

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: 001-36257

TRAVERE THERAPEUTICS, INC.

(Exact Name of Registrant as specified in its Charter)

Delaware
(State or other jurisdiction of incorporation or organization)

27-4842691
(I.R.S. Employer Identification No.)

3611 Valley Centre Drive, Suite 300

San Diego, CA 92130

(Address of Principal Executive Offices)

888-969-7879

(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, par value \$0.0001 per share	TVTX	The Nasdaq Global Market

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

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

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 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 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 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	<input checked="" type="checkbox"/>	Accelerated Filer	<input type="checkbox"/>
Non-Accelerated Filer	<input type="checkbox"/>	Smaller Reporting Company	<input type="checkbox"/>
		Emerging growth Company	<input type="checkbox"/>

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 7(a)(2)(B) of the Securities 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 Exchange Act).

Yes No

State the aggregate market value of the voting and non-voting common equity held by non-affiliates computed by reference to the price at which the common equity was last sold, or the average bid and asked price of such common equity, as of the last business day of the registrant's most recently completed second fiscal quarter. \$879,383,041.

The number of shares of outstanding common stock, par value \$0.0001 per share, of the registrant as of February 22, 2022 was 63,211,565.

DOCUMENTS INCORPORATED BY REFERENCE: Portions of the Proxy Statement for the registrant's 2022 Annual Meeting of Stockholders, to be filed within 120 days after the conclusion of the registrant's fiscal year ended December 31, 2021, are incorporated by reference into Part III of this Annual Report on Form 10-K.

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CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS

Certain information contained in this Annual Report on Form 10-K of Travere Therapeutics, Inc., a Delaware corporation (the "Company") include forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. The statements herein which are not historical reflect our current expectations and projections about the Company's future results, performance, liquidity, financial condition, prospects and opportunities and are based upon information currently available to the Company's management and is subject to its interpretation of what are believed to be significant factors affecting the Company's business, including many assumptions regarding future events. Such forward-looking statements include statements regarding, among other things:

- our ability to produce, sustain and expand sales of our products;
- our ability to develop, acquire and/or introduce new products;
- our projected future sales, profitability and other financial metrics;
- our future financing plans;
- our anticipated needs for working capital;
- the anticipated trends in our industry;
- acquisitions of other companies or assets that we might undertake in the future;
- our operations in the United States and abroad, and the domestic and foreign regulatory, economic and political conditions; and
- competition existing today or that will likely arise in the future.

Forward-looking statements, which involve assumptions and describe our future plans, strategies and expectations, are generally identifiable by use of the words "may," "should," "expect," "anticipate," "estimate," "believe," "intend," "seek," or "project" or the negative of these words or other variations on these words or comparable terminology. Actual results, performance, liquidity, financial condition and results of operations, prospects and opportunities could differ materially from those expressed in, or implied by, these forward-looking statements as a result of various risks, uncertainties and other factors, including the ability to raise sufficient capital to continue the Company's operations. Actual events or results may differ materially from those discussed in forward-looking statements as a result of various factors, including, without limitation, the risks outlined under "Risk Factors" and matters described in this Annual Report generally. In addition, statements that "we believe" and similar statements reflect our beliefs and opinions on the relevant subject. These statements are based upon information available to us as of the date of this Annual Report on Form 10-K, and while we believe such information forms a reasonable basis for such statements, such information may be limited or incomplete, and our statements should not be read to indicate that we have conducted an exhaustive inquiry into, or review of, all potentially available relevant information. These statements are inherently uncertain and you are cautioned to not unduly rely upon these statements.

In light of these risks and uncertainties, there can be no assurance that the forward-looking statements contained in this Annual Report will in fact occur. Potential investors should not place undue reliance on any forward-looking statements. Except as expressly required by the federal securities laws, there is no undertaking to publicly update or revise any forward-looking statements, whether as a result of new information, future events, changed circumstances or any other reason.

The specific discussions in this Annual Report about the Company include financial projections and future estimates and expectations about the Company's business. The projections, estimates and expectations are presented in this Annual Report only as a guide about future possibilities and do not represent actual amounts or assured events. All the projections and estimates are based exclusively on the Company management's own assessment of the business, the industry in which it works and the economy at large and other operational factors, including capital resources and liquidity, financial condition, fulfillment of contracts and opportunities. The actual results may differ significantly from the projections.

Potential investors should not make an investment decision based solely on the Company's projections, estimates or expectations.

Risk Factor Summary

Below is a summary of material factors that make an investment in our common stock speculative or risky. This summary does not address all of the risks that we face. Additional discussion of the risks summarized in this risk factor summary, and other risks that we face, can be found under the heading "Risk Factors" in Item 1A of Part I of this Annual Report on Form 10-K and should be carefully considered, together with other information in this Annual Report on Form 10-K and our other filings with the SEC before making investment decisions regarding our common stock.

- Our clinical trials may fail to demonstrate the safety and efficacy of our product candidates, including sparsentan and pgtibatinase (TVT-058), which could prevent or significantly delay their regulatory approval.
- The planned eGFR data cut from the DUPLEX Study may not support accelerated approval submissions in the U.S. and/or Europe.
- Success in preclinical testing and early clinical trials does not ensure that later clinical trials will be successful.
- An extended delay in the rate of enrollment in our ongoing Phase 1/2 Study of pgtibatinase (TVT-058), as a result of the COVID-19 pandemic or otherwise, may delay our timelines for analyzing future data from the study.
- Interim, topline and preliminary data from our clinical trials that we announce or publish from time to time may change as more patient data become available and are subject to audit and verification procedures that could result in material changes in the final data.
- The commercial success of Chenodal, Cholbam and Thiola depends on them being considered to be effective drugs with advantages over other therapies.
- We are subject to generic competition, and recent developments relating to generic competition for pharmaceutical products could cause our product sales and business to be negatively impacted.
- Changes in reimbursement practices of third-party payers, or patients' access to insurance coverage, could affect the demand for our products and/or the prices at which they are sold.
- We are dependent on third parties to manufacture and distribute our pharmaceutical products who may not fulfill their obligations.
- If we are unable to maintain an effective and specialized sales force, we will not be able to commercialize our products in the United States successfully.
- Our products may not achieve or maintain expected levels of market acceptance or commercial success.
- If the market opportunities for our products and product candidates are smaller than we believe they are, our revenues may be adversely affected and our business may suffer.
- Our product candidates may cause undesirable side effects or have other properties that could delay or prevent their regulatory approval or commercialization.
- We do not currently have patent protection for our commercial products. If we are unable to obtain and maintain protection for the intellectual property relating to our technology and products, the value of our technology and products will be adversely affected.
- We expect to rely on orphan drug status to develop and commercialize certain of our product candidates, but our orphan drug designations may not confer marketing exclusivity or other expected commercial benefits.
- Any drugs we develop may become subject to unfavorable pricing regulations, third-party reimbursement practices or healthcare reform initiatives, thereby harming our business.
- We face potential product liability exposure far in excess of our limited insurance coverage.
- We face substantial competition, which may result in others discovering, developing or commercializing products before or more successfully than we do. Our operating results will suffer if we fail to compete effectively.
- The COVID-19 pandemic could materially adversely affect our business, results of operations and financial condition.
- Our limited operating history makes it difficult to evaluate our future prospects, and our profitability in the future is uncertain.
- We depend on a highly experienced and skilled workforce to grow and operate our business. If we are unable to attract, retain and engage our employees, we may not be able to grow effectively.
- We will likely experience fluctuations in operating results and could incur substantial losses.
- Negative publicity regarding any of our products could impair our ability to market any such product and may require us to spend time and money to address these issues.
- We may need substantial funding and may be unable to raise capital when needed, which would force us to delay, reduce or eliminate our product development programs or commercialization efforts.
- The market price for shares of our common stock may be volatile and purchasers of our common stock could incur substantial losses.
- We may be unable to successfully integrate new products or businesses we may acquire.

- We may become involved in certain litigation matters, any of which could result in substantial costs, divert management's attention and otherwise have a material adverse effect on our business, operating results or financial condition.
- We are subject to significant ongoing regulatory obligations and oversight, which may result in significant additional expense and may limit our commercial success.

- We are subject to stringent and changing obligations related to data privacy and security. Our actual or perceived failure to comply with such obligations may result in adverse business consequences.
- Our ability to use net operating loss carryforwards and certain other tax attributes to offset future taxable income and taxes may be subject to limitations.
- We are dependent on information technology systems, infrastructure and data, which exposes us to data security risks.
- Business disruptions could seriously harm our future revenue and financial condition and increase our costs and expenses.
- Our indebtedness could adversely affect our financial condition.
- We may be unable to raise the funds necessary to repurchase the \$276.0 million aggregate principal amount of 2.50% Convertible Senior Notes due 2025 ("2025 Notes") for cash following a fundamental change, or to pay any cash amounts due upon conversion, and our future indebtedness may limit our ability to repurchase the 2025 Notes or pay cash upon their conversion.

PART I

In this Annual Report on Form 10-K, unless the context requires otherwise, the terms “we”, “our”, “us”, “Travere” and the “Company” refer to Travere Therapeutics, Inc., a Delaware corporation, as well as our direct and indirect subsidiaries.

We own or have rights to various trademarks used in our business, including those referenced in the subsection of Item 1 below titled “Trademarks”. Our logos and trademarks are the property of Travere Therapeutics, Inc. All other brand names or trademarks appearing in this report are the property of their respective holders.

ITEM 1. BUSINESS

Those statements in the following discussion that are not historical in nature should be considered forward-looking statements that are inherently uncertain. Actual results and the timing of the events may differ materially from those contained in these forward-looking statements due to a number of factors, including those discussed in the “Cautionary Statement Regarding Forward-Looking Statements” and “Risk Factors” set forth elsewhere in this Annual Report.

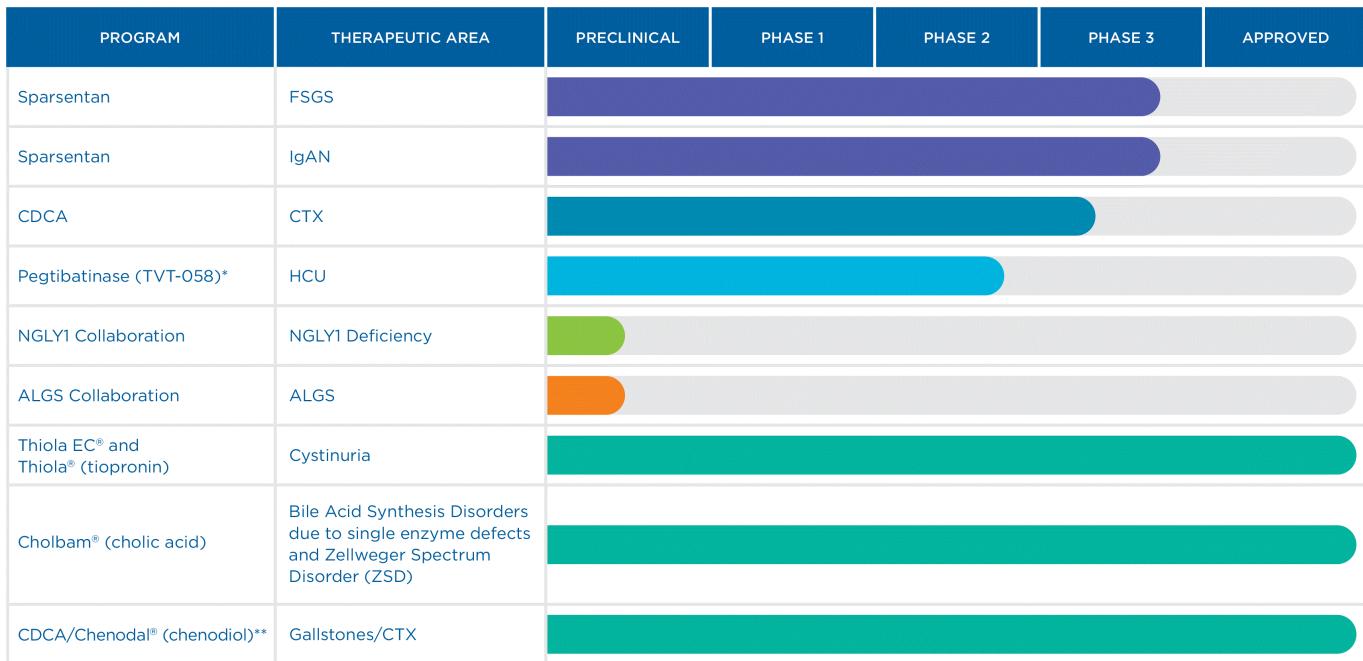
Overview

We are a biopharmaceutical company headquartered in San Diego, California, focused on identifying, developing and delivering life-changing therapies to people living with rare kidney, liver, and metabolic diseases. Our approach centers on our innovative pipeline with multiple late-stage clinical programs targeting rare diseases with significant unmet medical needs. Our lead pipeline candidate, sparsentan, is an investigational product candidate in late-stage development for focal segmental glomerulosclerosis (FSGS) and IgA nephropathy (IgAN) – rare kidney disorders that often lead to end-stage kidney disease. We are also developing pegtibatinase (TVT-058) for the treatment of classical homocystinuria, a genetic disorder caused by a deficiency in a pivotal enzyme essential to the body. Our early research efforts include partnering with patient advocacy groups and government researchers to identify potential therapeutics for NGLY1 deficiency and Alagille syndrome, conditions with no approved treatment options. In addition, we continue to evaluate potential opportunities to expand our pipeline and approved products through licenses and acquisitions of products in areas that will serve rare patients with serious unmet medical need and that we believe offer attractive growth characteristics. Our research and development efforts are at the forefront of our mission to address the unmet needs of patients and we support this innovation by reinvesting revenues from our commercialized products, Chenodal®, Cholbam®, Thiola® and Thiola EC®. We are committed to ensuring broad access, educational and diagnostic support for patients.

Our Pipeline and Approved Products

We have a diversified pipeline designed to address areas of high unmet need in rare kidney, liver, and metabolic diseases. We invest revenues from our commercial portfolio into our pipeline with the goal of delivering new treatments for diseases with no approved or limited therapies.

The following table summarizes the status of our clinical programs, preclinical programs and approved products, each of which is described in further detail below.



* Pegtibatinase (TVT-058) is currently in a Phase 1/2 clinical study.

** CDCA is not indicated for CTX but has received a medical necessity determination in the US by the FDA for CTX. Traverse Therapeutics is conducting a Phase 3 clinical trial to examine the safety and efficacy of CDCA (Chenodal®) for the treatment of CTX.

Clinical Programs:

Sparsentan

Sparsentan, a Dual Endothelin Angiotensin Receptor Antagonist (DEARA), is a novel investigational product candidate. Pre-clinical data have shown that blockade of both endothelin type A and angiotensin II type 1 pathways in forms of rare chronic kidney disease, reduces proteinuria, protects podocytes and prevents glomerulosclerosis and mesangial cell proliferation. Sparsentan has been granted Orphan Drug Designation for the treatment of FSGS and IgAN in the U.S. and Europe. Sparsentan is currently being evaluated in two pivotal Phase 3 clinical studies in rare kidney diseases, including:

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- **Focal segmental glomerulosclerosis ("FSGS")** is a leading cause of end-stage kidney disease (ESKD) and nephrotic syndrome. There are currently no United States Food and Drug Administration ("FDA") approved pharmacologic treatments for FSGS and there remains a high unmet need for patients living with FSGS as off-label treatments such as ACE/ARBs, steroids, and immunosuppressant agents are effective in only a subset of patients and use of some of these off-label treatments may be further inhibited by their safety profiles. Every year approximately 5,400 patients are diagnosed with FSGS and we estimate that there are more than 40,000 FSGS patients in the United States and a similar number in Europe with approximately half of them being candidates for sparsentan. In 2016, we generated positive data from our Phase 2 DUET study in FSGS. In 2018, we announced the initiation of the Phase 3 DUPLEX study of sparsentan in FSGS. The DUPLEX Study is a global, randomized, multicenter, double-blind, parallel-arm, active-controlled clinical trial evaluating the safety and efficacy of sparsentan in 371 patients. The DUPLEX Study protocol provided for an unblinded analysis of at least 190 patients to be performed after 36 weeks of treatment to evaluate the interim efficacy endpoint - the proportion of patients achieving a FSGS partial remission of proteinuria endpoint (FPRE), which is defined as urine protein-to-creatinine ratio (Up/C) ≤ 1.5 g/g and a $>40\%$ reduction in Up/C from baseline, at week 36. In February 2021, we announced that the ongoing Phase 3 DUPLEX Study achieved its pre-specified interim FSGS partial remission of proteinuria endpoint following the 36-week interim period. After 36 weeks of treatment, 42.0 percent of patients receiving sparsentan achieved FPRE, compared to 26.0 percent of irbesartan-treated patients ($p=0.0094$). A preliminary review of the results from the interim analysis suggest that to date in the study, sparsentan has been generally well-tolerated and the overall safety results in the study to date have been generally comparable between treatment groups. The confirmatory primary endpoint of the DUPLEX Study to support full regulatory approval is the rate of change in eGFR over 108 weeks of treatment. As of the time of the interim analyses, available long-term eGFR data for the confirmatory endpoint were limited. Consistent with the DUPLEX Study protocol, patients will continue in a blinded manner to assess the treatment effect on eGFR slope over 108 weeks in the confirmatory endpoint analysis. The DUPLEX Study is fully enrolled and topline results from the confirmatory endpoint are expected in the first half of 2023.

In May 2021, we provided a regulatory update regarding the sparsentan FSGS program, including feedback from the FDA that additional data would be needed to potentially support a submission for accelerated approval under subpart H. At a subsequent Type A meeting, we and the FDA reached alignment on a pathway for us to proceed with a submission for accelerated approval, pending additional supportive eGFR data. We intend to provide the FDA with additional eGFR data from the ongoing DUPLEX Study in the first half of 2022, and if such data are supportive, submit an application for accelerated approval in the United States in mid-2022.

In mid-2022, we and Vifor (International) Ltd. ("Vifor Pharma"), with whom we entered into a license and collaboration agreement ("License Agreement") in September 2021, plan to submit an application for conditional marketing authorization ("CMA") of sparsentan for the treatment of FSGS and IgAN in Europe. If sparsentan receives marketing authorization in any of the licensed territories, Vifor Pharma will be responsible for all commercialization activities in such licensed territories. We remain responsible for the clinical development of sparsentan and will retain all rights to sparsentan in the United States and rest of world outside of the licensed territories, provided that Vifor Pharma has a right of negotiation to expand the licensed territories into Canada, China, Brazil and/or Mexico.

- **Immunoglobulin A nephropathy ("IgAN")** is characterized by hematuria, proteinuria, and variable rates of progressive renal failure. With an estimated prevalence of more than 100,000 people in the United States and greater numbers in Europe and Asia, IgAN is the most common primary glomerular disease. Most patients are diagnosed between the ages of 16 and 35, with up to 40% progressing to end stage kidney disease within 15 years. There are currently no non-immunosuppressive treatments for IgAN approved by the FDA. The current standard of care is renin-angiotensin-aldosterone system ("RAAS") blockade with immunosuppression also being commonly used for patients with significant proteinuria or rapidly progressive glomerulonephritis. In 2018, we announced that the first patient had been dosed in the PROTECT Study, a global, randomized, multicenter, double-blind, parallel-arm, active-controlled pivotal Phase 3 clinical trial evaluating the safety and efficacy of sparsentan in 404 patients with IgAN.

The PROTECT Study protocol provided for an unblinded analysis of at least 280 patients to be performed after 36 weeks of treatment to evaluate the primary efficacy endpoint - the change in proteinuria (urine protein-to-creatinine ratio) at week 36 from baseline. Secondary efficacy endpoints include the rate of change in eGFR following the initiation of randomized treatment over 58-week and 110-week periods, as well as the rate of change in eGFR over 52-week and 104-week periods following the first six weeks of randomized treatment in approximately 380 patients. In August 2021, we announced positive topline interim results from the ongoing Phase 3 PROTECT Study. The PROTECT Study met its pre-specified interim primary efficacy endpoint with statistical significance. After 36 weeks of treatment, patients receiving sparsentan achieved a mean reduction in proteinuria from baseline of 49.8 percent, compared to a mean reduction in proteinuria from baseline of 15.1 percent for irbesartan-treated patients ($p<0.0001$). We believe that preliminary eGFR data available at the time of the interim analysis are indicative of a potential clinically meaningful treatment effect after two years of treatment. Preliminary results at the time of the interim assessment suggested that sparsentan had been generally well-tolerated to date in the study and consistent with its overall observed safety profile. The PROTECT Study is fully enrolled and is scheduled to continue as planned on a blinded basis to assess the treatment effect on eGFR slope over 110 weeks in the confirmatory endpoint analysis. Topline results from the confirmatory endpoint analysis are expected in the second half of 2023.

