler's customer pays for our product (contracted customer). Our products were subject to certain programs with federal government qualified entities whereby pricing on products is discounted to such entities and results in a chargeback claim to us, or for us to bill certain qualifying Public Health Service end-users at government-mandated pricing. To the extent that our sales to discount purchasers, such as federal government qualified entities, increases, chargeback claims will also increase. There may be significant lag time between our original sale to the wholesaler and our receipt of the corresponding government chargeback claims from our wholesalers.

Our products are subject to state government-managed Medicaid programs, whereby rebates for purchases are issued to participating state governments. These rebates arise when the patient treated with our products is covered under Medicaid. Our calculations require us to estimate end-user and patient mix to determine which of our sales will likely be subject to these rebates. There is a significant time lag in us receiving these rebate notices (generally several months after our sale is made). Our estimates are based on our historical claims from participating state governments, as supplemented by management's judgment.

Although we believe that we have sufficient allowances, actual results may differ significantly from our estimated allowances for discounts, returns, rebates and chargebacks. Changes in estimates and assumptions based upon actual results may have a material impact on our financial condition, results of operations and cash flows. Such changes to estimates will be made to the financial statements in the year in which the estimate is changed. In addition, our financial position, results of operations and cash flows may be materially and negatively impacted if actual future payments for allowances, discounts, returns, rebates and chargebacks exceed the estimates we made at the time of the sale of our products.

Our business and operations are subject to risks related to climate change.

The long-term effects of global climate change present risks to our business. Extreme weather or other conditions caused by climate change could adversely impact our supply chain and the availability and cost of raw materials and components required for the operation of our business. Such conditions could also result in physical damage to products, plants and distribution centers, as well as the infrastructure and facilities and other customers. In addition, regulations intended to limit greenhouse gas emissions, such as taxes on fuel and energy, to mitigate the impacts of climate change may increase, which could increase our operating costs and the costs charged by suppliers. These events could adversely affect our operations and our financial performance.

Our business strategy requires that we engage in transactions that increase our capital requirements, cause us to incur debt or assume contingent liabilities, and possibly dilute our stockholders.

We actively evaluate various strategic transactions on an ongoing basis, including licensing or otherwise acquiring complementary products, technologies or businesses. Any potential acquisitions or in-licensing transactions may entail numerous risks, including but not limited to:

- risks associated with satisfying the closing conditions relating to such transactions and realizing their anticipated benefits;
- increased operating expenses and cash requirements;

- difficulty in conforming standards, procedures and policies, business cultures and compensation structures;
- difficulty integrating acquired technologies, products and personnel with our existing business;
- difficulty conforming acquired operations, such as corporate and administrative functions, sales and marketing, or information technology and accounting systems with our existing business;
- diversion of management's attention in connection with both negotiating the acquisition or license and integrating the business, technology or product;
- retention of key employees;
- uncertainties in our ability to maintain key business relationships of any acquired entities;
- strain on managerial and operational resources;
- exposure to regulatory, compliance and legal risks of the acquired entities;
- tax costs or inefficiencies associated with integrating operations;
- modifications to operating control standards to comply with the Sarbanes-Oxley Act of 2002 and the rules and regulations promulgated thereunder;
- difficulty coordinating geographically dispersed organizations;
- exposure to unforeseen liabilities of acquired companies or products or companies or products in which we invest; and
- potential costly and time-consuming litigation, including stockholder lawsuits.

As a result of these or other problems and risks, businesses, technologies or products we acquire or invest in or obtain licenses to may not produce the revenues, earnings or business synergies that we anticipated. In addition, acquired or licensed products may not perform as expected or we may not obtain necessary regulatory approvals on our anticipated timeline or at all.

Accordingly, we may incur higher costs and realize lower revenues than we had anticipated. We cannot assure you that any acquisitions or investments we have made or may make in the future will be completed or that, if completed, the acquired business, licenses, investments, products, or technologies will generate sufficient revenue to offset the negative costs or other negative effects on our business. Failure to effectively manage our growth through acquisition or in-licensing transactions could adversely affect our growth prospects, business, results of operations, financial condition, and cash flow.

In addition, in connection with acquisitions and in-licensing transactions, we may spend significant amounts of capital, issue dilutive securities, assume or incur significant debt obligations or contingent liabilities, and acquire intangible assets that could result in significant future amortization expense and write-offs. Moreover, we may not be able to locate suitable acquisition opportunities and this inability could impair our ability to grow or obtain access to technology or products that may be important to the development of our business. Even if appropriate opportunities are available, we may not be able to successfully identify them or we may not have the financial resources necessary to pursue them, and if pursued, we may be unable to structure and execute transactions in on our anticipated timeframe, or at all. Other pharmaceutical companies, many of which may have substantially greater financial, marketing and sales resources than we do, compete with us for these opportunities.

Even if we are able to successfully identify and acquire complementary products, technologies or businesses, we cannot assure you that we will be able to successfully manage the risks associated with integrating acquired products, technologies or businesses or the risks arising from anticipated and unanticipated problems in connection with an acquisition or in-licensing transaction. Further, while we seek to mitigate risks and liabilities of potential acquisitions and in-licensing transactions through, among other things, due diligence, there may be risks and liabilities that such due diligence efforts fail to discover, that are not disclosed to us, or that we inadequately assess. Any failure in identifying and managing these risks and uncertainties effectively would have a material adverse effect on our business. Additionally, actual costs and sales synergies, if achieved at all, may be lower than we expect and may take longer to achieve than we anticipate. Furthermore, the products of companies we acquire may overlap with our products or those of our customers, creating conflicts with existing relationships or with other commitments that are detrimental to the integrated businesses.

If we are unable to successfully integrate our acquisitions with our existing business, we may not obtain the advantages that the acquisitions were intended to create, which may materially adversely affect our business, results of operations, financial condition and cash flows, our ability to develop and introduce new products and the market price of our stock.

Our collaborations with outside scientists may be subject to change, which could limit our access to their expertise.

We work with scientific advisors and collaborators at research institutions. These scientists are not our employees and may have other commitments that would limit their availability to us. If a conflict of interest between their work for us and their work for another entity arises, we may lose their services, which could negatively impact our research and development activities.

We may rely on CROs and other third parties to conduct clinical trials and, in such cases, we are unable to directly control the timing, conduct and expense of our clinical trials.

We may rely, in full or in part, on third parties to conduct our clinical trials. In such situations, we have less control over the conduct of our clinical trials, the timing and completion of the trials, the required reporting of adverse events and the management of data developed through the trial than would be the case if we were relying entirely upon our own staff. Communicating with outside parties can also be challenging, potentially leading to mistakes as well as difficulties in coordinating activities. Outside parties may have staffing difficulties, may undergo changes in priorities or may become financially distressed, adversely affecting their willingness or ability to conduct our trials. We may experience unexpected cost increases that are beyond our control. Problems with the timeliness or quality of the work of a CRO may lead us to seek to terminate the relationship and use an alternative service provider. However, making this change may be costly and may delay our trials, and contractual restrictions may make such a change difficult or impossible. Additionally, it may be challenging or impossible to find a replacement organization that can conduct our trials in an acceptable manner and at an acceptable cost.

Competition for patients in conducting clinical trials may prevent or delay product development and strain our limited financial resources.

Many pharmaceutical companies are conducting clinical trials involving patients with the disease indications that our drug products target. As a result, we must compete with them for clinical sites, physicians and the limited number of patients who fulfill the stringent requirements for participation in clinical trials. Also, due to the confidential nature of clinical trials, we do not know how many of the eligible patients may be enrolled in competing studies and who are consequently not available to us for our clinical trials. Our clinical trials may be delayed or terminated due to the inability to enroll enough patients. Patient enrollment depends on many factors, including the size of the patient population, the nature of the trial protocol, the proximity of patients to clinical sites and the eligibility criteria for the study. The delay or inability to meet planned patient enrollment may result in increased costs and delays or termination of the trial, which could have a harmful effect on our ability to develop products.

We may have conflicts with our third-party development partners that could delay or prevent the development or commercialization of our drug products.

We may have conflicts with our third-party development partners, such as conflicts concerning the interpretation of pre-clinical or clinical data, the achievement of milestones, the interpretation of contractual obligations, payments for services, development obligations or the ownership of intellectual property developed during our collaboration. If any conflicts arise with any of our third-party development partners, such partner may act in a manner that is adverse to our best interests. Any such disagreement could result in one or more of the following, each of which could delay or prevent the development or commercialization of our drug product, and in turn prevent us from generating revenues from such drug product:

- unwillingness on the part of a third-party development partner to pay us milestone payments or royalties that we believe are due to us under a collaboration;
- uncertainty regarding ownership of intellectual property rights arising from our collaborative activities, which could prevent us from entering into additional collaborations;
- unwillingness to cooperate in the manufacture of the product, including providing us with product data or materials;
- unwillingness to keep us informed regarding the progress of its development and commercialization activities or to permit public disclosure of the results of those activities;
- initiation of litigation or alternative dispute resolution options by either party to resolve the dispute;
- attempts by either party to terminate the collaboration;

- our ability to maintain or defend our intellectual property rights may be compromised by our partner's acts or omissions;
- a third-party development partner may utilize our intellectual property rights in such a way as to invite litigation that could jeopardize or invalidate our intellectual property rights or expose us to potential liability;
- a third-party development partner may change the focus of its development and commercialization efforts due to internal reorganizations, mergers, consolidations or otherwise;
- unwillingness to fully fund or commit sufficient resources to the testing, marketing, distribution or development of our products;
- unwillingness or inability to fulfill their obligations to us due to the pursuit of alternative products, conflicts of interest that arise or changes in business strategy or other business issues; and/or
- we may not be able to guarantee supplies of development or marketed products.

Given these risks, it is possible that any collaborative arrangements which we have or could enter into may not be successful.

The potential size of the market for our drug products is uncertain.

We often provide estimates of the number of people who suffer from the diseases that our drugs are targeting. However, there is limited information available regarding the actual size of these patient populations. In addition, it is uncertain whether the results from previous or future clinical trials of drug products will be observed in broader patient populations, and the number of patients who may benefit from our drug products may be significantly smaller than the estimated patient populations.

If our employees, representatives or agents fail to comply with regulatory standards and requirements, we could be exposed to financial, reputational or other harm.

Our business and financial condition could be adversely affected to the extent that our employees, representatives or agents fail to:

- comply with FDA regulations or similar regulations of similar regulatory authorities in other countries;
- provide accurate information to the FDA or similar regulatory authorities in other countries;
- comply with manufacturing standards we, the FDA or similar authorities in other countries have established;
- comply with federal and state healthcare fraud and abuse laws and regulations or similar laws and regulations
- established and enforced by comparable foreign regulatory authorities;
- comply with the provisions of the Foreign Corrupt Practices Act, or the FCPA; or
- report financial information or clinical or preclinical data accurately.

In particular, sales, marketing and business arrangements in the healthcare industry are subject to extensive laws and regulations intended to prevent fraud, kickbacks, self-dealing and other abusive practices. These laws and regulations may restrict or prohibit a wide range of pricing, discounting, marketing and promotion, sales commission, customer incentive programs and other business arrangements. Misconduct by our employees, representatives or agents could also involve the improper use of information obtained in the course of clinical trials, which could result in regulatory sanctions and serious harm to our reputation. It is not always possible to identify and deter employee misconduct, and the precautions we take to detect and prevent these activities may not be effective in controlling unknown or unmanaged risks or losses, or in protecting us from governmental investigations or other actions or lawsuits stemming from a failure to be in compliance with such laws or regulations. If any such actions are instituted against us, even if we are ultimately exonerated, we could incur substantial costs and expenses in an effort to defend ourselves or to assert our rights and any such actions could result in reputational harm to us or have a significant impact on our business and results of operations, including the imposition of significant fines or other sanctions.

We have a history of net losses. We expect to continue to incur net losses and may not achieve profitability for some time, if at all.

We have incurred net losses in each of the years ended December 31, 2021 and 2020. We have incurred these losses principally from costs incurred in our research and development programs and from our selling, general and administrative

expenses. We expect that in the foreseeable future we will continue to spend substantial amounts on research and development to further develop and potentially commercialize poziotinib and eflapegrastim. Accordingly, we expect to continue to incur net losses in the foreseeable future and may not achieve profitability for some time, if at all. Even if we do achieve profitability, we may not be able to sustain or increase profitability on a quarterly or annual basis. If we are unable to achieve and sustain profitability, the market value of our common stock will likely decline.

Risks Related to Our Industry

The future sale of our products will be (and has historically been) subject to regulatory approvals and requirements. If we are unable to obtain regulatory approval for our product candidates, or if we fail to comply with governmental regulations, we will be limited in our ability to commercialize our products and product candidates and/or will be subject to penalties.

We are not permitted to market or promote any of our product candidates before we receive regulatory approval from the FDA or comparable foreign regulatory authorities, and we may never receive such regulatory approval for any of our product candidates. Obtaining regulatory approval of a new drug is an uncertain, lengthy and expensive process, and success is never guaranteed. Despite the time, resources and effort expended, failure can occur at any stage. During each stage, there is a substantial risk that we will encounter serious obstacles that will further delay us and add substantial expense, that we will develop a product with limited potential for commercial success, or that we will be forced to abandon a product in which we have invested substantial amounts of time and money.

These risks may include failure of the product candidate in preclinical studies, difficulty enrolling patients in clinical trials, clinical trial holds or other delays in completing clinical trials, delays in completing formulation and other testing and work necessary to support an application for regulatory approval, adverse reactions to the product candidate or other safety concerns, insufficient clinical trial data to support the safety or efficacy of the product candidate or to differentiate our product candidate from competitors, an inability to manufacture sufficient quantities of the product candidate for development or commercialization activities in a timely and cost-effective manner, and failure to obtain, or delays in obtaining, the required regulatory approvals for the product candidate or the facilities in which it is manufactured. In order to receive approval from the FDA for each product candidate, we must demonstrate that the new drug product is safe and effective for its intended use and that the manufacturing processes for the product candidate comply with the FDA's cGMPs, which include requirements related to production processes, quality control and assurance, and recordkeeping. The FDA has substantial discretion in the approval process for human medicines.

The FDA and comparable agencies in foreign countries impose many requirements related to the drug development process through lengthy and rigorous clinical testing and data collection procedures, and other costly and time consuming compliance procedures. While we believe that we are currently in compliance with applicable FDA regulations, if we or our partners, the CROs or CMOs with which we have relationships, fail to comply with the regulations applicable to our clinical testing, the FDA may delay, suspend or cancel our clinical trials, or the FDA might not accept the test results. The FDA, an institutional review board, third party investigators, any comparable regulatory agency in another country, or we, may suspend clinical trials at any time if the trials expose subjects participating in such trials to unacceptable health risks. Further, human clinical testing may not show any current or future drug product to be safe and effective to the satisfaction of the FDA or comparable regulatory agencies, or the data derived from the clinical tests may be unsuitable for submission to the FDA or other regulatory agencies. Once we submit an application seeking approval to market a drug product, the FDA or other regulatory agencies may not issue their approvals on a timely basis, if at all. If we are delayed or fail to obtain these approvals, our business and prospects may be significantly damaged. In addition, any regulatory approvals that we receive for our future product candidates may also be subject to limitations on the indicated uses for which they may be marketed or contain requirements for potentially cost prohibitive post-marketing follow-up studies and surveillance to monitor the safety and efficacy of the product.

If we obtain regulatory approval for our drug products, we, our partners, our manufacturers, and other contract entities will continue to be subject to extensive requirements by a number of international, federal, state and local agencies. These regulations will impact many aspects of our operations, including testing, research and development, manufacturing, safety, effectiveness, labeling, storage, quality control, adverse event reporting, record keeping, approval, advertising and promotion of our future products. The FDA and foreign regulatory authorities strictly regulate the promotional claims that may be made about prescription products and our product labeling, advertising and promotion is subject to continuing regulatory review. Physicians may nevertheless prescribe our product to their patients in a manner that is inconsistent with the approved label, or that is off-label. The FDA and other regulatory agencies actively enforce the laws and regulations prohibiting the promotion of off-label uses, and if we are found to have improperly promoted off-label uses we may be subject to significant sanctions, civil and criminal fines and injunctions prohibiting us from engaging in specified promotional conduct.

In addition, we are subject to the federal False Claims Act, or the FCA, as well as the false claims laws of several states. The FCA prohibits any person from knowingly presenting, or causing to be presented, a false claim for payment to the federal government, or knowingly making, or causing to be made, a false statement to get a false claim paid. Suits filed under the FCA, known as "qui tam" actions, can be brought by any private individual on behalf of the government and such private individuals, commonly known as "whistleblowers," may share in any amounts paid by the entity to the government in fines or settlement. The filing of qui tam actions has caused a number of pharmaceutical, medical device and other healthcare companies to have to defend a FCA action. When an entity is determined to have violated the FCA, it may be required to pay up to three times the actual damages sustained by the government, plus civil penalties for each separate false claim. Various states also have enacted laws modeled after the federal FCA.

In order to comply with these laws, we have implemented a compliance program designed to identify, prevent and mitigate risk through the implementation of compliance policies and training systems. We cannot guarantee that our compliance program will be sufficient or effective, that our employees will comply with our policies, that our employees will notify us of any violation of our policies, that we will have the ability to take appropriate and timely corrective action in response to any such violation, or that we will make decisions and take actions that will necessarily limit or avoid liability for whistleblower claims that individuals, such as employees or former employees, may bring against us or that governmental authorities may prosecute against us based on information provided by individuals. If we are found to be in violation of any of the laws and regulations described above or other applicable state and federal healthcare laws, we may be subject to penalties, including civil and criminal penalties, damages, fines, disgorgement, contractual damages, reputational harm, imprisonment, diminished profits and future earnings, exclusion from government healthcare reimbursement programs such as Medicare and Medicaid, additional reporting requirements and oversight if we become subject to a corporate integrity agreement or similar agreement to resolve allegations of non-compliance with these laws, and/or the curtailment or restructuring of our operations, any of which could have a material adverse effect on our business, results of operations and growth prospects. Any action against us for violation of these laws or regulations, even if we successfully defend against it, could cause us to incur significant legal expenses and divert our management's attention from the operation of our business. Moreover, achieving and sustaining compliance with applicable federal, state and foreign healthcare laws is costly and time-consuming for our management.

Failure to obtain regulatory approval outside the U.S. will prevent us from marketing our product candidates abroad.

We intend to market certain of our future product candidates in and outside of the U.S. In order to market our future product candidates in the EU and many other foreign jurisdictions, we must obtain separate regulatory approvals according to the applicable domestic laws and regulations. We have had limited interactions with foreign regulatory authorities, and the approval procedures vary among countries and can involve additional testing, and the time required to obtain approval may differ from that required to obtain FDA approval. The foreign regulatory approval process may include all of the risks associated with obtaining FDA approval as well as other risks specific to the jurisdictions in which we may seek approval. Approval by the FDA does not guarantee approval by regulatory authorities in other countries, and approval by one or more foreign regulatory authorities does not necessarily ensure approval by regulatory authorities in other countries.

A failure or delay in obtaining regulatory approval in one country may have a negative effect on the regulatory approval process in others. We may not obtain foreign regulatory approvals on a timely basis, if at all. We may not be able to file for foreign regulatory approvals and may not receive necessary approvals to commercialize our existing and future product candidates in any market.

Even after we receive regulatory approval to market our drug products, the market may not be receptive to our drug products upon their commercial introduction, which would negatively impact our ability to achieve profitability.

Our drug products may not gain market acceptance among physicians, patients, healthcare payers and the medical community. The degree of market acceptance of any approved drug products will depend on a number of factors, including:

- the effectiveness of the drug product;
- the prevalence and severity of any side effects;
- potential advantages or disadvantages over alternative treatments;
- relative convenience and ease of administration;
- the strength of marketing and distribution support;

- the price of the drug product, both in absolute terms and relative to alternative treatments; and
- sufficient third-party coverage and reimbursement.

If our drug products receive regulatory approval but do not achieve an adequate level of acceptance by physicians, healthcare payers and patients, we may not generate drug product revenues sufficient to attain profitability.

In addition, we have only licensed the rights to develop and market our products in limited territories. Other companies can market and sell the same products in other parts of the world upon local regulatory approvals. If negative publicity is associated with our products or similar products sold by third parties in their territories, our own efforts to successfully market and sell our products in our territories may be adversely impacted.

Guidelines and recommendations published by various organizations can reduce the use of our products.

Government agencies, such as the CMS, promulgate regulations, and issue guidelines, directly applicable to us and to our products. In addition, third parties such as professional societies, practice management groups, insurance carriers, physicians, private health/science foundations and organizations involved in various diseases from time to time may publish guidelines or recommendations to healthcare providers, administrators and payers, and patient communities. Recommendations may relate to such matters as utilization, dosage, route of administration and use of related therapies and coverage and reimbursement of our products by government and private payers. Third-party organizations like the above have in the past made recommendations about our products. Recommendations or guidelines that are followed by patients and healthcare providers could result in decreased utilization and/or dosage of our products, any of which could adversely affect our product sales and operating results materially.

Legislative or regulatory reform of the healthcare system and pharmaceutical industry related to pricing, coverage or reimbursement may hurt our ability to sell our products profitably or at all.

Our ability to commercialize any products successfully will depend in part on the availability of coverage and reimbursement from third-party payers such as government authorities, private health insurers, health maintenance organizations including pharmacy benefit managers and other health care-related organizations, in both the U.S. and foreign markets. Even if we succeed in bringing one or more products to market, the amount reimbursed for our products may be insufficient to allow us to compete effectively and could adversely affect our profitability. Coverage and reimbursement by governmental and other third-party payers may depend upon a number of factors, including a governmental or other third-party payer's determination that use of a product includes but is not limited to:

- a covered benefit under its health plan;
- safe, effective and medically necessary;
- appropriate for the specific patient;
- cost-effective; and
- neither experimental nor investigational.

Obtaining coverage and reimbursement approval for a product from each third-party and governmental payer is a time-consuming and costly process that could require us to provide supporting scientific, clinical and cost-effectiveness data for the use of our products to each payer. We may not be able to provide data sufficient to obtain coverage and adequate reimbursement.

The high cost of pharmaceuticals continues to generate substantial government interest. It is possible that proposals will be adopted, or existing regulations that affect the coverage and reimbursement of pharmaceutical and other medical products may change, that may impact our products currently on the market and any of our products approved for marketing in the future. Cost control initiatives could decrease the price that we receive for any of our products or product candidates. In addition, third-party payers are increasingly challenging the price and cost-effectiveness of medical products and services. Significant uncertainty exists as to the coverage and reimbursement status of newly-approved pharmaceutical products. Future developments may require us to decrease the price that we charge for our products, thereby negatively affecting our financial results.

In some foreign countries, particularly in the EU, prescription drug pricing is subject to governmental control. Drug pricing may be made against a reference price set by the healthcare providers as a measure for healthcare cost containment. Pricing negotiations with governmental authorities can take considerable time after the receipt of marketing approval for a

product. If coverage and reimbursement of our products are unavailable or limited in scope or amount, or if pricing is set at unsatisfactory levels for the purpose of adoption of these products in the national health services in these jurisdictions, our profitability will likely be negatively affected.

If we market products in a manner that violates federal or state health care fraud and abuse laws, we may be subject to civil or criminal penalties, including exclusion from participation in government health care programs.

As a pharmaceutical company, even though we do not provide healthcare services or receive payments directly from or bill directly to Medicare, Medicaid or other third-party payers for our products, we are subject to certain federal and state healthcare laws and regulations pertaining to fraud and abuse applicable to our business. Violations of fraud and abuse laws may be punishable by criminal and/or civil sanctions, including fines and/or exclusion or suspension from federal and state health care programs such as Medicare and Medicaid and debarment from contracting with the U.S. government.