Subsequent to the announcement of the interim results from the PROTECT Study, we conducted pre-NDA interactions with the FDA, during which we confirmed alignment with our plan to submit in the first quarter of 2022 an NDA for accelerated approval of sparsentan for IgAN.

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In mid-2022, we and Vifor Pharma plan to submit a combined application for conditional marketing authorization ("CMA") of sparsentan for the treatment of FSGS and IgAN in Europe.

Pegtibatinase (TVT-058)

Pegtibatinase (TVT-058) is a novel investigational human enzyme replacement candidate being evaluated for the treatment of classical homocystinuria (HCU). Classical HCU is a rare metabolic disorder characterized by elevated levels of plasma homocysteine that can lead to vision, skeletal, circulatory and central nervous system complications. It is estimated that there are at least 3,500 people living with HCU in the United States with similar numbers in Europe. Pegtibatinase has been granted Rare Pediatric Disease and Fast Track designations by the FDA, as well as orphan drug designation in the United States and European Union. Pegtibatinase is currently being evaluated in the Phase 1/2 COMPOSE Study, a double blind, randomized, placebo-controlled dose escalation study to assess its safety, tolerability, pharmacokinetics, pharmacodynamics and clinical effects in patients with classical HCU.

In December 2021, we announced positive topline results from the Phase 1/2 COMPOSE Study. Pegtibatinase demonstrated dose-dependent reductions in total homocysteine (tHcy) during the 12 weeks of treatment, and in the highest dose cohort to date evaluating 1.5mg/kg of pegtibatinase twice weekly (BIW), treatment with pegtibatinase resulted in rapid and sustained reductions in total homocysteine (tHcy) through 12 weeks of treatment, including a 55.1% mean relative reduction in tHcy from baseline as well as maintenance of tHcy below a clinically meaningful threshold of 100 µmol. Additionally, in a dose-dependent manner in the study to date, methionine levels were substantially reduced and cystathione levels were substantially elevated following treatment with pegtibatinase, suggesting that pegtibatinase acts in a manner similar to the native CBS enzyme. To date in the study, pegtibatinase has been generally well-tolerated, with no discontinuations due to treatment-related adverse events.

Based on these results, the Company is in the process of engaging with regulators to establish next steps for a pivotal development program to ultimately support potential approvals of pegtibatinase for the treatment of HCU. In parallel, the Company has initiated one additional cohort in the COMPOSE Study to inform and refine formulation work for future development and commercial purposes and to further evaluate the dose response curve for pegtibatinase.

We acquired pegtibatinase as part of the November 2020 acquisition of Orphan Technologies Limited ("Orphan").

Chenodal

Chenodal (chenodeoxycholic acid or CDCA) is a naturally occurring bile acid that is approved for the treatment of people with radiolucent stones in the gallbladder. While indicated for radiolucent stones in the gallbladder, Chenodal has been recognized as the standard of care for cerebrotendinous xanthomatosis (CTX) for more than three decades, although it is not currently labeled for this indication. CTX is a rare, progressive and underdiagnosed bile acid synthesis disorder affecting many parts of the body. In January 2020, we randomized the first patients in our Phase 3 RESTORE Study to evaluate the effects of Chenodal in adult and pediatric patients with CTX, and the study enrollment remains open. The pivotal study is intended to support an NDA submission for marketing authorization of Chenodal for CTX in the United States.

Preclinical Programs:

We are a participant in two Cooperative Research and Development Agreements ("CRADAs"), which form a multi-stakeholder approach to pool resources with leading experts, and incorporate the patient perspective early in the therapeutic identification and development process. We have partnered with the National Institutes of Health's National Center for Advancing Translational Sciences ("NCATS") and leading patient advocacy organizations, CDG Care and Alagille Syndrome Alliance, aimed at the identification of potential small molecule therapeutics for NGLY1 deficiency and Alagille syndrome ("ALGS"), respectively. There are no treatment options currently approved for these diseases.

Approved Products:

Thiola and Thiola EC (tiopronin)

Thiola and Thiola EC are approved by the FDA for the treatment of cystinuria, a rare genetic cystine transport disorder that causes high cystine levels in the urine and the formation of recurring kidney stones. Due to the larger stone size, cystine stones may be more difficult to pass, often requiring surgical procedures to remove. More than 80 percent of people with cystinuria develop their first stone by the age of 20. More than 25 percent will develop cystine stones by the age of 10. Recurring stone formation can cause loss of kidney function in addition to substantial pain and loss of productivity associated with renal colic and stone passage. While a portion of people living with the disease are able to manage symptoms through diet and fluid intake, the prevalence of cystinuria in the US is estimated to be 10,000 to 12,000, indicating that there may be as many as 4,000 to 5,000 affected individuals with cystinuria in the US that would be candidates for Thiola or Thiola EC.

In June 2019 we announced that the FDA approved 100 mg and 300 mg tablets of Thiola EC, an enteric-coated formulation of Thiola, to be used for the treatment of cystinuria. Thiola EC offers the potential for administration with or without food, and the ability to reduce the number of tablets necessary to manage cystinuria. Thiola EC became available to patients in July 2019.

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In May 2021, a generic option for the 100 mg version of the original formulation of Thiola (tiopronin tablets) became available. While the impact to our business has been minimal to date, we are not able to estimate any future impact, including the impact of additional generic entrants, if any.

Cholbam (cholic acid)

The FDA approved Cholbam (cholic acid capsules) in March 2015, the first FDA-approved treatment for pediatric and adult patients with bile acid synthesis disorders due to single enzyme defects, and for adjunctive treatment of patients with peroxisome biogenesis disorder-Zellweger spectrum disorder. The effectiveness of Cholbam has been demonstrated in clinical trials for bile acid synthesis disorders and the adjunctive treatment of peroxisomal disorders. An estimated 200 to 300 patients are current candidates for therapy.

Chenodal (chenodiol)

Chenodal is a synthetic oral form of chenodeoxycholic acid ("CDCA"), a naturally occurring primary bile acid synthesized from cholesterol in the liver. The FDA approved Chenodal for the treatment of people with radiolucent stones in the gallbladder. In 2010, Chenodal was granted orphan drug designation for the treatment of cerebrotendinous xanthomatosis ("CTX"), a rare autosomal recessive lipid storage disease. We acquired Chenodal in March 2014.

While Chenodal is not labeled for CTX, it received a medical necessity determination in the US by the FDA and has been used as the standard of care for more than three decades. We are working to obtain FDA approval of Chenodal for the treatment of CTX and initiated a Phase 3 clinical trial for this indication in January 2020. The prevalence of CTX is estimated in the literature to be as high as 1 in 70,000 in the overall population. Pathogenesis of CTX involves deficiency of the enzyme 27-hydroxylase (encoded by the gene CYP27A1), a rate-limiting enzyme in the synthesis of primary bile acids, including CDCA, from cholesterol. The disruption of primary bile acid synthesis in CTX leads to toxic accumulation of cholesterol and cholestanol in most tissues. Patients may present with intractable diarrhea, premature cataracts, tendon xanthomas, atherosclerosis, and cardiovascular disease in childhood and adolescence. Neurological manifestations of the disease, including dementia and cognitive and cerebellar deficiencies, emerge during late adolescence and adulthood. The types, combinations and severity of symptoms can be different from person to person, and making diagnosis challenging and often delayed. Oral administration of CDCA has been shown to normalize primary bile acid synthesis in patients with CTX.

Our Strategy

Our vision is to become a leading biopharmaceutical company dedicated to the delivery of innovation and hope to patients in the global rare disease community. In order to achieve our vision, we intend to:

- **Focus on developing products to treat rare diseases characterized by severe unmet medical needs.** We believe that our research, development, and commercialization capabilities in rare disease represent distinct competitive advantages. We leverage our development capabilities in rare disease to focus on advancing therapeutic candidates with life-changing potential. Given these capabilities, the well-established regulatory model and the ability to demonstrate clinical effects in small clinical studies, we believe that we can successfully bring new therapies to patients living with severe unmet medical needs.
- **Develop a sustainable pipeline by employing disciplined decision criteria in the evaluation of potential in-licensing candidates.** We seek to build a sustainable product pipeline by employing multiple therapeutic approaches and by developing or acquiring orphan drug candidates. We seek to augment our internally developed pipeline projects by selectively and strategically acquiring pipeline assets that will add value to the portfolio. We continue to evaluate potential in-licensing, out-licensing and other potential relationships with other pharmaceutical or biotechnology companies. We intend to mitigate risk by employing rigorous decision criteria, favoring drug candidates that have undergone at least some clinical study. Our decision to acquire rights to a drug candidate also depends on the scientific merits of the available clinical data; the identifiable orphan patient population; the economic terms of any proposed acquisition of rights; the projected amount of capital required to develop the drug candidate; and the economic potential of the drug candidate, should it be commercialized. We believe this strategy minimizes our clinical development risk and allows us to accelerate the development and potential commercialization of current and future drug candidates.
- **Leverage our commercialization expertise to effectively deliver the therapies we develop.** As we move our drug candidates through development toward regulatory approval, we intend to build upon and strengthen our existing commercialization infrastructure and expertise needed to successfully support rare disease patients. Our approach may vary depending on the product and will be based on a number of factors including capital necessary to execute on each option, size of the market and terms of potential collaboration and/or licensing offers from other pharmaceutical and biotechnology companies with respect to jurisdictions outside the United States.

- **Listen to patients.** Leadership in rare disease demands attention beyond innovative medicines. By listening to patients and leaders in the rare disease community, including those who have traditionally been underserved, we are focusing on barriers that prevent some patients from accessing the incredible innovation that our industry is delivering, including access to clinical trials and rare disease specialists.

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- **Support earlier diagnosis.** We support efforts in furtherance of enabling earlier diagnosis. For example, we provide a cholestasis gene panel to help families gain understanding of their infant's condition. The growth of our commercial business reflects the strong capabilities of our commercial and medical teams to work across multiple medical specialties to help patients find a diagnosis.

Competition

The pharmaceutical and biotechnology industries are intensely competitive and subject to rapid and significant technological change. Many of our competitors are larger than our company and have substantially greater financial, marketing and technical resources than we have.

The development and commercialization of new products to treat rare diseases is highly competitive, and we expect considerable competition from major pharmaceutical, biotechnology and specialty pharmaceutical companies. As a result, there are, and will likely continue to be, extensive research and substantial financial resources invested in the discovery and development of new orphan drug products.

Our competition will be determined in part by the potential indications for which drugs are developed and ultimately approved by regulatory authorities. The speed with which we can develop products, complete preclinical testing, clinical trials, approval processes, and supply commercial quantities to market are expected to be important competitive factors. We expect that competition among products approved for sale will be based on various factors, including product efficacy, safety, reliability, availability, price, reimbursement, patent position, and regulatory exclusivity.

Chenodal

There are other approved chenodeoxycholic acid products available outside of the United States. Furthermore, Chenodal is subject to immediate competition from compounded and generic entrants, as the Abbreviated New Drug Application ("ANDA") for this drug has no remaining patent or non-patent exclusivity.

Cholbam

There are currently no FDA-approved treatments in the United States that compete with Cholbam. In mid-March 2022, Cholbam will have no remaining regulatory exclusivity and could be subject to generic competition.

Pegtibatinase

Current treatment options for homocystinuria (HCU) are limited to protein-restricted diet and supplemental use of vitamin B6 and betaine.

According to public sources, Aeglea BioTherapeutics, Inc. (AGLE-177) and Codexis, Inc. (CDX-6512) are developing enzyme replacement therapies for the treatment of HCU. Additionally, Synlogic Inc. / Gingko Bioworks Holdings, Inc. are developing a microbiome therapy, SYNBB1353, for the management of HCU.

There are other pre-clinical development programs in HCU that may enter the clinic.

Thiola

In May 2021, Teva Pharmaceuticals, a U.S. affiliate of Teva Pharmaceutical Industries Ltd. announced its launch of the first available generic version, in the United States of THIOLA® (tiopronin) tablets. Thiola and Thiola EC are subject to further competition from compounded and generic entrants, if any.

Penicillamine agents, including Cuprimine and Depen are FDA approved for the treatment of cystinuria, as well as Wilson's disease. Additional generic versions of penicillamine have been approved by the FDA and some have entered the market.

Captopril is not FDA approved for the treatment of cystinuria but has been prescribed for patients with cystinuria.

Advicenne Pharma is developing ADV-7103, a microtablet formulation containing potassium citrate monohydrate and potassium bicarbonate, for the potential oral treatment of cystinuria.

Based on public sources, there are other preclinical assets in development that may enter the clinic for the treatment of cystinuria.

Sparsentan

There are currently no non-immunosuppressive pharmacological treatments approved by the FDA or the EMA for FSGS or IgAN in the US or Europe.

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For FSGS, the current standard of care includes steroids, ACE/ARBs, calcineurin inhibitors, dialysis, and renal transplant.

Based on public sources, Chinook Therapeutics, Dimerix Bioscience, Goldfinch Bio, Horizon Therapeutics, Pfizer Inc., Reata Pharmaceuticals and Vertex Pharmaceuticals may have programs in clinical development for the treatment of FSGS or related conditions.

Additionally, there are several Phase 1 assets in development and other pre-clinical programs that may enter the clinic for the treatment of FSGS or related conditions.

For IgAN, the current standard of care is renin-angiotensin-aldosterone system (RAAS) blockade with immunosuppression. RAAS blockade is also commonly used in patients with significant proteinuria or rapidly progressive glomerulonephritis.

In December 2021, the FDA approved Calliditas' budesonide delayed release capsules to reduce proteinuria in adults with primary IgAN at risk of rapid disease progression, generally at urine protein-to-creatinine ratio (UPCR) ≥ 1.5 g/g. Although there are currently no pharmacological treatments approved by the EMA for IgAN in Europe (or the UK), public sources indicate that Calliditas (along with EU/UK licensee, Stada Arzneimittel) submitted their MAA dossier for budesonide delayed release capsules in 2021.

Based on public sources, AstraZeneca (Alexion Pharmaceuticals), Alnylam Pharmaceuticals, Arrowhead Pharmaceuticals, BioCryst Pharmaceuticals, Calliditas Therapeutics / Stada / Everest, Chinook Therapeutics / SanReno Therapeutics, DiaMedica Therapeutics, Eledon Pharmaceuticals, Ionis Pharmaceuticals / Roche, MorphoSys, Novartis, Omeros Corporation, Otsuka (Visterra), Reata Pharmaceuticals, RemeGen, Takeda Pharmaceuticals, and Vera Therapeutics may have programs in clinical development for the treatment of IgAN.

Additionally, there are several Phase 1 assets in development and other pre-clinical programs that may enter the clinic for the treatment of IgAN or related conditions.

In 2021, there were global (including United States, European Union, United Kingdom and Japan) regulatory label expansions of Farxiga/Forxiga in chronic kidney disease, which could potentially be competitive with or complementary to sparsentan for the treatment of IgAN and/or FSGS. There are additional marketed SGLT2 inhibitors which may also expand their current labels to include non-diabetic chronic kidney disease.

Licenses and Royalties

Ligand License Agreement

In 2012, we entered into a license agreement with Ligand Pharmaceuticals, Inc. ("Ligand"), granting us a worldwide license for the development, manufacture and commercialization of sparsentan, which we are developing for the treatment of FSGS and IgAN. Under the license agreement, Ligand granted us a sublicense under certain of its patents and other intellectual property in connection with the development and commercialization of sparsentan. Under the license agreement, Ligand is obligated to transfer to us certain information, records, regulatory filings, materials and inventory controlled by Ligand and relating to or useful for developing sparsentan. We must use commercially reasonable efforts to develop and commercialize sparsentan in specified major market countries and other countries in which we believe it is commercially reasonable to develop and commercialize such products.

As consideration for the license, we are required to make payments upon the achievement of certain milestones, totaling up to \$114.1 million. Should we commercialize sparsentan or any products containing any of the licensed compounds, we will be obligated to pay Ligand an escalating annual royalty between 15% and 17% of net sales of all such products. Through 2021, we have made aggregate milestone payments to Ligand of \$7.2 million under the terms of the license agreement.

Under the terms of the license agreement, Bristol-Myers Squibb Company ("BMS") has a right of first negotiation and Ligand has a right of second negotiation with respect to any license arrangement for a licensed compound except to the extent such rights may be waived.

Absent early termination, the license agreement will continue until neither party has any further payment obligations under the agreement and is expected to continue for approximately 10 to 20 years from the effective date. Ligand may terminate the license agreement due to (i) our insolvency, (ii) our material uncured breach of the agreement, (iii) our failure to use commercially reasonable efforts to develop and commercialize sparsentan as described above or (iv) certain other conditions. We may terminate the license agreement due to a material uncured breach of the agreement by Ligand.

Thiola License Agreement

In 2014, we entered into a license agreement with Mission Pharmacal Company ("Mission"), pursuant to which we obtained an exclusive, royalty-bearing license to market, sell and commercialize Thiola (tiopronin) in the United States and Canada, and a non-exclusive license to use know-how relating to Thiola to the extent necessary to market Thiola. We paid Mission an up-front license fee of \$3.0 million and through May 28, 2024 will pay guaranteed minimum royalties during each calendar year the greater of \$2.0 million or 20% of our net sales of Thiola in the United States and Canada.

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In October 2015, the license agreement was amended to allow for us to secure enough active pharmaceutical ingredient ("API") to ensure an adequate level of safety stock to prevent an interruption in the supply of Thiola and to prepare for a reformulation development project. In March 2016, the license agreement was amended to, among other things, include a new formulation development project for tiopronin tablets. In November 2017, the license agreement was amended to extend the license term, at a minimum, through May 2029. In November 2018, the license agreement was amended to remove all territorial restrictions on our license rights and provide that we will pay guaranteed minimum royalties equaling the greater of \$0.1 million or 20% of our Thiola net sales generated outside of the United States during each calendar year.

Intellectual Property

The proprietary nature of, and protection for, our product candidates and our discovery programs, processes and know-how are important to our business. We have sought patent protection in the United States and certain other jurisdictions for sparsentan, where available and when appropriate. Our policy is to pursue, maintain and defend patent rights, whether developed internally or licensed from third parties, and to protect the technology, inventions and improvements that are commercially important to the development of our business.

Our commercial success will depend in part on obtaining and maintaining patent protection and for our current and future product candidates, their use in treating particular diseases, and the methods used to develop and manufacture them, as well as successfully defending these patents against third-party challenges. Our ability to stop third parties from making, using, selling, offering to sell, or importing our products depends on the extent to which we have rights under valid and enforceable patents that cover these activities. We cannot be sure that patents will be granted with respect to any of our pending patent applications or with respect to any patent applications filed by us in the future, nor can we be sure that any of our existing patents or any patents that may be granted to us in the future will be commercially useful in protecting our product candidates, discovery programs and processes.

Sparsentan

As of December 31, 2021, our patent portfolio for sparsentan was comprised of five distinct patent families, one of which is exclusively licensed from Ligand (the "Ligand patent family"). The other four patent families are owned by Travers (the "Travers patent families"). We previously had one additional licensed patent family related to sparsentan that was owned by BMS, exclusively licensed to Ligand and sub-licensed to us by Ligand. However, as of December 31, 2019, the BMS patent family is expired and therefore no longer in force.

The Ligand patent family is directed to methods of using sparsentan in the treatment of various diseases, including glomerulosclerosis and IgAN. As of December 31, 2021, this patent family included two US patents (US Patent No. 9,662,312, which we refer to herein as the '312 patent, and US Patent No. 9,993,461, which we refer to herein as the '461 patent), a pending US application (Application Serial No. 17/368,239, filed July 6, 2021), two European patents (European Patent No. EP2732818, which we refer to herein as the European '818 patent, and European Patent No. EP3222277, which we refer to herein as the European '277 patent), a pending European application, and two granted Hong Kong patents. The '312 patent and the European '818 patent claim the use of sparsentan for treating glomerulosclerosis. The '461 patent and the European '277 patent each claim both the use of sparsentan for treating glomerulosclerosis and the use of sparsentan for treating IgAN. We expect the US and foreign patents in this patent family to expire in March 2030. In November 2020, a third party filed an opposition to the European '277 patent and we are vigorously defending the European '277 against the opposition. If we were to be unsuccessful in doing so, we would expect to rely on the data and/or marketing exclusivity that we expect to be available in Europe, as described below under "Regulatory Exclusivity."

The first Travers patent family is directed to methods of using sparsentan in the treatment of various kidney diseases, including focal segmental glomerulosclerosis (FSGS) and IgAN, by achieving a specified urine protein to creatinine ratio. As of December 31, 2021, this patent family was comprised of a granted U.S. patent (U.S. Patent No. 10,864,197, which we refer to herein as the '197 patent) and pending patent applications in the US, Australia, Brazil, Canada, China, the European Patent Office, Hong Kong, Japan, Korea, New Zealand and South Africa. The '197 patent claims use of sparsentan for treating Alport syndrome.

The second Travers patent family is directed to methods of using sparsentan for treating hearing loss associated with Alport syndrome. As of December 31, 2021, this patent family was comprised of a granted U.S. patent (U.S. Patent No. 11,207,299) and pending patent applications in the US, Australia, Brazil, Canada, China, the European Patent Office, Israel, Japan, Korea, Mexico, New Zealand and South Africa.

The third Travers patent family is directed to an amorphous form of sparsentan. As of December 31, 2021, this patent family was comprised of pending patent applications in the United States, Australia, Brazil, Canada, China, the European Patent Office, India, Israel, Japan, Korea, Mexico, New Zealand, Russia and South Africa.

The fourth Travers patent family is comprised of a series of U.S. provisional patent applications.

It is possible, assuming that sparsentan achieves regulatory approval and depending upon the date of any such approval, that the term of either the '312 patent or the '461 patent may be extended under the provisions of the Hatch-Waxman Act. Patent term extension also may be available in certain foreign jurisdictions upon regulatory approval. Likewise, it is possible, assuming that sparsentan achieves regulatory approval in Europe and depending upon the date of any such approval, that the term of either the European '818 patent or the European '277 patent may be extended in various European countries under the provisions governing Supplementary Protection Certificates (SPCs).

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Pegtibatinase

As of December 31, 2021, our patent portfolio for pegtibatinase was comprised of six distinct patent families, which we obtained upon our acquisition of Orphan Technologies Limited (now Travere Therapeutics Switzerland GmbH). Orphan Technologies obtained the rights to the first five patent families under an exclusive license agreement with the University of Colorado, while the sixth patent family was owned by Orphan Technologies. The first three patent families are owned by the University of Colorado and exclusively licensed to Travere Therapeutics Switzerland GmbH (the "CU patent families"). The first CU patent family is directed to human cystathione β -synthase variants and methods for their production, the second CU patent family is directed to methods of purifying human cystathione β -synthase variants, and the third CU patent family is directed to compositions comprising human cystathione β -synthase variants and methods of treating homocystinuria. The next two families are co-owned by the University of Colorado and Travere Therapeutics Switzerland GmbH, with the University of Colorado's interest exclusively licensed to Travere Therapeutics Switzerland GmbH (the "co-owned patent families"). The first co-owned patent family is directed to methods of pegylating human cystathione β -synthase variants, while the second co-owned patent family is directed to pharmaceutical formulations comprising pegylated human cystathione β -synthase variants and their use in treating homocystinuria. Lastly, the sixth patent family is owned by Travere Therapeutics Switzerland GmbH (the "Travere patent family"). The Travere patent family is directed to methods for treating human cystathione β -synthase deficiency in patients with elevated homocysteine levels.

Thiola

Our patent portfolio for Thiola is comprised of a patent family which is exclusively licensed from Mission Pharmacal (the "Mission patent family"). The Mission patent family is directed to a new formulation of Thiola, known as Thiola EC. As of December 31, 2021, this patent family included a US patent application filed in 2018.

Regulatory Exclusivity

If we obtain marketing approval for sparsentan in the United States or in certain jurisdictions outside of the United States, we may be eligible for regulatory exclusivity for the approved drug. For example, in the United States, an FDA-approved drug product may be eligible to receive five years of new chemical entity ("NCE") exclusivity or, for drugs granted an orphan designation by the FDA, seven years of orphan drug exclusivity ("ODE"). In addition, both the five-year NCE period and the seven-year ODE period may be extended by six months upon submission of satisfactory written reports to the FDA of clinical studies conducted in pediatric populations.

Likewise, if we obtain marketing approval for pegtibatinase in the United States or in certain jurisdictions outside of the United States, we may be eligible for regulatory exclusivity for the approved product. Pegtibatinase is a biologic product and therefore its application for approval would be via a biologic license application ("BLA") (vs. an NDA). In the United States, an FDA-approved biologic product may be eligible to receive twelve years of regulatory exclusivity. In addition, the twelve-year BLA exclusivity period may be extended by six months upon submission of satisfactory written reports to the FDA of clinical studies conducted in pediatric populations.

In the European Union and European Free Trade Association ("EFTA") member states, a new drug product approved by the EMA may receive eight years of data exclusivity and 10 years of marketing exclusivity. The 10-year period of marketing exclusivity may extend to 11 years if, during the eight-year period of data exclusivity, the product receives marketing authorization for a second therapeutic that provides a significant clinical benefit in comparison to existing therapies. Additionally, upon approval by the EMA, orphan drugs may receive 10 years of market exclusivity or, in the case of orphan drugs for which a pediatric investigational plan (PIP) has been completed, 12 years of market exclusivity. The new drug exclusivity and the orphan drug exclusivity run concurrently from the date of EMA approval. There can be no assurance that we will qualify for any such regulatory exclusivity, or that any such exclusivity will prevent competitors from seeking approval solely on the basis of their own studies. See "Government Regulation" below.

Chenodal

Chenodal received orphan drug designation in the United States for the treatment of CTX in 2010. Consequently, if Chenodal is the first chenodeoxycholic acid product to gain FDA approval for the treatment of CTX, we expect it will be granted seven years of marketing exclusivity in the US for that indication. Currently Chenodal does not have regulatory exclusivity in the US.

Cholbam

Upon approval in March 2015, Cholbam received seven years of orphan drug exclusivity in the United States for the treatment for pediatric and adult patients with bile acid synthesis disorders due to single enzyme defects and for patients with peroxisomal disorders. This marketing exclusivity in the US expires in March 2022.

Thiola

Thiola does not have regulatory exclusivity in the United States.

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Trademarks

Our trademark portfolio includes both Travere-owned and Travere-licensed trademarks and is comprised of various US and foreign registered trademarks and pending trademark applications relating to our company name, our commercial products (Thiola, Thiola EC, Chenodal and Cholbam), and our product candidates (i.e. sparsentan).

More specifically, as of December 31, 2021, our trademark portfolio included an allowed US trademark application and foreign registered trademark and trademark applications for the mark "Travere Therapeutics", US and foreign trademark applications and foreign registered trademarks relating to sparsentan, one registered US trademark and one registered Canadian trademark for the mark "CHENODAL", one allowed US trademark application directed to the Chenodal logo, one registered US trademark for the mark "MANCHESTER PHARMACEUTICALS", one registered US trademark for the mark "KEEP IT BELOW THE LINE", registered US and foreign trademarks for the mark "CHOLBAM", a registered European Community trademark for the mark "KOLBAM", a registered US trademark for the mark "TOTAL CARE HUB", a registered US trademark for the Total Care Hub logo, and a registered US trademark for a leaves logo. In addition, under our license agreement with Mission we have an exclusive license to use Mission's trademarks related to Thiola and Thiola EC, including three registered US trademarks and one registered Canadian trademark for the mark "THIOLA", and one registered US trademark for the mark "Thiola EC".

Trade Secrets

In addition to patents, we rely on trade secrets and know-how to develop and maintain our competitive position. We seek to protect our proprietary data and processes, in part, by confidentiality agreements and invention assignment agreements with our employees, consultants, scientific advisors, contractors, and partners. These agreements are designed to protect our proprietary information. We also seek to preserve the integrity and confidentiality of our data, trade secrets and know-how by maintaining physical security of our premises and physical and electronic security of our information technology systems. Trade secrets and know-how can be difficult to protect. Consequently, we anticipate that trade secrets and know-how will, over time, be disseminated within the industry through independent development, the publication of journal articles, and the movement of personnel skilled in the art from academic to industry scientific positions.

Manufacturing

Nexgen Pharma, which was acquired by LGM Pharma in 2020, manufactures Chenodal, New Zealand Pharma manufactures the active pharmaceutical ingredient for Cholbam, Patheon Inc. formulates and packages Cholbam, and Mission manufactures Thiola and Thiola EC.

We intend to continue to use our financial resources to accelerate development of our drug candidates rather than establishing our own manufacturing facilities. We intend to meet our preclinical and clinical trial manufacturing requirements by establishing relationships with third-party manufacturers and other service providers to perform these services for us.

Should any of our drug candidates obtain marketing approval, we anticipate establishing relationships with third-party manufacturers and other service providers in connection with the commercial production of our products. We have some flexibility in securing other manufacturers to produce our drug candidates; however, our alternatives may be limited due to proprietary technologies or methods used in the manufacture of some of our drug candidates.

Sales, Marketing and Distribution

During fiscal 2021, we continued to utilize our specialty sales force to market our FDA-approved products in the US. In order to commercialize our clinical drug candidates if and when they are approved for sale in the US or elsewhere, we will need to increase our marketing, sales and distribution capabilities. In February 2021, we entered into a limited co-promotion arrangement with Albireo Pharma, Inc. ("Albireo"), whereby our Cholbam dedicated sales representatives will dedicate a portion of their efforts to promoting Albireo's product, Bylvay (odevixibat), in the United States. The initial term of the arrangement is two years from the July 2021 launch of Bylvay, terminable at will by either party after one year following launch.

Commercialization

Through deep understanding of patient and healthcare provider needs, we believe we are able to:

- serve patients living with rare disease that have limited treatment options;
- drive optimum performance of our marketed products;
- educate and train healthcare providers about our products and the diseases for which they are approved to treat;

- support access to and reimbursement coverage for our products without significant restrictions; and

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- minimize the number of patients who discontinue treatment or have low compliance with our products by providing patients with support services and disease education, to the extent and in the manner permitted under applicable laws, to help them utilize our products in a manner consistent with the label and maximize the benefits of treatment.

Our US commercial initiatives are designed to support patients living with rare diseases and clinicians treating these patients. We believe that it is possible to commercialize our products in the United States with a relatively small specialty sales force. The primary call points for Thiola and Thiola EC include urologists and nephrologists. The primary call points for Cholbam are gastroenterologists, hepatologists, and metabolic specialists. We do not promote Chenodal.

Our sales force is differentiated by its high level of experience, averaging more than 15 years in pharmaceutical sales including over five years of experience in rare disease. Our commercial management and operations team has an average of more than 15 years of pharmaceutical experience focused on specialty and rare disease.

Our small marketing team, supported by third-party agencies with rare disease experience, drives our commercialization and disease awareness efforts in the United States. Specifically, we implement a variety of industry accepted programs to educate physicians, including direct-to-physician contact by sales representatives, peer-to-peer educational programs, and participation in targeted medical convention programs.

We distribute our products through one direct to patient pharmacy, Eversana (formerly Dohmen Life Science Services), who also provides our comprehensive patient support services (i.e., the Total Care Hub). This patient support program (for all US commercial products) includes a case-managed approach to patient education, insurance verification and reimbursement support, co-pay and other financial assistance for eligible patients, monitoring and support of adherence, and 24/7 access to pharmacist counseling.

We are also in the expansion planning phases to coordinate similar marketing efforts in other countries where our products may be approved or available through named patient sales. Outside the US, including Europe, we plan to continue to partner with local distributors and certain field-based personnel as necessary to conduct permitted commercial activities.

In September 2021, we entered into a license and collaboration agreement ("License Agreement") with Vifor (International) Ltd. ("Vifor Pharma"). In mid-2022, we and Vifor Pharma plan to submit an application for conditional marketing authorization ("CMA") of sparsentan for the treatment of FSGS and IgAN in Europe. If sparsentan receives marketing authorization in any of the licensed territories, Vifor Pharma will be responsible for all commercialization activities in such licensed territories. We remain responsible for the clinical development of sparsentan and will retain all rights to sparsentan in the United States and rest of world outside of the licensed territories, provided that Vifor Pharma has a right of negotiation to expand the licensed territories into Canada, China, Brazil and/or Mexico.

Medical Affairs

We have a global medical affairs team located in the United States and Europe which supports data dissemination, education, external stakeholder engagement and data generation in therapeutic areas relevant to our pipeline and commercial assets. The responsibilities of medical affairs personnel include execution of real-world evidence studies, medical communication through scientific publications and presentations at medical congresses, providing medical information support to HCPs and patients related to our pipeline and our post-approval clinical commitments, organize medical advisory boards to obtain input from experts and practitioners, and support independent medical education programs via grants on medical topics relevant to our products and diseases.

Government Regulation

Regulation by government authorities in the United States and foreign countries is a significant factor in the development, manufacture and marketing of our proposed products and in our ongoing research and product development activities. All of our pipeline products will require regulatory approval by government agencies prior to commercialization. In particular, human therapeutic products are subject to rigorous preclinical studies and clinical trials and other approval procedures of the FDA and similar regulatory authorities in foreign countries. Various federal and state statutes and regulations also govern or influence testing, manufacturing, safety, labeling, storage and record-keeping related to such products and their marketing. The process of obtaining these approvals and the subsequent compliance with appropriate federal and state statutes and regulations require the expenditure of substantial time and financial resources.

FDA Drug Approval Process

In the United States, pharmaceutical products are subject to extensive regulation by the FDA. The Federal Food, Drug, and Cosmetic Act, and other federal and state statutes and regulations, govern, among other things, the research, development, testing, manufacture, storage, recordkeeping, approval, labeling, promotion and marketing, distribution, post-approval monitoring and reporting, sampling and import and export of pharmaceutical products. Failure to comply with applicable US requirements may subject a company to a variety of administrative or judicial sanctions, such as FDA refusal to approve

pending new drug applications, or NDAs, warning or untitled letters, product recalls, product seizures, total or partial suspension of production or distribution, injunctions, fines, civil penalties and criminal prosecution.

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We cannot market a drug product candidate in the United States until the drug has received FDA approval. The steps required before a drug may be marketed in the United States generally include the following:

- completion of extensive preclinical laboratory tests, animal studies, and formulation studies in accordance with the FDA's GLP regulations;
- submission to the FDA of an IND for human clinical testing, which must become effective before human clinical trials may begin;
- performance of adequate and well-controlled human clinical trials in accordance with Good Clinical Practices ("GCP") requirements to establish the safety and efficacy of the drug for each proposed indication;
- submission to the FDA of an NDA after completion of all pivotal clinical trials;
- satisfactory completion of an FDA pre-approval inspection of the manufacturing facility or facilities at which the active pharmaceutical ingredient, or API, and finished drug product are produced and tested to assess compliance with current Good Manufacturing Practices ("cGMPs"); and
- FDA review and approval of the NDA prior to any commercial marketing or sale of the drug in the United States.

Satisfaction of FDA pre-market approval requirements typically takes many years and the actual time required may vary substantially based upon the type, complexity and novelty of the product or disease.

Preclinical tests include laboratory evaluation of product chemistry, formulation and toxicity, as well as animal trials to assess the characteristics and potential safety and efficacy of the product. The conduct of the preclinical tests must comply with federal regulations and requirements, including good laboratory practices. The results of preclinical testing are submitted to the FDA as part of an IND along with other information, including information about product chemistry, manufacturing and controls and a proposed clinical trial protocol. Long-term preclinical tests, such as animal tests of reproductive toxicity and carcinogenicity, may continue after the IND is submitted.

A 30-day waiting period after the submission of each IND is required prior to the commencement of clinical testing in humans. If the FDA has neither commented on nor questioned the IND within this 30-day period, the clinical trial proposed in the IND may begin. If the FDA raises concerns or questions about the conduct of the trial, such as whether human research subjects will be exposed to an unreasonable health risk, the IND sponsor must resolve any outstanding FDA concerns or questions before clinical trials can proceed.

Clinical trials involve the administration of the investigational new drug to healthy volunteers or patients under the supervision of a qualified investigator. Clinical trials must be conducted in compliance with federal regulations, including GCP requirements, as well as under protocols detailing the objectives of the trial, the parameters to be used in monitoring safety and the effectiveness criteria to be evaluated. Each protocol and subsequent protocol amendments must be submitted to the FDA as part of the IND.

The FDA may order the temporary, or permanent, discontinuation of a clinical trial at any time, or impose other sanctions, if it believes that the clinical trial either is not being conducted in accordance with FDA requirements or presents an unacceptable risk to the clinical trial patients. The study protocol and informed consent information for patients in clinical trials also must be submitted for approval to an institutional review board, or IRB, for approval at each site at which the clinical trial will be conducted. An IRB also may require the clinical trial at its site to be halted, either temporarily or permanently, for failure to comply with the IRB's requirements, or may impose other conditions.

Clinical trials to support NDAs for marketing approval are typically conducted in three sequential phases, but the phases may overlap. In Phase 1, the initial administration of the drug to healthy human subjects or patients, the drug is tested to assess pharmacological actions, side effects associated with increasing doses and, if possible, early evidence on effectiveness. Phase 2 usually involves trials in a limited patient population to determine metabolism, pharmacokinetics, the effectiveness of the drug for a particular indication, dosage tolerance and optimum dosage, and to identify common adverse effects and safety risks. If a drug demonstrates evidence of effectiveness and an acceptable safety profile in Phase 2 evaluations, Phase 3 clinical trials, also called pivotal trials, are undertaken to obtain the additional information about clinical efficacy and safety in a larger number of patients, typically at geographically dispersed clinical trial sites, to permit the FDA to evaluate the overall benefit-risk relationship of the drug and to provide adequate information for the labeling of the drug. In most cases the FDA requires two adequate and well controlled Phase 3 clinical trials to demonstrate the efficacy of the drug. A single Phase 3 clinical trial with other confirmatory evidence may be sufficient in rare instances where the study is a large multicenter trial demonstrating internal consistency and a statistically very persuasive finding of a clinically meaningful effect on mortality, irreversible morbidity or prevention of a disease with a potentially serious outcome and where confirmation of the result in a second Phase 3 trial would be impractical or unethical. A sponsor may choose to pursue a Special Protocol Assessment, or SPA, agreement with FDA for the design of a Phase 3 trial. A SPA agreement is intended to provide assurance that if the

agreed upon clinical trial protocols are followed and the clinical trial endpoints are achieved, the data may serve as the primary basis for an efficacy claim in support of an NDA. A SPA agreement is not binding on the FDA if previously unrecognized public health concerns arise during the performance of the clinical trial, if other new scientific concerns regarding product candidate safety or efficacy arise or if the sponsoring company fails to comply with the agreed upon clinical trial protocols.

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After completion of the required clinical testing, an NDA is prepared and submitted to the FDA. FDA approval of the NDA is required before marketing of the product in the United States may begin. The NDA must include the results of all preclinical, clinical and other testing and a compilation of data relating to the product's pharmacology, chemistry, manufacture and controls. The cost of preparing and submitting an NDA is substantial. The submission of most NDAs is additionally subject to a substantial application user fee, and the sponsor of an approved NDA is also subject to an annual program user fee. These fees typically are increased annually.

The FDA has 60 days from its receipt of an NDA to determine whether the application will be accepted for filing based on the agency's threshold determination that it is sufficiently complete to permit substantive review. Once the submission is accepted for filing, the FDA begins an in-depth review. The FDA has agreed to certain performance goals in the review of NDAs. Most such applications for standard review drug products are reviewed within 10 months of filing; most applications for priority review drugs are reviewed within six months of filing. Priority review can be applied to drugs to treat serious conditions that the FDA determines offer significant improvement in safety or effectiveness. The review process for both standard and priority review may be extended by the FDA for three additional months to consider certain late-submitted information, or information intended to clarify information already provided in the submission.

The FDA also may refer applications for novel drug products, or drug products that present difficult questions of safety or efficacy, to an advisory committee—typically a panel that includes clinicians and other experts—for review, evaluation and a recommendation as to whether the application should be approved. The FDA is not bound by the recommendation of an advisory committee, but it generally follows such recommendations. Before approving an NDA, the FDA typically will inspect one or more clinical sites to assure compliance with GCPs. Additionally, the FDA will inspect the facility or the facilities at which the drug is manufactured. The FDA will not approve the product unless compliance with cGMPs is satisfactory and the NDA contains data that provide substantial evidence that the drug is safe and effective in the indication studied.