The laws that may affect our ability to operate include the federal Anti-Kickback Statute, which prohibits, among other things, knowingly and willfully offering, paying, soliciting, or receiving remuneration to induce or in return for purchasing, leasing, ordering, or arranging for the purchase, lease or order of any health care item or service reimbursable under Medicare, Medicaid or other federally-financed health care programs. This statute applies to arrangements between pharmaceutical manufacturers and prescribers, purchasers and formulary managers. Although there are a number of statutory exceptions and regulatory safe harbors protecting certain common activities, the exceptions and safe harbors are drawn narrowly, and practices that involve remuneration intended to induce prescribing, purchases or recommendations may be subject to scrutiny if they do not qualify for an exception or safe harbor.

Pharmaceutical companies have been prosecuted under these laws for a variety of alleged promotional and marketing activities, such as providing free product to customers with the expectation that the customers would bill federal programs for the product; reporting to pricing services inflated average wholesale prices that were then used by federal programs to set reimbursement rates; engaging in off-label promotion that caused claims to be submitted to Medicaid for non-covered off-label uses; and submitting inflated best price information to the Medicaid Drug Rebate Program. Federal enforcement agencies have also recently scrutinized product and patient assistance programs, including manufacturer reimbursement support services as well as relationships with specialty pharmacies. If our past or present operations are found to be in violation of any of such laws or any other governmental regulations that may apply to us, we may be subject to penalties, including civil and criminal penalties, damages, fines, exclusion from federal health care programs and/or the curtailment or restructuring of our operations. Any penalties, damages, fines, curtailment, or restructuring of our operations could adversely affect our ability to operate our business and our financial results. Any action against us for violation of these laws, even if we successfully defend against them, could cause us to incur significant legal expenses and divert our management's attention from the operation of our business.

The Health Insurance Portability and Accountability Act of 1996 also created prohibitions against health care fraud and false statements relating to health care matters. The health care fraud statute prohibits knowingly and willfully executing a scheme to defraud any health care benefit program, including private payers. The false statements statute prohibits knowingly and willfully falsifying, concealing or covering up a material fact or making any materially false, fictitious or fraudulent statement in connection with the delivery of or payment for health care benefits, items or services.

In addition, there has been a recent trend of increased federal and state regulation of payments made to physicians. The federal "Sunshine" requirements pursuant to the PPACA imposed new requirements on (i) 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 payments or other "transfers of value" made to physicians (defined to include doctors, dentists, optometrists, podiatrists and chiropractors and teaching hospitals), and (ii) applicable manufacturers and GPOs to report annually to CMS ownership and investment interests held by physicians (as defined above) and their immediate family members and payments or other "transfers of value" to such physician owners and their immediate family members. Manufacturers were required to begin data collection on August 1, 2013 and to report such data to the government by March 31, 2014 and by the 90th calendar day of each year thereafter. Failure to submit the required information may result in civil monetary penalties of up an aggregate of $150,000 per year (and up to an aggregate of $1 million per year for "knowing failures"), for all payments, transfers of value or ownership or investment interests not reported in an annual submission, and may result in liability under other federal laws or regulations.

The majority of states also have statutes or regulations similar to these federal laws, which apply to items and services reimbursed under Medicaid and other state programs, or, in several states, apply regardless of the payer. In addition, some states have laws that require pharmaceutical companies to adopt comprehensive compliance programs. For example, under California law, pharmaceutical companies must comply with both the April 2003 Office of Inspector General Compliance

Program Guidance for Pharmaceutical Manufacturers and the Pharmaceutical Research and Manufacturers of America ("PhRMA") Code on Interactions with Healthcare Professionals, as amended. Certain states also mandate the tracking and reporting of gifts, compensation, and other remuneration paid by us to physicians and other health care providers. We have adopted and implemented a compliance program designed to comply with applicable federal, state and local requirements wherever we operate, including but not limited to the laws of the states of California and Nevada.

Although compliance programs can mitigate the risk of investigation and prosecution for violations of these laws, the risks cannot be entirely eliminated. Compliance with these laws and regulations is costly and materially affects our business. Among other effects, health care regulations substantially increase the time, difficulty and costs incurred in obtaining and maintaining approval to market newly developed and existing products. Any action against us for violation of these laws, even if we successfully defend against it, could cause us to incur significant legal expenses and divert our management's attention from the operation of our business. We expect compliance with these regulations to require significant technical expertise and capital investment to ensure the reasonable design and operation of an effective compliance program.

Because of the breadth of these laws and the narrowness of the safe harbors, it is possible that some of our business activities could be subject to challenge under one or more of such laws. The PPACA also made several important changes to the federal Anti-Kickback Statute, false claims laws, and health care fraud statute by weakening the intent requirement under the anti-kickback and health care fraud statutes that may make it easier for the government, or whistleblowers to charge such fraud and abuse violations. A person or entity no longer needs to have actual knowledge of this statute or specific intent to violate it. In addition, the Health Care Reform Law provides that the government may assert that a claim including items or services resulting from a violation of the federal anti-kickback statute constitutes a false or fraudulent claim for purposes of the false claims statutes. In addition, the PPACA increases penalties for fraud and abuse violations. If our past, present or future operations are found to be in violation of any of the laws described above or other similar governmental regulations to which we are subject, we may incur significant civil, criminal and administrative penalties, damages, fines, imprisonment, exclusion from government funded healthcare programs, such as Medicare and Medicaid, and the curtailment or restructuring of our operations, any of which could adversely affect our ability to operate our business and negatively impact our financial results.

We could be adversely affected by violations of the FCPA and other worldwide anti-bribery laws.

The FCPA prohibits U.S. companies and their respective representatives from offering, promising, authorizing, or making improper payments to foreign officials for the purpose of obtaining or retaining business abroad. In many countries, the health care professionals we regularly interact with meet the definition of a foreign government official for purposes of the FCPA. We have policies and procedures in place to ensure that we comply with the FCPA and similar laws; however, there is no assurance that such policies and procedures will protect us against liability under the FCPA or related laws for actions taken by our employees and intermediaries with respect to our business. Failure to comply with the FCPA and related laws could disrupt our business and lead to criminal and civil penalties including fines, suspension of our ability to do business with the federal government and denial of government reimbursement of our products, which could result in a material adverse impact on our business, financial condition, results of operations and cash flows. We could also be adversely affected by any allegation that we violated such laws.

Pricing for pharmaceutical products has come under increasing scrutiny by governments, legislative bodies and enforcement agencies. Changes in laws and regulations that control drug pricing for government programs allow for negotiated pricing or limit product coverage, and reduced reimbursements may adversely impact our operating results and our business.

Many companies in our industry have received a governmental request for documents and information relating to drug pricing and patient assistance programs. We may become subject to similar requests, which would require us to incur significant expense and result in distraction for our management team. Additionally, to the extent there are findings, or even allegations, of improper conduct on the part of the Company or its employees, such findings or allegations could result in negative publicity or other negative actions that could harm our reputation; cause changes in our product pricing and distribution strategies; reduce demand for our approved products and/or reduce reimbursement of approved products, including by federal health care programs such as Medicare and Medicaid and state health care programs.

Further, the Bipartisan Budget Act of 2018 (BBA), among other things, amended the Affordable Care Act, effective January 1, 2019, to close the coverage gap in most Medicare drug plans, commonly referred to as the "donut hole". In December 2018, CMS published a final rule permitting further collections and payments to and from certain Affordable Care Act qualified health plans and health insurance issuers under the Affordable Care Act risk adjustment program in response to

the outcome of federal district court litigation regarding the method CMS uses to determine this risk adjustment. On June 17, 2021 the U.S. Supreme Court dismissed a challenge on procedural grounds that argued the Affordable Care Act is unconstitutional in its entirety because the "individual mandate" was repealed by Congress. Thus, the Affordable Care Act will remain in effect in its current form. Further, prior to the U.S. Supreme Court ruling, on January 28, 2021, President Biden issued an executive order to initiate a special enrollment period for purposes of obtaining health insurance coverage through the Affordable Care Act marketplace. The executive order also instructs certain governmental agencies to review and reconsider their existing policies and rules that limit access to healthcare, including among others, reexamining Medicaid demonstration projects and waiver programs that include work requirements, and policies that create unnecessary barriers to obtaining access to health insurance coverage through Medicaid or the Affordable Care Act. It is unclear how such challenges and the healthcare reform measures of the Biden administration will impact the Affordable Care Act.

Further legislation or regulation could be passed that could harm our business, financial condition and results of operations. Other legislative changes have been proposed and adopted since the Affordable Care Act was enacted. For example, in August 2011, President Obama signed into law the Budget Control Act of 2011, which, among other things, created the Joint Select Committee on Deficit Reduction to recommend to Congress proposals in spending reductions. The Joint Select Committee on Deficit Reduction did not achieve a targeted deficit reduction of at least $1.2 trillion for fiscal years 2012 through 2021, triggering the legislation's automatic reduction to several government programs. This includes aggregate reductions to Medicare payments to providers of up to 2% per fiscal year, which went into effect beginning on April 1, 2013 and will stay in effect through 2031 unless additional Congressional action is taken. However, COVID-19 relief support legislation suspended the 2% Medicare sequester from May 1, 2020 through March 31, 2022. Under current legislation, the actual reduction in Medicare payments will vary from 1% in 2022 to up to 3% in the final fiscal year of this sequester. Additionally, on March 11, 2021, President Biden signed the American Rescue Plan Act of 2021 into law, which eliminates the statutory Medicaid drug rebate cap, currently set at 100% of a drug's average manufacturer price, for single source and innovator multiple source drugs, beginning January 1, 2024. In January 2013, the American Taxpayer Relief Act of 2012 was signed into law, which, among other things, further reduced Medicare payments to several types of providers, including hospitals, imaging centers and cancer treatment centers, and increased the statute of limitations period for the government to recover overpayments to providers from three to five years.

Additionally, there has been increasing legislative and enforcement interest in the United States with respect to specialty drug pricing practices. Specifically, there have been several recent U.S. Congressional inquiries and federal and state legislative activity designed to, among other things, bring more transparency to drug pricing, reduce the cost of prescription drugs under Medicare, review the relationship between pricing and manufacturer patient programs, and reform government program reimbursement methodologies for drugs. At the federal level, the Trump administration used several means to propose or implement drug pricing reform, including through federal budget proposals, executive orders and policy initiatives. For example, on July 24, 2020 and September 13, 2020, the Trump administration announced several executive orders related to prescription drug pricing that attempt to implement several of the administration's proposals. The FDA also released a final rule and guidance in September 2020, implementing a portion of the importation executive order providing pathways for states to build and submit importation plans for drugs from Canada. Further, on November 20, 2020, HHS finalized a regulation removing safe harbor protection for price reductions from pharmaceutical manufacturers to plan sponsors under Part D, either directly or through pharmacy benefit managers, unless the price reduction is required by law. The implementation of the rule has been delayed by the Biden administration from January 1, 2022 to January 1, 2023 in response to ongoing litigation. The rule also creates a new safe harbor for price reductions reflected at the point-of-sale, as well as a new safe harbor for certain fixed fee arrangements between pharmacy benefit managers and manufacturers, the implementation of which have also been delayed pending review by the Biden administration until January 1, 2023. On November 20, 2020, CMS issued an interim final rule implementing President Trump's Most Favored Nation executive order, which would tie Medicare Part B payments for certain physician-administered drugs to the lowest price paid in other economically advanced countries. As a result of litigation challenging the Most Favored Nation model, on December 27, 2021, CMS published a final rule that rescinded the Most Favored Nation model interim final rule.

In July 2021, the Biden administration released an executive order, "Promoting Competition in the American Economy," with multiple provisions aimed at prescription drugs. In response to Biden's executive order, on September 9, 2021, HHS released a Comprehensive Plan for Addressing High Drug Prices that outlines principles for drug pricing reform and sets out a variety of potential legislative policies that Congress could pursue to advance these principles. No legislation or administrative actions have been finalized to implement these principles. In addition, Congress is considering drug pricing as part of other reform initiatives. Individual states in the United States have also become increasingly active in passing legislation and implementing regulations designed to control pharmaceutical product pricing, including price or patient

reimbursement constraints, discounts, restrictions on certain product access and marketing cost disclosure and transparency measures, and, in some cases, designed to encourage importation from other countries and bulk purchasing.

We anticipate that these and other healthcare reform efforts will continue to result in additional downward pressure on coverage and the price that we receive for any approved product, and could seriously harm our business. Any reduction in reimbursement from Medicare and 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. Such reforms could have an adverse effect on anticipated revenue from product candidates that we may successfully develop and for which we may obtain regulatory approval and may affect our overall financial condition and ability to develop product candidates. Further, it is possible that additional governmental action will be taken in response to the COVID-19 pandemic.

Risks Related to Our Common Stock

Future issuances of our common stock or instruments convertible or exercisable into our common stock, may materially and adversely affect the price of our common stock and cause dilution to our existing stockholders.

We may obtain additional funds through public or private debt or equity financings in the near future. If we issue additional shares of common stock or instruments convertible into common stock, it may materially and adversely affect the price of our common stock. In the past, we have issued shares of common stock pursuant to at-the-market-issuance sales agreements and we may do so in the future. Certain issuances by us of equity securities may be at or below the prevailing market price of our common stock and may have a dilutive impact on our existing stockholders. In addition, future exercises of some or all of our outstanding options, warrants, or other rights may likewise dilute the ownership interests of our stockholders, and any sales in the public market of any shares of our common stock issuable upon such conversion or exercise, or the perception that such sales may occur, could adversely affect the prevailing market price of our common stock. These issuances or other dilutive issuances would also cause our per share net income, if any, to decrease in future periods.

The market price and trading volume of our common stock fluctuate significantly and could result in substantial losses for individual investors.

The stock market from time to time experiences significant price and trading volume fluctuations that are unrelated to the operating performance of particular companies. These broad market fluctuations may cause the market price and trading volume of our common stock to decrease. In addition, the market price and trading volume of our common stock is often highly volatile.

Factors that may cause the market price and volume of our common stock to decrease include, among other things:

- the impact of COVID-19 on the U.S. and global economies;
- adverse results or delays in our clinical trials, including as a result of COVID-19;
- fluctuations in our results of operations;
- timing and announcements of our technological innovations or new products or those of our competitors;
- developments concerning any strategic alliances or acquisitions we may enter into;
- announcements of FDA non-approval of our products, or delays in the FDA or other foreign regulatory review processes or actions, including the deferral of action on the BLA for eflapegrastim due to the inability to conduct an inspection of the manufacturing facility citing COVID-19 related travel restrictions;
- changes in recommendations or guidelines of government agencies or other third parties regarding the use of our products;
- adverse actions taken by regulatory agencies with respect to our drug products, clinical trials, manufacturing processes or sales and marketing activities;
- concerns about our in-development products being reimbursed at requisite levels in the future;
- any lawsuit involving us or our products;
- developments with respect to our patents and proprietary rights;
- public concern as to the safety of products developed by us or others;

- regulatory developments in the U.S. and in foreign countries;
- changes in stock market analyst recommendations regarding our common stock or lack of analyst coverage;
- failure of our results of operations to meet the expectations of stock market analysts and investors;
- sales of our common stock by our executive officers, directors and significant stockholders or sales of substantial amounts of our common stock generally; and
- loss of any of our key scientific or management personnel.

Also, certain dilutive securities such as warrants can be used as hedging tools which may increase volatility in our stock and cause a price decline. While a decrease in market price could result in direct economic loss for an individual investor, low trading volume could limit an individual investor's ability to sell our common stock, which could result in substantial economic loss as well. From January 1, 2021 through March 10, 2022, the closing price of our common stock ranged between $0.63 and $4.45, and the daily trading volume was as high as 36.5 million shares and as low as 0.8 million shares.

Following periods of volatility in the market price of a company's securities, a securities class action litigation may be instituted against that company. Regardless of their merit, these types of lawsuits generally result in substantial legal fees and management's attention and resources being diverted from the operations of a business.

We have not been in compliance with the requirements of the NASDAQ Stock Market for continued listing and if NASDAQ does not concur that we have adequately remedied our non-compliance, our common stock may be delisted from trading on NASDAQ, which could have a material adverse effect on us and our shareholders.

On March 10, 2022, we received notice from The NASDAQ Stock Market ("Nasdaq") that, because the closing bid price for the Company's common stock has fallen below $1.00 per share for 30 consecutive business days, the Company no longer complies with the minimum bid price requirement for continued listing on the Nasdaq Global Market.

Nasdaq's notice has no immediate effect on the listing of the Company's common stock on the Nasdaq Global Market. Pursuant to Nasdaq Marketplace Rule 5810(c)(3)(A), the Company has been provided an initial compliance period of 180 calendar days, or until September 6, 2022, to regain compliance with the minimum bid price requirement. To regain compliance, the closing bid price of the Company's common stock must meet or exceed $1.00 per share for a minimum of 10 consecutive business days prior to September 6, 2022.

If the Company does not regain compliance by September 6, 2022, the Company may be eligible for an additional grace period if it applies to transfer the listing of its common stock to the Nasdaq Capital Market. To qualify, the Company would be required to meet the continued listing requirement for market value of publicly held shares and all other initial listing standards for the Nasdaq Capital Market, with the exception of the minimum bid price requirement, and provide written notice of its intention to cure the minimum bid price deficiency during the second compliance period by effecting a reverse stock split if necessary. If the Nasdaq staff determines that the Company will not be able to cure the deficiency, or if the Company is otherwise not eligible for such additional compliance period, Nasdaq will provide notice that the Company's common stock will be subject to delisting. The Company would have the right to appeal a determination to delist its common stock, and the common stock would remain listed on the Nasdaq Global Market until the completion of the appeal process.

Provisions of our charter, and bylaws may make it more difficult for someone to acquire control of us or replace current management even if doing so would benefit our stockholders, which may lower the price an acquirer or investor would pay for our stock.

Provisions of our certificate of incorporation and bylaws, both as amended, may make it more difficult for someone to acquire control of us or replace our current management. These provisions include:

- the ability of our Board of Directors to amend our bylaws without stockholder approval;
- the inability of stockholders to call special meetings;
- the ability of members of the Board of Directors to fill vacancies on the Board of Directors;
- the inability of stockholders to act by written consent, unless such consent is unanimous; and
- the establishment of advance notice requirements for the nomination of candidates for election to our Board of Directors or for proposing matters that can be acted on by stockholders at stockholder meetings.

These provisions may make it more difficult for stockholders to take certain corporate actions and could delay, discourage or prevent someone from acquiring our business or replacing our current management, even if doing so would benefit our stockholders. These provisions could limit the price that certain investors might be willing to pay for shares of our common stock.

Risks Relating to Our Intellectual Property

From time to time we may need to in-license patents and proprietary technologies from third parties, which may be difficult or expensive to obtain.

We may need to obtain licenses to patents and other proprietary rights held by third parties to successfully develop, manufacture and market our drug products. As an example, it may be necessary to use a third party's proprietary technology to reformulate one of our drug products in order to improve upon the capabilities of the drug product. If we are unable to timely obtain these licenses on reasonable terms, or at all, our ability to commercially exploit our drug products may be inhibited or prevented.

If we are unable to adequately protect our technology or enforce our patent rights, our business could suffer.

Our success with the drug products that we develop will depend, in part, on our ability and the ability of our licensors to obtain and maintain patent protection for these products. We currently have a number of U.S. and foreign patents issued and pending, however, we primarily rely on patent rights licensed from others. Our license agreements generally give us the right and/or obligation to maintain and enforce the subject patents. We may not receive patents for any of our pending patent applications or any patent applications we may file in the future. If our pending and future patent applications are not allowed or, if allowed and issued into patents, if such patents and the patents we have licensed are not upheld in a court of law, our ability to competitively exploit our drug products would be substantially harmed. Also, such patents may or may not provide competitive advantages for their respective products or they may be challenged or circumvented by our competitors, in which case our ability to commercially exploit these products may be diminished.

The patent positions of pharmaceutical and biotechnology companies can be highly uncertain and involve complex legal and factual questions. No consistent policy regarding the breadth of claims allowed in pharmaceutical and biotechnology patents has emerged to date in the U.S. The laws of many countries may not protect intellectual property rights to the same extent as U.S. laws, and those countries may lack adequate rules and procedures for defending our intellectual property rights. Filing, prosecuting and defending patents on all our products or product candidates throughout the world would be prohibitively expensive. Competitors may use our technologies in jurisdictions not covered by any of our patent claims or other intellectual property rights.

Changes in either patent laws or in interpretations of patent laws in the U.S. and other countries may diminish the value of our intellectual property. We do not know whether any of our patent applications will result in the issuance of any patents, and we cannot predict the breadth of claims that may be allowed in our patent applications or in the patent applications we license from others.

Intellectual property rights do not necessarily address all potential threats.

The degree of future protection for our proprietary rights is uncertain because legal means afford only limited protection and may not adequately protect our rights or permit us to gain or keep our competitive advantage. For example:

- in certain jurisdictions, we or our licensors might not have been the first to make the inventions covered by each of our or our licensors' pending patent applications and issued patents, and we may have to participate in expensive and protracted interference proceedings to determine priority of invention;
- we or our licensors might not have been the first to file patent applications for these inventions;
- others may independently develop similar or alternative product candidates or duplicate any of our or our licensors' product candidates;
- our or our licensors' pending patent applications may not result in issued patents;
- our or our licensors' issued patents may not provide a basis for commercially viable products or may not provide us with any competitive advantages or may be challenged by third parties;
- others may design around our or our licensors' patent claims to produce competitive products that fall outside the scope of our or our licensors' patents;

- we may not develop or in-license additional patentable proprietary technologies related to our product candidates; or
- the patents of others may prevent us from marketing one or more of our product candidates for one or more indications that may be valuable to our business strategy.

An issued patent does not guarantee us the right to practice the patented technology or commercialize the patented product. Third parties may have blocking patents that could be used to prevent us from commercializing our patented products and practicing our patented technology. Patents issued to us and our licensors and those that may be issued in the future to us and our licensors may be challenged, invalidated or circumvented, which could limit our ability to prevent competitors from marketing related product candidates or could limit the length of the term of patent protection of our product candidates. Our competitors may independently develop similar technologies. In addition, because of the extensive time required for development, testing and regulatory review of a potential product, it is possible that, before any of our product candidates can be commercialized, any related patent may expire or remain in force for only a short period following commercialization, thereby reducing any advantage of the patent.

If we fail to comply with our obligations in the agreements under which we license intellectual property rights from third parties or otherwise experience disruptions to our business relationships with our licensors, we could lose intellectual property rights that are important to our business.

We are a party to exclusive license agreements with our partners and may need to obtain additional licenses from others to advance our research and development activities or allow the commercialization of our current product candidates and future product candidates we may identify and pursue. Our license agreements may impose, and we expect that future license agreements could impose various requirements on us, such as obligations related to development, diligence and commercialization, among others. In spite of our efforts, our licensors might conclude that we have materially breached our obligations under such license agreements and might therefore terminate the license agreements, thereby removing or limiting our ability to develop and commercialize products and technology covered by these license agreements. If these in-licenses are terminated, or if the underlying patents fail to provide the intended exclusivity, competitors or other third parties would have the freedom to seek regulatory approval of, and to market, products identical to ours and we may be required to cease our development and commercialization of our current product candidates or other product candidates that we may identify. Any of the foregoing could have a material adverse effect on our competitive position, business, financial conditions, results of operations, and prospects.

Moreover, disputes may arise regarding intellectual property subject to a licensing agreement, including:

- the scope of rights granted under the license agreement and other interpretation-related issues;
- the extent to which our product candidates, technology and processes infringe on intellectual property of the licensor that is not subject to the licensing agreement;
- the sublicensing of patent and other rights under our collaborative development relationships;
- our diligence obligations under the license agreement and what activities satisfy those diligence obligations;
- the inventorship and ownership of inventions and know-how resulting from the joint creation or use of intellectual property by our licensors and us and our partners; and
- the priority of invention of patented technology.

In addition, the agreements under which we currently license intellectual property or technology from third parties are complex, and certain provisions in such agreements may be susceptible to multiple interpretations. The resolution of any contract interpretation disagreement that may arise could narrow what we believe to be the scope of our rights to the relevant intellectual property or technology, or increase what we believe to be our financial or other obligations under the relevant agreement, either of which could have a material adverse effect on our business, financial condition, results of operations, and prospects. Moreover, if disputes over intellectual property that we have licensed prevent or impair our ability to maintain our current licensing arrangements on commercially acceptable terms, we may be unable to successfully develop and commercialize the affected product candidates, which could have a material adverse effect on our business, financial conditions, results of operations, and prospects.

If we are unable to protect the confidentiality of our trade secrets, the value of our technology could be materially adversely affected and our business would be harmed.

We also rely on trade secret protection and contractual protections for our unpatented and proprietary drug compounds. Trade secrets are difficult to protect. While we enter into confidentiality agreements with our employees, consultants and

others, these agreements may not successfully protect our trade secrets or other confidential and proprietary information. It is possible that these agreements will be breached, or that they will not be enforceable in every instance, and that we will not have adequate remedies for any such breach. Likewise, although we conduct periodic trade secret audits of certain partners, vendors and contract manufacturers, these trade secret audits may not protect our trade secrets or other confidential and proprietary information. It is possible that despite having certain trade secret audit security measures in place, trade secrets or other confidential and proprietary information may still be leaked or disclosed to a third party. It is also possible that our trade secrets will become known or independently developed by our competitors.

We also rely on trademarks to protect the names of our products. These trademarks may be challenged by others. If we enforce our trademarks against third parties, such enforcement proceedings may be expensive. Some of our trademarks are owned by, or assignable to, our licensors and, upon expiration or termination of the applicable license agreements, we may no longer be able to use these trademarks. If we are unable to adequately protect our technology, trade secrets or proprietary know-how, or enforce our patents and trademarks, our business, financial condition and prospects could suffer.

We may not be able to protect our intellectual property rights throughout the world.

Filing, prosecuting and defending patents on our product candidates in all countries throughout the world would be prohibitively expensive, and our intellectual property rights in some countries outside the United States can be less extensive than those in the United States.

In addition, the laws of some foreign countries do not protect intellectual property rights to the same extent as federal and state laws in the United States. Consequently, we may not be able to prevent third parties from practicing our inventions in all countries outside the United States, or from selling or importing products made using our inventions in and into the United States or other jurisdictions. Competitors may use our technologies in jurisdictions where we have not obtained patent protection to develop their own products and may also export infringing products to territories where we have patent protection, but enforcement is not as strong as that in the United States. These products may compete with our products and our patents or other intellectual property rights may not be effective or sufficient to prevent them from competing.

Many companies have encountered significant problems in protecting and defending intellectual property rights in foreign jurisdictions. The legal systems of certain countries, particularly certain developing countries, do not favor the enforcement of patents, trade secrets, and other intellectual property protection, particularly those relating to biotechnology products, which could make it difficult for us to stop the infringement of our patents or marketing of competing products in violation of our proprietary rights generally. Proceedings to enforce our patent rights in foreign jurisdictions, whether or not successful, could result in substantial costs and divert our efforts and attention from other aspects of our business, could put our patents at risk of being invalidated or interpreted narrowly and our patent applications at risk of not issuing and could provoke third parties to assert claims against us. We may not prevail in any lawsuits that we initiate and the damages or other remedies awarded, if any, may not be commercially meaningful. Accordingly, our efforts to enforce our intellectual property rights around the world may be inadequate to obtain a significant commercial advantage from the intellectual property that we develop or license.

Patent terms may be inadequate to protect our competitive position on our product candidates for an adequate amount of time.

Patents have a limited lifespan. In the United States, if all maintenance fees are timely paid, the natural expiration of a patent is generally 20 years from its earliest U.S. non-provisional filing date. Various extensions may be available, but the life of a patent, and the protection it affords, is limited. Even if patents covering our product candidates are obtained, once the patent life has expired, we may be open to competition from competitive products, including generics or biosimilars. Given the amount of time required for the development, testing and regulatory review of new product candidates, patents protecting such candidates might expire before or shortly after such candidates are commercialized. As a result, our owned and licensed patent portfolio may not provide us with sufficient rights to exclude others from commercializing products similar or identical to ours.

Changes in U.S. patent law could diminish the value of patents in general, thereby impairing our ability to protect our products.

Changes in either the patent laws or interpretation of the patent laws in the United States could increase the uncertainties and costs surrounding the prosecution of patent applications and the enforcement or defense of issued patents. Assuming that other requirements for patentability are met, prior to March 2013, in the United States, the first to invent the

claimed invention was entitled to the patent, while outside the United States, the first to file a patent application was entitled to the patent. After March 2013, under the Leahy-Smith America Invents Act, or the America Invents Act, enacted in September 2011, the United States transitioned to a first inventor to file system in which, assuming that other requirements for patentability are met, the first inventor to file a patent application will be entitled to the patent on an invention regardless of whether a third party was the first to invent the claimed invention. A third party that files a patent application in the United States Patent and Trademark Office ("USPTO") after March 2013, but before us could therefore be awarded a patent covering an invention of ours even if we had made the invention before it was made by such third party. This will require us to be cognizant of the time from invention to filing of a patent application. Since patent applications in the United States and most other countries are confidential for a period of time after filing or until issuance, we cannot be certain that we or our licensors were the first to either (i) file any patent application related to our product candidates or (ii) invent any of the inventions claimed in our or our licensor's patents or patent applications.

The America Invents Act also includes a number of significant changes that affect the way patent applications will be prosecuted and also may affect patent litigation. These include allowing third party submission of prior art to the USPTO during patent prosecution and additional procedures to attack the validity of a patent by USPTO administered post-grant proceedings, including post-grant review, inter partes review, and derivation proceedings. Because of a lower evidentiary standard in USPTO proceedings compared to the evidentiary standard in United States federal courts necessary to invalidate a patent claim, a third party could potentially provide evidence in a USPTO proceeding sufficient for the USPTO to hold a claim invalid even though the same evidence would be insufficient to invalidate the claim if first presented in a district court action. Accordingly, a third party may attempt to use the USPTO procedures to invalidate our patent claims that would not have been invalidated if first challenged by the third party as a defendant in a district court action. Therefore, the America Invents Act and its implementation could increase the uncertainties and costs surrounding the prosecution of our owned or in-licensed patent applications and the enforcement or defense of our owned or in-licensed issued patents, all of which could have a material adverse effect on our business, financial condition, results of operations, and prospects.

In addition, the patent positions of companies in the development and commercialization of pharmaceuticals are particularly uncertain. Recent U.S. Supreme Court rulings have narrowed the scope of patent protection available in certain circumstances and weakened the rights of patent owners in certain situations. This combination of events has created uncertainty with respect to the validity and enforceability of patents, once obtained. Depending on future actions by the U.S. Congress, the federal courts, and the USPTO, the laws and regulations governing patents could change in unpredictable ways that could have a material adverse effect on our existing patent portfolio and our ability to protect and enforce our intellectual property in the future.

Obtaining and maintaining our patent protection depends on compliance with various procedural, document submission, fee payment and other requirements imposed by governmental patent agencies, and our patent protection could be reduced or eliminated for non-compliance with these requirements.

Periodic maintenance fees, renewal fees, annuity fees and various other governmental fees on patents and/or applications will be due to be paid to the USPTO and various governmental patent agencies outside of the United States in several stages over the lifetime of the patents and/or applications. We have systems in place to remind us when the fees are due, and we employ an outside firm to automatically pay these fees to both US and non-U.S agencies and we rely on our outside counsel to verify and confirm payment of these fees. The USPTO and various non-U.S. governmental patent agencies require compliance with a number of procedural, documentary, fee payment, and other similar provisions during the patent application process. We employ reputable law firms and other professionals to help us comply, and in many cases, an inadvertent lapse can be cured by payment of a late fee or by other means in accordance with the applicable rules. However, there are situations in which non-compliance can result in abandonment or lapse of the patent or patent application, resulting in partial or complete loss of patent rights in the relevant jurisdiction. In such an event, our competitors might be able to enter the market and this circumstance would have a material adverse effect on our business.

Intellectual property rights are complex and uncertain and therefore may subject us to infringement claims.

The patent positions related to our drug products are inherently uncertain and involve complex legal and factual issues. We believe that there is significant litigation in the pharmaceutical and biotechnology industry regarding patent and other intellectual property rights. A patent does not provide the patent holder with freedom to operate in a way that infringes the patent rights of others. We may be accused of patent infringement at any time. The coverage of patents is subject to interpretation by the courts, and the interpretation is not always uniform. If we are sued for patent infringement, we would need to demonstrate that our products or methods do not infringe the patent claims of the relevant patent and/or that the

patent claims are invalid or unenforceable, and we may not be able to do this. Proving invalidity, in particular, is difficult since it requires a showing of clear and convincing evidence to overcome the presumption of validity enjoyed by issued patents in the U.S.

Although we are not aware of any infringement by any of our drug products of any valid patent rights of any third party, there may be third party patents or other intellectual property rights, including trademarks and copyrights, relevant to our drug products of which we are not aware. Third parties may assert patent or other intellectual property infringement claims against us, or our licensors and collaborators, with products. Any claims that might be brought against us relating to infringement of patents may cause us to incur significant expenses and, if successfully asserted against us, may cause us to pay substantial damages and result in the loss of our use of the intellectual property that is critical to our business strategy.

In the event that we or our partners are found to infringe any valid claim of a patent held by a third party, we may, among other things, be required to:

- pay damages, including up to treble damages and the other party's attorneys' fees, which may be substantial;
- cease the development, manufacture, use and sale of our products that infringe the patent rights of others through a court-imposed sanction such as an injunction;
- expend significant resources to redesign our products so they do not infringe others' patent rights, which may not be possible;
- discontinue manufacturing or other processes incorporating infringing technology; or
- obtain licenses to the infringed intellectual property, which may not be available to us on acceptable terms, or at all.

We may be subject to claims that our employees, consultants or independent contractors have wrongfully used or disclosed confidential information of third parties or that our employees have wrongfully used or disclosed alleged trade secrets of their former employers.

As is common in the biotechnology and pharmaceutical industry, we employ individuals who were previously employed at universities or other biotechnology or pharmaceutical companies, including our competitors or potential competitors. Although we try to ensure that our employees, consultants and independent contractors do not use the proprietary information or know-how of others in their work for us, we may be subject to claims that we or our employees, consultants or independent contractors have inadvertently or otherwise used or disclosed intellectual property, including trade secrets or other proprietary information, of any of our employee's former employer or other third parties. Litigation may be necessary to defend against these claims. If we fail in defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights or personnel, which could adversely impact our business. Even if we are successful in defending against such claims, litigation could result in substantial costs and be a distraction to management and other employees.

In addition, while we require our employees and contractors who may be involved in the conception or development of intellectual property to execute agreements assigning such intellectual property to us, we may be unsuccessful in executing such an agreement with each party who, in fact, conceives or develops intellectual property that we regard as our own. The assignment of intellectual property rights may not be self-executing or the assignment agreements may be breached, and we may be forced to bring claims against third parties, or defend claims that they may bring against us, to determine the ownership of what we regard as our intellectual property.

We may be involved in additional lawsuits to defend or enforce our patents, which could be expensive, time-consuming and unsuccessful.

Competitors may infringe upon our patents. To counter infringement or unauthorized use, we may be required to file infringement claims, which can be expensive and time-consuming. In addition, in an infringement proceeding, a court may decide that one or more of our patents is not valid or is unenforceable, or may refuse to stop the other party from using the technology at issue on the grounds that our patents do not cover the technology in question. An adverse result in any litigation or defense proceedings could put one or more of our patents at risk of being invalidated, held unenforceable, or interpreted narrowly and could put our patent applications at risk of not issuing. Defense of these claims, regardless of their merit, would involve substantial litigation expense and would be a substantial diversion of employee resources from our business.

Interference or derivation proceedings provoked by third parties or brought by the USPTO may be necessary to determine the priority of inventions with respect to our patents or patent applications. An unfavorable outcome could require us to cease using the related technology or to attempt to license rights to it from the prevailing party. Our business could be harmed if the prevailing party does not offer us a license on commercially reasonable terms. Litigation or interference proceedings may fail, even if successful, may result in substantial costs and distract our management and other employees. We may not be able to prevent misappropriation of our trade secrets or confidential information, particularly in countries where the laws may not protect those rights as fully as in the U.S. or in Europe.

Furthermore, because of the substantial amount of discovery that could be required in connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by disclosure during this type of litigation. In addition, there could be public announcements of the results of hearings, motions or other interim proceedings or developments. If securities analysts or investors perceive these results to be negative, it could have a substantial adverse effect on our stock price.

We may be subject to claims challenging the inventorship of our patents and other intellectual property.

We or our licensors may be subject to claims that former employees, collaborators or other third parties have an interest in our owned or in-licensed patents, trade secrets, or other intellectual property as an inventor or co-inventor. For example, we or our licensors may have inventorship disputes arise from conflicting obligations of employees, consultants or others who are involved in developing our product candidates. Litigation may be necessary to defend against these and other claims challenging inventorship or our or our licensors' ownership of our owned or in-licensed patents, trade secrets or other intellectual property. If we or our licensors fail in defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights, such as exclusive ownership of, or right to use, intellectual property that is important to our product candidates. Even if we are successful in defending against such claims, litigation could result in substantial costs and be a distraction to management and other employees. Any of the foregoing could have a material adverse effect on our business, financial condition, results of operations and prospects.

Some intellectual property that we have in-licensed may have been discovered through government funded programs and thus may be subject to federal regulations such as "march-in" rights, certain reporting requirements and a preference for U.S.-based companies. Compliance with such regulations may limit our exclusive rights, and limit our ability to contract with non-U.S. manufacturers.

Some of the intellectual property rights we have licensed are generated through the use of U.S. government funding and are therefore subject to certain federal regulations. As a result, the U.S. government may have certain rights to intellectual property embodied in our current or future product candidates pursuant to the Bayh-Dole Act of 1980, or Bayh-Dole Act, and implementing regulations. These U.S. government rights in certain inventions developed under a government-funded program include a non-exclusive, non-transferable, irrevocable worldwide license to use inventions for any governmental purpose. In addition, the U.S. government has the right to require us or our licensors to grant exclusive, partially exclusive, or non-exclusive licenses to any of these inventions to a third party if it determines that: (i) adequate steps have not been taken to commercialize the invention; (ii) government action is necessary to meet public health or safety needs; or (iii) government action is necessary to meet requirements for public use under federal regulations (also referred to as "march-in rights"). The U.S. government also has the right to take title to these inventions if we, or the applicable licensor, fail to disclose the invention to the government and fail to file an application to register the intellectual property within specified time limits. These time limits have recently been changed by regulation, and may change in the future. Intellectual property generated under a government funded program is also subject to certain reporting requirements, compliance with which may require us or the applicable licensor to expend substantial resources. In addition, the U.S. government requires that any products embodying the subject invention or produced through the use of the subject invention be manufactured substantially in the United States. The manufacturing preference requirement can be waived if the owner of the intellectual property can show that reasonable but unsuccessful efforts have been made to grant licenses on similar terms to potential licensees that would be likely to manufacture substantially in the United States or that under the circumstances domestic manufacture is not commercially feasible. This preference for U.S. manufacturers may limit our ability to contract with non-U.S. product manufacturers for products covered by such intellectual property. To the extent any of our current or future intellectual property is generated through the use of U.S. government funding, the provisions of the Bayh-Dole Act may similarly apply.

Data breaches and cyber-attacks could compromise our intellectual property or other sensitive information and cause significant damage to our business, reputational harm and financial loss.

In the ordinary course of our business, we collect, maintain and transmit sensitive data on our networks and systems, including our intellectual property and proprietary or confidential business information (such as research data and personal information) and confidential information with respect to our customers, clinical trial patients and our business partners. We have also outsourced significant elements of our information technology infrastructure and, as a result, third parties may or could have access to our confidential information and personal data. The secure maintenance of this information is critical to our business and reputation. We believe that companies have been increasingly subject to a wide variety of security incidents, cyber-attacks and other attempts to gain unauthorized access and unintentional breaches. These threats can come from a variety of sources, ranging in sophistication from an individual hacker to a state-sponsored attack and motive (including corporate espionage). Cyber threats may be generic, or they may be custom-crafted against our information systems. Our network and storage applications and those of our vendors may be subject to unauthorized access by hackers or information security breaches due to operator error, malfeasance or other system disruptions. It is often difficult to anticipate or immediately detect such incidents and the damage caused by such incidents, particularly for cyber incidents such as advanced persistent threats. These data breaches and any unauthorized access or disclosure of our information or intellectual property could compromise our intellectual property and expose sensitive business information. A data security breach could also lead to public exposure of personal information of our clinical trial patients, customers and others. Cyber-attacks and information security breaches could cause us to incur significant remediation costs, result in product development delays, disrupt key business operations and divert attention of management and key information technology resources. Our network security and data recovery measures and those of our vendors may not be able to detect or prevent every attempted breach and may not permit us to respond effectively to every breach. These incidents could also subject us to liability, expose us to significant expense and cause significant harm to our reputation and business. Reputational harm resulting from a significant cyber incident may cause unquantifiable damage to our established goodwill. Moreover, as cyber incidents continue to evolve, we will likely be required to expend additional resources to enhance our security posture and cybersecurity defenses or to investigate and remediate any vulnerability to or consequences of cyber incidents. Our insurance coverage may not be sufficient to prevent or recover from cyberattacks, including coverage of applicable resulting losses arising from the incident.

Further, each foreign jurisdiction and U.S. state in which we operate may have laws governing how we must respond to a cyber incident that results in the unauthorized access, disclosure, or loss of personal information. Additionally, new laws and regulations governing data privacy and unauthorized disclosure of confidential information, including recent California legislation providing for a private right of action, pose increasingly complex compliance challenges and could potentially elevate our costs over time. As legislation continues to develop and cyber incidents continue to evolve, we will likely be required to expend significant resources to continue to modify or enhance our protective measures to comply with such legislation and to detect, investigate and remediate vulnerabilities to cyber incidents. Any failure by us to comply with such laws and regulations could result in reputational harm, loss of goodwill, penalties, liabilities and/or mandated changes in our business practices.

General Risk Factors

Our failure to establish and maintain effective internal control over financial reporting could result in material misstatements in our financial statements, our failure to meet our reporting obligations and cause investors to lose confidence in our reported financial information, which in turn could cause the trading price of our common stock to decline.

The results of our periodic management evaluations regarding the effectiveness of our internal control over financial reporting are required by the Sarbanes-Oxley Act of 2002. Any failure to maintain enhanced monitoring controls and improved detection and communication of financial misstatements across all levels of the organization could result in (i) material weaknesses, (ii) material misstatements in our financial statements, requiring restatements of our previously-filed financial statements, and (iii) cause us to fail to meet our timely reporting and debt compliance obligations. These outcomes could cause us to lose public confidence, and could cause the trading price of our common stock to decline. For further information regarding our controls and procedures, see *Item 9A. Controls and Procedures*.

Changes in our effective income tax rate could adversely affect our profitability. Our ability to utilize our net operating loss carryforwards and certain other tax attributes may be limited.

We are subject to federal and state income taxes in the U.S. and our tax liabilities are dependent upon the distribution of income among these different jurisdictions. Various factors may have significant favorable or unfavorable effects on our effective income tax rate, and could have an impact on our profitability. These factors include, but are not limited to:

- interpretations of existing tax laws;
- the accounting for stock options and other share-based compensation;
- changes in tax laws and rates;
- future levels of research and development spending;
- changes in accounting standards;
- changes in the mix of earnings in the various tax jurisdictions in which we operate;
- the outcome of examinations by the Internal Revenue Service and tax regulators in other jurisdictions;
- the accuracy of our estimates for unrecognized tax benefits;
- realization of deferred tax assets; and
- changes in overall levels of pre-tax earnings.

Under Sections 382 and 383 of the Internal Revenue Code of 1986, as amended, if a corporation undergoes an "ownership change" (generally defined as a greater than 50% change (by value) in its equity ownership over a three-year period), the corporation's ability to use its pre-ownership change net operating loss carryforwards and other pre-ownership change tax attributes to offset its post-change income may be limited. As of December 31, 2021 we have U.S. net operating loss carryforwards of approximately $746.6 million. As a result of our public offerings of common stock, we may have triggered an "ownership change." We may also experience ownership changes in the future as a result of subsequent shifts in our stock ownership. Accordingly, if we earn net taxable income, our ability to use our pre-ownership change net operating loss carryforwards to offset U.S. federal taxable income may be subject to limitations, which could potentially result in increased future tax liability to us. If we become profitable in the future, our ability to use net operating loss carryforwards and other tax attributes to offset future taxable income or reduce taxes may be subject to limitations, and we cannot assure what, if any, the benefit related to our net operating loss carryforwards will be in the future.

Natural disasters, war and other events could adversely affect our future revenues and operating income.

Natural disasters, including the impacts of climate change, hurricanes, tornadoes, windstorms, fires, earthquakes and floods and other extreme weather events, global health pandemics, war, terrorism, labor disruptions and international conflicts, and actions taken by the United States and other governments or by our customers or suppliers in response to such events, could cause significant economic disruption and political and social instability in the United States and areas outside of the United States in which we operate. These events could result in decreased demand for our products, adversely affect our manufacturing and distribution capabilities, or increase the costs for or cause interruptions in the supply of materials from our suppliers.

We are subject to the risks of securities and related litigation, which may expose us to substantial liabilities and could seriously harm our business.

We may be subject to the risk of securities litigation and derivative actions from time to time as a result of being publicly traded, including the remaining unresolved actions set forth in *Item 3. Legal Proceedings*. There can be no assurance that any settlement or liabilities in such actions or any future lawsuits or claims against us would be covered or partially covered by our insurance policies, which could have a material adverse effect on our earnings in one or more periods. While we and our Board of Directors deny the allegations of wrongdoing against us in the unresolved actions initiated against us, there can be no assurance as to the ultimate outcome or timing of their resolutions. In addition to the potential costs and liabilities, securities litigation could divert management's attention and resources, which could seriously harm our business.

Global, market and economic conditions may negatively impact our business, financial condition and share price.

Concerns over inflation, geopolitical issues, the U.S. financial markets, foreign exchange rates, capital and exchange controls, unstable global credit markets and financial conditions and the COVID-19 pandemic, have led to periods of

significant economic instability, declines in consumer confidence and discretionary spending, diminished expectations for the global economy and expectations of slower global economic growth going forward, and increased unemployment rates. Our general business strategy may be adversely affected by any such economic downturns, volatile business environments and continued unstable or unpredictable economic and market conditions. If these conditions continue to deteriorate or do not improve, it may make any necessary debt or equity financing more difficult to complete, more costly and more dilutive. In addition, there is a risk that one or more of our current or future service providers, manufacturers, suppliers and other partners could be negatively affected by difficult economic times, which could adversely affect our ability to attain our operating goals on schedule and on budget or meet our business and financial objectives.

In addition, we face several risks associated with international business and are subject to global events beyond our control, including war, public health crises, such as pandemics and epidemics, trade disputes, economic sanctions, trade wars and their collateral impacts and other international events. Any of these changes could have a material adverse effect on our reputation, business, financial condition or results of operations. There may be changes to our business if there is instability, disruption or destruction in a significant geographic region, regardless of cause, including war, terrorism, riot, civil insurrection or social unrest; and natural or man-made disasters, including famine, flood, fire, earthquake, storm or disease. In February 2022, armed conflict escalated between Russia and Ukraine. The sanctions announced by the U.S. and other countries, following Russia's invasion of Ukraine against Russia to date include restrictions on selling or importing goods, services or technology in or from affected regions and travel bans and asset freezes impacting connected individuals and political, military, business and financial organizations in Russia. The U.S. and other countries could impose wider sanctions and take other actions should the conflict further escalate. It is not possible to predict the broader consequences of this conflict, which could include further sanctions, embargoes, regional instability, geopolitical shifts and adverse effects on macroeconomic conditions, currency exchange rates and financial markets, all of which could impact our business, financial condition and results of operations.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

We lease 1,500 square feet for our principal executive office in Henderson, Nevada under a non-cancelable operating lease expiring October 31, 2022, 56,000 square feet for our administrative and research and development facility in Irvine, California under a non-cancelable operating lease expiring July 31, 2022, and 10,000 square feet for a research and development facility in Boston, Massachusetts under a non-cancelable operating lease expiring December 31, 2024. We believe that these leased facilities are adequate to meet our current and planned business needs.