After the FDA evaluates the NDA and the manufacturing facilities, it issues either an approval letter or a complete response letter. A complete response letter generally outlines the deficiencies in the submission and may require substantial additional testing, or information, in order for the FDA to reconsider the application. If, or when, those deficiencies have been addressed to the FDA's satisfaction in a resubmission of the NDA, the FDA will issue an approval letter. The FDA has committed to reviewing such resubmissions in two or six months depending on the type of information included.

An approval letter authorizes commercial marketing of the drug with specific prescribing information for specific indications. As a condition of NDA approval, the FDA may require risk evaluation and mitigation strategies ("REMS") to ensure that the benefits of the drug outweigh the potential risks. REMS can include a medication guide, a communication plan for healthcare professionals and elements to assure safe use, such as special training and certification requirements for individuals who prescribe or dispense the drug, requirements that patients enroll in a registry and other measures that the FDA deems necessary to assure the safe use of the drug. The requirement for REMS can materially affect the potential market and profitability of the drug. Moreover, product approval may require substantial post-approval testing and surveillance to monitor the drug's safety or efficacy. Once granted, product approvals may be withdrawn if compliance with regulatory standards is not maintained or problems are identified following initial marketing.

Changes to some of the conditions established in an approved application, including changes in indications, labeling, or manufacturing processes or facilities, require submission and FDA approval of a new NDA or NDA supplement before the change can be implemented. An NDA supplement for a new indication typically requires clinical data similar to that in the original application, and the FDA uses the same procedures and actions in reviewing NDA supplements as it does in reviewing NDAs. Such supplements typically are reviewed within 10 months of receipt.

Orphan Drugs

Under the Orphan Drug Act, the FDA may grant orphan drug designation to drugs intended to treat a rare disease or condition—generally a disease or condition that affects fewer than 200,000 individuals in the US. Orphan drug designation must be requested before submitting an NDA. After the FDA confers orphan drug status, the generic identity of the drug and its potential orphan indication are disclosed publicly by the FDA. Orphan drug designation in and of itself does not convey any advantage in, or shorten the duration of, the regulatory review and approval process. The first NDA applicant to receive FDA approval for a particular active ingredient to treat a particular indication with FDA orphan drug designation is entitled to a seven-year exclusive marketing period in the US for that product, for that indication. During the seven-year exclusivity period, the FDA may not approve any other applications to market the same drug for the same disease, except in limited circumstances, such as a showing of clinical superiority to the product with orphan drug exclusivity. Orphan drug exclusivity does not prevent FDA from approving a different drug for the same disease or condition, or the same drug for a different disease or condition. Prior to FDA approval, orphan designation provides incentives for sponsors including tax credits for clinical research expenses, the opportunity to obtain government grant funding to support clinical research, and an exemption from FDA user fees.

Fast Track Designation

Fast track is a process designed by the FDA to facilitate the development of drugs to treat serious conditions through expediting their review. The purpose is to get important new drugs to patients earlier. Fast Track addresses a broad range of serious conditions. Determining whether a condition is serious is a matter of judgment, but generally is based on whether the drug will have an impact on such factors as survival, day-to-day functioning, or the likelihood that the condition, if left untreated, will progress from a less severe condition to a more serious one.

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A drug that receives Fast Track designation is eligible for some or all of the following:

- more frequent meetings with FDA to discuss the drug's development plan and ensure collection of appropriate data needed to support drug approval;
- more frequent written communication from FDA about such things as the design of the proposed clinical trials and use of biomarkers;
- eligibility for Accelerated Approval and Priority Review, if relevant criteria are met; and
- rolling Review, which means that a drug company can submit completed sections of its Biologic License Application (BLA) or NDA for review by FDA, rather than waiting until every section is completed before the entire application can be reviewed. BLA or NDA review usually does not begin until the drug company has submitted the entire application to the FDA.

Once a drug receives Fast Track designation, early and frequent communication between the FDA and a drug company is encouraged throughout the entire drug development and review process. The frequency of communication assures that questions and issues are resolved quickly, often leading to earlier drug approval and access by patients.

Accelerated Approval

Under the FDA's Subpart H accelerated approval regulations, FDA may approve a drug for a serious or life-threatening illness that provides meaningful therapeutic benefit to patients over existing treatments based upon a surrogate endpoint that is reasonably likely to predict clinical benefit, or on a clinical endpoint that can be measured earlier than irreversible morbidity or mortality, that is reasonably likely to predict an effect on irreversible morbidity or mortality or other clinical benefit, taking into account the severity, rarity, or prevalence of the condition and the availability or lack of alternative treatments.

In clinical trials, a surrogate endpoint is a measurement of laboratory or clinical signs of a disease or condition that substitutes for a direct measurement of how a patient feels, functions, or survives. Surrogate endpoints can often be measured more easily or more rapidly than clinical endpoints. A drug candidate approved on this basis is subject to rigorous post-marketing compliance requirements, including the completion of Phase 4 or post-approval clinical trials to confirm the effect on the clinical endpoint. Failure to conduct required post-approval studies, or confirm a clinical benefit during post-marketing studies, will allow FDA to withdraw the drug from the market on an expedited basis. All promotional materials for drug candidates approved under accelerated regulations are subject to prior review by FDA.

The Hatch-Waxman Amendments: Orange Book Listing

In seeking approval for a drug through an NDA, applicants are required to list with the FDA each patent whose claims cover the applicant's product or its use for the relevant application. Upon approval of a drug, each of the patents listed in the application for the drug is then published in the FDA's Approved Drug Products with Therapeutic Equivalence Evaluations, commonly known as the Orange Book. Drugs listed in the Orange Book can, in turn, be cited by potential generic competitors in support of approval of an ANDA. An ANDA provides for marketing of a drug product that has the same active ingredients in the same strengths and dosage form as the listed drug and has been shown through bioequivalence testing to be therapeutically equivalent to the listed drug. Other than the requirement for bioequivalence testing, ANDA applicants are not required to conduct, or submit results of, preclinical or clinical tests to prove the safety or effectiveness of their drug product. Drugs approved in this way are commonly referred to as "generic equivalents" to the listed drug, and can often be substituted by pharmacists under prescriptions written for the original listed drug.

The ANDA applicant is required to certify to the FDA concerning all patents listed for the approved product in the FDA's Orange Book. Specifically, the applicant must certify that: (i) the required patent information has not been filed; (ii) the listed patent has expired; (iii) the listed patent has not expired, but will expire on a particular date and approval is sought after patent expiration; or (iv) the listed patent is invalid or will not be infringed by the new product. The ANDA applicant may also elect to submit a section viii statement certifying that its proposed ANDA label does not contain (or carves out) any language regarding the patented method-of-use rather than certify to a listed method-of-use patent. If the applicant does not challenge the listed patents, the ANDA application will not be approved until all the listed patents claiming the referenced product have expired.

A certification that the new product will not infringe the already approved product's listed patents, or that such patents are invalid, is called a Paragraph IV certification. If the ANDA applicant has provided a Paragraph IV certification to the FDA, the applicant must also send notice of the Paragraph IV certification to the NDA and patent holders once the ANDA has been accepted for filing by the FDA. The NDA and patent holders may then initiate a patent infringement lawsuit in response to the notice of the Paragraph IV certification. The filing of a patent infringement lawsuit within 45 days of the receipt of a Paragraph

IV certification automatically prevents the FDA from approving the ANDA until the earlier of 30 months, expiration of the patent, settlement of the lawsuit, or a decision in the infringement case that is favorable to the ANDA applicant.

The ANDA application also will not be approved until any applicable non-patent exclusivity listed in the Orange Book for the referenced product has expired.

Post-Approval Requirements

Once an NDA is approved, a product will be subject to certain post-approval requirements. For instance, the FDA closely regulates the post-approval marketing and promotion of drugs, including standards and regulations for direct-to-consumer advertising, off-label promotion, industry-sponsored scientific and educational activities and promotional activities involving the internet and social media. Drugs may be marketed only for the approved indications and in accordance with the provisions of the approved labeling.

Adverse event reporting and submission of periodic reports is required following FDA approval of an NDA. The FDA also may require post-marketing testing, known as Phase 4 testing, REMS, surveillance to monitor the effects of an approved product, or restrictions on the distribution or use of the product. In addition, quality-control, drug manufacturing, packaging and labeling procedures must continue to conform to cGMPs after approval. Drug manufacturers and certain of their subcontractors are required to register their establishments with the FDA and certain state agencies. Registration with the FDA subjects entities to periodic unannounced inspections by the FDA, during which the agency inspects manufacturing facilities to assess compliance with cGMPs. Accordingly, manufacturers must continue to expend time, money and effort in the areas of production and quality-control to maintain compliance with cGMPs. Later discovery of previously unknown problems with a product, including adverse events of unanticipated severity or frequency, or failure to comply with regulatory requirements, may result in, among other things:

- restrictions on the marketing or manufacturing of the product, complete withdrawal of the product from the market and/or product recalls;
- fines, warning letters or holds on post-approval clinical trials;
- refusal of the FDA to approve pending applications or supplements to approved applications, or suspension or revocation of product approvals;
- product seizure or detention, or refusal to permit the import or export of products; or
- injunctions or the imposition of civil or criminal penalties.

Pricing and Reimbursement

A portion of our end-user demand for our approved drugs comes from patients covered under Medicaid, Medicare and other federal and state government-related programs such as TRICARE and the Department of Veterans Affairs, or the VA. As required by Federal regulations, we provide rebates and discounts in connection with these programs.

Our commercial success depends in significant part on the extent to which coverage and adequate reimbursement for these products will be available from third-party payers, including government health administration authorities, private health insurers and other organizations. Third-party payers determine which medications they will cover and establish reimbursement levels. Even if a third-party payer covers a particular product, the resulting reimbursement payment rates may not be adequate or may require co-payments that patients find unacceptably high. Patients who are prescribed medications for the treatment of their conditions, and their prescribing physicians, generally rely on third-party payers to reimburse all or part of the costs associated with prescription drugs. Patients are unlikely to use our products unless coverage is provided and reimbursement is adequate to cover all or a significant portion of the cost of our products. Therefore, coverage and adequate reimbursement is critical to product acceptance. Further, coverage policies and third-party payer reimbursement rates may change at any time. Even if favorable coverage and reimbursement status is attained, less favorable coverage policies and reimbursement rates may be implemented in the future.

Government authorities and other third-party payers are developing increasingly sophisticated methods of controlling healthcare costs, such as by limiting coverage and the amount of reimbursement for particular medications. Increasingly, third-party payers are requiring that drug companies provide them with predetermined discounts from list prices as a condition of coverage, are using restrictive formularies and preferred drug lists to leverage greater discounts in competitive classes, and are challenging the prices charged for medical products. Third party payers also are carefully evaluating the medical necessity and cost-effectiveness of medical products and services, in addition to a product's safety and efficacy, which may require us to conduct expensive pharmacoeconomic studies in order to demonstrate the medical necessity and cost-effectiveness of our products. Further, no uniform policy requirement for coverage and reimbursement for drug products exists among third-party payers in the United States. Therefore, coverage and reimbursement for drug products can differ significantly from payer to payer. As a result, the coverage determination process is often a time-consuming and costly process that will require us to provide scientific and clinical support for the use of our products to each payer separately, with no assurance that coverage and adequate reimbursement will be applied consistently or obtained in the first instance.

In addition, it is possible that future legislation in the US and other jurisdictions could be enacted which could potentially influence the coverage and reimbursement rates for our products and also could further impact the levels of discounts and

rebates paid to federal and state government entities. Any legislation that influences these areas could impact, in a significant way, our ability to generate revenues from sales of products that, if successfully developed, we bring to market.

There have been a number of enacted or proposed legislative and regulatory changes affecting the healthcare system and pharmaceutical industry that could affect our commercial success. For example, in March 2010, President Obama signed into law the Patient Protection and Affordable Care

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Act, as amended by the Health Care and Education Reconciliation Act of 2010, (collectively, the "PPACA") a law intended to, among other things, broaden access to health insurance, reduce or constrain the growth of healthcare spending, enhance remedies against healthcare fraud and abuse, add new transparency requirements for healthcare and health insurance industries, impose new taxes and fees on pharmaceutical and medical device manufacturers and impose additional health policy reforms. Specifically, by way of example, the PPACA revised the definition of "average manufacturer price" for reporting purposes, which could increase the amount of Medicaid drug rebates to states. PPACA also increased the mandated Medicaid rebate from 15.1% to 23.1% of the average manufacturer price, expanded the rebate to Medicaid managed care utilization and increased the types of entities eligible for the federal 340B drug discount program. There have been executive, judicial and Congressional challenges to certain aspects of the PPACA. For example, President Trump signed several Executive Orders and other directives designed to delay the implementation of certain provisions of the PPACA or otherwise circumvent some of the requirements for health insurance mandated by the PPACA. Concurrently, Congress considered legislation to repeal or repeal and replace all or part of the PPACA. While Congress has not passed comprehensive repeal legislation, several bills affecting the implementation of certain taxes under the PPACA have been signed into law. Legislation enacted in 2017, informally titled the Tax Cuts and Jobs Act of 2017 ("Tax Act"), includes a provision which repealed, effective January 1, 2019, the tax-based shared responsibility payment imposed by the PPACA on certain individuals who fail to maintain qualifying health coverage for all or part of a year that is commonly referred to as the "individual mandate". In addition, the 2020 federal spending package permanently eliminates, effective January 1, 2020, the PPACA-mandated "Cadillac" tax on high-cost employer-sponsored health coverage and medical device tax and, effective January 1, 2021, also eliminates the health insurer tax. The Bipartisan Budget Act of 2018, or the BBA, among other things, amended the PPACA, effective January 1, 2019, to increase the discount that is owed by pharmaceutical manufacturers who participate in Medicare Part D from 50% to 70%, and close the coverage gap in most Medicare drug plans, commonly referred to as the "donut hole." On June 17, 2021, the U.S. Supreme Court dismissed a challenge on procedural grounds that argued the PPACA is unconstitutional in its entirety because the "individual mandate" was repealed by Congress. Thus, the PPACA will remain in effect in its current form. Prior to the U.S. Supreme Court ruling, on January 28, 2021, President Biden issued an executive order that initiated a special enrollment period for purposes of obtaining health insurance coverage through the PPACA marketplace. The executive order also instructed 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 PPACA. It is possible that the PPACA will be subject to judicial or Congressional challenges in the future. It is unclear how such challenges and the healthcare reform measures of the Biden administration will impact the PPACA and our business.

In addition, other legislative changes have been proposed and adopted since the PPACA was enacted. For example, in August 2011, the President 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, due to subsequent legislative amendments, including the BBA, and the Infrastructure Investment and Jobs Act, will stay in effect through 2031, except for a temporary suspension from May 1, 2020 through March 31, 2022 due to the COVID-19 pandemic, unless additional Congressional action is taken. 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, in January 2013, the American Taxpayer Relief Act of 2012 was signed into law, which, among other things, reduced Medicare payments to several providers, including hospitals and imaging centers.

Moreover, the Drug Supply Chain Security Act imposes additional obligations on manufacturers of pharmaceutical products related to product tracking and tracing. Legislative and regulatory proposals have been made to expand post-approval requirements and restrict sales and promotional activities for pharmaceutical products.

There has been increasing legislative and enforcement interest in the United States with respect to drug pricing practices. Specifically, there have been several recent US Congressional inquiries and numerous proposed and enacted legislation at both the state and federal levels designed to, among other things, bring more transparency to drug pricing, reduce the cost of prescription drugs under Medicare, expedite generic competition, review the relationship between pricing and manufacturer patient programs, institute drug re-importation, 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 concurrently 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, the U.S. Department of Health and Human Services, or 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 until January 1, 2023. On November 20, 2020, the Centers for Medicare & Medicaid Services, or 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, effective January 1, 2021. 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

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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 as well as potential administrative actions HHS can take to advance these principles. No legislation or administrative actions have been finalized to implement these principles. It is unclear whether these or similar policy initiatives will be implemented in the future. At the state level, legislatures are increasingly passing legislation and implementing regulations designed to control pharmaceutical and biological 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 expect that the PPACA, as well as other federal and state healthcare reform measures that have been and may be adopted in the future, may result in more rigorous coverage criteria and in additional downward pressure on the price that we receive for any of our products, and could seriously harm our future revenues. In addition, it is possible that future legislation in the United States and other jurisdictions could be enacted which could potentially impact the reimbursement rates for the products we are developing and may develop in the future and also could further impact the levels of discounts and rebates paid to federal and state government entities. Any legislation that impacts these areas could impact, in a significant way, our ability to generate revenues from sales of products that, if successfully developed, we bring to market. For example, the U.S. government is considering targeted price controls and reference pricing based on foreign single-payer country access policies which may adversely affect our revenues. Further, it is possible that additional governmental action is taken in response to the COVID-19 pandemic.

Health Care Regulatory Laws

In addition to FDA marketing restrictions and regulation of pharmaceutical products, several other types of state and federal laws have been applied to restrict and regulate certain business practices in the pharmaceutical industry in recent years. These laws include, without limitation, anti-kickback statutes and false claims laws, data privacy and security laws, and transparency laws regarding payments or other items of value provided to healthcare providers.

The federal healthcare program anti-kickback statute 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 healthcare item or service reimbursable under Medicare, Medicaid, or other federally financed healthcare programs. This statute has been interpreted broadly to apply to arrangements between pharmaceutical manufacturers on the one hand and prescribers, purchasers, and formulary managers, among others, on the other. Although there are a number of statutory exceptions and regulatory safe harbors protecting certain common activities from prosecution or other regulatory sanctions, the exceptions and safe harbors are drawn narrowly, and practices that involve remuneration that may induce prescribing, purchases, or recommendations may be subject to scrutiny if they do not qualify for an exemption or safe harbor. Failure to meet all of the requirements of a particular applicable statutory exception or regulatory safe harbor does not make the conduct per se illegal under the anti-kickback statute. Instead, the legality of the arrangement will be evaluated on a case-by-case basis based on a cumulative review of all its facts and circumstances. Several courts have interpreted the statute's intent requirement to mean that if any one purpose of an arrangement involving remuneration is to induce referrals of federal healthcare covered business, the federal anti-kickback statute has been violated. Additionally, the PPACA amended the federal anti-kickback statute to a stricter standard such that a person or entity no longer needs to have actual knowledge of the statute or specific intent to violate it in order to have committed a violation. In addition, the PPACA codified case law 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 federal civil False Claims Act.

Federal false claims laws, including the civil False Claims Act, prohibit any person or entity 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 have a false claim paid. This includes claims made to programs where the federal government reimburses, such as Medicaid, as well as programs where the federal government is a direct purchaser, such as when it purchases off the Federal Supply Schedule. The False Claims Act contains qui tam provisions, which allow a private individual, or relator, to bring a civil action on behalf of the federal government alleging that the defendant submitted a false claim to the federal government, and to share in any monetary recovery. In recent years, the number of suits brought by private individuals has increased dramatically. For example, pharmaceutical and other healthcare companies have been prosecuted under these laws for allegedly inflating drug prices they report to pricing services, which in turn were used by the government to set Medicare and Medicaid reimbursement rates, and for allegedly providing free product to customers with the expectation that the customers would bill federal programs for the product. In addition, certain marketing practices, including off-label promotion, may also violate federal false claims laws.

Also, many states have similar fraud and abuse statutes or regulations, including state anti-kickback and false claims laws, that apply to items and services reimbursed under Medicaid and other state programs, or, in several states, apply regardless of the payer.

The US Foreign Corrupt Practices Act, and similar worldwide anti-bribery laws generally prohibit companies and their intermediaries from making improper payments to government officials for the purpose of obtaining or retaining business. Our

policies mandate compliance with these anti-bribery laws. We operate in parts of the world that have experienced governmental corruption to some degree and in certain circumstances, strict compliance with anti-bribery laws may conflict with local customs and practices or may require us to interact with doctors and hospitals, some of which may be state controlled, in a manner that is different than in the United States. We cannot assure you that our internal control policies and procedures will protect us from reckless or criminal acts committed by our employees or agents. Violations of these laws, or allegations of such

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violations, could disrupt our business and result in criminal or civil penalties or remedial measures, any of which could have a material adverse effect on our business, financial condition and results of operations and could cause the market value of our common stock to decline.