Item 3. Legal Proceedings

From time-to-time, we are involved with various legal matters arising from the ordinary course of operating our publicly-traded pharmaceutical business. These legal matters may include product liability claims, intellectual property claims, employment practices claims, shareholder claims, among other general claims. We record liability provisions to our financial statements for such matters when it is both: (1) probable that a payment will be made to the claimant and (2) we can reasonably estimate the payment amount, given all available information.

Our legal accrual assessments are performed at least quarterly, and are adjusted to reflect the impact of any settlement negotiations, judicial and administrative rulings, advice of legal counsel, and other information and events pertaining to each particular case. Although litigation is inherently unpredictable, we do not believe that individually or in the aggregate, these claims will have a material adverse effect on our consolidated results of operations, cash flows, or financial condition.

Certain of our legal proceedings are discussed in *Note 7(g) — Litigation* to our accompanying Consolidated Financial Statements.

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

Our common stock is traded on the NASDAQ Global Select Market under the symbol "SPPI."

On March 10, 2022, the closing price of our common stock on the NASDAQ Global Select Market was $0.79 per share, and there were 149 holders of record of our common stock.

Dividend Policy

We have not paid dividends on our common stock during the most two recent fiscal years. We currently intend to retain all earnings, if any, for use in the expansion of our business and do not anticipate paying any dividends in the foreseeable future. However, the payment of dividends, if any, will be at the discretion of the Board of Directors and subject to compliance at such time with any applicable restrictions contained in our various agreements and applicable law.

Securities Authorized for Issuance Under Equity Compensation Plans

The information required by Item 201(d) of Regulation S-K is incorporated by reference to our definitive proxy statement related to our 2022 Annual Meeting of Stockholders, or the Proxy Statement, to be filed pursuant to Regulation 14A, on or before April 30, 2022.

Unregistered Sales of Equity Securities

All equity securities that we sold during the period covered by this Form 10-K that were not registered under the Securities Act have been previously reported in our quarterly reports on Form 10-Q or on our current reports on Form 8-K.

Item 6. [Reserved]

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

The following discussion and analysis should be read in conjunction with our consolidated financial statements and the related notes included in this Annual Report on Form 10-K. This discussion contains forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those anticipated in the forward-looking statements as a result of various factors including the risks we discuss in *Item 1A.* Risk Factors and elsewhere in this Annual Report on Form 10-K.

Impact of COVID-19 Pandemic

On March 11, 2020, COVID-19 was declared a pandemic by the World Health Organization. Concerns related to the spread of COVID-19 have created global business disruptions as well as disruptions in our operations. The ongoing COVID-19 pandemic has adversely impacted economic activity and conditions worldwide, including workforces, liquidity, capital markets, consumer behavior, supply chains, and macroeconomic conditions. Despite progress in vaccination efforts, global economic activity remains uncertain and cannot be predicted with confidence. Further, in the first half of 2021, a new Delta variant of COVID-19 began to spread globally and caused an increase in COVID-19 cases in many places in the United States, and in November 2021, a new Omicron variant, which appears to be the most transmissible variant to date, was detected, and has since caused an increase in COVID-19 cases in multiple countries, including the United States, and of which the potential severity is currently being evaluated.

Public health officials and medical professionals have warned that COVID-19 cases may continue to spike due to the Delta variant and/or the Omicron variant, particularly if vaccination rates do not quickly increase or if additional, potent disease variants emerge. It is unclear how long the resurgence due to Delta or the resurgence due to Omicron will last, how severe the Delta resurgence or Omicron resurgence will be, and what safety measures governments will impose in response to the Delta resurgence or Omicron resurgence. The impact of the Delta variant and the Omicron variant cannot be predicted at this time, and could depend on numerous factors, including vaccination rates among the population, the effectiveness of COVID-19 vaccines against the Delta variant and the Omicron variant and the response by governmental bodies and regulators. The outbreak has and may continue to affect the Company's operations and those of third parties on which the Company relies. The degree and duration of COVID-19's impact on our business, our operations, and the global economy as

a whole, are unknown at this time. However, the effects could have a material impact on our results of operations, and we will continue to monitor the situation closely.

The extent to which the COVID-19 pandemic may continue to impact our results of operations, including the long-term nature of the impacts, depends on numerous evolving factors, which are highly uncertain and difficult to predict, including the adoption rate of the COVID-19 vaccines, the emergence and spread of variants (including the Delta variant, a rapidly spreading strain of coronavirus), the scope and the timing to further contain the virus or treat its impact, and to what extent normal economic and operating conditions can resume, among others. For more information related to the impact of COVID-19 on our business, refer to the risk factors included in Item 1A. of this Annual Report on Form 10-K.

Company Overview

Spectrum Pharmaceuticals, Inc. ("Spectrum", the "Company", "we", "our", or "us") is a biopharmaceutical company, with a primary strategy comprised of acquiring, developing, and commercializing novel and targeted oncology therapies. Our in-house development organization includes clinical development, regulatory, quality and data management.

At Spectrum, we thrive on collaboration and cross-functional teamwork. We exist to attack cancer and improve care so people can live longer, more fulfilling lives and have built a team to support innovative oncology drug development. Our business model focuses on building a portfolio of novel and targeted drugs in the field of oncology, through acquisition and partnerships. We bring those drugs through the development process with our partners to make them available to patients. These collaborative efforts will continue to shape the future of our pipeline and our company.

We have two drugs in late-stage development:

- Eflapegrastim, a novel long-acting granulocyte colony-stimulating factor ("G-CSF") for the treatment of chemotherapy-induced neutropenia. On August 6, 2021, the Company announced the receipt of a CRL, that cited manufacturing deficiencies related both to the drug substance and drug product manufacturers. The company believes it has completed the remediation of these deficiencies and resubmitted the BLA on March 11, 2022;
- Poziotinib, a novel irreversible tyrosine kinase inhibitor under investigation for NSCLC tumors with various mutations. On December 6, 2021, the Company announced it submitted its NDA for poziotinib to the FDA for use in patients with previously treated locally advanced or metastatic NSCLC with HER2 exon 20 insertion mutations. The NDA submission is based on the positive results of Cohort 2 from the ZENITH20 clinical trial, which assessed the safety and efficacy of poziotinib. The product has received Fast Track designation and there is currently no treatment specifically approved by the FDA for this indication. On February 11, 2022, the Company announced that it had received notice that the NDA had been accepted and received a PDUFA action date of November 24, 2022.

See *Item 1. Business*, for our discussion of:

- Company Overview
- Cancer Background and Market Size
- Product Portfolio
- Manufacturing
- Competition
- Research and Development

Recent Highlights of Our Business, Product Development Initiatives, and Regulatory Approvals

Our product pipeline is summarized below:

Eflapegrastim, a novel long-acting G-CSF:

We submitted our BLA for eflapegrastim to the FDA on October 24, 2019 that is supported by data from two similarly designed Phase 3 clinical trials, ADVANCE and RECOVER, which evaluated the safety and efficacy of eflapegrastim in 643 early-stage breast cancer patients for the treatment of neutropenia due to myelosuppressive chemotherapy. Both studies met the pre-specified endpoint of non-inferiority in duration of severe neutropenia and met all of the secondary endpoints. In addition, the safety profile was similar to pegfilgrastim. On August 6, 2021, we announced the receipt of a CRL based on

manufacturing deficiencies identified at both the drug substance and drug product manufacturers. The company believes these manufacturing deficiencies have been remediated and on March 11, 2022, we resubmitted the BLA for eflapegrastim.

A company sponsored clinical trial has been initiated to evaluate the administration of eflapegrastim on the same day as chemotherapy. This Phase 1 clinical trial is a randomized, open label, actively controlled study to evaluate the same-day dosing of eflapegrastim on duration of neutropenia when administered at varying intervals following docetaxel and cyclophosphamide (TC) chemotherapy in patients with early-stage breast cancer. On March 4, 2021, at the virtual 38th Annual Miami Breast Cancer Conference®, the Company presented positive early data showing rapid absolute neutrophil count (ANC) recovery in the first three patients dosed in the 30-minute arm of the same-day dosing. This arm met the prespecified interim safety evaluation criteria and therefore supported the expansion of this arm to 15 patients. The study design included an interim safety evaluation that was conducted once the first three patients in each arm (30 minutes, 3 hours, or 5 hours) completed Cycle 1. Based on this review, the 30-minute arm expanded to a total of 15 patients, while the 3- and 5-hour dosing arms have been discontinued. In the 30-minute dosing arm, ANC recovery was more rapid compared to the 3- and 5-hour arms. The overall safety profile for the 30-minute arm was similar to what has been seen previously in large randomized studies with G-CSF given 24 hours after chemotherapy.

Poziotinib, a Pan ErbB inhibitor targeting HER2 exon20 mutations:

Poziotinib is a novel, pan-HER inhibitor that irreversibly blocks signaling through the Epidermal Growth Factor Receptor (EGFR) family of tyrosine-kinase receptors, including HER1 (erbB1; EGFR), HER2 (erbB2), HER4 (erbB4), and HER receptor mutations. This, in turn, leads to the inhibition of the proliferation of tumor cells that over-express these receptors. Mutations of over-expression/amplification of EGFR family receptors have been associated with a number of different cancers, including NSCLC, breast cancer, and gastric cancer. In March 2015, we entered into a co-development and commercialization agreement with Hanmi for poziotinib worldwide rights, except in Korea and China.

Our clinical development program for poziotinib is focused on previously treated NSCLC, first-line treatment of NSCLC and treatment of other solid tumors with HER2 mutations. NSCLC tumors with HER2 exon 20 insertion mutations are rare and have generally not been responsive to other tyrosine kinase inhibitors. Patients with these mutations have a poor prognosis, and available treatment options are limited. Poziotinib, due to its unique chemical structure and characteristics, is believed to inhibit cell growth of tumors with HER2 exon-20 insertion mutations.

In October 2017, we announced the start of our pivotal ZENITH20 Phase 2 global clinical trial with active sites in the U.S., Canada and Europe. The ZENITH20 trial consists of seven cohorts of NSCLC patients. Cohorts 1, 2, 3 and 4 have completed enrollment while Cohorts 5, 6, and 7 are currently enrolling patients. Cohorts 1 (EGFR) and 2 (HER2) include previously treated NSCLC patients with exon 20 mutations. Cohort 3 (EGFR) and 4 (HER2) include first-line NSCLC patients with exon 20 mutations. Cohorts 1- 4 are each independently powered for a pre-specified statistical hypothesis and the primary endpoint is overall response rate (“ORR”). Cohort 5 includes previously treated or treatment-naïve NSCLC patients with EGFR or HER2 exon 20 insertion mutations and is evaluating different dosing regimens. Cohort 6 includes NSCLC patients with classical EGFR mutations who progressed while on treatment with first-line osimertinib and developed an additional EGFR mutation. Cohort 7 includes NSCLC patients with a variety of less common mutations in EGFR or HER2 exons 18-21 or the extracellular or transmembrane domains.

On December 26, 2019, we announced that the pre-specified primary endpoint was not met in Cohort 1 of the ZENITH20 trial evaluating poziotinib in previously treated NSCLC patients with EGFR exon 20 insertion mutations. Cohort 1 enrolled a total of 115 patients who received 16 mg/day of poziotinib. The intent-to-treat analysis showed that 17 patients had a response (by RECIST) and 62 patients had stable disease for a 68.7% disease control rate (“DCR”). The confirmed ORR was 14.8% (95% CI 8.9%-22.6%). The median duration of response was 7.4 months and the progression free survival was 4.2 months. The safety profile was in-line with other second-generation EGFR tyrosine kinase inhibitors.

On July 27, 2020, we announced that we met the pre-specified primary endpoint for Cohort 2 in the ZENITH20 trial evaluating previously treated NSCLC patients with HER2 exon 20 insertion mutations. Cohort 2 enrolled a total of 90 patients who received an oral, once daily dose of 16 mg of poziotinib. All the patients had failed at least one line of prior systemic therapy with 60 patients (67%) having failed two or more prior therapies, including chemotherapy and immunotherapy. All responses were read independently and confirmed by a central imaging laboratory using RECIST criteria. The intent-to-treat analysis demonstrated a confirmed ORR of 27.8% (95% CI of 18.9%-38.2%). Based on the pre-specified statistical hypothesis for the primary endpoint, the observed lower bound of 18.9% exceeded the pre-specified lower bound of 17% in this heavily pre-treated population. The safety profile was in-line with the type of adverse events seen

with other second-generation EGFR tyrosine kinase inhibitors. These results were presented at the European Society for Medical Oncology ("ESMO") Virtual Congress 2020 Science Weekend held in September 2020.

In December 2020, we reported that its pre-specified primary endpoint in Cohort 3 evaluating poziotinib in first-line NSCLC patients with EGFR exon 20 insertion mutations was not met. Cohort 3 of the ZENITH20 clinical trial enrolled a total of 79 patients who received an oral once daily dose of 16 mg of poziotinib. The median time of follow up of all patients was 9.2 months with 12 ongoing patients still on treatment. The intent-to-treat analysis showed that 22 patients had a partial response (by RECIST) and 68 patients had stable disease for an 86.1% DCR. 91% of patients experienced tumor reduction with a median reduction of 25.5%. The confirmed ORR was 27.8% (95% CI 18.4-39.1%). Based on the pre-specified statistical hypothesis for the primary endpoint, the observed lower bound of 18.4% did not meet the pre-specified lower bound of >20%. The median duration of response was 6.5 months and the median progression free survival was 7.2 months. The safety profile was similar with the type of adverse events observed with other second-generation EGFR tyrosine kinase inhibitors. Grade 3 treatment related rash was 33% and diarrhea was 23%. 94% of patients had drug interruptions with 6 patients (8%) permanently discontinuing due to adverse events.

In March 2021, we announced that the FDA granted Fast Track designation for poziotinib based on data from Cohort 2 of ZENITH20, which evaluated previously treated patients with NSCLC with HER2 exon 20 insertion mutations. On December 6, 2021, the Company announced the submission of its NDA for poziotinib to the FDA for use in patients with previously treated locally advanced or metastatic NSCLC with HER2 exon 20 insertion mutations. The NDA submission is based on the positive results of Cohort 2 from the ZENITH20 clinical trial, which assessed the safety and efficacy of poziotinib. On February 11, 2022, the Company announced that the file had been accepted and an action date of November 24, 2022 had been set.

In March 2022, the Company presented the results of Cohort 4 at the ESMO TAT meeting. Cohort 4 of the ZENITH20 clinical trial enrolled a total of 70 patients, 48 of whom received an oral once daily dose of 16 mg of poziotinib and 22 of who received an oral twice daily dose of 8 mg of poziotinib. The intent-to-treat analysis demonstrated a confirmed ORR of 41% (95% CI of 30%-54%). Based on the pre-specified statistical hypothesis for the primary endpoint, the observed lower bound of 30% exceeded the pre-specified lower bound of 20%. The median duration of response was 5.7 months and median progression free survival was 5.6 months. The most common treatment related Grade ≥ 3 adverse events were rash (30%), stomatitis (19%), diarrhea (14%), and paronychia (7%). In addition, the incidence of Grade ≥ 3 pneumonitis was low at 3%. The safety profile was consistent with the TKI class.

Components of Operating Results

The below summarizes the nature of our revenue and operating expense line items within our Consolidated Statements of Operations:

Operating Expenses

Selling, General and Administrative

Selling, general and administrative expenses primarily consist of compensation (including stock-based compensation) and benefits for our sales force and personnel that support our sales and marketing operations, and our general operations such as information technology, executive management, financial accounting, and human resources. It also includes costs attributable to marketing our products to our customers and prospective customers, patent and legal fees, financial statement audit fees, insurance coverage fees, bad debt expense, personnel recruiting fees, and other professional services.

Research and Development

Our research and development activities primarily relate to the clinical development of new drugs and costs associated with at-risk manufacture of drug products prior to FDA approval.

These clinical development expenses specifically consist of (i) compensation (including stock-based compensation) and benefits for research and development and clinical and regulatory personnel, (ii) materials and supplies for each project, (iii) consultants, and (iv) associated regulatory and clinical site expenses.

Our research and development manufacturing expenses are recognized in the period which the activity occurs and includes (i) our technology transfer costs for production, (ii) FDA qualification costs of our contract manufacturers' sites, and (iii) material and service costs associated with our inventory build in anticipation of FDA approval and subsequent commercial launch.

Results of Operations

Comparison of the Years Ended December 31, 2021 and 2020

	Year Ended December 31,		
	2021	2020	$ Change
	($ in thousands)		
Operating costs and expenses:			
Selling, general and administrative	$ 60,406	$ 60,357	$ 49
Research and development	87,297	109,377	(22,080)
Total operating costs and expenses	147,703	169,734	(22,031)
Loss from continuing operations before other income (expense) and income taxes	(147,703)	(169,734)	22,031
Other income (expense):			—
Interest income, net	163	1,342	(1,179)
Other expense, net	(10,892)	(2,940)	(7,952)
Total other expense	(10,729)	(1,598)	(9,131)
Loss from continuing operations before income taxes	(158,432)	(171,332)	12,900
(Provision) benefit for income taxes from continuing operations	(4)	60	(64)
Loss from continuing operations	(158,436)	(171,272)	12,836
Income (loss) from discontinued operations, net of income taxes	(192)	10,404	(10,596)
Net loss	$ (158,628)	$ (160,868)	$ 2,240

Operating Expenses

	Year Ended December 31,			
	2021	2020	$ Change	% Change
	($ in millions)			
Operating expenses:				
Selling, general and administrative	$ 60.4	$ 60.4	$ —	—%
Research and development	87.3	109.4	(22.1)	(20.2)%
Total operating costs and expenses	$ 147.7	$ 169.7	$ (22.0)	(13.0)%

Selling, general and administrative expenses remained consistent compared to the prior period. Included in the current period expense is $4.9 million of one-time severance expense associated with the termination of our former chief executive officer in December 2021. This increase in expense was offset by a decrease in the current period compared to the prior period of (i) $3.6 million related to professional services and (ii) $1.2 million related to personnel expenses.

Research and development expenses decreased by $22.1 million in the current period primarily related to a decrease in eflapegrastim expenses of $28.2 million due to the impairment and write-offs in 2020 related to our second source manufacturer. This decrease was partially offset by increases in poziotinib expenses of (i) $4.1 million related to manufacturing activities and (ii) $3.8 million related to the preparation and filing of our NDA.

Total Other Expense

	Year Ended December 31,			
	2021	2020	$ Change	% Change
	($ in millions)			
Total other expense	$ (10.7)	$ (1.6)	$ (9.1)	(568.8)%

Total other expense increased by $9.1 million primarily due to (i) $12.8 million of decreased market value of our equity holdings in the current period versus the prior period and (ii) $1.2 million of decreased interest income in the current

period versus the prior period, offset by $4.7 million of increased realized gains in the current period compared to the prior period from the sale of our equity holdings.

Liquidity and Capital Resources

We believe that our $100.6 million in aggregate cash, cash equivalents, and marketable securities as of December 31, 2021 combined with $20 million of equity financing received from Hanmi in January 2022 is sufficient to fund our current and planned operations for at least the next twelve months. We may, however, require additional liquidity as we continue to execute our business strategy, and in connection with opportunistic acquisitions or licensing arrangements. We anticipate that to the extent that we require additional liquidity, it will be funded through additional equity or debt financings, or out-licensing arrangements. However, we cannot provide assurance that we will be able to obtain this additional liquidity on terms favorable to us or our current stockholders, if at all. Additionally, our liquidity and our ability to fund our capital requirements are also dependent on our future financial performance which is subject to various market and economic factors that are beyond our control.

We have no off-balance sheet arrangements that provide financing, liquidity, market or credit risk support, or involve derivatives. In addition, we have no arrangements that may expose us to liability that are not expressly reflected in the accompanying Consolidated Financial Statements and/or notes thereto.

Net Cash Used In Operating Activities

Net cash used in operating activities was $119.5 million for the year ended December 31, 2021, as compared to $121.6 million for the year ended December 31, 2020. This slight decrease in net cash used in operating activities was primarily related to changes in working capital during the year ended December 31, 2021.

Net Cash Provided By Investing Activities

Net cash provided by investing activities was $108.7 million for the year ended December 31, 2021, as compared to $18.1 million for the year ended December 31, 2020.

Cash provided by investing activities primarily relates to proceeds of $119.8 million from our investments and proceeds of $6.0 million from the sale of our equity holdings. These cash receipts were partially offset by $16.9 million of purchased investments and $0.2 million of equipment purchases.

Net Cash Provided By Financing Activities

Net cash provided by financing activities was $53.3 million for the year ended December 31, 2021, as compared to $85.2 million for the year ended December 31, 2020.

Cash provided by financing activities during the year ended December 31, 2021 relates to $52.6 million of proceeds received from common shares sold pursuant to an at-the-market-issuance sales agreement, and $0.7 million of proceeds from employee shares purchased under our employee stock purchase plan.

Sale of Common Stock Under ATM Agreements

On April 5, 2019, we entered into a new collective at-market-issuance (“ATM”) sales agreement with Cantor Fitzgerald & Co., H.C. Wainwright & Co., LLC and B. Riley FBR, Inc. (the “April 2019 ATM Agreement”), pursuant to which we may offer and sell shares of our common stock by any method deemed to be an “at the market” offering (the “ATM Offering”). From April 5, 2019 to March 2, 2020, the ATM Offering was conducted pursuant to a sales agreement prospectus filed with our automatic shelf registration statement on Form S-3ASR, filed with the SEC on April 5, 2019, which registered an aggregate offering price of $150 million under the April 2019 ATM Agreement. From May 8, 2020 to June 30, 2020, the ATM Offering was conducted pursuant to a sales agreement prospectus (the “Initial Sales Agreement Prospectus”) filed with our shelf registration statement on Form S-3, filed with the SEC on March 20, 2020, as amended by Pre-Effective Amendment No. 1 thereto, and declared effective by the SEC on May 8, 2020 (the “Registration Statement”), which registered an aggregate offering price of up to $75 million under the April 2019 ATM Agreement. On July 29, 2020, we terminated the Initial Sales Agreement Prospectus, but left the April 2019 ATM Agreement in full force and effect. On November 6, 2020, we filed a new sales agreement prospectus to the Registration Statement, which registered an aggregate offering price of up to $60 million under the April 2019 ATM Agreement.

On July 13, 2021, we filed a shelf registration statement with the SEC on Form S-3, which was declared effective by the SEC on July 21, 2021 (the “Registration Statement”). The Registration Statement registered an aggregate offering price

of up to $300 million of securities that may be issued and sold by us from time to time, including up to an aggregate offering price of $150 million of common stock (which amount is included in the $300 million aggregate offering price set forth in the base prospectus) that may be issued and sold pursuant to the April 2019 ATM Agreement.

We sold and issued common shares under the April 2019 ATM Agreement as follows:

Description of Financing Transaction	No. of Common Shares Issued	Proceeds Received (Net of Broker Commissions and Fees)
Common shares issued pursuant to the April 2019 ATM Agreement during the year ended December 31, 2020	3,950,398	$14,902
Common shares issued pursuant to the April 2019 ATM Agreement during the year ended December 31, 2021	15,851,391	$52,621

Critical Accounting Policies and Estimates

The preparation of financial statements in conformity with GAAP requires our management to make informed estimates and assumptions that affect our reported amounts of assets, liabilities, revenues, and expenses. These amounts may materially differ from the amounts ultimately realized and reported due to the inherent uncertainty of any estimate or assumption. On an on-going basis, our management evaluates (as applicable) its most critical estimates and assumptions, including those related to: (i) the realization of our tax assets and estimates of our tax liabilities; (ii) the fair value of our investments; (iii) the valuation of our stock options and the periodic expense recognition of stock-based compensation; and (iv) the potential outcome of our ongoing or threatened litigation.

Our accounting policies and estimates that most significantly impact the presented amounts within these Consolidated Financial Statements are further described below:

Property and Equipment, Net

Our property and equipment, net is stated at historical cost, and is depreciated on a straight-line basis over an estimated useful life that corresponds with its designated asset category. We evaluate the recoverability of "long-lived assets" (which includes property and equipment) whenever events or changes in circumstances in our business indicate that the asset's carrying amount may not be recoverable. Recoverability is measured by a comparison of the carrying amount to the net undiscounted cash flows expected to be generated by the asset group. An impairment loss would be recorded for the excess of net carrying value over the fair value of the asset impaired. The fair value is estimated based on expected discounted future cash flows or other methods such as orderly liquidation value based on assumptions of asset class and observed market data. An orderly liquidation value is the amount that could be realized upon liquidation, given a sufficient amount of time to find a purchaser for a sale of assets in their existing condition and location, as of a specific date, and assuming the sale is to market participants who can utilize such assets in their highest and best use. The orderly liquidation values are applied against the carrying values of the assets and the impairment loss is measured as the difference between the liquidation value and the carrying value of the assets.

During the fourth quarter of 2020, we determined that we would no longer proceed with the technology transfer and validation of a second manufacturing source for eflapegrastim and communicated this decision to the second source manufacturer. We had invested significant capital to prepare this facility for production. Given the decision to discontinue this work, we determined that the value of certain eflapegrastim production equipment had a carrying amount in excess of the anticipated recoverable value as there would be no future cash flows from these assets other than through the sale of this equipment. We determined the fair value of these assets under an orderly liquidation value method and recorded an impairment of $19.7 million to our carrying value for this equipment, which was recorded as research and development expense. In connection with this decision, we additionally wrote off $8.5 million in prepaid costs related to future manufacturing activities that would no longer be taking place as research and development expense. During the year ended December 31, 2021, this equipment was surrendered in connection with the termination of our agreement with our second source manufacturer and we recorded incremental research and development expense of $2.9 million. Fair value was based on observable market data ("Level 2"). Due to the specialized nature of this production equipment, adjustments to observable market data were applied ("Level 3").

Stock-Based Compensation

Stock-based compensation expense for equity awards granted to our employees and members of our Board of Directors is recognized on a straight-line basis over each award's vesting period. Recognized compensation expense is net of an

estimated forfeiture rate, representing the percentage of awards that are expected to be forfeited prior to vesting, though is ultimately adjusted for actual forfeitures. We use the Black-Scholes option pricing model to determine the fair value of stock options and stock appreciation rights (as of the date of grant) that have service conditions for vesting. We use the Monte Carlo valuation model to value equity awards (as of the date of grant) that have combined market conditions and service conditions for vesting.

The recognition of stock-based compensation expense and the initial calculation of stock option fair value requires uncertain assumptions, including (a) the pre-vesting forfeiture rate of the award, (b) the expected term that the stock option will remain outstanding, (c) our stock price volatility over the expected term (and that of our designated peer group with respect to certain market-based awards), and (d) the prevailing risk-free interest rate for the period matching the expected term.

With regard to (a)-(d) above: we estimate forfeiture rates based on our employees' overall forfeiture history, which we believe will be representative of future results. We estimate the expected term of stock options granted based on our employees' historical exercise patterns, which we believe will be representative of their future behavior. We estimate the volatility of our common stock on the date of grant based on the historical volatility of our common stock for a look-back period that corresponds with the expected term. We estimate the risk-free interest rate based upon the U.S. Department of the Treasury yields in effect at award grant, for a period equaling the expected term of the stock option.

Research and Development Costs

Our research and development costs are expensed as incurred. Research and development costs consist primarily of salaries, benefits, and other staff-related costs including associated stock-based compensation, laboratory supplies, clinical trial and related clinical manufacturing costs, costs related to manufacturing preparations, fees paid to other entities that conduct certain research and development activities on our behalf and payments made pursuant to license agreements. Clinical trial and other development costs incurred by third parties are expensed as the contracted work is performed. We accrue for costs incurred as the services are being provided by monitoring the status of activities and the invoices received from its external service providers. We adjust our accruals as actual costs become known. Where contingent milestone payments are due to third parties under research and development or license agreements, the milestone payment obligations are expensed when the clinical or regulatory milestone results are achieved.

Item 7A. Quantitative And Qualitative Disclosures About Market Risk

Not applicable.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this Annual Report on Form 10-K to be signed on its behalf by the undersigned, thereunto duly authorized.

Spectrum Pharmaceuticals, Inc.

Date: March 17, 2022

By: /s/ THOMAS J. RIGA
Thomas J. Riga
President and Chief Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this Annual Report on Form 10-K has been signed below by the following persons on behalf of the Registrant and in the capacities and on the dates indicated:

Signature	Title	Dates
/s/ THOMAS J. RIGA Thomas J. Riga	President, Chief Executive Officer and Director	March 17, 2022
/s/ KURT A. GUSTAFSON Kurt A. Gustafson	Executive Vice President and Chief Financial Officer (Principal Financial and Accounting Officer)	March 17, 2022
/s/ WILLIAM L. ASHTON William L. Ashton	Chairman of the Board	March 17, 2022
/s/ DOLATRAI M. VYAS, PH.D. Dolatrai M. Vyas, Ph.D.	Director	March 17, 2022
/s/ BERNICE R. WELLES, M.D., M.B.A. Bernice R. Welles, M.D., M.B.A.	Director	March 17, 2022
/s/NORA E. BRENNAN Nora E. Brennan	Director	March 17, 2022
/s/ SETH H.Z. FISCHER Seth H.Z. Fischer	Director	March 17, 2022
/s/ JEFFREY L. VACIRCA, M.D., F.A.C.P. Jeffrey L. Vacirca, M.D., F.A.C.P.	Director	March 17, 2022
/s/ JUHYUN LIM Juhyun Lim	Director	March 17, 2022

Item 8. Financial Statements And Supplementary Data

Spectrum Pharmaceuticals, Inc.
Index to Consolidated Financial Statements

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Stockholders and the Board of Directors of
Spectrum Pharmaceuticals, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheet of Spectrum Pharmaceuticals, Inc. and subsidiaries (the Company) as of December 31, 2021, the related consolidated statements of operations, comprehensive loss, stockholders' equity and cash flows, for the year then ended, and the related notes (collectively, the financial statements). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2021, and the results of its operations and its cash flows for the year then ended in conformity with accounting principles generally accepted in the United States of America.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audit. 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 U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit 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 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 audit 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 audit included performing procedures to assess the risks of material misstatement of the 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 financial statements. Our audit also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audit provides a reasonable basis for our opinion.

Critical Audit Matters

Critical audit matters are matters arising from the current period audit of the 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 financial statements and (2) involved our especially challenging, subjective or complex judgments. We determined that there are no critical audit matters.

/s/ RSM US LLP

We have served as the Company's auditor since 2021.

Los Angeles, California
March 17, 2022

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the stockholders and the Board of Directors of
Spectrum Pharmaceuticals, Inc.

Opinion on the Financial Statements

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

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's 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 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 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 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 financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ Deloitte & Touche LLP

Costa Mesa, California
March 31, 2021

We began serving as the Company's auditor in 2014. In 2021 we became the predecessor auditor.

SPECTRUM PHARMACEUTICALS, INC.

CONSOLIDATED BALANCE SHEETS
(In thousands, except share and par value amounts)

	December 31, 2021	December 31, 2020
ASSETS		
Current assets:		
Cash and cash equivalents	$ 88,539	$ 46,009
Marketable securities	12,108	134,016
Accounts receivable, net	—	67
Other receivables	1,028	2,394
Prepaid expenses and other current assets	2,277	4,161
Total current assets	103,952	186,647
Property and equipment, net	455	3,577
Facility and equipment under lease	2,505	2,247
Other assets	4,636	4,327
Total assets	$ 111,548	$ 196,798
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable and other accrued liabilities	$ 41,258	$ 43,771
Accrued payroll and benefits	11,971	9,375
Total current liabilities	53,229	53,146
Other long-term liabilities	10,766	9,409
Total liabilities	63,995	62,555
Commitments and contingencies (*Note 7*)		
Stockholders' equity:		
Preferred stock, $0.001 par value; 5,000,000 shares authorized; no shares issued and outstanding	—	—
Common stock, $0.001 par value; 300,000,000 shares authorized; 164,502,013 and 146,083,110 issued and outstanding at December 31, 2021 and 2020, respectively	165	146
Additional paid-in capital	1,094,353	1,021,221
Accumulated other comprehensive loss	(3,042)	(1,829)
Accumulated deficit	(1,043,923)	(885,295)
Total stockholders' equity	47,553	134,243
Total liabilities and stockholders' equity	$ 111,548	$ 196,798

See accompanying notes to these consolidated financial statements.

SPECTRUM PHARMACEUTICALS, INC.

CONSOLIDATED STATEMENTS OF OPERATIONS
(In thousands, except share and per share amounts)

	Year Ended December 31,	
	2021	**2020**
Operating costs and expenses:		
Selling, general and administrative	$ 60,406	$ 60,357
Research and development	87,297	109,377
Total operating costs and expenses	147,703	169,734
Loss from continuing operations before other income (expense) and income taxes	(147,703)	(169,734)
Other income (expense):		
Interest income, net	163	1,342
Other expense, net	(10,892)	(2,940)
Total other expense	(10,729)	(1,598)
Loss from continuing operations before income taxes	(158,432)	(171,332)
(Provision) benefit for income taxes from continuing operations	(4)	60
Loss from continuing operations	$ (158,436)	$ (171,272)
Income (loss) from discontinued operations, net of income taxes	(192)	10,404
Net loss	$ (158,628)	$ (160,868)
Basic and diluted loss per share:		
Loss per common share from continuing operations	$ (1.02)	$ (1.38)
Income per common share from discontinued operations	$ —	$ 0.08
Net loss per common share, basic and diluted	$ (1.02)	$ (1.29)
Weighted average shares outstanding, basic and diluted	154,861,704	124,386,545

See accompanying notes to these consolidated financial statements.

SPECTRUM PHARMACEUTICALS, INC.

CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS
(In thousands)

	Year Ended December 31,	
	2021	**2020**
Net loss	$(158,628)	$(160,868)
Other comprehensive (loss) income:		
Unrealized (loss) gain on available-for-sale securities, net of tax	(1,147)	303
Foreign currency translation adjustments	(66)	1,366
Other comprehensive (loss) income	(1,213)	1,669
Total comprehensive loss	$(159,841)	$(159,199)

See accompanying notes to these consolidated financial statements.

SPECTRUM PHARMACEUTICALS, INC.

CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(In thousands, except share data)

	Common Stock		Additional Paid-In Capital	Accumulated Other Comprehensive Loss	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount				
Balance as of December 31, 2019	113,299,612	$113	$ 918,205	$(3,498)	$ (724,427)	$ 190,393
Net loss	—	—	—	—	(160,868)	(160,868)
Other comprehensive income	—	—	—	1,669	—	1,669
Recognition of stock-based compensation expense	—	—	17,554	—	—	17,554
Issuance of common stock from public offering	24,916,667	25	69,640	—	—	69,665
Issuance of common shares under an at-the-market sales agreement	3,950,398	4	14,898	—	—	14,902
Issuance of common stock to 401(k) plan for employees	96,959	—	265	—	—	265
Issuance of common stock for employee stock purchase plan	225,310	—	650	—	—	650
Issuance of common stock upon exercise of stock options	3,542	—	13	—	—	13
Restricted stock award grants, net of forfeitures	3,589,761	4	(4)	—	—	—
Issuance of common stock upon vesting of restricted stock units	861	—	—	—	—	—
Balance as of December 31, 2020	146,083,110	$146	$1,021,221	$(1,829)	$ (885,295)	$ 134,243
Net loss	—	—	—	—	(158,628)	(158,628)
Other comprehensive loss	—	—	—	(1,213)	—	(1,213)
Recognition of stock-based compensation expense	—	—	19,839	—	—	19,839
Issuance of common shares under an at-the-market sales agreement	15,851,391	16	52,605	—	—	52,621
Issuance of common stock for employee stock purchase plan	358,007	1	684	—	—	685
Issuance of common stock upon exercise of stock options	1,250	—	4	—	—	4
Restricted stock award grants, net of forfeitures	2,206,869	2	—	—	—	2
Issuance of common stock upon vesting of restricted stock units	1,386	—	—	—	—	—
Balance as of December 31, 2021	164,502,013	$165	$1,094,353	$(3,042)	$(1,043,923)	$ 47,553

See accompanying notes to these consolidated financial statements.

SPECTRUM PHARMACEUTICALS, INC.

CONSOLIDATED STATEMENTS OF CASH FLOWS
(In thousands)

	Year Ended December 31,	
	2021	2020
Cash Flows From Operating Activities:		
Loss from continuing operations	$(158,436)	$(171,272)
(Loss) income from discontinued operations, net of income taxes	(192)	10,404
Net loss	(158,628)	(160,868)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	286	261
Stock-based compensation	19,841	17,819
Impairment of second source manufacturer	—	28,197
Loss on disposal of manufacturing equipment	3,057	—
Non-cash lease expense	1,624	1,540
Accretion (amortization) of premium (discount) on debt securities	393	220
Realized gain on mutual funds	(630)	(232)
Realized gain on sale of equity holdings	(5,722)	(1,408)
Unrealized loss on equity holdings	17,266	4,487
Unrealized loss (gain) from transactions denominated in foreign currency	460	495
Bad debt expense (recovery)	(80)	389
Changes in operating assets and liabilities:		
Accounts receivable, net	66	—
Other receivables	1,444	7,165
Prepaid expenses and other current assets	1,884	1,159
Other assets	(310)	(317)
Accounts payable and other accrued liabilities	(3,513)	(22,053)
Accrued payroll and benefits	2,596	1,689
Other long-term liabilities	480	(172)
Net cash used in operating activities	(119,486)	(121,629)
Cash Flows From Investing Activities:		
Proceeds from maturities of investments	119,814	109,035
Proceeds from sale of equity holdings	5,974	3,954
Purchases of investments	(16,856)	(89,382)
Purchases of property and equipment, net	(221)	(5,535)
Net cash provided by investing activities	108,711	18,072
Cash Flows From Financing Activities:		
Proceeds from offering, net of offering expenses	—	69,665
Proceeds from sale of common stock under an at-the-market sales agreement, net	52,621	14,902
Proceeds from employees for exercises of stock options	4	13
Proceeds from sale of stock under our employee stock purchase plan	685	650
Net cash provided by financing activities	53,310	85,230
Effect of exchange rates on cash and cash equivalents	(5)	(82)
Net increase (decrease) in cash and cash equivalents	42,530	(18,409)
Cash and cash equivalents — beginning of year	46,009	64,418
Cash and cash equivalents — end of year	$ 88,539	$ 46,009
Supplemental Disclosure of Cash Flow Information:		
Cash paid for facility and equipment under operating leases	$ 2,116	$ 2,401
Cash paid for income taxes	$ 12	$ 14
Noncash investing activities:		
Additions of property and equipment that remain in accounts payable and other accrued liabilities	$ —	$ 10,066

See accompanying notes to these consolidated financial statements.

NOTE 1. DESCRIPTION OF BUSINESS, BASIS OF PRESENTATION, AND OPERATING SEGMENT

(a) Description of Business

Spectrum Pharmaceuticals, Inc. ("Spectrum", the "Company", "we", "our", or "us") is a biopharmaceutical company, with a primary strategy comprised of acquiring, developing, and commercializing novel and targeted oncology therapies. Our in-house development organization includes clinical development, regulatory, quality and data management.

We have two drugs in late-stage development:

- Eflapegrastim, a novel long-acting granulocyte colony-stimulating factor ("G-CSF") for the treatment of chemotherapy-induced neutropenia. On August 6, 2021, the Company announced the receipt of a complete response letter ("CRL"), that cited manufacturing deficiencies related both to the drug substance and drug product manufacturers. The Company believes it has completed the remediation of these deficiencies and resubmitted the Biologics License Application ("BLA") on March 11, 2022;
- Poziotinib, a novel irreversible tyrosine kinase inhibitor under investigation for non-small cell lung cancer ("NSCLC") tumors with various mutations. On December 6, 2021, the Company announced it submitted its New Drug Application ("NDA") for poziotinib to the FDA for use in patients with previously treated locally advanced or metastatic NSCLC with HER2 exon 20 insertion mutations. The NDA submission is based on the positive results of Cohort 2 from the ZENITH20 clinical trial, which assessed the safety and efficacy of poziotinib. The product has received Fast Track designation and there is currently no treatment specifically approved by the FDA for this indication. On February 11, 2022, the Company announced that it had received notice that the NDA had been accepted and received a PDUFA action date of November 24, 2022.

(b) Basis of Presentation

Principles of Consolidation

The accompanying Consolidated Financial Statements have been prepared in accordance with U.S. generally accepted accounting principles ("GAAP") and with the rules and regulations of the Securities and Exchange Commission ("SEC"). These financial statements include the financial position, results of operations, and cash flows of Spectrum and its subsidiaries, all of which are wholly-owned. All inter-company accounts and transactions among these legal entities have been eliminated in consolidation. Substantially all of the accumulated other comprehensive loss is comprised of foreign currency translation adjustments at December 31, 2021.

Discontinued Operations — Sale of our Commercial Product Portfolio

In March 2019, we completed the Commercial Product Portfolio Transaction (See Note 9). In accordance with applicable GAAP (*ASC 205-20, Presentation of Financial Statements*), the revenue-deriving activities and allocable expenses of our sold commercial operation, connected to the Commercial Product Portfolio, are separately classified as "discontinued" for all periods presented within the accompanying Consolidated Statements of Operations.

Liquidity and Capital Resources

We believe that our $100.6 million in aggregate cash, cash equivalents, and marketable securities as of December 31, 2021 combined with $20 million of equity financing received from Hanmi in January 2022 is sufficient to fund our current and planned operations for at least the next twelve months. We may, however, require additional liquidity as we continue to execute our business strategy, and in connection with opportunistic acquisitions or licensing arrangements. We anticipate that to the extent that we require additional liquidity, it will be funded through additional equity or debt financings, or out-licensing arrangements. However, we cannot provide assurance that we will be able to obtain this additional liquidity on terms favorable to us or our current stockholders, if at all. Additionally, our liquidity and our ability to fund our capital requirements are also dependent on our future financial performance which is subject to various market and economic factors that are beyond our control.

(c) Operating Segment

We operate one reportable operating segment that is focused exclusively on developing (and eventually marketing) oncology and hematology drug products. For the years ended December 31, 2021 and 2020, all of our operating costs and

expenses were solely attributable to these activities (and as applicable, classified as "discontinued" within the accompanying Consolidated Statements of Operations).

NOTE 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES AND USE OF ESTIMATES

The preparation of financial statements in conformity with GAAP requires our management to make informed estimates and assumptions that affect our reported amounts of assets, liabilities, revenues, and expenses. These amounts may materially differ from the amounts ultimately realized and reported due to the inherent uncertainty of any estimate or assumption. On an on-going basis, our management evaluates (as applicable) its most critical estimates and assumptions, including those related to: (i) the realization of our tax assets and estimates of our tax liabilities; (ii) the fair value of our investments; (iii) the valuation of our stock options and the periodic expense recognition of stock-based compensation; and (iv) the potential outcome of our ongoing or threatened litigation.

Our accounting policies and estimates that most significantly impact the presented amounts within these Consolidated Financial Statements are further described below:

(i) Cash and Cash Equivalents

Cash and cash equivalents consist of bank deposits and highly liquid investments with maturities of three months or less from the purchase date.

(ii) Marketable Securities

Marketable securities consist of our holdings in equity securities (including mutual funds), bank CDs, government-related debt securities, and corporate debt securities. For equity securities and mutual funds, any realized gains (losses) or unrealized gains (losses) are recognized in "other income (expense), net" within the Consolidated Statements of Operations. Debt securities and bank CDs are classified as "available-for-sale" investments and (1) realized gains (losses) are recognized in "other income (expense), net" within the Consolidated Statements of Operations and (2) unrealized gains (losses) are recognized as a component of "accumulated other comprehensive loss" within the Consolidated Statements of Stockholders' Equity.

(iii) Property and Equipment, Net

Our property and equipment, net, is stated at historical cost, and is depreciated on a straight-line basis over an estimated useful life that corresponds with its designated asset category. We evaluate the recoverability of long-lived assets (which includes property and equipment) whenever events or changes in circumstances in our business indicate that the asset's carrying amount may not be recoverable. Recoverability is measured by a comparison of the carrying amount to the net undiscounted cash flows expected to be generated by the asset group. An impairment loss would be recorded for the excess of net carrying value over the fair value of the asset impaired. The fair value is estimated based on expected discounted future cash flows or other methods such as orderly liquidation value based on assumptions of asset class and observed market data. An orderly liquidation value is the amount that could be realized upon liquidation, given a sufficient amount of time to find a purchaser for a sale of assets in their existing condition and location, as of a specific date, and assuming the sale is to market participants who can utilize such assets in their highest and best use. The orderly liquidation values are applied against the carrying values of the assets and the impairment loss is measured as the difference between the liquidation value and the carrying value of the assets.

See Note 4(d) for further discussion related to impairments that occurred during the year ended December 31, 2020. There were no impairments recorded during the year ended December 31, 2021.

(iv) Stock-Based Compensation

Stock-based compensation expense for equity awards granted to our employees and members of our Board of Directors is recognized on a straight-line basis over each award's vesting period. Recognized compensation expense is net of an estimated forfeiture rate, representing the percentage of awards that are expected to be forfeited prior to vesting, though is ultimately adjusted for actual forfeitures. We use the Black-Scholes option pricing model to determine the fair value of stock options and stock appreciation rights (as of the date of grant) that have service conditions for vesting. We use the Monte Carlo valuation model to value equity awards (as of the date of grant) that have combined market conditions and service conditions for vesting.

The recognition of stock-based compensation expense and the initial calculation of stock option fair value requires uncertain assumptions, including (a) the pre-vesting forfeiture rate of the award, (b) the expected term that the stock option will remain outstanding, (c) our stock price volatility over the expected term (and that of our designated peer group with respect to certain market-based awards), and (d) the prevailing risk-free interest rate for the period matching the expected term.

With regard to (a)-(d) above: we estimate forfeiture rates based on our employees' overall forfeiture history, which we believe will be representative of future results. We estimate the expected term of stock options granted based on our employees' historical exercise patterns, which we believe will be representative of their future behavior. We estimate the volatility of our common stock on the date of grant based on the historical volatility of our common stock for a look-back period that corresponds with the expected term. We estimate the risk-free interest rate based upon the U.S. Department of the Treasury yields in effect at award grant, for a period equaling the expected term of the stock option.

(v) Basic and Diluted Net Loss per Share

We calculate basic and diluted net loss per share using the weighted average number of common shares outstanding during the periods presented. In periods of a net loss, basic and diluted loss per share are the same. For the diluted earnings per share calculation, we adjust the weighted average number of common shares outstanding to include only stock options, warrants, and other common stock equivalents outstanding during the period to the extent that they are dilutive.

There were 13.5 million shares and 9.6 million shares of outstanding securities (including stock options, restricted stock units, stock appreciation rights, and performance awards) as of December 31, 2021 and 2020, respectively, that were excluded from the calculation of diluted net loss per share because their inclusion would have been anti-dilutive.

(vi) Income Taxes

Deferred tax assets and liabilities are recorded based on the estimated future tax effects of temporary differences between the tax basis of assets and liabilities and amounts reported in the financial statements, as well as operating losses and tax credit carry forwards using enacted tax rates and laws that are expected to be in effect when the differences are expected to reverse. Realization of deferred tax assets is dependent upon future earnings, the timing and amount of which are uncertain.