In addition, we may be subject to data privacy and security regulation by both the federal government and the states in which we conduct our business. HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act, or HITECH, and their respective implementing regulations, imposes specified requirements relating to the privacy, security and transmission of individually identifiable health information. Among other things, HITECH, through its implementing regulations, makes certain of HIPAA's privacy and security standards directly applicable to business associates, defined as a person or organization, other than a member of a covered entity's workforce, that creates, receives, maintains or transmits protected health information for or on behalf of a covered entity for a function or activity regulated by HIPAA and their covered subcontractors.

Additionally, the federal Physician Payments Sunshine Act within the PPACA, and its implementing regulations, require that certain manufacturers of drugs, devices, biologicals and medical supplies for which payment is available under Medicare, Medicaid or the Children's Health Insurance Program (with certain exceptions) to annually report information related to certain payments or other transfers of value made or distributed to physicians and teaching hospitals, or to entities or individuals at the request of, or designated on behalf of, physicians (defined to include to include doctors, dentists, optometrists, podiatrists and chiropractors), other healthcare professionals (such as physician assistants and nurse practitioners), and teaching hospitals and to report annually certain ownership and investment interests held by physicians and their immediate family members.

Further, certain states require implementation of commercial compliance programs and marketing codes, compliance with the pharmaceutical industry's voluntary compliance guidelines, and compliance with the applicable compliance guidance promulgated by the federal government. Other various state level requirements include restricting payments or the provision of other items of value that may be made to healthcare providers and other potential referral sources; restricting various marketing practices; requiring prescription drug companies to report expenses relating to the marketing and promotion of drug products; requiring the posting of information relating to clinical studies and their outcomes; requiring the registration of sales representatives; requiring the reporting of certain information related to drug pricing; and requiring drug manufacturers to track and report information related to payments, gifts, compensation, and other items of value to physicians and other healthcare providers. Additionally, states that have not implemented these types of regulations are considering similar proposals. Compliance with these laws is difficult and time consuming, and companies that do not comply with these state laws face civil penalties.

If our operations are found to be in violation of any of the health regulatory laws described above or any other laws that apply to us, we may be subject to significant penalties, including imprisonment, criminal fines, civil monetary penalties, administrative penalties, disgorgement, exclusion from participation in federal healthcare programs, contractual damages, injunctions, recall or seizure of products, total or partial suspension of production, reputational harm, administrative burdens, additional oversight and reporting obligations if we become subject to a corporate integrity agreement or similar agreement to resolve allegation of non-compliance with these laws, diminished profits and future earnings, and the curtailment or restructuring of our operations, any of which could adversely affect our ability to operate our business and our results of operations.

Foreign Regulation

In addition to regulations in the United States, we are subject to a variety of foreign regulations governing clinical trials and commercial sales and distribution of our products. Whether or not we obtain FDA approval for a product, we must obtain approval by the comparable regulatory authorities of foreign countries before we can commence clinical trials and approval of foreign countries or economic areas, such as the European Union, before we may market products in those countries or areas. The approval process and requirements governing the conduct of clinical trials, product licensing, pricing and reimbursement vary greatly from place to place, and the time may be longer or shorter than that required for FDA approval.

Clinical Trials and Marketing Authorization in the European Union

In Europe, a clinical trial application ("CTA") must currently be submitted to the competent national regulatory authority and to an independent ethics committee in each country in which we intend to conduct clinical trials. Once the CTA is approved in accordance with that country's requirements, clinical trial development may proceed in that country. Under the new Regulation on Clinical Trials, which took effect in January 2022, there will be a centralized application procedure where one national authority takes the lead in reviewing the application and the other national authorities have more limited involvement. Any substantial changes to the trial protocol or other information submitted with the clinical trial applications must be notified to or approved by the relevant competent authorities and ethics committees. In all cases, the clinical trials must be conducted in accordance with good clinical practices and other applicable regulatory requirements and medicines used in clinical trials must be manufactured in accordance with good manufacturing practices. A clinical trial may only be undertaken subject to certain conditions. The relevant ethics committee must give its opinion, before a clinical trial commences, on any issue

requested. Clinical trials information must be entered into a European database. There are strict requirements in relation to the labeling and packaging of our product candidates, the verification of compliance with the provisions on good clinical and manufacturing practice and the notification of adverse events and serious adverse reactions.

Under European Union regulatory systems, a company may not market a medicinal product without a marketing authorization.

There are four procedures for submitting a Marketing Authorization Application (“MAA”) in Europe: (i) the national procedure, (ii) the mutual recognition procedure (“MRP”); (iii) the decentralized procedure (“DCP”) and (iv) the centralized procedure (“CP”). The submission strategy for a given product will depend on the nature of the product, the target indication(s), the history of the product, and the marketing plan. The centralized procedure is compulsory for certain medicinal products which are produced by biotechnology processes, advanced therapy medicinal products and for those which are designated as orphan medicinal products. Besides the products falling under the mandatory scope, the centralized procedure is also optional for medicinal products that constitute a significant therapeutic, scientific or technical innovation i.e. new active substances or other medicinal products that constitute a significant therapeutic, scientific or technical innovation, that contain an active substance not authorized in the European Union before May 20, 2004 or for which a centralized procedure would be in the interest of patients.

The centralized procedure leads to approval of the product in all 27 EU member states and in Norway, Iceland and Liechtenstein, collectively referred to herein as the EEA. Submission of one MAA thus leads to one assessment process and one authorization that allows access to the market of the entire EEA. The process of the centralized procedure is triggered when the applicant submits an MAA to the EMA. The letter of intent also initiates the assignment of the Rapporteur and Co-Rapporteur, who are the appointed members of the Committee for Human Medicinal Products (“CHMP”) representing two EU member states. Under the centralized procedure, the maximum timeframe for the evaluation of an MAA by the EMA is 210 days. This excludes so-called clock stops, during which additional written or oral information is to be provided by the applicant in response to questions asked by the CHMP. At the end of the review period, the CHMP provides an opinion to the European Commission. If this is opinion favorable, the Commission may then adopt a decision to grant a marketing authorization. In exceptional cases, the CHMP might perform an accelerated review of an MAA in no more than 150 days. This is usually when the product is of major interest from the point of view of public health and, in particular, from the viewpoint of therapeutic innovation.

When using the MRP or DCP, the applicant must select which EU member states in which to seek approval. In the case of an MRP, the applicant must initially receive national approval in one EU member state. This will be the so-called reference member state (“RMS”) for the MRP. Then, the applicant seeks approval for the product in other EU member states, the so-called concerned member states, in a second step: the mutual recognition process. For the DCP, the applicant will approach all chosen member states at the same time. To do so, the applicant will identify the RMS that will assess the submitted MAA and provide the other selected member states with the conclusions and results of the assessment.

An innovator company enjoys a period of “data exclusivity” during which their pre-clinical and clinical trials data may not be referenced in the regulatory filings of another company (typically a generic company) for the same drug substance.

Data exclusivity in Europe is eight years from the date of first authorization in Europe with an additional period of two years of “market exclusivity.” This is the period of time during which a generic company may not market an equivalent generic version of the originator’s pharmaceutical product. An additional one year of market exclusivity may be obtained where the innovator company is granted a marketing authorization within the above eight-year period for a significant new indication for the relevant medicinal product.

Additionally, medicines that meet the criteria for orphan designation benefit from ten years of market exclusivity once they are approved for marketing in the EU. This protects them from market competition by similar medicines for the same therapeutic indication. Specifically, the competent regulatory authorities will not for a period of ten years following approval of an orphan designated product accept another application for marketing authorization, grant a marketing authorization, or accept an application to extend an existing marketing authorization for the same therapeutic indication, in respect of a similar medicinal product. Each orphan designation carries the potential for a market exclusivity for the particular indication. Thus, a medicine that has several separate orphan designations for different indications can have a separate orphan marketing exclusivity for each orphan indication.

The Paediatric Regulation provides that an application for a new marketing authorization must include the results of all trials performed and details of all information collected in compliance with an agreed pediatric investigation plan (PIP), unless a deferral or waiver applies on the basis that pediatric use is not relevant. This requirement can also be deferred by agreement. Further, each ten-year period of marketing exclusivity based upon an orphan designation is extended by two years for products that have complied with an agreed PIP for that orphan designation.

When the application for marketing authorization is made, the competent authority responsible for granting a marketing authorization must verify whether the application complies with the relevant requirements, including compliance with the agreed PIP. Assuming it does, the marketing authorization may be granted and the relevant results are included in the summary of product characteristics (“SmPC”) for the product, along with a statement indicating compliance with the agreed PIP. In the case of non-orphan products, the applicant then receives the six-month extension to the SPC (the “pediatric

extension"). However, the six-month pediatric extension to SPC is not available for orphan designated products, or where the product has received an additional one year of marketing exclusivity by obtaining approval for a second marketing authorization for a significant new indication within the first eight years following the first marketing authorization. Where the six-month pediatric extension is available, it is not necessary for the product to actually be indicated for use in the pediatric population (for example, if the results show that that would not be appropriate).

Other Laws and Regulatory Processes

We are subject to a variety of financial disclosure and securities trading regulations as a public company in the United States, including laws relating to the oversight activities of the Securities and Exchange Commission ("SEC"), and Nasdaq rules under which our stock is listed. In addition, the Financial Accounting Standards Board ("FASB"), the SEC, and other bodies that have jurisdiction over the form and content of our accounts, our financial statements and other public disclosures are constantly considering and interpreting proposals and existing pronouncements designed to ensure that companies best display relevant and transparent information relating to their respective businesses.

Our present and future business has been and will continue to be subject to various other laws and regulations. Various laws, regulations and recommendations relating to safe working conditions, laboratory practices, the experimental use of animals, and the purchase, storage, movement, import and export and use and disposal of hazardous or potentially hazardous substances used in connection with our research work are or may be applicable to our activities. Certain agreements entered into by us involving exclusive license rights or acquisitions may be subject to national antitrust regulatory control, the effect of which cannot be predicted. The extent of government regulation which might result from future legislation or administrative action, also cannot be predicted with accuracy.

Employees and Human Capital Management

As of January 31, 2022, we had 310 full-time employees, with most of those based in the United States and a small number outside of the United States. We consider the intellectual capital of our employees to be an important driver of our business and key to our future success. The biopharmaceutical industry is very competitive and we believe that our future success largely depends upon our continued ability to attract and retain highly skilled employees. Our workforce primarily consists of college-educated workers with experience in the biopharmaceutical industry, many of whom have advanced degrees. Our employees primarily focus on our drug development and commercialization efforts, including sales and general and administrative operational support of those functions. Currently, we rely on third-party contract manufacturers and conduct our discovery research efforts via collaborations and/or contracted third-party engagements. None of our employees in the United States are represented by a labor union or covered by collective bargaining agreements.

We are committed to creating a multigenerational, multiracial, and multicultural workforce by welcoming each member's unique experiences, backgrounds and talents and empowering them to reach their highest potential. We desire to have our organization be representative of the communities we aim to serve, and we are placing an increased focus on ways in which we can gain greater ethnic and racial diversity within our workforce, as well as increase gender and ethnic/racial diversity in leadership roles. We have an internal diversity council that is open to all employees of our organization, and has a focus on a number of initiatives that directly impact our human capital, including efforts to further diversity, inclusion and equity initiatives within our recruitment, retention and developmental programs, and increase cultural awareness and engagement.

We strive to provide compensation, benefits and support services that help meet the varying needs of our employees. In the United States, our total compensation package includes competitive pay, including opportunities for performance-based bonuses; comprehensive healthcare benefits; paid time off and paid holidays, and the opportunity for equity ownership through our equity incentive plan and our employee stock purchase plan. We also sponsor a 401(k) plan that includes a discretionary matching contribution. A similar package of benefits are provided to our employees outside of the United States, subject to regional differences. In 2021, we further enhanced and expanded our employee benefits in response to the continued impact of the ongoing COVID-19 pandemic as we identified additional ways in which we could further support our workforce, as well as attract new talent as we seek to grow our organization in the current tight labor market, and high competition for skilled employees within our industry. For example, we continued to provide resources to enable employees to work more efficiently and effectively from home and expanded our focus on well-being.

By focusing on employee retention, engagement and development opportunities, we believe we also improve our ability to support our clinical trials, our pipeline, our business and operations. Our success also depends on our ability to respond to the needs of employees and we do this by listening to our employees through many avenues, for example, through formal engagement initiatives, such as surveys, as well as informal listening sessions hosted by senior leaders, including our CEO and our human resources department. Also, during 2021 we convened a team of mid and senior level managers focused on culture who meet regularly to discuss the specifics of how to maximize a healthy, inclusive, and recognition-based company culture. As we continue to navigate through these challenging times during a global pandemic, we take pride in the role we play in helping to ensure our employees are as productive and engaged as possible and their physical and emotional health and well-being remains a key priority.

Available Information

We were incorporated in the state of Delaware in February 2011. Our website address is travere.com. We post links on our website to the following filings as soon as reasonably practicable after they are electronically filed with or furnished to the SEC: annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, proxy statements, and any

amendments to those reports filed or furnished pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934, as amended. All such filings are available through our website free of charge. The SEC also maintains an internet site at www.sec.gov that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC.

ITEM 1A. RISK FACTORS

Our business, as well as an investment in our common stock, is highly speculative in nature and involves a high degree of risk. Our securities should be purchased only by persons who can afford to lose their entire investment. Carefully consider the risks and uncertainties described below together with all of the other information included herein, including the financial statements and related notes, before deciding to invest in our common stock. If any of the following risks actually occur, they could adversely affect our business, prospects, financial condition and results of operations. In such event(s), the market price of our common stock could decline and result in a loss of part or all of your investment. Accordingly, prospective investors should carefully consider, along with other matters referred to herein, the following risk factors in evaluating our business before purchasing any shares of our common stock.

Risks Related to the Development of our Product Candidates

Our clinical trials may fail to demonstrate the safety and efficacy of our product candidates, including sparsentan and pectibatinase (TVT-058), which could prevent or significantly delay their regulatory approval.

Before obtaining regulatory approval for the sale of any of our current or future product candidates, including sparsentan and pectibatinase (TVT-058), we must subject these product candidates to extensive preclinical and clinical testing to demonstrate their safety and efficacy for humans. Clinical trials are expensive, time-consuming and may take years to complete.

We may experience numerous unforeseen events during, or as a result of, preclinical or nonclinical testing and the clinical trial process that could delay or prevent our ability to obtain regulatory approval or commercialize our product candidates, including:

- our preclinical or nonclinical tests or clinical trials may produce negative or inconclusive results, and we may decide, or regulators may require us, to conduct additional preclinical testing or clinical trials or we may abandon projects that we expect to be promising;
- regulators may require us to conduct studies of the long-term effects associated with the use of our product candidates;
- regulators or institutional review boards may not authorize us to commence a clinical trial or conduct a clinical trial at a prospective trial site;
- the FDA or any non-United States regulatory authority may impose conditions on us regarding the scope or design of our clinical trials or may require us to resubmit our clinical trial protocols to institutional review boards for re-inspection due to changes in the regulatory environment;
- the number of patients required for our clinical trials may be larger than we anticipate or participants may drop out of our clinical trials at a higher rate than we anticipate;
- our third-party contractors or clinical investigators may fail to comply with regulatory requirements or fail to meet their contractual obligations to us in a timely manner;
- we might have to suspend or terminate one or more of our clinical trials if we, regulators or institutional review boards determine that the participants are being exposed to unacceptable health risks;
- regulators or institutional review boards may require that we hold, suspend or terminate clinical research for various reasons, including noncompliance with regulatory requirements;
- the cost of our clinical trials may be greater than we anticipate;
- the supply or quality of our product candidates or other materials necessary to conduct our clinical trials may be insufficient or inadequate or we may not be able to reach agreements on acceptable terms with prospective clinical research organizations; and
- the effects of our product candidates may not be the desired effects or may include undesirable side effects or the product candidates may have other unexpected characteristics.

These risks and uncertainties impact all of our clinical programs that we pursue and have been amplified by the ongoing COVID-19 pandemic, as described below. We will only obtain regulatory approval to commercialize a product candidate if we can demonstrate to the satisfaction of the FDA, and in the case of foreign commercialization, to the applicable foreign

regulatory authorities, in well-designed and conducted clinical trials, that our product candidates are safe and effective and otherwise meet the appropriate standards required for approval for a particular indication.

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Our product development costs will also increase if we experience delays in testing or approvals. We do not know whether any preclinical tests or clinical trials will be initiated as planned, will need to be restructured or will be completed on schedule, if at all. Significant preclinical or clinical trial delays also could shorten the patent protection period during which we may have the exclusive right to commercialize our product candidates. Such delays could allow our competitors to bring products to market before we do and impair our ability to commercialize our products or product candidates.

If we are required to conduct additional clinical trials or other testing of our product candidates beyond those that we currently contemplate, if we are unable to successfully complete our clinical trials or other testing, if the results of these trials or tests are not positive or are only modestly positive or if there are safety concerns, we may:

- be delayed in obtaining, or may not be able to obtain, marketing approval for one or more of our product candidates;
- obtain approval for indications that are not as broad as intended or entirely different than those indications for which we sought approval; and
- have the product removed from the market after obtaining marketing approval.

In February 2021, we announced that our ongoing pivotal Phase 3 DUPLEX Study of sparsentan in focal segmental glomerulosclerosis ("FSGS") achieved its pre-specified interim FSGS partial remission of proteinuria endpoint ("FPRE") after 36 weeks of treatment and in August 2021, we announced that our ongoing pivotal Phase 3 PROTECT Study of sparsentan in IGA Nephropathy ("IgAN") achieved its pre-specified primary efficacy endpoint after 36 weeks of treatment. Pursuant to the DUPLEX and PROTECT Study protocols, patients are to continue in a blinded manner to assess the treatment effect on eGFR slope over two years in the confirmatory endpoint analyses of the studies. Given that interim results from the studies have been publicly announced, it is possible that we may see a higher than anticipated attrition rate in one or both of these studies. To the extent that an insufficient number of patients choose to remain in either study for the full two years, it could jeopardize our ability to complete the studies and submit for full regulatory approval for sparsentan in FSGS and/or IgAN.

We may not be able to initiate or continue clinical trials in the rare diseases in which we are focused if we are unable to locate a sufficient number of eligible patients willing and able to participate in the clinical trials required by the FDA or foreign regulatory agencies. In addition, as other companies and researchers may be concurrently developing therapies for the same or similar indications that we are focused on, we could face competition for a limited number of patients, investigators and clinical trial sites willing to participate in clinical trials. Our inability to enroll and maintain a sufficient number of patients for any of our current or future clinical trials would result in significant delays or may require us to abandon one or more clinical trials altogether.

In January 2020, we randomized the first patients in a Phase 3 clinical trial to evaluate the effects of Chenodal in adult and pediatric patients with CTX. The pivotal study, known as the RESTORE study, is intended to support an NDA submission for marketing authorization of Chenodal for CTX in the United States. While Chenodal has been used as the standard of care for CTX for over three decades, it is not labeled for CTX and as such we cannot market this drug candidate for the treatment of CTX unless and until it receives FDA approval for this indication. If we experience delays in obtaining approval or if we fail to obtain approval of Chenodal for the treatment of CTX, our business, financial condition and results of operations could be adversely affected.

The planned eGFR data cut from the DUPLEX Study may not support accelerated approval submissions in the U.S. and/or Europe.

In February 2021, we announced that our ongoing pivotal Phase 3 DUPLEX Study of sparsentan in FSGS achieved its pre-specified interim FSGS partial remission of proteinuria endpoint ("FPRE") after 36 weeks of treatment. The confirmatory primary endpoint of the DUPLEX Study to support full regulatory approval is the rate of change in eGFR over 108 weeks of treatment. As of the time of the interim analyses, available long-term eGFR data for the confirmatory endpoint were limited. In May 2021, we provided a regulatory update regarding the sparsentan FSGS program, including feedback from the FDA that the available data from the previously announced interim assessment of the DUPLEX Study would not be adequate to support an accelerated approval in the U.S. at this time. At a subsequent Type A meeting, we and the FDA reached alignment on a pathway for us to proceed with a submission for accelerated approval, pending additional supportive eGFR data. While we intend to provide the FDA with additional eGFR data from the ongoing DUPLEX Study in the first half of 2022, and if such data are supportive, submit an application for accelerated approval in the U.S. in mid-2022, there is no guarantee that such eGFR data will be supportive, or that the FDA will agree with our assessment as to whether it, together with the data from the previously announced interim assessment of the DUPLEX Study will be adequate to support an accelerated approval in the U.S. Similarly, we intend to provide such data to the EMA via a submission of sparsentan for FSGS, and there is no guarantee that the data will support such a submission.