We apply an estimated annual effective tax rate ("ETR") approach for calculating a tax provision for interim periods. Our ETR differs from the U.S. federal statutory tax rate primarily as a result of nondeductible expenses and the impact of a valuation allowance on our deferred tax assets, which we record because we believe that, based upon a weighting of positive and negative factors, it is more likely than not that these deferred tax assets will not be realized. If/when we were to determine that our deferred tax assets are realizable, an adjustment to the corresponding valuation allowance would increase our net income in the period that such determination was made.

In the event that we are assessed interest and/or penalties from taxing authorities that have not been previously accrued, such amounts would be included in "benefit for income taxes from continuing operations" within the accompanying Consolidated Statements of Operations for the period in which we received the notice.

(vii) Research and Development Expenses

Our research and development costs are expensed as incurred. Research and development costs consist primarily of salaries, benefits, and other staff-related costs including associated stock-based compensation, laboratory supplies, clinical trial and related clinical manufacturing costs, costs related to manufacturing preparations, fees paid to other entities that conduct certain research and development activities on our behalf and payments made pursuant to license agreements. Clinical trial and other development costs incurred by third parties are expensed as the contracted work is performed. We accrue for costs incurred as the services are being provided by monitoring the status of activities and the invoices received from our external service providers. We adjust our accruals as actual costs become known. Where contingent milestone payments are due to third parties under research and development or license agreements, the milestone payment obligations are expensed when the clinical or regulatory milestone results are achieved.

(viii) Fair Value Measurements

We determine measurement-date fair value based on the proceeds that would be received through the sale of the asset, or that we would pay to settle or transfer the liability, in an orderly transaction between market participants. We utilize

(all tabular amounts presented in thousands, except share, per share, per unit, and number of years)

valuation techniques that maximize the use of observable inputs and minimize the use of unobservable inputs to the extent possible. Fair value measurements are based on a three-tier hierarchy that prioritizes the inputs used to measure fair value. These tiers include the following:

Level 1: Quoted prices (unadjusted) in active markets for identical assets or liabilities that are publicly accessible at the measurement date.

Level 2: Observable prices that are based on inputs not quoted on active markets, but that are corroborated by market data. These inputs may include quoted prices for similar assets or liabilities or quoted market prices in markets that are not active to the general public.

Level 3: Unobservable inputs are used when little or no market data is available.

(ix) Recently Issued Accounting Standards

There are several new accounting pronouncements issued by the FASB, which we don't believe had or will have a material impact on our consolidated financial statements.

NOTE 3. FAIR VALUE MEASUREMENTS

The table below summarizes certain asset and liability fair values that are included within our accompanying Consolidated Balance Sheets, and their designations among the three fair value measurement categories:

	December 31, 2021 Fair Value Measurements			
	Level 1	**Level 2**	**Level 3**	**Total**
Assets:				
Money market funds	$66,322	$ —	$—	$66,322
Equity securities	5,718	—	—	5,718
Mutual funds	6,390	9	—	6,399
Key employee life insurance, cash surrender value (1)	—	4,507	—	4,507
	$78,430	$ 4,516	$—	$82,946
Liabilities:				
Deferred executive compensation liability (2)	$ —	$11,243	$—	$11,243
	$ —	$11,243	$—	$11,243

(1) Included within other assets on our Consolidated Balance Sheets, and the amount is based on the stated cash surrender value of life insurance policies of named current and former employees at each period-end.

(2) Included $2.0 million within accounts payable and other accrued liabilities and $9.2 million within other long-term liabilities on our Consolidated Balance Sheets.

(all tabular amounts presented in thousands, except share, per share, per unit, and number of years)

	December 31, 2020 Fair Value Measurements			
	Level 1	Level 2	Level 3	Total
Assets:				
Equity securities	$ 24,946	$ —	$—	$ 24,946
Money market funds	40,560	—	—	40,560
Government-related debt securities	92,928	—	—	92,928
Corporate debt securities	—	8,848	—	8,848
Mutual funds	5,573	9	—	5,582
Bank CDs	—	1,721	—	1,721
Key employee life insurance, cash surrender value (1)	—	3,963	—	3,963
	$164,007	$14,541	$—	$178,548
Liabilities:				
Deferred executive compensation liability (2)	$ —	$ 9,783	$—	$ 9,783
	$ —	$ 9,783	$—	$ 9,783

(1) Included within other assets on our Consolidated Balance Sheets, and the amount is based on the stated cash surrender value of life insurance policies of named current and former employees at each period-end.

(2) Included $1.3 million within accounts payable and other accrued liabilities and $8.5 million within other long-term liabilities on our Consolidated Balance Sheets. The amounts are based on the period-end market value of mutual fund investments selected by employee participants of the deferred compensation plan.

We did not have any transfers between *"Level 1"* and *"Level 2"* measurement categories for any periods presented.

Our carrying amounts of financial instruments such as cash equivalents, accounts receivable, prepaid expenses, accounts payable and other accrued liabilities approximate their fair values due to their short-term nature of settlement.

NOTE 4. BALANCE SHEET ACCOUNT DETAIL

The composition of selected financial statement captions that comprise the accompanying Consolidated Balance Sheets are summarized below:

(a) Cash and Cash Equivalents and Marketable Securities

We maintain cash balances with select major financial institutions. The Federal Deposit Insurance Corporation (FDIC) and other third parties insure a fraction of these deposits. Accordingly, these cash deposits are not insured against the possibility of a substantial or complete loss of principal and are inherently subject to the credit risk of the corresponding financial institution.

Our investment policy requires that purchased investments may only be in highly-rated and liquid financial instruments and limits our holdings of any single issuer (excluding any debt or equity securities that may be received from our strategic partners in connection with an out-license arrangement).

The carrying amount of our equity securities, money market funds, and bank CDs approximates their fair value (utilizing "*Level 1"* or "*Level 2"* inputs because of our ability to immediately convert these instruments into cash with minimal expected change in value. There were no material unrealized losses on our investment securities at December 31, 2021 or 2020.

(all tabular amounts presented in thousands, except share, per share, per unit, and number of years)

The following is a summary of our presented composition of "cash and cash equivalents" and "marketable securities":

	Historical or Amortized Cost	Fair Value	Cash and Cash Equivalents	Marketable Securities
December 31, 2021				
Money market funds	$ 66,322	$ 66,322	$66,322	$ —
Equity securities (1)	3,512	5,718	—	5,718
Mutual funds	5,218	6,390	—	6,390
Bank deposits	22,217	22,217	22,217	—
Total cash and cash equivalents and marketable securities	$ 97,269	$100,647	$88,539	$ 12,108
December 31, 2020				
Money market funds	$ 40,560	$ 40,560	$40,560	$ —
Equity securities	3,764	24,946	—	24,946
Government-related debt securities	92,881	92,928	—	92,928
Corporate debt securities	8,846	8,848	—	8,848
Mutual funds	4,497	5,573	—	5,573
Bank CDs	1,715	1,721	—	1,721
Bank deposits	5,449	5,449	5,449	—
Total cash and cash equivalents and marketable securities	$157,712	$180,025	$46,009	$134,016

(1) Our aggregate equity holdings consist of 5.1 million common shares of CASI Pharmaceuticals, Inc., a NASDAQ-listed biopharmaceutical company, with a fair market value of $4.0 million as of December 31, 2021. We completed the sale of 3.4 million shares of common stock and recognized a $5.7 million gain within "other expense, net" within the accompanying Consolidated Statements of Operations for the year ended December 31, 2021. Additionally, we hold 0.8 million common shares of Unicycive Therapeutics, Inc., a NASDAQ-listed biopharmaceutical company, with a fair market value of $1.7 million as of December 31, 2021.

(b) Other Receivables

"Other receivables" consists of the following:

	December 31,	
	2021	2020
Other miscellaneous receivables	$ 685	$ 901
Employee receivable	341	—
Income tax receivable — current portion	—	1,297
Interest receivable from marketable securities	2	196
Other receivables	$1,028	$2,394

(all tabular amounts presented in thousands, except share, per share, per unit, and number of years)

(c) Prepaid Expenses and Other Current Assets

"Prepaid expenses and other current assets" consists of the following:

	December 31,	
	2021	2020
Prepaid expenses and deferred costs	$1,550	$1,996
Prepaid insurance	727	2,165
Prepaid expenses and other current assets	$2,277	$4,161

(d) Property and Equipment, net

"Property and equipment, net" consists of the following:

	December 31,	
	2021	2020
Manufacturing equipment	$ —	$3,245
Computer hardware and software	1,803	1,680
Laboratory equipment	5	5
Office furniture	317	248
Leasehold improvements	1,278	1,267
Property and equipment, at cost	3,403	6,445
(Less): Accumulated depreciation	(2,948)	(2,868)
Property and equipment, net	$ 455	$3,577

Depreciation expense was immaterial for the years ended December 31, 2021 and 2020, respectively.

Manufacturing equipment was comprised of our owned eflapegrastim production equipment on location at our contract manufacturer. As of December 31, 2020, we determined that we would no longer proceed with the technology transfer and validation of a second manufacturing source for eflapegrastim and communicated this decision to the second source manufacturer. We had invested significant capital to prepare this facility for production. Due to the decision to halt this work, we determined that the value of certain eflapegrastim production equipment had a carrying amount in excess of the anticipated recoverable value as there would be no future cash flows from these assets other than through the sale of this equipment. We determined the fair value of these assets under an orderly liquidation value method, and based on the valuation performed we recorded an impairment of $19.7 million to our carrying value for this equipment, which was recorded as research and development expense for the year ended December 31, 2020 within the Consolidated Statements of Operations. During the year ended December 31, 2021, this equipment was surrendered in connection with the termination of our agreement with our second source manufacturer and we recorded incremental research and development expense of $2.9 million. Fair value was based on observable market data ("Level 2"). Due to the specialized nature of this production equipment, adjustments to observable market data were applied ("Level 3").

(e) Accounts Payable and Other Accrued Liabilities

"Accounts payable and other accrued liabilities" consists of the following:

	December 31,	
	2021	2020
Trade accounts payable and other	$33,408	$34,385
Lease liability — current portion	1,282	1,544
Commercial Product Portfolio accruals (Note 9)	6,568	7,842
Accounts payable and other accrued liabilities	$41,258	$43,771

(all tabular amounts presented in thousands, except share, per share, per unit, and number of years)

Amounts presented within "accounts payable and other accrued liabilities" in the accompanying Consolidated Balance Sheets for our categories of gross-to-net ("GTN") estimates related to the Commercial Product Portfolio accruals were as follows:

	Commercial/Medicaid Rebates and Government Chargebacks	Distribution, Data, Inventory, and GPO Administrative Fees	Product Return Allowances	Total
Balance as of December 31, 2019	$ 14,671	$1,138	$4,714	$ 20,523
(Less): Payments and credits against GTN accruals	(12,070)	(196)	(415)	(12,681)
Balance as of December 31, 2020	2,601	942	4,299	7,842
(Less): Payments and credits against GTN accruals	(1,159)	—	(115)	(1,274)
Balance as of December 31, 2021	$ 1,442	$ 942	$4,184	$ 6,568

NOTE 5. STOCK-BASED COMPENSATION

2018 Long-Term Incentive Plan

We have one active stockholder-approved stock-based compensation plan, the 2018 Long-Term Incentive Plan (the "2018 Plan"). In June 2018, the 2018 Plan replaced our former 2009 Incentive Award Plan (the "2009 Plan"). Under the 2018 Plan, we may grant restricted stock awards and units, incentive and nonqualified stock options, performance unit awards, stock appreciation rights, and other stock-based awards to employees, consultants, and members of our Board of Directors. Stock-based awards generally vest one-third on the first anniversary of the date of grant, and in equal annual installments thereafter over the remaining two years vesting period. Stock options must generally be exercised, if at all, no later than 10 years from the date of grant. In the event of a change in control, all award types with the exception of performance unit awards, will vest in full effective immediately prior to the consummation of the change in control. For performance unit awards, if a change in control occurs prior to the end date and the participant remains employed prior to the change in control, the shares vest based on the achievement of the performance goals as of the date of which the change in control occurs.

The stated maximum availability of common stock under the 2018 Plan is 18 million shares, except for additional availability provided on a one-for-one basis for awards formerly issued under the 2009 Plan that are terminated, forfeited, cancelled or expire unexercised. Awards issued under the 2018 Plan reduce share availability on a one-to-one basis for stock options and on a 1.5-to-one basis for restricted stock awards and restricted stock units. Accordingly, as of December 31, 2021, 4.4 million awards were available for grant under the 2018 Plan, assuming all were issued in the form of stock options, but would be reduced to 3.0 million awards available for grant if all were issued in the form of restricted stock.

It is our policy that before stock is issued through the exercise of stock options, we must first receive all required cash payment for such shares (whether through an upfront cash exercise or net-settlement exercise). At the time of vesting of restricted stock, by our policy, requisite shares are automatically sold on the open market by our designated broker to the extent required to cover the employee's federal and state taxes due.

Stock-based awards are governed by agreements between us and the recipients. Incentive stock options and nonqualified stock options may be granted under the 2018 Plan at an exercise price of not less than 100% of the fair market value of our common stock on the respective date of grant and for certain recipients may not be less than 110% of such fair market value. The grant date is generally the date the terms of the award are approved by the Compensation Committee of our Board of Directors.

Employee Stock Purchase Plan

Under the terms of our 2009 Employee Stock Purchase Plan (the "ESPP"), eligible employees can purchase common stock through scheduled payroll deductions. The purchase price is equal to the closing price of our common stock on the first or last day of the offering period (whichever is less), minus a 15% discount. We use the Black-Scholes option-pricing model, in combination with the discounted employee price, in determining the value of ESPP expense to be recognized during each

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offering period. A participant may purchase a maximum of 50,000 shares of common stock during a six-month offering period, not to exceed $25,000 at full market value on the offering date during each plan year.

As of December 31, 2021, a total of 8.2 million shares of common stock are authorized and remain available for issuance under the ESPP. Beginning on January 1, 2010, and each January 1st thereafter, the number of shares of common stock available for issuance under the ESPP shall automatically increase by an amount equal to the lesser of (i) one million shares or (ii) an amount determined by the ESPP administrator. However, in no event shall the number of shares of common stock available for future sale under the ESPP exceed 10 million shares, subject to capitalization adjustments occurring due to dividends, splits, dissolution, liquidation, mergers, or changes in control.

Stock-Based Compensation Expense Summary

We report our stock-based compensation expense (inclusive of our incentive stock plan and employee stock purchase plan) in the accompanying Consolidated Statements of Operations within "total operating costs and expenses" for the years ended December 31, 2021 and 2020, as follows:

	Year Ended December 31,	
	2021	2020
Selling, general and administrative	$14,642	$13,127
Research and development	5,197	4,692
Total stock-based compensation	$19,839	$17,819

Employee stock-based compensation expense for the years ended December 31, 2021 and 2020 was recognized (reduced for estimated forfeitures) on a straight-line basis over the vesting period. Forfeitures are estimated at the time of grant and are prospectively revised if actual forfeitures differ from those estimates. We estimate forfeitures of stock options using the historical exercise behavior of our employees. For purposes of this estimate, we have applied an estimated forfeiture rate of 11% and 15% for the years ended December 31, 2021 and 2020, respectively.

Valuation Assumptions

The grant-date fair value per share for restricted stock awards was based upon the closing market price of our common stock on the award grant-date.

The fair value of stock options granted was estimated at the date of grant using the Black-Scholes option-pricing model. The following assumptions were used to determine fair value for the stock awards granted in the applicable year:

	Year Ended December 31,	
	2021	2020
Expected option life (in years) (a)	5.57	5.46
Risk-free interest rate (b)	0.56% - 1.32%	0.34% - 1.61%
Volatility (c)	80.0% - 82.7%	74.5% - 81.4%
Dividend yield (d)	0%	0%
Weighted-average grant-date fair value per stock option	$1.78	$1.63

(a) Determined by the historical stock option exercise behavior of our employees (maximum term is 10 years).
(b) Based upon the U.S. Treasury yields in effect during the period which the options were granted (for a period equaling the stock options' expected term).
(c) Measured using our historical stock price for a period equal to stock options' expected term.
(d) We do not expect to declare any cash dividends in the foreseeable future.

(all tabular amounts presented in thousands, except share, per share, per unit, and number of years)

Stock Option Activity

Stock option activity during the years ended December 31, 2021 and 2020 was as follows:

	Number of Shares	Weighted-Average Exercise Price/Share	Weighted-Average Remaining Contractual Term (Years)	Aggregate Intrinsic Value
Outstanding — December 31, 2019	6,439,936	$ 9.61		
Granted	2,032,000	2.34		
Exercised	(3,542)	3.70		$708(1)
Forfeited	(170,187)	8.29		
Expired	(641,584)	8.55		
Outstanding — December 31, 2020	7,656,623	$ 7.80		
Granted	2,397,684	2.66		
Exercised	(1,250)	3.04		$ 1.5(1)
Forfeited	(34,565)	10.05		
Expired	(513,031)	9.29		
Outstanding — December 31, 2021	9,505,461	$ 6.42	5.86	$ —(2)
Vested (exercisable) — December 31, 2021	6,371,266	$ 8.04	4.26	$ —(2)
Unvested (unexercisable) — December 31, 2021	3,134,195	$ 3.13	9.10	$ —(2)

(1) Represents the total difference between our closing stock price at the time of exercise and the stock option exercise price, multiplied by the number of options exercised.

(2) Represents the total difference between our closing stock price on the last trading day of 2021 and the stock option exercise price, multiplied by the number of in-the-money options as of December 31, 2021. The amount of intrinsic value will change based on the fair market value of our stock.

The following table summarizes information with respect to stock option grants as of December 31, 2021:

	Outstanding			Exercisable	
Exercise Price	Granted Stock Options Outstanding	Weighted-Average Remaining Contractual Life (Years)	Weighted-Average Exercise Price	Granted Stock Options Exercisable	Weighted-Average Exercise Price
$1.29 – 4.96	4,397,491	7.6	$ 2.52	1,507,886	$ 2.58
$4.97 – 6.91	1,854,119	4.33	6.00	1,854,119	6.00
$6.92 – 9.00	1,376,034	3.41	7.80	1,300,617	7.77
$9.01 – 12.00	925,709	4.17	11.17	769,707	11.17
$12.01 – 22.64	952,108	5.99	18.61	938,937	18.63
	9,505,461	5.86	$ 6.42	6,371,266	$ 8.04

As of December 31, 2021 , there was unrecognized compensation expense of $4.2 million related to unvested stock options, which we expect to recognize over a weighted average period of 2.1 years. For the year ended December 31, 2021 , we recorded stock option expense of $4.5 million related to issued stock options.

(all tabular amounts presented in thousands, except share, per share, per unit, and number of years)

Restricted Stock Award Activity

A summary of restricted stock award activity is as follows:

	Number of Restricted Stock Awards	Weighted Average Fair Value per Share at Grant Date
Unvested — December 31, 2019	1,659,759	$ 11.67
Granted	4,026,518	2.68
Vested	(753,475)	11.23
Forfeited	(436,757)	6.03
Unvested — December 31, 2020	4,496,045	4.29
Granted	2,820,259	3.33
Vested	(2,272,064)	5.06
Forfeited	(608,233)	3.85
Unvested — December 31, 2021	4,436,007	$ 3.33

For the years ended December 31, 2021 and 2020, we recorded stock-based compensation expense on our issued restricted share awards of $9.6 million and $9.4 million, respectively. As of December 31, 2021, there was approximately $9.7 million of unrecorded expense that will be recognized over an estimated weighted average period of 1.9 years. These unvested shares are included in our reported issued and outstanding common stock as of December 31, 2021.

Restricted Stock Unit Activity

Our outstanding restricted stock units substantially relate to awards that contain "market-based" vesting conditions that are issued to our executive officers. These conditions are specified in each award agreement and result in a variable number of shares that become issuable at the assessment date, after review and approval by our Compensation Committee. A summary of restricted stock unit activity is as follows:

	Number of Restricted Stock Units	Weighted Average Fair Value per Share at Grant Date
Outstanding — December 31, 2019	385,919	$18.00
Granted	6,800	2.36
Market-based achievement adjustment at vesting	(128,334)	—
Share issuance	(861)	10.69
Outstanding — December 31, 2020	263,524	26.39
Granted	2,125	3.61
Market-based achievement adjustment at vesting	75,000	—
Share issuance	(151,386)	28.09
Forfeited	(4,751)	4.03
Outstanding — December 31, 2021	184,512	$23.53

For the years ended December 31, 2021 and 2020, we recorded stock-based compensation expense on our issued restricted stock units of $1.1 million and $1.1 million, respectively. As of December 31, 2021, there was an immaterial amount of unrecorded expense to be recognized.

Stock Appreciation Rights

During the years ended December 31, 2021 and 2020, we granted 2.1 million and 1.7 million stock appreciation rights ("SARs"), respectively, to our Named Executive Officers. On the date of grant, the fair value of these SARs were estimated using the Black-Scholes option-pricing model and 25% immediately vested. There were no forfeitures made during the year. We recognized stock-based compensation expense of $4.2 million and $1.5 million, respectively, within our Consolidated Statements of Operations for the years ended December 31, 2021 and 2020. As of December 31, 2021, there was approximately $1.9 million of unrecorded expense that will be recognized over an estimated weighted average period of 2.0 years.

401(k) Plan — Stock Matching Contribution

Beginning in March 2020, employee 401(k) matching contributions were made with cash rather than stock on a prospective basis. As a result of this change, the shares issued to participants 401(k) accounts were substantially lower in the current year period compared to prior year periods.

During the year ended December 31, 2020, we issued 96,959 common shares related to 401(k) plan matching, and recorded stock-based compensation expense of $0.3 million. No shares were issued during the year ended December 31, 2021.

NOTE 6. STOCKHOLDERS' EQUITY

Authorized Stock

In June 2018, our stockholders approved an amendment and restatement of our Certificate of Incorporation to reflect an increase in the number of authorized shares of our common stock from 175 million shares to 300 million shares. In addition to the increase in the authorized number of shares of common stock, the amendment eliminates designated series of preferred stock that are obsolete and are no longer outstanding or issuable, including Series B Junior Participating Preferred Stock and Series E Convertible Voting Preferred Stock. As of December 31, 2021, we had five million shares of preferred stock authorized and no shares of preferred stock outstanding.

Stockholder Rights Agreement

On November 29, 2010, our Board of Directors approved a stockholder rights agreement (the "Stockholder Rights Agreement"), effective December 13, 2010. A stockholder rights agreement is designed to deter coercive, unfair, or inadequate takeovers and other abusive tactics that might be used in an attempt to gain control of our company. A stockholder rights agreement will not prevent takeovers at a full and fair price, but rather is designed to deter coercive takeover tactics and to encourage anyone attempting to acquire our company to first negotiate with our Board of Directors.

On March 27, 2018, we entered into a Second Amendment to Rights Agreement which had the effect of suspending the Stockholders Rights Agreement as of March 30, 2018. On December 13, 2020, the Stockholder Rights Agreement expired under its terms.

Share Grants Subject to Shareholder Approval

In December 2021, we announced that Tom Riga would be our next President and Chief Executive Officer effective December 31, 2021 and join the Company's Board of Directors upon assuming his new role. Prior to this appointment, he served as our Chief Commercial Officer and Chief Operating Officer. As a result of this announcement in January 2022, Mr. Riga was granted 1,078,500 stock options and 239,500 restricted stock units vesting one third on each of January 14, 2023, 2024, and 2025. These share grants are contingent upon shareholder approval during the next Annual Shareholder's Meeting.

Common Stock Issuable Upon Exercise of Stock Options and Vesting of Restricted Stock Units

As of December 31, 2021, (i) 6.4 million shares of our common stock are issuable upon the exercise of outstanding stock options (regardless of whether in or out-of-the-money) and (ii) 0.4 million shares of our common stock are issuable if the maximum market conditions of our outstanding restricted stock unit agreements are met.

(all tabular amounts presented in thousands, except share, per share, per unit, and number of years)

Public Offering of Common Stock

On July 30, 2020, we announced the pricing of an underwritten public offering of 21,666,667 shares of our common stock at a public offering price of $3.00 per share. The net proceeds from the offering were approximately $61.1 million, after deducting underwriting discounts and commissions. In addition, we granted the underwriters a 30-day option to purchase up to an additional 3,250,000 shares of common stock.

On August 3, 2020, the underwriters fully exercised their option to purchase an additional 3,250,000 shares of our common stock at the public offering price of $3.00 per share, less underwriting discounts and commissions, for additional net proceeds of approximately $9.2 million. After giving effect to the exercise in full of the underwriters' option, the total number of shares sold in the public offering was 24,916,667 shares and net proceeds were approximately $69.7 million, net of underwriting discounts and offering expenses of $5.0 million.

Sale of Common Stock Under ATM Agreements

On April 5, 2019, we entered into a new collective at-market-issuance ("ATM") sales agreement with Cantor Fitzgerald & Co., H.C. Wainwright & Co., LLC and B. Riley FBR, Inc. (the "April 2019 ATM Agreement"), pursuant to which we may offer and sell shares of our common stock by any method deemed to be an "at the market" offering (the "ATM Offering"). From April 5, 2019 to March 2, 2020, the ATM Offering was conducted pursuant to a sales agreement prospectus filed with our automatic shelf registration statement on Form S-3ASR, filed with the SEC on April 5, 2019, which registered an aggregate offering price of $150 million under the April 2019 ATM Agreement. From May 8, 2020 to June 30, 2020, the ATM Offering was conducted pursuant to a sales agreement prospectus (the "Initial Sales Agreement Prospectus") filed with our shelf registration statement on Form S-3, filed with the SEC on March 20, 2020, as amended by Pre-Effective Amendment No. 1 thereto, and declared effective by the SEC on May 8, 2020 (the "Registration Statement"), which registered an aggregate offering price of up to $75 million under the April 2019 ATM Agreement. On July 29, 2020, we terminated the Initial Sales Agreement Prospectus, but left the April 2019 ATM Agreement in full force and effect. On November 6, 2020, we filed a new sales agreement prospectus to the Registration Statement, which registered an aggregate offering price of up to $60 million under the April 2019 ATM Agreement.

On July 13, 2021, we filed a shelf registration statement with the SEC on Form S-3, which was declared effective by the SEC on July 21, 2021 (the "Registration Statement"). The Registration Statement registered an aggregate offering price of up to $300 million of securities that may be issued and sold by us from time to time, including up to an aggregate offering price of $150 million of common stock (which amount is included in the $300 million aggregate offering price set forth in the base prospectus) that may be issued and sold pursuant to the April 2019 ATM Agreement.

We sold and issued common shares under the April 2019 ATM Agreement as follows:

Description of Financing Transaction	No. of Common Shares Issued	Proceeds Received (Net of Broker Commissions and Fees)
Common shares issued pursuant to the April 2019 ATM Agreement during the year ended December 31, 2020	3,950,398	$ 14,902
Common shares issued pursuant to the April 2019 ATM Agreement during the year ended December 31, 2021	15,851,391	$ 52,621

These proceeds and any future proceeds raised will support the advancement of our in-development drug candidates, activities in connection with the launch of these drugs (including the hiring of personnel, building inventory supply and equipment purchases), completing acquisitions of assets, businesses, or securities, and for all other working capital purposes.

(all tabular amounts presented in thousands, except share, per share, per unit, and number of years)

NOTE 7. FINANCIAL COMMITMENTS & CONTINGENCIES AND KEY LICENSE AGREEMENTS

(a) Facility and Equipment Leases

Overview

In the ordinary course of our business, we enter into leases with unaffiliated parties for the use of (i) office and research facilities and (ii) office equipment. Our current leases have remaining terms ranging from less than one to five years and none include any residual value guarantees, restrictive covenants, term extensions, or early-termination options.

We lease our principal executive office in Henderson, Nevada under a non-cancelable operating lease which expired on October 31, 2021 and was extended through October 31, 2022. We also lease our research and development facility in Irvine, California under a non-cancelable operating lease expiring July 31, 2022, in addition to other administrative office leases. We entered into a new office facility lease in Boston under a non-cancelable operating lease expiring in December 31, 2024.

Our facility leases have minimum annual rents, payable monthly, and some carry fixed annual rent increases. Under some of these arrangements, real estate taxes, insurance, certain operating expenses, and common area maintenance are reimbursable to the lessor. These amounts are expensed as incurred, as they are variable in nature and therefore excluded from the measurement of our reported lease asset and liability discussed below. As of December 31, 2021 and 2020, we had no sublease arrangements with us as lessor, and no finance leases, as defined in ASU 2016-02, *Leases* ("Topic 842").

The reported asset and liability, respectively, represents (i) the economic benefit of our use of leased facilities and equipment and (ii) the present-value of our contractual minimum lease payments, applying our estimated incremental borrowing rate as of the lease commencement date (since an implicit interest rate is not readily determinable in any of our leases). The recorded asset and liability associated with each lease is amortized over the respective lease term using the effective interest rate method. During the year ended December 31, 2021 and 2020, we recognized $1.8 million and $0, respectively, of additional right-of-use assets in exchange for lease liabilities.

We elected to not separate "lease components" from "non-lease components" in our measurement of minimum payments for our facility leases and office equipment leases. Additionally, we elected to not recognize a lease asset and liability for a term of 12 months or less.

Financial Reporting Captions

The below table summarizes the lease asset and liability accounts presented on our accompanying Consolidated Balance Sheets:

Operating Leases	Consolidated Balance Sheet Caption	December 31, 2021	December 31, 2020
Operating lease right-of-use assets — non-current	Facility and equipment under lease	$2,505	$2,247
Operating lease liabilities — current	Accounts payable and other accrued liabilities	$1,282	$1,544
Operating lease liabilities — non-current	Other long-term liabilities	1,452	883
Total operating lease liabilities		$2,734	$2,427

As of December 31, 2021 and 2020, our "facility and equipment under lease" consisted of office and research facilities of $2.1 million and $1.9 million, respectively, and office equipment of $0.4 million and $0.3 million, respectively.

(all tabular amounts presented in thousands, except share, per share, per unit, and number of years)

Components of Lease Expense

We recognize lease expense on a straight-line basis over the term of our operating leases, as reported within "selling, general and administrative" expense on the accompanying Consolidated Statements of Operations. The components of our aggregate lease expense is summarized below:

	Year Ended December 31, 2021	Year Ended December 31, 2020
Operating lease cost	$1,711	$1,865
Variable lease cost	378	411
Short-term lease cost	63	61
Total lease cost	$2,152	$2,337

Weighted Average Remaining Lease Term and Applied Discount Rate

	Weighted Average Remaining Lease Term	Weighted Average Discount Rate
Operating leases as of December 31, 2021	2.7 years	3.8%
Operating leases as of December 31, 2020	1.6 years	7.8%

Future Contractual Lease Payments

The below table summarizes our (i) minimum lease payments over the next five years, (ii) lease arrangement implied interest, and (iii) present value of future lease payments:

Operating Leases — future payments	December 31, 2021
2022	$1,344
2023	657
2024	669
2025	98
2026	73
Total future lease payments, undiscounted	$2,841
(Less): Implied interest	(107)
Present value of operating lease payments	$2,734

(b) In/Out Licensing Agreements and Co-Development Arrangements

Overview

The in-license agreements for our development-stage drug products provide us with territory-specific rights to their manufacture and distribution (including further sub-licensing/out-licensing rights). We are generally responsible for all related clinical development costs, patent filings and maintenance costs, marketing costs, and liability insurance costs. We also may enter into out-license agreements for territory-specific rights to these drug products which include one or more of: upfront license fees, royalties from our licensees' sales, and/or milestone payments from our licensees' sales or regulatory achievements. For certain drug products, we may enter into cost-sharing arrangements with licensees and licensors.

We are also obligated to make specified milestone payments to our licensors upon the achievement of certain regulatory and sales milestones, and to pay royalties based on our net sales of all in-licensed products. Depending on the milestone achievement type and whether the product has been approved, we will either (a) capitalize the value to "intangible assets" in the Consolidated Balance Sheets or (b) recognize the payment value within "research and development" or "cost of sales" on the Consolidated Statements of Operations. The liability relating to the payment due to the licensor will be recognized in the earliest period that we determine the respective milestone achievement is probable or occurs.

The most significant remaining agreements associated with our operations, along with the key financial terms and our corresponding accounting and reporting conventions for each, are as follows:

(i) Eflapegrastim: Co-Development and Commercialization Agreement with Hanmi

In October 2014, we exercised our option under a License Option and Research Collaboration Agreement dated January 2012 (as amended) with Hanmi for eflapegrastim, a drug based on Hanmi's proprietary LAPSCOVERY™ technology for the treatment of chemotherapy induced neutropenia. Under the terms of this agreement, as amended, we have primary financial responsibility for the eflapegrastim development plan and hold its worldwide rights (except for Korea, China, and Japan).

Effective January 1, 2022, we executed an amendment to this license agreement, whereby we are contractually obligated to pay Hanmi a flat mid-single digit royalty on our aggregate annual net sales of eflapegrastim. In addition, beginning from year three, we are responsible for a supplemental mid-single digit royalty on aggregate annual net sales. This supplemental royalty will terminate once the aggregate payments made to Hanmi meet the milestone limit of $10 million, based on the supplemental royalty. There were no obligations to Hanmi for the twelve months ended December 31, 2021.

(ii) Poziotinib: In-License Agreement with Hanmi and Exclusive Patent and Technology License Agreement with MD Anderson

In February 2015, we executed an in-license agreement with Hanmi for poziotinib, a pan-HER inhibitor in Phase 2 clinical trials, (which has also shown single agent activity in the treatment of various cancer types during Phase 1 studies, including breast, gastric, colorectal, and lung cancers) and made an upfront payment to Hanmi for these distribution rights. Under the terms of this agreement, we received the exclusive global rights to commercialize poziotinib, except for Korea and China. Hanmi and its development partners are fully responsible for the completion of on-going Phase 2 trials in Korea. We are financially responsible for all other clinical studies.

Effective January 1, 2022, we executed an amendment to this in-license agreement, whereby the payments to Hanmi upon our achievement of various regulatory milestones now aggregate to $18 million, which includes eliminating the first approval milestone payment in return for a supplemental mid-single digit royalty on aggregate annual net sales beginning in year three after the commercial launch. This supplemental royalty will terminate once the aggregate payments made to Hanmi meet the milestone limit of $15 million, based on the supplemental royalty. There were no contractual obligations to Hanmi under the previous agreement for the twelve months ended December 31, 2021.

In April 2018, we executed an exclusive patent and technology agreement for the use of poziotinib in treating patients with EGFR and HER2 exon 20 mutations in cancer and HER2 exon 19 mutations in cancer with The University of Texas M.D. Anderson Cancer Center ("MD Anderson"). MD Anderson discovered poziotinib's use in treating these patient-types. We made an upfront payment to MD Anderson of $0.5 million upon the execution of this agreement.

We are contractually obligated to pay nominal fixed annual license maintenance fees to MD Anderson and pay additional fees upon our achievement of various regulatory and sales milestones. These regulatory milestones aggregate $6 million and the sales milestones aggregate $24 million. We are also contractually obligated to pay MD Anderson royalties in the low single-digits on our net sales of poziotinib.

(iii) In-License Agreement with ImmunGene for FIT Drug Delivery Platform

In April 2019, we executed an asset transfer, license, and sublicense agreement with ImmunGene, Inc. ("ImmunGene") for an exclusive license for the intellectual property related to (a) Anti-CD20-IFNα, an antibody-interferon fusion molecule directed against CD20 that is in Phase 1 development for treating relapsed or refractory non-Hodgkin's lymphoma, including diffuse large B-cell lymphoma patients, representing a considerable unmet medical need, and (b) an antibody-interferon fusion molecule directed against GRP94, a target for which currently there are no existing approved therapies that have the potential for treating both solid and hematologic malignancies. Both molecules are based on the Focused Interferon Therapeutics ("FIT") drug delivery platform.

In November 2021, we provided notice to terminate the asset transfer, license, and sublicense agreement with ImmunGene, Inc. Pursuant to the agreement, we will transfer the rights, title or interest with respect to the transferred product back to ImmunGene. There were no contractual obligations to ImmunGene for the twelve months ended December 31, 2021.

We are also contractually obligated to pay nominal fixed annual license maintenance fees to two licensors.

(iv) In-License Agreement with Therapyx

In December 2020, we executed an asset transfer and license agreement with Therapyx, Inc. ("Therapyx") for an exclusive worldwide license for the intellectual property related to any pharmaceutical or biological product for use in human oncology containing, whether as its sole active or in combination with other active ingredients, an encapsulated IL-12, in any injectable dosage form or formulation.

We made an upfront payment of $0.8 million to Therapyx upon contract execution, which was recorded to "research and development" expense within our Consolidated Statements of Operations for the year ended December 31, 2020. We will make an additional payment of $2.2 million upon our acceptance of certain transferred materials from Therapyx. We will make further payments to Therapyx upon our achievement of various (i) regulatory milestones aggregating up to $30 million for the first approved IL-12 product, plus an additional $2.5 million milestone payment for each new indication approved for each product in the U.S., Europe, or Japan; and (ii) sales milestones aggregating up to $167.5 million based on worldwide annual net sales. We are contractually obligated to pay royalties in the mid-single digits on our net sales of all IL-12 products, potentially reduced by royalties due to third parties, the loss of IP protection within one or more countries, or the introduction of a competing product within one or more countries.

Depending on the nature of the milestone achievement type we will either (a) capitalize the payment value to "intangible assets" in the Consolidated Balance Sheets or (b) recognize the payment value within "research and development" or "cost of sales" within the Consolidated Statements of Operations. The corresponding liability for the payment due to this licensor will be recognized in the Consolidated Balance Sheets within "accounts payable and other accrued liabilities" in the earliest period that we determine the respective milestone achievement is probable or occurs.

(c) Service Agreements for Research and Development Activities

We have entered into various contracts with numerous third-party service providers for the execution of our research and development initiatives. These vendors include raw material suppliers, clinical trial sites, clinical research organizations, and data monitoring centers, among others. The financial terms of these agreements are varied and generally obligate us to pay in stages, depending on the achievement of certain events specified in the agreements — such as contract execution, progress of service completion, delivery of drug supply, and the dosing of patients in clinical studies.

We recognize these "research and development" expenses and corresponding "accounts payable and other accrued liabilities" in the accompanying financial statements based on estimates of our vendors' progress of performed services, patient enrollments and dosing, completion of clinical studies, and other events. Should we decide to discontinue and/or slow-down the work on any project, the associated costs for those projects would typically be limited to the extent of the work completed, as we are generally able to terminate these contracts with adequate notice.

(d) Supply and Service Agreements Associated with Product Production

We have various product supply agreements and/or have issued vendor purchase orders that obligate us to agreed-upon raw material purchases from certain vendors. We also have certain drug production service agreements with select contract manufacturers that obligate us to service fees during the contractual period.

(e) Employment Agreements

We entered into revised employment agreements with each of our named executive officers (chief executive officer, chief operating officer, chief financial officer, chief legal officer, and chief medical officer) in April/June 2018 and June 2019, which supersede any prior change in control severance agreements with such individuals. These agreements provide for the payment of certain benefits to each executive upon his separation of employment under specified circumstances. These arrangements are designed to encourage each to act in the best interests of our stockholders at all times during the course of a change in control event or other significant transaction.

We previously entered into an employment agreement with our former Chief Executive Officer, Joseph Turgeon, under which cash compensation and benefits would become payable in the event of termination by us for any reason other than cause, his resignation for good reason, or upon a change in control of our Company. Effective December 31, 2021, Mr. Turgeon's employment with the Company was terminated without cause in accordance with his employment agreement.

We have accrued for all contractual amounts due and unpaid to Mr. Turgeon as of December 31, 2021 within "accrued payroll and benefits" on the accompanying Consolidated Balance Sheets.

(f) Deferred Compensation Plan

The Spectrum Pharmaceuticals, Inc. Deferred Compensation Plan (the "DC Plan") is administered by the Compensation Committee of our Board of Directors and is intended to comply with the requirements of Section 409A of the Internal Revenue Code of 1986, as amended.

The DC Plan is maintained to provide special deferred benefits for a select group of our employees (the "DC Participants"). DC Participants make annual elections to defer a portion of their eligible cash compensation which is then placed into their DC Plan accounts. We match a fixed percentage of these deferrals, and may make additional discretionary contributions. At December 31, 2021 and 2020, the aggregate value of this DC Plan liability was $11.2 million and $9.8 million, respectively, and is included within "accounts payable and other accrued liabilities" and "other long-term liabilities" in the accompanying Consolidated Balance Sheets.

(g) Litigation

We are involved from time-to-time with various legal matters arising in the ordinary course of business. These claims and legal proceedings are of a nature we believe are normal and incidental to a pharmaceutical business, and may include product liability, intellectual property, employment matters, and other general claims. We may also be subject to derivative lawsuits from time to time.

We make provisions for liabilities when it is both probable that a liability has been incurred and the amount of the loss can be reasonably estimated. Such provisions are assessed at least quarterly and adjusted to reflect the impact of any settlement negotiations, judicial and administrative rulings, advice of legal counsel, and other information and events pertaining to a particular case. Litigation is inherently unpredictable. Although the ultimate resolution of these various matters cannot be determined at this time, we do not believe that such matters, individually or in the aggregate, will have a material adverse effect on our consolidated results of operations, cash flows, or financial condition.

Bioverativ Patent Litigation

On May 28, 2021, Bioverativ Therapeutics Inc. ("Bioverativ") filed a complaint against us in the U.S. District Court for the District of Delaware, which alleges that our proposed manufacture, use and sale of eflapegrastim would, if approved, infringe claims of three patents owned by Bioverativ (the "Subject Patents"). Bioverativ sought an unspecified amount of damages and injunctive relief.

Pursuant to our agreements with Hanmi, we hold worldwide rights (except for Korea, China, and Japan) to develop and commercialize eflapegrastim. The agreements with Hanmi contain typical license terms including, without limitation, indemnification rights in favor of the Company with respect to any claims of infringement from a third party with respect to our use of a licensed technology, product or compound pursuant to such agreements.

Related to the *Bioverativ* litigation, on December 20, 2021, we were named as respondents in an International Trade Commission (ITC) action filed in the ITC. The complaint alleged importation into the United States, the sale for importation, and the sale within the United States after importation of certain monomer-dimer hybrid immunoconjugates in violation of section 337 of the Tariff Act of 1930 (19 U.S.C. 1337).

On February 18, 2022, Spectrum, Hanmi and Bioverativ entered into a license and settlement agreement which included a stipulation to dismiss the *Bioverativ* litigation and withdraw the ITC complaint. On February 18, 2022, the ITC action against us was withdrawn, and on March 2, 2022, the *Bioverativ* case was dismissed by the U.S. District Court.

Luo v. Spectrum Pharmaceuticals, Inc., et al.. On August 31, 2021, a shareholder lawsuit was filed against us in the U.S. District Court for the District of Nevada, which alleges that we and certain of our executive officers made false or misleading statements and failed to disclose material facts about our business and the prospects of approval for our BLA to the FDA for eflapegrastim in violation of Section 10(b) (and Rule 10b-5 promulgated thereunder) and 20(a) of the Securities Exchange Act of 1934, as amended. On November 1, 2021, four individuals and one entity filed competing motions to be appointed lead plaintiff and for approval of counsel in this putative securities class action. The plaintiffs seek damages,

(all tabular amounts presented in thousands, except share, per share, per unit, and number of years)

interest, costs, attorneys' fees, and other unspecified equitable relief. We believe that these claims are without merit and intend to vigorously defend against these claims.

Csaba v. Spectrum Pharmaceuticals, Inc., et al. On December 15, 2021, a stockholder derivative complaint was filed against us, certain of our executive officers, and certain of our past and present members of the board of directors. The stockholder derivative complaint alleges that certain of our executive officers are liable to Spectrum, pursuant to Section 10(b) and 21(d) of the Securities Exchange Act of 1934, as amended, for contribution and indemnification, if they are deemed (in the *Luo* class action), to have made false or misleading statements and failed to disclose material facts about our business and the prospects of approval for our BLA to the FDA for eflapegrastim. The complaint further alleges that certain of our executive officers and certain of our past and present directors breached their fiduciary duties, and certain of our present directors negligently violated Section 14(a) of the Exchange Act, by allegedly causing such false or misleading statements to be issued and/or failing to disclose material facts about our business and the prospects of approval for our BLA to the FDA for eflapegrastim. The allegations state that as a result of the violations, certain of our executive officers and past and present board members were unjustly enriched. The plaintiffs seek corporate reforms, damages, interest, costs, attorneys' fees, and other unspecified equitable relief. We believe that these claims are without merit and intend to vigorously defend against these claims.

NOTE 8. INCOME TAXES

The components of loss before benefit for income taxes from continuing operations are as follows:

	Year Ended December 31,	
	2021	2020
United States	$(158,552)	$(173,398)
Foreign	120	2,066
Total	$(158,432)	$(171,332)

The benefit for income taxes from continuing operations consist of the following:

	Year Ended December 31,	
	2021	2020
Current:		
Federal	$—	$ —
State	—	(76)
Foreign	4	16
	$ 4	$(60)
Deferred:		
Federal	—	—
State	—	—
	—	—
Total income tax expense (benefit)	$ 4	$(60)

For the fiscal year ended December 31, 2021, we generated losses from continuing operations and recognized $4 of tax expense from our foreign continuing operations during the year ended December 31, 2021. The intraperiod allocation is not applicable for the years ended December 31, 2021 and 2020 as a result of the early adoption of *ASU 2019-12*.

(all tabular amounts presented in thousands, except share, per share, per unit, and number of years)

The income tax benefit differs from that computed using the applicable federal statutory rate, as applied to our income before taxes in each year as follows:

	Year Ended December 31,	
	2021	2020
Tax provision computed at the federal statutory rate	$(33,210)	$(35,980)
State tax, net of federal benefit	(11,050)	(5,142)
Research and development expense tax credits	(1,838)	(2,686)
Change in uncertain tax benefit reserve	—	(27)
Change in tax credit carryforwards	—	109
Officers compensation	1,988	2,497
Stock based compensation	1,234	1,619
Permanent items and other	(173)	(37)
Tax differential on foreign earnings	—	(1)
Change in tax rate	(6,671)	(1,091)
Change in prior year deferred taxes	(353)	(998)
Valuation allowance	50,077	41,677
Income tax expense (benefit)	$ 4	$ (60)

Significant components of our deferred tax assets and liabilities as of December 31, 2021 and 2020 are presented below. A valuation allowance has been recognized to offset the net deferred tax assets as realization of such deferred tax assets did not meet our "more-likely-than-not" assessment threshold, as required under GAAP.

	December 31,	
	2021	2020
Deferred tax assets:		
Net operating loss carry forwards	$ 187,129	$ 143,045
Research and development expense tax credits	27,341	25,424
Stock based compensation	5,470	4,037
Lease obligation	783	599
Development costs	286	487
Returns and allowances	1,198	1,061
Amortization differences	1,749	1,479
Depreciation	57	4,746
Other, net	20,267	17,420
Total deferred tax assets before valuation allowance	244,280	198,298
Valuation allowance	(242,590)	(192,513)
Total deferred tax assets	1,690	5,785
Deferred tax liabilities, net:		
Unrealized gains	(973)	(5,230)
Right-of-use asset	(717)	(555)
Net deferred tax liabilities	$ —	$ —

At December 31, 2021 and 2020, we recorded a valuation allowance of $242.6 million and $192.5 million, respectively. The valuation allowance increased by $50.1 million and $39.5 million during 2021 and 2020, respectively. The increases in the valuation allowance in 2021 and 2020 were mostly due to an increase in net operating loss carryforwards.