Success in preclinical testing and early clinical trials does not ensure that later clinical trials will be successful.

Success in preclinical testing and early clinical trials does not ensure that later clinical trials will be successful. For example, although we observed favorable responses with the physician-initiated treatment of fosmetpantotenate in PKAN patients outside the United States, the Phase 3 FORT Study evaluating the safety and efficacy of fosmetpantotenate compared to placebo in patients with PKAN did not meet its primary endpoint, did not demonstrate a difference between treatment groups, and did not meet its secondary endpoint. In addition, there can be no assurance that the

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positive eGFR results from the open-label portion of the DUET study of sparsentan in FSGS will be repeated in the Phase 3 clinical trial. Similarly, the positive pre-clinical data we have seen from pegtibatinase (TVT-058) being tested in a mouse model of homocystinuria and the positive topline results we reported in December 2021 from the ongoing Phase 1/2 clinical trial of pegtibatinase (TVT-058) may not be replicated in future studies. We cannot assure that any current or future clinical trials of sparsentan or pegtibatinase (TVT-058) will ultimately be successful.

Before obtaining regulatory approval to conduct clinical trials of our product candidates, we must conduct extensive preclinical tests to demonstrate the safety of our product candidates in animals. Preclinical testing is expensive, difficult to design and implement, and can take many years to complete. In addition, during the clinical development process, additional nonclinical toxicology studies are routinely conducted concurrently with the clinical development of a product candidate. If any of our product candidates show unexpected findings in concurrent toxicology studies, we could experience potentially significant delays in, or be required to abandon, development of that product candidate. A failure of one or more of our nonclinical studies can occur at any stage of testing.

Communications and/or feedback from the FDA or EMA related to our current or planned future clinical trials does not guarantee any particular outcome from regulatory review for such clinical trials.

Communications and/or feedback from the FDA or EMA related to our current or future clinical trials does not guarantee any particular outcome from regulatory review for such clinical trials.

In 2018 we initiated the following Phase 3 clinical trials of sparsentan: 1) a single Phase 3 clinical trial designed to serve as the basis for an NDA and MAA filing for sparsentan for the treatment of FSGS (the “DUPLEX Study”), and 2) a single Phase 3 clinical trial designed to serve as the basis for an NDA and MAA filing for sparsentan for the treatment of IgAN (the “PROTECT Study”). We are conducting the DUPLEX Study and the PROTECT Study under the Subpart H pathway for potential accelerated approval in the United States, and in Europe we plan to pursue potential Conditional Marketing Authorization, in both jurisdictions based on change in proteinuria. Recognition of change in proteinuria as a surrogate endpoint in kidney disease is a relatively new regulatory development, and, as the field continues to evolve, new learnings may impact regulatory viewpoints. For example, in the DUPLEX Study in conjunction with ongoing FDA dialogue to enable submission for potential approval on the subpart H pathway, in November 2020 we adopted an eGFR measurement over a 108-week period following randomized treatment, to support full approval. However, in May 2021, we received feedback from the FDA that the available data from the previously announced interim assessment of the DUPLEX Study would not be adequate to support an accelerated approval in the U.S. at this time. While we believe that we and the FDA have reached alignment on a pathway for us to proceed with a submission for accelerated approval, pending additional supportive eGFR data, additional data from the DUPLEX Study may not be sufficient to support an NDA under Subpart H for accelerated approval. For both indications, there is no guarantee that the FDA will accept the NDA for filing, as the FDA has the authority to refuse to file NDAs for a variety of reasons. Further, even if the FDA accepts the NDAs for filing, there is no guarantee that either NDA will be granted priority review during the application review process. If the application is not granted priority review, the review and potential approval timeline will extend beyond our current stated timing assumptions.

If the FDA or EMA agree to review our regulatory submissions for accelerated approval/conditional marketing authorization, we expect that the FDA's and EMA's determination as to whether the sufficiency of the data from the DUPLEX and PROTECT Studies supports an accelerated approval/conditional marketing authorization in either jurisdiction will be made during the application review process based on the totality of the data, including eGFR data available for review from the respective studies. There can be no assurance that the FDA or EMA will deem our achievement of any interim endpoint or measurement in the DUPLEX or PROTECT Studies to be sufficient to grant accelerated approval or Conditional Marketing Authorization for sparsentan for the treatment of FSGS or IgAN, respectively.

There can be no guarantee that the data generated from the DUPLEX Study will be sufficient to serve as the basis for an NDA filing, or that additional data from the DUPLEX Study will be sufficient to support an NDA under Subpart H for accelerated approval. In addition, our statistical modeling that supports proceeding with the DUPLEX Study on the Subpart H pathway is based on data from other FSGS studies. To the extent that the model population is not representative of the DUPLEX Study population, the FDA may not agree that the new results continue to support a Subpart H pathway. Furthermore, even if sparsentan is granted accelerated approval for FSGS, there can be no assurance that the post-marketing confirmatory data will support full approval of sparsentan as a treatment for FSGS.

Although we have announced that our ongoing pivotal Phase 3 PROTECT Study of sparsentan in IgAN achieved its pre-specified primary efficacy endpoint after 36 weeks of treatment and we have reached alignment with the FDA on proceeding with a submission for accelerated approval of sparsentan for IgAN, there can be no assurance that the study will proceed as planned and there can be no guarantee that the data generated from the study will be sufficient to serve as the basis for an NDA filing, including an NDA under Subpart H for accelerated approval or support Conditional Marketing Authorization in the EU. Furthermore, even if sparsentan is granted accelerated approval for IgAN, there can be no assurance that the post-marketing confirmatory data will support full approval of sparsentan as a treatment for IgAN.

In addition, because both the DUPLEX Study and PROTECT Study are evaluating the same compound for the treatment of chronic kidney diseases and utilizing similar endpoints, the risk of success or failure for the two studies may, depending on

the outcomes of the studies, end up being correlated.

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An extended delay in the rate of enrollment or data collection in our ongoing Phase 1/2 Study of pegtibatinase (TVT-058), as a result of the COVID-19 pandemic or otherwise, may delay our timelines for analyzing future data from the study.

While we have recently completed enrollment of the initially planned dose cohorts, we are currently enrolling an additional patient cohort in the clinical trial of pegtibatinase (TVT-058) for homocystinuria, a rare disease. Given that this development candidate is still undergoing required testing, we may not be able to initiate or continue clinical trials if we are unable to locate a sufficient number of eligible patients willing and able to participate in the clinical trial required by the FDA or foreign regulatory agencies. In addition, as other companies and researchers may be concurrently developing therapies for the same or similar indications that we are focused on, we could face competition for a limited number of patients, investigators and clinical trial sites willing to participate in clinical trials. Our inability to enroll and maintain a sufficient number of patients for any of our current or future clinical trials would result in significant delays or may require us to abandon one or more clinical trials altogether.

If the rate of enrollment in the ongoing Phase 1/2 Study of pegtibatinase (TVT-058) is slower than we anticipate, due to the COVID-19 pandemic or otherwise, or if there are barriers to data collection or monitoring activities due to the COVID-19 pandemic, our timelines for analyzing results from the Phase 1/2 Study of pegtibatinase (TVT-058) could be delayed.

Interim, topline and preliminary data from our clinical trials that we announce or publish from time to time may change as more patient data become available and are subject to audit and verification procedures that could result in material changes in the final data.

From time to time, we may publicly disclose preliminary or topline or interim data from our clinical studies, which is based on a preliminary analysis of then-available data, and the results and related findings and conclusions are subject to change following a more comprehensive review of the data related to the particular study. We also make assumptions, estimations, calculations and conclusions as part of our analyses of data, and we may not have received or had the opportunity to fully and carefully evaluate all data. As a result, the topline results that we report may differ from future results of the same studies, or different conclusions or considerations may qualify such results, once additional data have been received and fully evaluated. Topline data also remain subject to audit and verification procedures that may result in the final data being materially different from the preliminary data we previously published. As a result, topline data should be viewed with caution. From time to time, we may also disclose interim data from our clinical trials. Interim data from clinical trials that we may complete are subject to the risk that one or more of the clinical outcomes may materially change as patient enrollment and dosing continues and more patient data become available. Adverse differences between preliminary or interim data and final or confirmatory data could significantly harm our business prospects.

Further, others, including regulatory agencies, may not accept or agree with our assumptions, estimates, calculations, conclusions or analyses or may interpret or weigh the importance of data differently, which could impact the value of the particular program, the approvability or commercialization of the particular product candidate or product and our company in general. In addition, the information we choose to publicly disclose regarding a particular study or clinical trial is based on what is typically extensive information, and you or others may not agree with what we determine is the material or otherwise appropriate information to include in our disclosure, and any information we determine not to disclose may ultimately be deemed significant with respect to future decisions, conclusions, views, activities or otherwise regarding a particular drug, drug candidate or our business. If the topline data that we report differ from actual results, or if others, including regulatory authorities, disagree with the conclusions reached, our ability to obtain approval for, and commercialize, our product candidates may be harmed, which could harm our business, operating results, prospects or financial condition.

Even if any of our product candidates receives regulatory approval, we and/or a collaborative partner will be subject to ongoing regulatory obligations and continued regulatory review, which may result in significant additional expense.

Any regulatory approvals that any of our product candidates receives may be subject to significant limitations on the approved indicated uses for which the product may be marketed or to the conditions of approval, or contain requirements for potentially costly post-marketing testing, including Phase 4 clinical trials, and surveillance to monitor the safety and efficacy of the product candidate.

In addition, if the FDA or a comparable foreign regulatory authority approves any product candidates, those products will be subject to extensive and ongoing regulatory requirements, including for the manufacturing, labeling, packaging, distribution, adverse event reporting, storage, advertising, promotion, import, export, recordkeeping, conduct of potential post-marketing studies and post-market submission requirements. These requirements include submissions of safety and other post-marketing information and reports, registration, as well as continued compliance with current good manufacturing practices and good clinical practices, for any clinical trials that we conduct post-approval. Later discovery of previously unknown problems with a product, including adverse events of unanticipated severity or frequency, undesirable side effects caused by the product, problems encountered by our third-party manufacturers or manufacturing processes, or failure to comply with regulatory requirements, either before or after product approval, may result in, among other things:

- restrictions on the marketing, manufacturing, or distribution of the product;
- requirements to include additional warnings on the label;
- requirements to create or enhance a medication guide outlining the risks to patients;

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- withdrawal of the product from the market;
- voluntary or mandatory product recalls;
- requirements to change the way the product is administered or for us to conduct additional clinical trials;
- fines, warning or untitled letters or holds on clinical trials;
- refusal by the FDA to approve pending applications or supplements to approved applications filed by us or our strategic partners, or suspension or revocation of product license approvals;
- product seizure or detention, or refusal to permit the import or export of products;
- injunctions or the imposition of civil or criminal penalties; and
- harm to our reputation.

For example, we have certain post-marketing requirements and commitments associated with Cholbam. Further, we face risks relating to those post-marketing obligations, as well as the commercial acceptance of Cholbam. If the regulatory approval for Chenodal, Cholbam and/or Thiola are withdrawn for any reason, it would have a material adverse impact on our sales and profitability.

The independent clinical investigators and contract research organizations that we rely upon to conduct our clinical trials may not be diligent, careful or timely, and may make mistakes, in the conduct of our trials.

We depend on independent clinical investigators and contract research organizations ("CROs") to conduct our clinical trials under agreements with us. The CROs play a significant role in the conduct of our clinical trials. Failure of the CROs to meet their obligations could adversely affect clinical development of our product candidates. The independent clinical investigators are not our employees and we cannot control the timing or amount of resources they devote to our studies. If their performance is substandard, it could delay or prevent approval of our FDA applications. Moreover, these independent investigators and CROs may also have relationships with other commercial entities, some of which may compete with us. If independent investigators and CROs allocate their resources to assist our competitors at our expense, it could harm our competitive position. In response to the COVID-19 pandemic, we have engaged or intend to engage providers of home health and remote monitoring services to assist with the ongoing conduct of our clinical trials in an effort to mitigate disruption caused by COVID-19 related issues. The introduction of new third parties into our ongoing clinical trials increases the risks associated with our dependence on third parties, including the risk that substandard performance by, or competing interests of, such third parties could have a negative impact on our clinical trials. Furthermore, there is no guarantee that the utilization of such home health providers or remote monitoring services will be successful in mitigating disruptions to our clinical trials caused by the COVID-19 pandemic.

Risks Related to the Commercialization of Our Products

The commercial success of Chenodal, Cholbam and Thiola depends on them being considered to be effective drugs with advantages over other therapies.

The commercial success of our products Chenodal, Cholbam and Thiola depends on them being considered to be effective drugs with advantages over other therapies. A number of factors, as discussed in greater detail below, may adversely impact the degree of acceptance of these products, including their efficacy, safety, price and benefits over competing therapies, as well as the coverage and reimbursement policies of third-party payers, such as government and private insurance plans.

If unexpected adverse events are reported in connection with the use of any of these products, physician and patient acceptance of the product could deteriorate and the commercial success of such product could be adversely affected. We are required to report to the FDA events associated with our products relating to death or injury. Adverse events could result in additional regulatory controls, such as a requirement for costly post-approval clinical studies or revisions to our approved labeling which could limit the indications or patient population for a product or could even lead to the withdrawal of a product from the market.

We are subject to generic competition, and recent developments relating to generic competition for pharmaceutical products could cause our product sales and business to be negatively impacted.

Under the Hatch-Waxman Amendments of the Federal Food, Drug, and Cosmetic Act, a pharmaceutical manufacturer may file an ANDA, seeking approval of a generic copy of an approved innovator product or an NDA under Section 505(b)(2) that relies on the FDA's prior findings of safety and effectiveness in approving the innovator product. A Section 505(b) (2) NDA

may be for a new or improved version of the original innovator product. Certain of our products, including Thiola, are subject to immediate competition from compounded and generic entrants, as the ANDA and

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NDA for these drug products have no remaining or current patent or non-patent exclusivity. In May 2021, a generic option for the 100 mg version of the original formulation of Thiola (tiopronin tablets) was approved by the FDA and additional generic alternatives may be approved in the future.

In addition, there have been a number of recent regulatory and legislative initiatives designed to encourage generic competition for pharmaceutical products, including expedited review procedures for generic manufacturers and incentives designed to spur generic competition of branded drugs. In particular, the FDA and the U.S. Federal Trade Commission ("FTC") have been focused on brand companies' denial of drug supply to potential generic competitors for testing. In December 2019, the CREATES Act was enacted, which provides a legislatively defined private right of action under which generic companies can bring suit against companies who refuse access to product for the bioequivalence testing needed to support approval of a generic product.

We have completed our response to a civil investigative demand from the FTC related to the marketing, sale, distribution and pricing of our products, including Thiola. While the investigation remains open, at this time the FTC has not indicated that it has additional questions for us, and has not initiated any claim or proceeding against us relating to these matters.

We cannot currently predict the specific outcome or impact on our business of such regulatory and legislative initiatives, litigation or investigation. However, it is our policy, which is in compliance with the CREATES Act, to evaluate requests for samples of our branded products, and to provide samples in response to bona fide requests from qualified third parties, including generic manufacturers, subject to specified conditions. We have provided and are in the process of providing samples to certain generic manufacturers.

If additional generic versions of Thiola, of Cholbam, or of Chenodal or any of our other current or future products are approved, sales of that product likely would be negatively impacted, which could have a material adverse impact on our sales and profitability. Both the original formulation of Thiola and Thiola EC are subject to generic competition, and a generic version of either formulation could have a material adverse impact on sales of Thiola EC. In addition, the defense of litigation and response to investigation requests could result in substantial costs, reputational impact, and the diversion of management attention and resources.

Changes in reimbursement practices of third-party payers, or patients' access to insurance coverage, could affect the demand for our products and/or the prices at which they are sold.

The business and financial condition of healthcare-related businesses will continue to be affected by efforts of governments and third-party payers to contain or reduce the cost of healthcare through various means. In the United States and some foreign jurisdictions, there have been a number of legislative and regulatory changes and proposed changes regarding the healthcare system that could prevent or delay marketing approval for sparsentan, pectibatinase (TBT-058), or any other product candidate that we develop, restrict or regulate post-approval activities and affect our ability to profitably sell sparsentan, pectibatinase (TBT-058), or any other product candidate for which we obtain marketing approval.

Our products are sold to patients whose healthcare costs are met by third-party payers, such as government programs, private insurance plans and managed-care programs. These third-party payers are increasingly attempting to contain healthcare costs by limiting both coverage and the level of reimbursement for medical products and services. Levels of reimbursement, if any, may be decreased in the future, and future healthcare reform legislation, regulations or changes to reimbursement policies of third-party payers may otherwise adversely affect the demand for and price levels of our products, which could have a material adverse effect on our sales and profitability.

Economic, social, and congressional pressure may result in individuals and government entities increasingly seeking to achieve cost savings through mechanisms that limit coverage or payment for our products. For example, state Medicaid programs are increasingly requesting manufacturers to pay supplemental rebates and requiring prior authorization for use of drugs. Managed care organizations continue to seek price discounts and, in some cases, to impose restrictions on the coverage of particular drugs. Government efforts to reduce Medicaid expenses may lead to increased use of managed care organizations by Medicaid programs. This may result in managed care organizations influencing prescription decisions for a larger segment of the population and a corresponding constraint on prices and reimbursement for our products.

In addition, patients' access to employer sponsored insurance coverage may be negatively impacted by the COVID-19 pandemic or other economic factors that result in increased rates of unemployment. To the extent patients taking our approved therapies become unemployed and experience a reduction to, or increased costs associated with, their insurance coverage, demand for our products could decline, which could have a material adverse effect on our sales and profitability, either as a result of decreased sales of our products and/or increased provision by us of free product to uninsured or commercially insured patients. The extent and duration of this potential impact on our business is currently unknown.

We are dependent on third parties to manufacture and distribute our pharmaceutical products who may not fulfill their obligations.

We have no manufacturing capabilities and rely on third party manufacturers who are sole source suppliers for manufacturing of Chenodal, Cholbam and Thiola. The facilities used by our third-party manufacturers must be approved by the FDA. Our dependence on third parties for the manufacture of our products may harm our profit margin on the sale of products and our ability to deliver products on a timely and competitive basis. If our third-party manufacturers are unable to manufacture to specifications or in compliance with applicable regulatory requirements, our ability to commercialize our products will be adversely impacted and could affect our ability to gain market acceptance for our products and negatively impact our revenues.

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We currently have no in-house distribution channels for Chenodal, Cholbam or Thiola and we are dependent on a third-party distributor, Eversana, to distribute such products. We rely on this distributor for all of our proceeds from sales of Chenodal, Cholbam and Thiola in the United States. The outsourcing of our distribution function is complex, and we may experience difficulties that could reduce, delay or stop shipments of such products. If we encounter such distribution problems, and we are unable to quickly enter into a similar agreement with another distributor on substantially similar terms, distribution of Chenodal, Cholbam and/or Thiola could become disrupted, resulting in lost revenues, provider dissatisfaction, and/or patient dissatisfaction.

Governments outside the United States tend to impose strict price controls and reimbursement approval policies, which may adversely affect our prospects for generating revenue.

In some countries, particularly EU countries and EFTA member states, the pricing of prescription pharmaceuticals is subject to governmental control. In these countries, pricing negotiations with governmental authorities can take considerable time (6 to 12 months or longer) after the receipt of marketing approval for a product. To obtain reimbursement or pricing approval in some countries, we may be required to conduct a clinical trial that compares the cost effectiveness of our product candidate to other available therapies. In addition, certain governmental authorities may conduct reviews of reimbursement previously provided and assert for various reasons that amounts need to be repaid. For example, in October 2021 our distributor/exploitant in France for our previously marketed product Kolbam informed us that they had received a notice that the price previously paid for Kolbam during its period on the market in France had been recalculated by the agency responsible for pharmaceutical pricing in France, with such notice asserting amounts owed for repayment. While we cannot currently estimate the likelihood that any of such asserted amount will ultimately need to be repaid following the currently ongoing review process and any applicable appeal procedures, we may ultimately determine the need to repay all or a portion of the amounts being asserted. From 2015 through 2020, the period during which we had sales of Kolbam in France, our aggregate revenues from sales of Kolbam in France attributable to all purchasers/payers were approximately \$8 million. If reimbursement of our products is unavailable or limited in scope or amount, or if pricing is set at unsatisfactory levels or subject to re-assessment and recoupment procedures, our prospects for generating revenue outside of the United States, if any, could be adversely affected and our business may suffer.