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We had federal and state net operating loss carryforwards of approximately $746.6 million and $545.5 million, at December 31, 2021, respectively. We have approximately $0.5 million of foreign loss carryforwards that will begin to expire in 2039. The federal and state loss carry forwards began to expire in 2022 unless previously utilized, of which approximately $93.1 million of federal loss carryforwards expire in the next five years. Federal loss carryforwards generated in 2018 and beyond will be carried forward indefinitely. At December 31, 2021, we had federal and state tax credits of approximately $19.0 million and $10.6 million, respectively. The federal tax credit carryovers begin to expire in 2027 unless previously utilized. The state research and development credit carryforwards have an indefinite carryover period.

Our utilization of certain net operating loss and research and development expense tax credit carryforwards, including those acquired in connection with the acquisition of Allos Therapeutics, Inc. in April 2012 and Talon Therapeutics, Inc. in July 2016, are subject to annual limitations under Sections 382 and 383 of the Internal Revenue Code of 1986 and similar state provisions. Any net operating losses or credits that would expire unutilized as a result of Section 382 and 383 limitations have been removed from the table of deferred tax assets and the accompanying disclosures of net operating loss and research and development carryforwards.

The following tabular reconciliation summarizes the activity related to our unrecognized tax benefits:

	Year Ended December 31,	
	2021	2020
Balance at beginning of year	$3,336	$3,473
Adjustments related to prior year tax positions	(318)	(689)
Increases related to current year tax positions	506	579
Decreases due to expiration of tax statutes	—	(27)
Balance at end of year	$3,524	$3,336

We continue to believe that our tax positions meet the "more-likely-than-not" standard and as part of that analysis, we considered the amounts and probabilities from ultimate settlement with the tax authorities.

Approximately $0.0 million and $0.1 million of the total unrecognized tax benefits as of December 31, 2021 and 2020, respectively, would reduce our annual effective tax rate if recognized. Additional amounts in the summary rollforward could impact our effective tax rate if we did not maintain a full valuation allowance on our net deferred tax assets.

We do not expect our unrecognized tax benefits to change significantly over the next 12 months. With a few exceptions, we are no longer subject to U.S. federal, state and local income tax examinations for years before 2017. Our policy is to recognize interest and/or penalties related to unrecognized tax benefits in income tax expense in the Consolidated Statements of Operations.

On March 27, 2020, the U.S. government enacted the Coronavirus Aid, Relief, and Economic Security Act, or the CARES Act, a $2 trillion relief package comprised of a combination of tax provisions and other stimulus measures. The CARES Act broadly provides entities tax payment relief and significant business incentives and makes certain technical corrections to the 2017 Tax Cuts and Jobs Act, or the Tax Act. The tax relief measures for entities include a five-year net operating loss carry back, increased interest expense deduction limits, acceleration of alternative minimum tax credit refunds, payroll tax relief, and a technical correction to allow accelerated deductions for qualified improvement property. The CARES Act also provides other non-income tax benefits, including federal funding for a range of stabilization measures and emergency funding to assist those impacted by the COVID-19 pandemic. Similar legislation is being enacted in other jurisdictions in which the Company operates. ASC Topic 740, Income Taxes, requires the effect of changes in tax law be recognized in the period in which new legislation is enacted. The enactment of the CARES Act and similar legislation in other jurisdictions in which the Company operates is not expected to have a material impact on its consolidated financial position and results of operations as of December 31, 2021.

Early Adoption of ASU 2019-12 — Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes

In March 2020, we elected to early adopt *ASU 2019-12, "Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes,"* which is intended to simplify various aspects related to accounting for income taxes. *ASU 2019-12* removes

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certain exceptions to the general principles in *Topic 740* and also clarifies and amends existing guidance to improve consistent application. Based upon this early adoption, we were not required to calculate an income tax benefit for each quarter end period.

NOTE 9. DISCONTINUED OPERATIONS

Overview

In March 2019 we completed the sale of our seven then-commercialized drugs, including FUSILEV, KHAPZORY, FOLOTYN, ZEVALIN, MARQIBO, BELEODAQ, and EVOMELA (the "Commercial Product Portfolio") to Acrotech Biopharma LLC ("Acrotech") (the "Commercial Product Portfolio Transaction"). Upon closing we received $158.8 million in an upfront cash payment. We are also entitled to receive up to an aggregate of $140 million upon Acrotech's future achievement of certain regulatory milestones (totaling $40 million) and sales-based milestones (totaling $100 million) relating to the Commercial Product Portfolio.

Substantially all of the contractual rights and obligations associated with the Commercial Product Portfolio were transferred to Acrotech at the closing of the Commercial Product Portfolio Transaction. However, under the terms of this transaction we retained our trade "accounts receivable, net" and GTN liabilities included within "accounts payable and other accrued liabilities" associated with our product sales made on and prior to February 28, 2019. Accordingly, these Consolidated Financial Statements reflect the corresponding revenue-deriving activities and allocable expenses of this commercial business within "discontinued operations".

Consolidated Statements of Operations

The following table presents the various elements of "income (loss) from discontinued operations, net of income taxes" as reported in the accompanying Consolidated Statements of Operations:

	Year ended December 31,	
	2021	2020
Revenues:		
Product sales, net	$ —	$10,668
Total revenues	$ —	$10,668
Operating costs and expenses:		
Cost of sales (excluding amortization of intangible assets)	133	88
Selling, general and administrative	—	219
Research and development	59	(43)
Total operating costs and expenses	$ 192	$ 264
Income (loss) from discontinued operations before income taxes	(192)	10,404
Provision for income taxes from discontinued operations	—	—
Income (loss) from discontinued operations, net of income taxes	$(192)	$10,404

For the year ended December 31, 2018, management identified certain immaterial errors aggregating to $12.0 million that substantially relates to ZEVALIN rebates owed to qualifying Public Health Service ("PHS") hospitals from 2009 through the first quarter of 2019.

On July 3, 2020, pursuant to communications we had with the Health Resources and Services Administration ("HRSA"), we posted a notification on the HRSA website with instructions for PHS customers on how to make claims with the Company for refunds for the additional rebate amounts they may be eligible for and no claims were made by customers. Accordingly, we recorded a reduction to government chargebacks liability of $10.8 million in 2020, which was recognized within the "Product sales, net" caption of the Consolidated Statements of Operations for discontinued operations.

NOTE 10. SUBSEQUENT EVENTS

During January 2022, the Company entered into a Securities Purchase Agreement with Hanmi, pursuant to which Hanmi purchased 12,500,000 shares of our common shares at a purchase price of $1.60 per share, for an aggregate purchase price equal to $20 million.

In addition, the Company entered into amendments to the licensing agreements for both eflapegrastim and poziotinib, which resulted in the conversion of the upfront milestone payments for both products to deferred royalties. The royalty obligation for eflapegrastim changed to mid-single digits as a percent of sales for a specified period. The amended agreement eliminated poziotinib's approval milestone payment in return for a supplemental royalty that will continue until the milestone is fully paid, based on the supplemental royalty. The companies also agreed to an amended supply arrangement that is expected to result in a lower cost of goods sold for Spectrum (See Note 7 Commitments and Contingencies for further discussion).

In addition, Hanmi has agreed to release the Company from a prior purchase obligation for eflapegrastim drug substance which will result in a reduction in accrued liabilities of $11.2 million with a corresponding reduction in research and development expense.

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

None.

Item 9A. Controls and Procedures

Our principal executive officer and principal financial officer have provided certifications filed as *Exhibits 31.1* and *32.1*, and *31.2*, and *32.2*, respectively. Such certifications should be read in conjunction with the information contained in this *Item 9A* for a more complete understanding of the matters covered by those certifications.

(a) Management's Annual Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as defined in *Rule 13a-15(f)* of the Exchange Act. Our internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of the financial reporting and the preparation of financial statements for external purposes in accordance with GAAP. This process includes those policies and procedures (i) that pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of our assets; (ii) that receipts and expenditures are being made only in accordance with authorizations of our management and directors; (iii) that provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of our assets that could have a material effect on our financial statements; and (iv) that provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with GAAP.

We continuously seek to improve the efficiency and effectiveness of our business operations and accompanying internal controls. An internal control system, no matter how well conceived and operated, can provide only reasonable assurance that its objectives are met. Because of inherent limitations in any control system, no evaluation can provide absolute assurance that all control issues within a company have been detected. In addition, internal controls are subject to the risk of inadequacy because of changes in business conditions and/or the risk that compliance with a company's policies or procedures may deteriorate over time.

Our management assessed the effectiveness of our internal control over financial reporting as of December 31, 2021. In making this assessment, our management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission in Internal Control-Integrated Framework (2013 framework) ("2013 COSO"). Based on our management's assessment, we have concluded that as of December 31, 2021, our internal control over financial reporting was effective, as evaluated under the 2013 COSO criteria.

(b) Disclosure Controls and Procedures

We carried out an evaluation, under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, of the effectiveness of our disclosure controls and procedures as of December 31, 2021, pursuant to Rules 13a-15(e) and 15d-15(e) under the Exchange Act. Based on that evaluation, our Chief Executive Officer and Chief Financial Officer have concluded that our disclosure controls and procedures, as of such date, were effective.

(c) Changes in Internal Control Over Financial Reporting

There have been no changes in our internal control over financial reporting during the fiscal fourth quarter of the year ended December 31, 2021 that have materially affected, or are 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***

The information required under this item is incorporated by reference from our definitive proxy statement related to our 2022 Annual Meeting of Stockholders, or the 2022 Proxy Statement, to be filed pursuant to Regulation 14A, on or before April 30, 2022, provided that if the 2022 Proxy Statement is not filed within 120 days of the fiscal year covered by this Annual Report on Form 10-K, the omitted information will be included in an amendment to this Annual Report on Form 10-K filed not later than the end of such 120-day period.

Item 11. ***Executive Compensation***

The information required under this item is incorporated herein by reference from the 2022 Proxy Statement.

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

The information required under this item is incorporated herein by reference from the 2022 Proxy Statement.

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

The information required under this item is incorporated herein by reference from the 2022 Proxy Statement.

Item 14. ***Principal Accounting Fees and Services***

The information required under this item is incorporated herein by reference from the 2022 Proxy Statement.

Part IV

Item 15. Exhibits and Financial Statement Schedules

(a) Financial Statements and Schedules

The following financial statements and schedules listed below are included in this Annual Report on Form 10-K:

(All other schedules are omitted, as required information is either not applicable or the information is presented in the consolidated financial statements).

(b) Exhibits

The following is a list of exhibits required by Item 601 of Regulation S-K filed as part of this Annual Report on Form 10-K. For exhibits that previously have been filed, the Company incorporates those exhibits herein by reference. The exhibit table below includes the Form Type and Filing Date of the previous filing and the original exhibit number in the previous filing which is being incorporated by reference herein.

Exhibit No.	Description	Form	File No.	Exhibit	Filing Date	Filed Herewith
2.1	Agreement and Plan of Merger, dated April 4, 2012, by and among Spectrum Pharmaceuticals, Inc., Sapphire Acquisition Sub, Inc. and Allos Therapeutics, Inc., including a Form of Contingent Value Rights Agreement and a Form of Tender and Voting Agreement.	8-K	001-35006	2.1, 2.2, and 2.3	4/5/12	
2.2	Securities Purchase Agreement, dated July 16, 2013, by and among Spectrum Pharmaceuticals, Inc., Eagle Acquisition Merger Sub, Inc., certain entities affiliated with Warburg Pincus & Co. and certain entities affiliated with Deerfield Management, LLC.	8-K	001-35006	2.1	7/19/13	
2.3	Stock Purchase Agreement, dated July 16, 2013, by and among Spectrum Pharmaceuticals, Inc., Eagle Acquisition Merger Sub, Inc. and Talon Therapeutics, Inc.	8-K	001-35006	2.2	7/19/13	
2.4	Exchange Agreement, dated July 16, 2013, by and among Spectrum Pharmaceuticals, Inc., Talon Therapeutics, Inc. and certain entities affiliated with Deerfield Management, LLC, including the Registration Rights Agreement by and among Spectrum Pharmaceuticals, Inc. and certain entities affiliated with Deerfield Management, LLC, as Exhibit A thereto.	8-K	001-35006	2.4	7/19/13	
2.5	Asset Purchase Agreement, dated January 17, 2019, by and among Spectrum Pharmaceuticals, Inc., Acrotech Biopharma LLC and Aurobindo Pharma USA, Inc.	8-K	001-35006	10.1	1/17/19	
2.6	Securities Purchase Agreement, dated January 3, 2022, between Spectrum Pharmaceuticals, Inc. and Hanmi Pharmaceutical Co., Ltd.	8-K	001-35006	10.1	1/3/22	
3.1	Restated Certificate of Incorporation, as filed on June 18, 2018.	8-K	001-35006	3.1	6/18/18	
3.2	Third Amended and Restated Bylaws of Spectrum Pharmaceuticals, Inc.	8-K	001-35006	3.1	3/29/18	
4.4	Registration Rights and Stockholder Agreement, dated February 2, 2010, by and between Spectrum Pharmaceuticals, Inc. and TopoTarget A/S.	10-K	001-35006	4.2	3/12/14	
4.5	Description of Equity Securities Registered under Section 12 of the Exchange Act.					X
10.1	Industrial Lease Agreement, dated January 16, 1997, between Spectrum Pharmaceuticals, Inc. and the Irvine Company.	10-KSB	000-28782	10.11	3/31/97	
10.2	First Amendment to Lease, dated March 25, 2004, by and between Spectrum Pharmaceuticals, Inc. and the Irvine Company.	10-Q	000-28782	10.1	5/17/04	

Exhibit No.	Description	Form	File No.	Exhibit	Filing Date	Filed Herewith
10.3	Second Amendment to Lease, dated March 7, 2006, by and between Spectrum Pharmaceuticals, Inc. and the Irvine Company.	10-K	001-35006	10.6	3/12/14	
10.4	Third Amendment to Lease, dated February 12, 2006, by and between Spectrum Pharmaceuticals, Inc. and the Irvine Company LLC.	10-K	001-35006	10.7	3/12/14	
10.5	Fourth Amendment to Lease, dated July 29, 2009, by and between Spectrum Pharmaceuticals, Inc. and the Irvine Company LLC.	10-K	000-28782	10.29	4/5/10	
10.6	Fifth Amendment to Lease, dated November 21, 2013, by and between Spectrum Pharmaceuticals, Inc. and the Irvine Company LLC.	10-K	001-35006	10.9	3/12/14	
10.7	Sixth Amendment to Lease, dated January 31, 2014, by and between Spectrum Pharmaceuticals, Inc. and the Irvine Company LLC.	10-K	001-35006	10.10	3/12/14	
10.8	Seventh Amendment to Lease, dated August 7, 2018, by and between Spectrum Pharmaceuticals, Inc. and the Irvine Company LLC.	10-K	001-35006	10.8	3/2/20	
10.9	Eighth Amendment to Lease, dated October 10, 2018, by and between Spectrum Pharmaceuticals, Inc. and the Irvine Company LLC.	10-K	001-35006	10.9	3/2/20	
10.10*	Spectrum Pharmaceuticals, Inc. Deferred Compensation Plan.	S-8	333-176681	4.1	9/6/11	
10.11*	Form of Indemnification Agreement of Spectrum Pharmaceuticals, Inc.	10-K	001-35006	10.11	3/2/20	
10.12*	Amended and Restated Spectrum Pharmaceuticals, Inc. 2009 Employee Stock Purchase Plan.	10-K	001-35006	10.12	3/2/20	
10.13*	Spectrum Pharmaceuticals, Inc. 2009 Incentive Award Plan.	S-8	333-160312	99.2	6/29/09	
10.14*	Term Sheet for 2009 Incentive Award Plan Stock Option Award.	10-Q	000-28782	10.8	8/13/09	
10.15*	Term Sheet for 2009 Incentive Award Plan, Nonqualified Stock Option Award Awarded to Non-Employee Directors (Revised July 2012).	10-Q	001-35006	10.2	11/9/12	
10.16*	Term Sheet for 2009 Incentive Award Plan, Restricted Stock Award.	10-Q	000-28782	10.10	8/13/09	
10.17*	Amendment No. 1 to 2009 Incentive Award Plan.	10-Q	001-35006	10.2	11/6/15	
10.18*	Form of Performance Unit Award Agreement under 2009 Incentive Award Plan	10-Q	001-35006	10.2	5/4/17	
10.19	At Market Issuance Sales Agreement dated December 23, 2015, by and among Spectrum Pharmaceuticals, Inc., FBR Capital Markets & Co., MLV & Co. LLC and H.C. Wainwright & Co., LLC.	S-3	333-208760	1.2	12/23/15	
10.20	At Market Issuance Sales Agreement, dated August 4, 2017, between Spectrum Pharmaceuticals, Inc., H.C. Wainwright & Co., LLC, FBR Capital Markets & Co. and MLV & Co. LLC.	8-K	001-35006	1.1	8/4/17	

Exhibit No.	Description	Form	File No.	Exhibit	Filing Date	Filed Herewith
10.21	Controlled Equity Offering Sales Agreement, dated as of April 5, 2019 among Registrant, Cantor Fitzgerald & Co., H.C. Wainwright & Co., LLC and B. Riley FBR, Inc.	S-3ASR	333-230821	1.2	4/5/19	
10.22*	Executive Employment Agreement, dated as of April 10, 2018, by and between Spectrum Pharmaceuticals, Inc. and Kurt A. Gustafson.	10-Q	001-35006	10.6	8/9/18	
10.23*	Executive Employment Agreement, dated as of April 10, 2018, by and between Spectrum Pharmaceuticals, Inc. and Thomas J. Riga.	10-Q	001-35006	10.7	8/9/18	
10.24*	Executive Employment Agreement, dated as of April 10, 2018, by and between Spectrum Pharmaceuticals, Inc. and Joseph W. Turgeon.	10-Q	001-35006	10.8	8/9/18	
10.25*	Executive Employment Agreement, dated as of June 18, 2018, by and between Spectrum Pharmaceuticals, Inc. and Keith McGahan.	10-Q	001-35006	10.9	8/9/18	
10.26*	Executive Employment Agreement, dated as of June 19, 2019, by and between Spectrum Pharmaceuticals, Inc. and Dr. Francois Lebel.	10-Q	001-35006	10.1	8/9/19	
10.27*	Spectrum Pharmaceuticals, Inc. 2018 Long-Term Incentive Plan	8-K	001-35006	10.1	6/18/18	
10.28*	First Amendment to the Spectrum Pharmaceuticals, Inc. 2018 Long-Term Incentive Plan	8-K	001-35006	10.1	6/19/20	
10.29*	Form of Stock Option Award Spectrum Pharmaceuticals, Inc. 2018 Long-Term Incentive Plan	8-K	001-35006	10.2	6/18/18	
10.30*	Form of Restricted Stock Award under the Spectrum Pharmaceuticals, Inc. 2018 Long-Term Incentive Plan.	8-K	001-35006	10.3	6/18/18	
10.31*	Form of Restricted Stock Unit Award for Canadian Resident Employees and Directors under the Spectrum Pharmaceuticals, Inc. 2018 Long-Term Incentive Plan.	8-K	001-35006	10.4	6/18/18	
10.32*	Form of Performance Unit Award under the Spectrum Pharmaceuticals, Inc. 2018 Long-Term Incentive Plan.	8-K	001-35006	10.5	6/18/18	
10.33*	Form of Stock Appreciation Rights Agreement under the Spectrum Pharmaceuticals, Inc. 2018 Long-Term Incentive Plan	8-K	001-35006	10.1	3/13/20	
21.1	Subsidiaries of Registrant.					X
23.1	Consent of Independent Registered Public Accounting Firm (RSM US LLP).					X
23.2	Consent of Independent Registered Public Accounting Firm (Deloitte & Touche LLP).					X
24.1	Power of Attorney (included in the signature page)					X
31.1	Certification of Principal Executive Officer, pursuant to Rule 13a-14(a)/15d-14(a) of the Securities Exchange Act of 1934.					X
31.2	Certification of Principal Financial Officer, pursuant to Rule 13a-14(a)/15d-14(a) of the Securities Exchange Act of 1934.					X

Exhibit No.	Description	Form	File No.	Exhibit	Filing Date	Filed Herewith
32.1	Certification of Principal Executive Officer, pursuant to Rule 13a-14(b)/15d-14(b) of the Securities Exchange Act of 1934 and 18 U.S.C. Section 1350.					X
32.2	Certification of Principal Financial Officer, pursuant to Rule 13a-14(b)/15d-14(b) of the Securities Exchange Act of 1934 and 18 U.S.C. Section 1350.					X
101.INS	Inline XBRL Instance Document — the Instance Document does not appear in the interactive data file because its XBRL tags are embedded within the Inline XBRL Document					X
101.SCH	Inline XBRL Taxonomy Extension Schema Document					X
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document					X
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document					X
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document					X
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document					X
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101 filed herewith)					

* Indicates a management contract or compensatory plan or arrangement.

Item 16. Form 10-K Summary

None.

EXHIBIT 21.1

List of Subsidiaries

SUBSIDIARY/AFFILIATE NAME	INCORPORATION
Spectrum Oncology Private Limited	India
Spectrum Pharmaceuticals International Holdings, LLC	Delaware
Allos Therapeutics, Inc.	Delaware
Spectrum Pharmaceuticals Cayman, L.P. (1% Spectrum Pharmaceuticals International Holdings, LLC and 99% Spectrum Pharmaceuticals, Inc.)	Cayman Islands
Spectrum Pharmaceuticals, B.V.	Netherlands
Spectrum Pharmaceuticals Canada, Inc.	Canada
Talon Therapeutics, Inc.	Delaware

EXHIBIT 31.1

CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER

I, Thomas J. Riga, certify that:

1. I have reviewed this Annual Report on Form 10-K of Spectrum Pharmaceuticals, Inc.;

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.

Date: March 17, 2022

/s/ THOMAS J. RIGA

Thomas J. Riga
President and Chief Executive Officer
(Chief Executive Officer)

EXHIBIT 31.2

CERTIFICATION OF PRINCIPAL FINANCIAL OFFICER

I, Kurt A. Gustafson, certify that:

1. I have reviewed this Annual Report on Form 10-K of Spectrum Pharmaceuticals, Inc.;
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.

Date: March 17, 2022

/s/ KURT A. GUSTAFSON
Kurt A. Gustafson
Executive Vice President and Chief Financial Officer
(Principal Financial Officer)

EXHIBIT 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, the undersigned officer of Spectrum Pharmaceuticals, Inc. (the "Company"), hereby certifies, to such officer's knowledge, that:

(i) the accompanying Annual Report on Form 10-K of the Company for the year ended December 31, 2021 (the "Report") fully complies with the requirements of Section 13(a) or Section 15(d), as applicable, of the Securities Exchange Act of 1934, as amended; and

(ii) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Dated: March 17, 2022

/s/ THOMAS J. RIGA

Thomas J. Riga

Chief Executive Officer and President

This certification accompanies this Report pursuant to Rule 13a-14(b) or Rule 15d-14(b) under the Securities Exchange Act of 1934, as amended, and 18 U.S.C. Section 1350 and shall not be deemed filed by the Company for purposes of Section 18 of the Securities Exchange Act of 1934, as amended.

EXHIBIT 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, the undersigned officer of Spectrum Pharmaceuticals, Inc. (the "Company"), hereby certifies, to such officer's knowledge, that:

(i) the accompanying Annual Report on Form 10-K of the Company for the year ended December 31, 2021 (the "Report") fully complies with the requirements of Section 13(a) or Section 15(d), as applicable, of the Securities Exchange Act of 1934, as amended; and

(ii) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Dated: March 17, 2022

/s/ KURT A. GUSTAFSON
Kurt A. Gustafson
Executive Vice President and Chief Financial Officer

This certification accompanies this Report pursuant to Rule 13a-14(b) or Rule 15d-14(b) under the Securities Exchange Act of 1934, as amended, and 18 U.S.C. Section 1350 and shall not be deemed filed by the Company for purposes of Section 18 of the Securities Exchange Act of 1934, as amended.