We are dependent on Vifor Pharma for the successful commercialization of sparsentan in certain key territories outside of the United States, if approved. We may not be able to establish additional collaborations or other arrangements for sparsentan in other territories, which may adversely impact our ability to generate product revenue in additional jurisdictions.

Pursuant to the terms of the License Agreement, we granted an exclusive license to Vifor Pharma for the commercialization of sparsentan in the Licensed Territories, which consist of Europe, Australia and New Zealand. Consequently, the commercial success of sparsentan in the Licensed Territories will depend in significant part on the efforts of Vifor Pharma, over which we will have limited control. In December 2021, it was announced that CSL Limited, parent company to CSL Behring, intends to initiate a tender offer to acquire Vifor Pharma. We do not currently know what effect, if any, such acquisition, if consummated, will have on our relationship with Vifor Pharma. While our agreement with Vifor Pharma provides that it will remain in place following any acquisition, there is no guarantee that our collaboration with Vifor Pharma will not be affected, adversely or otherwise, by a change in ownership of Vifor Pharma. Moreover, in connection with CSL Limited's acquisition of Vifor Pharma, if consummated, and any related restructuring, substantially less resources could be devoted to the commercialization of sparsentan in the Licensed Territories, or such efforts could be discontinued entirely. If we are unable to establish sales and marketing capabilities or enter into agreements with third parties to market and sell sparsentan, if approved, in additional territories, our ability to generate product revenue outside of the United States and the Licensed Territories may be limited.

We may not be able to rely on orphan drug exclusivity for our products.

Regulatory authorities in some jurisdictions, including the United States and Europe, may designate drugs for relatively small patient populations as orphan drugs, providing eligibility for orphan drug exclusivity upon regulatory approval if certain jurisdictional-specific conditions are met. For example, Cholbam was granted orphan drug designation in the United States and upon FDA approval of the marketing application in March 2015 was awarded seven years of orphan drug exclusivity, which expires in March 2022. Generally, if a product with an orphan drug designation subsequently receives the first marketing approval for the indication for which it has such designation, that product is entitled to a period of marketing exclusivity, which precludes the applicable regulatory authority from approving another marketing application for the same drug for the same indication for that time period. The applicable period is seven years in the United States and ten years in Europe or, in the case of orphan drugs for which a pediatric investigation plan has been completed, 12 years. Even though we have been awarded orphan drug designation in the United States and Europe for sparsentan for the treatment of FSGS and IgAN and for the pegtibatinase for the treatment of HCU, we may not be able to maintain it in Europe and the orphan drug designation may not result in orphan drug exclusivity in the United States or Europe upon approval. For example, if a competitive product that contains the same active moiety and treats the same disease as our product is shown to be clinically superior to our product, any orphan drug exclusivity we have obtained will not block the approval of such competitive product and we may effectively lose orphan drug exclusivity. Similarly, if a competitive product that contains the same active moiety and treats the same disease as our product candidate is approved for orphan drug exclusivity before our product candidate,

we may not be able to obtain approval for our product candidate until the expiration of the competitive product's orphan drug exclusivity unless our product candidate is shown to be clinically superior to the competitive product.

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If we are unable to maintain an effective and specialized sales force, we will not be able to commercialize our products in the United States successfully.

In order to successfully commercialize our products in the United States, we have built a specialized sales force. Factors that may hinder our ability to successfully market and commercially distribute our products include:

- inability of sales personnel to obtain access to or educate adequate numbers of physicians on the benefits and safety of prescribing our products;
- inability to recruit, retain and effectively manage adequate numbers of effective sales personnel;
- lack of complementary products to be offered by sales personnel, which may put us at a competitive disadvantage relative to companies that have more extensive product lines; and
- unforeseen delays, costs and expenses associated with maintaining our sales organization.

If we are unable to maintain our sales force for our products, we may not be able to generate sufficient product revenue in the United States. Similarly, if Vifor does not effectively engage or maintain its sales force for sparsentan, our ability to recognize milestones payments and royalties from the Licensed Territories will be adversely affected.

We will need to continue to expend significant time and resources to train our sales forces to be credible, persuasive and compliant in discussing our products with the specialists treating the patients indicated under the product's label. In addition, if we are unable to effectively train our sales force and equip them with effective marketing materials our ability to successfully commercialize our products could be diminished, which would have a material adverse effect on our business, results of operations and financial condition.

Risks Related to our Products and Product Candidates

Our products may not achieve or maintain expected levels of market acceptance or commercial success.

The success of our products is dependent upon achieving and maintaining market acceptance. Commercializing products is time consuming, expensive and unpredictable. There can be no assurance that we will be able to, either by ourselves or in collaboration with our partners or through our licensees, successfully commercialize new products or current products or gain market acceptance for such products. New product candidates that appear promising in development may fail to reach the market or may have only limited or no commercial success.

Further, the discovery of significant problems with a product similar to one of our products that implicate (or are perceived to implicate) an entire class of products could have an adverse effect on sales of the affected products. Accordingly, new data about our products, or products similar to our products, could negatively impact demand for our products due to real or perceived side effects or uncertainty regarding efficacy and, in some cases, could result in product withdrawal.

Our current products and any products that we or a collaboration partner bring to the market, including sparsentan and pegtibatinase (TVT-058), if they receive marketing approval, may not gain market acceptance by physicians, patients, third-party payers, and others in the medical community. If these products do not achieve an adequate level of acceptance, we may not generate significant product revenue and we may not become profitable. The degree of market acceptance of our current products and product candidates, if approved for commercial sale, will depend on a number of factors, including:

- the prevalence and severity of any side effects, including any limitations or warnings contained in a product's approved labeling;
- the efficacy and potential advantages over alternative treatments;
- the pricing of our product candidates;
- relative convenience and ease of administration;
- the willingness of the target patient population to try new therapies and of physicians to prescribe these therapies;
- the strength of marketing and distribution support and timing of market introduction of competitive products;
- publicity concerning our products or competing products and treatments; and
- sufficient third-party insurance coverage and reimbursement.

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Even if a potential or current product displays a favorable efficacy and safety profile in preclinical and clinical trials, market acceptance of the product will not be known until after it is launched. The efforts by us or any applicable collaboration partner to educate patients, the medical community, and third-party payers on the benefits of our products may require significant resources and may never be successful. Such efforts to educate the marketplace may require more resources than are required by the conventional marketing technologies employed by our competitors.

If the market opportunities for our products and product candidates are smaller than we believe they are, our revenues may be adversely affected and our business may suffer.

Certain of the diseases that our current and future product candidates are being developed to address, such as FSGS and IgAN, are relatively rare. Our projections of both the number of people who have these diseases, as well as the subset of people with these diseases who have the potential to benefit from treatment with our product candidates, may not be accurate.

Currently, most reported estimates of the prevalence of FSGS are based on studies of small subsets of the population of specific geographic areas, which are then extrapolated to estimate the prevalence of the diseases in the broader world population. As new studies are performed the estimated prevalence of these diseases may change. There can be no assurance that the prevalence of FSGS in the study populations accurately reflect the prevalence of these diseases in the broader world population. If our estimates of the prevalence of FSGS or IgAN or of the number of patients who may benefit from treatment with sparsentan prove to be incorrect, the market opportunities for our product candidates may be smaller than we believe they are, our prospects for generating revenue may be adversely affected and our business may suffer.

Our product candidates may cause undesirable side effects or have other properties that could delay or prevent their regulatory approval or commercialization.

Undesirable side effects caused by our product candidates could interrupt, delay or halt clinical trials and could result in the denial of regulatory approval by the FDA or other regulatory authorities for any or all targeted indications, and in turn prevent us from commercializing our product candidates and generating revenues from their sale.

Additionally, if sparsentan receives marketing approval, we expect the FDA will require us to include a REMS and mandatory birth control for women of child-bearing age regarding risk of embryo-fetal toxicity, as has been required for other approved endothelin antagonists.

In addition, if any of our product candidates receive marketing approval and we or others later identify undesirable side effects caused by the product:

- regulatory authorities may require the addition of restrictive labeling statements;
- regulatory authorities may withdraw their approval of the product; and
- we may be required to change the way the product is administered or conduct additional clinical trials.

Any of these events could prevent us from achieving or maintaining market acceptance of the affected product or could substantially increase the costs and expenses of commercializing the product candidate, which in turn could delay or prevent us from generating significant revenues from its sale or adversely affect our reputation.

We do not currently have patent protection for our commercial products. If we are unable to obtain and maintain protection for the intellectual property relating to our technology and products, the value of our technology and products will be adversely affected.

Our success will depend in large part on our ability to obtain and maintain protection in the United States and other countries for the intellectual property covering, or incorporated into, our technology and products. The patent situation in the field of biotechnology and pharmaceuticals generally is highly uncertain and involves complex legal, technical, scientific and factual questions. We do not have, and do not expect to obtain, patent protection for Thiola, Chenodal or Cholbam. Additionally, although we have a pending U.S. patent application directed to Thiola EC and/or its use for treating cystinuria, we do not know whether this or any future patent applications will result in a granted patent covering Thiola EC or its use for treating cystinuria. More generally, we may not be able to obtain additional issued patents relating to our technology or products. Even if issued, patents issued to us or our licensors may be challenged, narrowed, invalidated, held to be unenforceable or circumvented, which could limit our ability to stop competitors from marketing similar products or reduce the term of patent protection we may have for our products. Changes in either patent laws or in interpretations of patent laws in the United States and other countries may diminish the value of our intellectual property or narrow the scope of our patent protection.

Our product candidate sparsentan is covered by U.S. Patent No. 6,638,937, which expired in 2019 and to which we have an exclusive license. In addition, U.S. Patent No. 9,662,312, to which we also have an exclusive license and which was granted on May 30, 2017 and expires in 2030, covers the use of sparsentan for treating glomerulosclerosis, including FSGS. And U.S. Patent No. 9,993,461, to which we also have an exclusive

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license and which was granted on June 12, 2018 and expires in 2030, covers the use of sparsentan for treating IgA nephropathy as well as glomerulosclerosis, including FSGS.

For products we develop based on a new chemical entity not previously approved by the FDA, we expect that in addition to the protection afforded by our patent filings that we will be able to obtain five years regulatory exclusivity via the provisions of the Food, Drug, and Cosmetic ("FDC") Act and possibly seven years regulatory exclusivity via the orphan drug provisions of the FDC Act. In the case of sparsentan, the periods of regulatory exclusivity may, if certain conditions are satisfied, be extended by six months on the basis of pediatric exclusivity, thereby resulting in exclusivity periods of 5.5 years and 7.5 years, respectively. In addition, we may be able to obtain up to five years patent term extension (to compensate for regulatory approval delay) for one patent covering such a product for its FDA-approved use. Such a patent, like the periods of regulatory exclusivity, also may be extended by a further six months on the basis of pediatric exclusivity if certain conditions are satisfied.

The degree of future protection for our proprietary rights is uncertain, and we cannot ensure that:

- we or our licensors were the first to make the inventions covered by each of our pending patent applications;
- we or our licensors were the first to file patent applications for these inventions;
- others will not independently develop similar or alternative technologies or duplicate any of our technologies;
- any patents issued to us or our licensors that provide a basis for commercially viable products will provide us with any competitive advantages or will not be challenged by third parties;
- we will develop additional proprietary technologies that are patentable;
- we will file patent applications for new proprietary technologies promptly or at all;
- the claims we make in our patents will be upheld by patent offices in the United States and elsewhere;
- our patents will not expire prior to or shortly after commencing commercialization of a product; and
- the patents of others will not have a negative effect on our ability to do business.

We have negotiated a license agreement with Ligand Pharmaceuticals for the rights to sparsentan which we are initially developing for the treatment of FSGS and IgAN. This license subjects us to various commercialization, reporting and other obligations. If we were to default on our obligations, we and Vifor Pharma could lose our rights to sparsentan. We have obtained a U.S. patent and European patent each covering the use of sparsentan for treating glomerulosclerosis, including FSGS, as well as a second U.S. patent and a second European patent each covering both the use of sparsentan for treating IgAN and the use of sparsentan for treating glomerulosclerosis, including FSGS. In addition, in 2020 we obtained a U.S. patent covering the use of sparsentan for the treatment of Alport syndrome. However, we cannot be certain that we will be able to obtain patent protection for various other potential indications for sparsentan, or whether, if granted, we would be able to enforce such patents. Additionally, in November 2020, a third party filed an opposition to our second European patent (European Patent No. EP3222277, "the '277 EP Patent"), in the European Patent Office ("EPO"). While we are vigorously defending the '277 EP Patent against the opposition, there is no guarantee that we will be successful in doing so.

Our patents also may not afford us protection against competitors with similar technology. Because patent applications in the United States and many other jurisdictions are typically not published until 18 months after filing, or in some cases not at all, and because publications of discoveries in the scientific literature often lag behind the actual discoveries, neither we nor our licensors can be certain that we or they were the first to make the inventions claimed in our or their issued patents or pending patent applications, or that we or they were the first to file for protection of the inventions set forth in these patent applications. If a third party has also filed a United States patent application prior to the effective date of the relevant provisions of the America Invents Act (i.e. before March 16, 2013) covering our product candidates or a similar invention, we may have to participate in an adversarial proceeding, known as an interference, declared by the USPTO to determine priority of invention in the United States. The costs of these proceedings could be substantial, and it is possible that our efforts could be unsuccessful, resulting in a loss of our United States patent position.

We cannot assure you that third parties will not assert patent or other intellectual property infringement claims against us with respect to technologies used in our products. If patent infringement suits were brought against us, we may be unable to commercialize some of our products which could severely harm our business. Litigation proceedings, even if not successful, could result in substantial costs and harm our business.

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We expect to rely on orphan drug status to develop and commercialize certain of our product candidates, but our orphan drug designations may not confer marketing exclusivity or other expected commercial benefits.

We expect to rely on orphan drug exclusivity for sparsentan and potential future product candidates that we may develop. Orphan drug status currently confers seven years of marketing exclusivity in the United States under the FDC Act, and up to ten years of marketing exclusivity in Europe for a particular product in a specified indication or, in the case of orphan drugs for which a pediatric investigation plan has been completed, 12 years. The FDA and EMA have granted orphan designation for Chenodal, sparsentan, and pEGINatinase (TGT-058) for the treatment of CTX, FSGS, IgAN and homocystinuria, respectively. While we have been granted these orphan designations, we will not be able to rely on these designations to exclude other companies from manufacturing or selling these molecules for the same indication beyond these time frames. Furthermore, in Europe, orphan drug status is re-evaluated in connection with the marketing authorization review process and a product candidate must re-qualify as of such time in order to maintain orphan drug status. In addition, any marketing exclusivity in Europe can be reduced from ten years to six years if the initial designation criteria have significantly changed since the market authorization of the orphan product.

For any product candidate for which we have been granted orphan drug designation in a particular indication, it is possible that another company also holding orphan drug designation for the same product candidate will receive marketing approval for the same indication before we do. If that were to happen, our applications for that indication may not be approved until the competing company's period of exclusivity expires. Even if we are the first to obtain marketing authorization for an orphan drug indication in the United States, there are circumstances under which a competing product may be approved for the same indication during the seven-year period of marketing exclusivity, such as if the later product is shown to be clinically superior to our orphan product, or if the later product is deemed a different product than ours. Further, the seven-year marketing exclusivity would not prevent competitors from obtaining approval of the same product candidate as ours for indications other than those in which we have been granted orphan drug designation, or for the use of other types of products in the same indications as our orphan product.

Any drugs we develop may become subject to unfavorable pricing regulations, third-party reimbursement practices or healthcare reform initiatives, thereby harming our business.

In March 2010, President Obama signed the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act of 2010 (collectively, the "PPACA"), a sweeping law intended to broaden access to health insurance, reduce or constrain the growth of healthcare spending, enhance remedies against fraud and abuse, add new transparency requirements for healthcare and health insurance industries, impose new taxes and fees on the health industry and impose additional health policy reforms. The PPACA revised the definition of "average manufacturer price" for reporting purposes, which could increase the amount of Medicaid drug rebates to states. The PPACA also increased the mandated Medicaid rebate from 15.1% to 23.1% of the average manufacturer price, expanded the rebate to Medicaid managed care utilization and increased the types of entities eligible for the federal 340B drug discount program. Further, the law imposed a significant annual fee on companies that manufacture or import certain branded prescription drug products. There have been executive, judicial, Congressional, and political challenges to certain aspects of the PPACA. For example, President Trump signed several Executive Orders and other directives designed to delay the implementation of certain provisions of the PPACA or otherwise circumvent some of the requirements for health insurance mandated by the PPACA. Concurrently, Congress considered legislation to repeal or replace all or part of the PPACA. While Congress has not passed comprehensive repeal legislation, several bills affecting the implementation of certain taxes under the PPACA have been signed into law. For example, legislation enacted in 2017 informally titled the Tax Cuts and Jobs Act ("Tax Act") includes a provision which repealed, effective January 1, 2019, the tax-based shared responsibility payment imposed by the PPACA on certain individuals who fail to maintain qualifying health coverage for all or part of a year that is commonly referred to as the "individual mandate". In addition, the 2020 federal spending package eliminated, effective January 1, 2020, the PPACA-mandated "Cadillac" tax on high-cost employer-sponsored health coverage and medical device tax and, effective January 1, 2021, also eliminated the health insurer tax. The Bipartisan Budget Act of 2018 ("BBA"), among other things, amended the PPACA, effective January 1, 2019, to increase the discount that is owed by pharmaceutical manufacturers who participate in Medicare Part D from 50 percent to 70 percent, and closed the coverage gap in most Medicare drug plans, commonly referred to as the "donut hole". On June 17, 2021 the U.S. Supreme Court dismissed a challenge on procedural grounds that argued the PPACA is unconstitutional in its entirety because the "individual mandate" was repealed by Congress. Thus, the PPACA 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 that initiated a special enrollment period for purposes of obtaining health insurance coverage through the PPACA marketplace. The executive order also instructed 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 PPACA. It is possible that the PPACA will be subject to judicial or Congressional challenges in the future. It is unclear how any such challenges and the healthcare reform measures of the Biden administration will impact the PPACA and our business.

In addition, other legislative changes have been proposed and adopted since the PPACA was enacted. For example, in August 2011, the President 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, due to subsequent legislative amendments, including the BBA and the Infrastructure Investment and Jobs Act, will stay in effect through 2031 unless additional Congressional action is taken. The 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

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this sequester. Additionally, in January 2013, the American Taxpayer Relief Act of 2012 was signed into law, which, among other things, reduced Medicare payments to several providers, including hospitals and imaging centers.

If we are unable to obtain and maintain coverage and adequate reimbursement from governments or third-party payers for any products that we may develop or if we are unable to obtain acceptable prices for those products, our prospects for generating revenue and achieving profitability will suffer.

Our prospects for generating revenue and achieving profitability will depend heavily upon the availability of coverage and adequate reimbursement for the use of our approved product candidates from governmental and other third-party payers, both in the United States and in other markets. Reimbursement by a third-party payer may depend upon a number of factors, including the third-party payer's determination that use of a product is:

- 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 reimbursement approval for a product from each government or other third-party 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 gain acceptance with respect to reimbursement. Additionally, we might need to conduct post-marketing studies in order to demonstrate the cost-effectiveness of any future products to such payers' satisfaction. Such studies might require us to commit a significant amount of management time and financial and other resources. Even when a payer determines that a product is eligible for reimbursement, the payer may impose coverage limitations that preclude payment for some uses that are approved by the FDA or non-United States regulatory authorities. Also, prior authorization for a product may be required. In addition, there is a risk that full reimbursement may not be available for high-priced products. Moreover, eligibility for coverage does not imply that any product will be reimbursed in all cases or at a rate that allows us to make a profit or even cover our costs. Interim payments for new products, if applicable, may also not be sufficient to cover our costs and may not be made permanent. Further, coverage policies and third-party payer reimbursement rates may change at any time. Even if favorable coverage and reimbursement status is attained, less favorable coverage policies and reimbursement rates may be implemented in the future.

A primary trend in the United States healthcare industry and elsewhere is toward cost containment. We expect the changes made by PPACA, other legislation impacting the Medicare program and the 340B program, and the increasing emphasis on managed care to continue to put pressure on pharmaceutical product pricing. As these concerns continue to grow over the need for tighter oversight, there remains the possibility that the Health Resources and Services Administration or another agency under the U.S. Department of Health and Human Services ("HHS") will propose regulations or that Congress will explore changes to the 340B program through legislation. For example, on November 30, 2018, the U.S. Health Resources & Services Administration published its final rule regarding the calculation of 340B ceiling price and imposition of civil monetary penalties on manufacturers for knowingly and intentionally overcharging covered entities, which became effective on January 1, 2019. Pursuant to the final rule, after January 1, 2019, manufacturers must calculate 340B program ceiling prices on a quarterly basis. Moreover, manufacturers could be subject to a \$5,000 penalty for each instance where they knowingly and intentionally overcharge a covered entity under the 340B program.

There have also been a number of initiatives pending at the state and federal level that could negatively impact the reimbursement for products approved under the accelerated approval pathway in the United States.

Further, there has been increasing legislative and enforcement interest in the United States with respect to drug pricing practices, including several recent U.S. congressional inquiries and federal and state legislation designed to, among other things, increase drug pricing transparency, expedite generic competition, review relationships between pricing and manufacturer patient assistance programs, and reform government program drug reimbursement methodologies. 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, President Trump announced several executive orders related to prescription drug pricing that attempt to implement several of the Trump administration proposals. The FDA concurrently 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 until January 1, 2023. On November 20, 2020, the Centers for Medicare & Medicaid Services ("CMS") issued an interim final rule implementing President Trump's Most Favored Nation ("MFN") executive order, which would tie Medicare Part B payments for certain physician-administered drugs to the lowest price paid in other economically advanced countries, effective January 1, 2021. As a result of litigation challenging the MFN model, on December 27, 2021, CMS published a final rule that rescinded the MFN

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model interim final rule. 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. Further, in July 2021, the Biden administration released an executive order that included 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. The plan sets out a variety of potential legislative policies that Congress could pursue as well as potential administrative actions HHS can take 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 measures. It is unclear whether these or similar policy initiatives will be implemented in the future. At the state level, legislatures are increasingly passing legislation and implementing regulations designed to control pharmaceutical and biological 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. Also, there have been reports that the U.S. government is considering targeted price controls and reference pricing based on foreign single-payer country access policies, which, if implemented, could adversely affect our revenues.

Any reduction in reimbursement from Medicare, Medicaid or other government-funded programs may result in a similar reduction in payments from private payers. The implementation of cost containment measures or other healthcare reforms may prevent us from being able to generate revenue, attain profitability or commercialize our drugs. Additionally, we are currently unable to predict what additional legislation or regulation, if any, relating to the healthcare industry may be enacted in the future or what effect recently enacted federal legislation or any such additional legislation or regulation would have on our business.

It is also possible that additional governmental action is taken in response to the COVID-19 pandemic.

We face potential product liability exposure far in excess of our limited insurance coverage.

The use of any of our potential products in clinical trials, and the sale of any approved products, may expose us to liability claims. These claims might be made directly by consumers, health care providers, pharmaceutical companies or others selling our products. We have obtained limited product liability insurance coverage for our clinical trials in the amount of \$10 million per occurrence and \$25 million in the aggregate. However, our insurance may not reimburse us or may not be sufficient to reimburse us for any expenses or losses we may suffer. Moreover, insurance coverage is becoming increasingly expensive, and we may not be able to maintain insurance coverage at a reasonable cost or in sufficient amounts to protect us against losses due to liability. We intend to expand our insurance coverage to include the sale of commercial products if we obtain marketing approval for product candidates in development, but we may be unable to obtain commercially reasonable product liability insurance for any products approved for marketing. On occasion, juries have awarded large judgments in class action lawsuits based on drugs that had unanticipated side effects. A successful product liability claim or series of claims brought against us would decrease our cash reserves and could cause our stock price to fall.

We face substantial competition, which may result in others discovering, developing or commercializing products before or more successfully than we do. Our operating results will suffer if we fail to compete effectively.

Several of our competitors have substantially greater financial, research and development, distribution, manufacturing and marketing experience and resources than we do and represent substantial long-term competition for us. Other companies may succeed in developing and marketing products that are more effective and/or less costly than any products that may be developed and marketed by us, or that are commercially accepted before any of our products. Factors affecting competition in the pharmaceutical and drug industries vary, depending on the extent to which a competitor is able to achieve a competitive advantage based on its proprietary technology and ability to market and sell drugs. The industry in which we compete is characterized by extensive research and development efforts and rapid technological progress. Although we believe that our orphan drug status and proprietary position with respect to sparsentan may give us a competitive advantage, new developments are expected to continue and there can be no assurance that discoveries by others will not render such potential products noncompetitive. Furthermore, competitors could enter the market with generic versions of our products. For example, a generic option for the 100 mg version of the original formulation of Thola (tiopronin tablets) was approved by the FDA in May 2021.

Our competitive position also depends on our ability to enter into strategic alliances with one or more large pharmaceutical and contract manufacturing companies, attract and retain qualified personnel, develop effective proprietary products, implement development and marketing plans, obtain patent protection, secure adequate capital resources and successfully sell and market our approved products. There can be no assurance that we will be able to successfully achieve all of the foregoing objectives.

Use of third parties to manufacture our products and product candidates may increase the risk that we will not have sufficient quantities of our product and product candidates or such quantities at an acceptable cost, and clinical development and commercialization of our product and product candidates could be delayed, prevented or impaired.

We do not own or operate manufacturing facilities for clinical or commercial production of our products or product candidates. We have limited personnel with experience in drug manufacturing and we lack the resources and the capabilities to manufacture any of our product candidates on a clinical or commercial scale. We outsource all manufacturing and packaging of our preclinical, clinical, and commercial products to third parties. The manufacture of pharmaceutical products requires significant expertise and capital investment, including the development of advanced manufacturing

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techniques and process controls. Manufacturers of pharmaceutical products often encounter difficulties in production, particularly in scaling up initial production and in maintaining required quality control. These problems include difficulties with production costs and yields and quality control, including stability of the product candidate.

We intend to rely on third-party manufacturers for the long-term commercial supply of our development stage product candidates, including sparsentan and pEGINIBATINASE (TIV-058). We expect the manufacturers of each product candidate to at least initially and potentially for a significant period of time, be single source suppliers to us. Reliance on third-party manufacturers entails risks to which we may not be subject if we manufactured our product candidates or products ourselves, including:

- reliance on the third party for regulatory compliance and quality assurance;
- limitations on supply availability resulting from capacity and scheduling constraints of the third parties;
- impact on our reputation in the marketplace if manufacturers of our products fail to meet the demands of our customers;
- the possible breach of the manufacturing agreement by the third party because of factors beyond our control; and
- the possible termination or nonrenewal of the agreement by the third party, based on its own business priorities, at a time that is costly or inconvenient for us.

The failure of any of our contract manufacturers to maintain high manufacturing standards could result in injury or death of clinical trial participants or patients using our products. Such failure could also result in product liability claims, product recalls, product seizures or withdrawals, delays or failures in testing or delivery, cost overruns or other problems that could seriously harm our business or profitability.

Our contract manufacturers will be required to adhere to FDA regulations setting forth cGMP. These regulations cover all aspects of the manufacturing, testing, quality control and recordkeeping relating to our product candidates and any products that we may commercialize. Our manufacturers may not be able to comply with cGMP regulations or similar regulatory requirements outside the United States. Our manufacturers are subject to unannounced inspections by the FDA, state regulators and similar regulators outside the United States. Our failure, or the failure of our third-party manufacturers, to comply with applicable regulations could result in sanctions being imposed on us, including fines, injunctions, civil penalties, failure of regulatory authorities to grant marketing approval of our product candidates, delays, suspension or withdrawal of approvals, license revocation, seizures or recalls of product candidates or products, operating restrictions and criminal prosecutions, any of which could significantly and adversely affect regulatory approval and supplies of our product candidates.

Our product and any products that we may develop may compete with other product candidates and products for access to manufacturing facilities. There are a limited number of manufacturers that operate under cGMP regulations and that are both capable of manufacturing for us and willing to do so. The ongoing COVID-19 pandemic and associated vaccine development and manufacturing efforts have increased demand for the services supplied by many third party manufacturers, including some of those that we utilize for our products and product candidates, and there has recently been, and may continue to be, decreased availability of manufacturing slots at many such facilities. If the third parties that we engage to manufacture products for our developmental or commercial products should halt or cease to continue to do so for any reason, we likely would experience interruptions in cash flows and/or delays in advancing our clinical trials while we identify and qualify replacement suppliers, and we may be unable to obtain replacement supplies on terms that are favorable to us. Later relocation to another manufacturer will also require notification, review and other regulatory approvals from the FDA and other regulators and will subject our production to further cost and instability in the availability of our product candidates. In addition, if we are not able to obtain adequate supplies of our product candidates, or the drug substances used to manufacture them, it will be more difficult for us to sell our products and to develop our product candidates. This could greatly reduce our competitiveness. On March 27, 2020, President Trump signed into law the Coronavirus Aid, Relief, and Economic Security Act (the "CARES Act") in response to the COVID-19 pandemic. Throughout the COVID-19 pandemic, there has been public concern over the availability and accessibility of critical medical products, and the Act enhances FDA's existing authority with respect to drug shortage measures. Under the Act, manufacturers must have in place a risk management plan that identifies and evaluates the risks to the supply of approved drugs for certain serious diseases or conditions for each establishment where the drug or active pharmaceutical ingredient is manufactured. The risk management plan will be subject to FDA review during an inspection. If we experience shortages in the supply of our marketed products, our results could be materially impacted.

Our current and anticipated future dependence upon others for the manufacture of our product candidates may adversely affect our future profit margins and our ability to develop product candidates and commercialize any products that obtain regulatory approval on a timely and competitive basis.

Materials necessary to manufacture our products and product candidates may not be available on commercially reasonable terms, or at all, which may delay the development and commercialization of our products and product candidates.

We rely on the manufacturers of our products and product candidates to purchase from third-party suppliers the materials necessary to produce the compounds for our preclinical and clinical studies and rely on these other manufacturers for commercial distribution if we obtain marketing approval for any of our product candidates. Suppliers may not sell these materials to our manufacturers at the time we need them or on commercially reasonable terms and all such prices are susceptible to fluctuations in price and availability due to transportation costs, government regulations, price

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controls, and changes in economic climate or other foreseen circumstances. We do not have any control over the process or timing of the acquisition of these materials by our manufacturers. In addition, inflation and/or global supply chain disruptions may have a negative impact on our manufacturers' ability to acquire the materials necessary for our business. Moreover, we currently do not have any agreements for the commercial production of these materials. If our manufacturers are unable to obtain these materials for our preclinical and clinical studies, product testing and potential regulatory approval of our product candidates would be delayed, significantly impacting our ability to develop our product candidates. If our manufacturers or we are unable to purchase these materials after regulatory approval has been obtained for our product candidates, the commercial launch of our product candidates would be delayed or there would be a shortage in supply, which would materially affect our ability to generate revenues from the sale of our product candidates. For example, in 2021 a membrane used in pectibatinase (TVT-058) drug substance manufacturing became more difficult to acquire due to the same or similar membranes being used in certain of the COVID-19 vaccine manufacturing and we continue to see challenges with securing materials used in the pectibatinase manufacturing process that are in short supply as a result of the pandemic. While we believe our contingency plans will enable us to continue the ongoing clinical study of pectibatinase (TVT-058) with the currently available clinical supplies, there is no guarantee that we will not face additional shortages of this membrane, or other materials necessary to manufacture pectibatinase (TVT-058) or our other products and product candidates. If our risk mitigation plans are not successful in overcoming these challenges, our pectibatinase program or other products and product candidates, could be delayed.

Risks Related to Our Business

The COVID-19 pandemic could materially adversely affect our business, results of operations and financial condition.

The ongoing COVID-19 pandemic continues to impact domestic and worldwide economic activity, including global supply and financial markets. The COVID-19 pandemic also poses the risk that we or our clinical trial subjects, employees, contractors, collaborators, suppliers and vendors may be prevented from conducting certain clinical trials or other business activities for an indefinite period of time, including due to travel restrictions, quarantines, "stay-at-home" and "shelter-in-place" orders or shutdowns that have been or may be requested or mandated by governmental authorities, or that our or their ability to conduct operations will be negatively impacted by staffing shortages while employees quarantine as a result of exposure to or transmission of the virus. In addition, the COVID-19 pandemic could impact personnel at third-party manufacturing facilities in the United States and other countries, including China, or the availability or cost of materials, which could potentially disrupt the supply chain for our commercial products, our product candidates or the comparator products in our ongoing clinical trials.

The timelines and conduct of our ongoing clinical trials may be affected by the COVID-19 pandemic. For example, in 2020 we experienced a reduction in the rates of patient enrollment in our ongoing clinical trials as a result of the pandemic. Clinical site initiation and patient enrollment may be further delayed due to prioritization of hospital resources toward the COVID-19 pandemic and patients' ability or willingness to participate in clinical trials. For those patients who are enrolled and desire to continue in the clinical trials, some patients may not be able or willing to comply with clinical trial protocols if quarantines or governmental orders impede patient movement or interrupt healthcare services. Similarly, we may face increased challenges with the ability to recruit and retain patients and principal investigators and site staff who, as healthcare providers, may have heightened exposure to COVID-19, which could adversely impact our clinical trial operations, timelines and outcomes. In addition, we rely on independent clinical investigators, contract research organizations (CROs) and other third-party service providers to assist us in managing, monitoring and otherwise carrying out our clinical trials, and the pandemic may affect their ability to devote sufficient time and resources to our programs or to travel to sites to perform work for us. While we remain in close contact with our CROs, clinical sites and suppliers to attempt to assess the impacts that COVID-19 may have on our clinical trials and projected timelines and we continue to implement appropriate mitigating measures in accordance with recent FDA guidance in an effort to ensure the ongoing safety of the patients in our clinical trials and the continued collection of high quality data, there is no guarantee that such efforts will be successful. As challenging as conducting clinical trials is during normal times, the risks, operational challenges and costs of conducting clinical trials has increased substantially during the pandemic. In addition, restrictions caused by the ongoing COVID-19 pandemic may result in impediments to obtaining biopsies, which could impact the ability to timely obtain diagnoses of IgAN or FSGS.

Beginning in March 2020, substantially all of our workforce began working remotely either all or substantially all of the time as a result of applicable stay-at-home and shelter-in-place orders. The effects of these orders and our related remote-work policies may negatively impact productivity, disrupt our business and delay our development programs, regulatory and commercialization timelines, the magnitude of which will depend, in part, on the length and severity of the restrictions and other limitations on our ability to conduct our business in the ordinary course. In addition, as the applicable orders have recently begun to be lifted and certain of our employees begin to return to the office, we cannot guarantee that our workforce will not face an outbreak that could adversely impact our operations.

While the long-term economic impact and the duration of the COVID-19 pandemic may be difficult to predict, the widespread pandemic has resulted in, and may continue to result in, significant disruption of global financial markets, which could reduce our ability to access capital and could negatively affect our liquidity and the liquidity and stability of markets for our common stock and convertible notes. In addition, a further market correction, recession or depression resulting from the spread of COVID-19 could materially adversely affect our business and the value of our common stock and convertible notes.

Moreover, the COVID-19 pandemic continues to evolve, and the extent to which the COVID-19 pandemic may impact our business, results of operations and financial position will depend on future developments, which are highly uncertain and cannot be predicted with confidence, such as the ultimate geographic spread of the disease, the duration of the pandemic, travel restrictions and social distancing in the United States and other

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countries, business closures or business disruptions, global supply challenges, and the effectiveness of actions taken in the United States and other countries to contain and treat the disease.

Our limited operating history makes it difficult to evaluate our future prospects, and our profitability in the future is uncertain.

We face the problems, expenses, difficulties, complications and delays, many of which are beyond our control, associated with any business in its early stages and have a limited operating history on which an evaluation of our prospects can be made. Such prospects should be considered in light of the risks, expenses and difficulties frequently encountered in the establishment of a business in a new industry, characterized by a number of market entrants and intense competition, and in the shift from development to commercialization of new products based on innovative technologies.

We have experienced significant growth over the past five years in the number of our employees and the scope of our operations. We have expanded our sales and marketing, compliance and legal functions in addition to expansion of all functions to support a commercial organization. To manage our anticipated future growth, we must continue to implement and improve our managerial, operational and financial systems, expand our facilities and continue to recruit and train additional qualified personnel. To succeed, we must recruit, retain, manage and motivate qualified clinical, scientific, technical, commercial and management personnel, and we face significant competition for experienced personnel.

Due to our limited resources, we may not be able to effectively manage the expansion of our operations or recruit and train additional qualified personnel. The physical expansion of our operations may lead to significant costs and may divert our management and business development resources. Any inability on the part of our management to manage growth could delay the execution of our business plans or disrupt our operations.

Factors that may inhibit our efforts to commercialize our products without strategic partners or licensees include:

- our inability to recruit and retain adequate numbers of effective sales and marketing personnel;
- the inability of sales personnel to obtain access to or educate adequate numbers of physicians to prescribe our products;
- the lack of complementary products to be offered by our sales personnel, which may put us at a competitive disadvantage against companies with broader product lines;
- unforeseen costs associated with expanding our own sales and marketing team for new products or with entering into a partnering agreement with an independent sales and marketing organization; and
- efforts by our competitors to commercialize competitive products.

Moreover, though we generate revenues from product sales arrangements, we may incur significant operating losses over the next several years. Our ability to achieve profitable operations in the future will depend in large part upon successful in-licensing of products approved by the FDA, selling and manufacturing these products, completing development of our products, obtaining regulatory approvals for these products, and bringing these products to market. The likelihood of the long-term success of our company must be considered in light of the expenses, difficulties and delays frequently encountered in the development and commercialization of new drug products, competitive factors in the marketplace, as well as the regulatory environment in which we operate.

In addition, we may encounter unforeseen expenses, difficulties, complications, delays and other known and unknown factors.

We depend on a highly experienced and skilled workforce to grow and operate our business. If we are unable to attract, retain and engage our employees, we may not be able to grow effectively.

The execution of our strategic objectives and future success will depend upon our continued ability to identify, hire, develop, motivate and retain a highly qualified workforce. We depend on contributions from our employees, and, in particular, our senior management team, to execute efficiently and effectively. Our success further depends on our ability to attract, retain and motivate highly skilled mid-level and senior managers as well as team members at various levels in the scientific, development, medical and commercial areas of the business.

Our headquarters are based in San Diego, California. This region is home to many other biopharmaceutical companies and many academic and research institutions. Competition for qualified key talent in our market is intense and may limit our ability to hire and retain employees on acceptable terms, or at all. As a result, we may not be able to retain our existing employees or hire new employees quickly enough to meet our needs.

To induce valuable employees to remain at our company, in addition to salary, cash incentives and other employee benefits, we have provided stock options and restricted stock unit ("RSU") awards that vest over time. The value to employees of stock options and RSU awards that vest over time may be significantly affected by movements in our stock price that are beyond our control and may at any time be insufficient to counteract more lucrative offers from other companies. Despite our efforts to retain valuable employees, members of our management, scientific, development and commercial teams may terminate their employment with us on short notice. All of our employees have at-will employment, which means that they

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could leave our employment at any time, with or without notice. We do not maintain “key person” insurance policies on the lives of any of our employees.

If we fail to effectively manage our hiring and retention needs, our ability to meet our strategic objectives and our business and operating results may be adversely impacted.

We will likely experience fluctuations in operating results and could incur substantial losses.

We expect that our operating results will vary significantly from quarter-to-quarter and year-to-year as a result of investments in research and development, specifically our clinical and preclinical development activities. We have not completed development of any drugs and we anticipate that our expenses will increase substantially as we:

- continue the open label portion of DUET and conduct the Phase 3 trials of sparsentan;
- continue the research and development of additional product candidates, including pegtibatinase (TVT-058);
- expand our sales and marketing infrastructure to commercialize our current products and any new products for which we may obtain regulatory approval; and
- expand operational, financial, and management information systems and personnel, including personnel to support product development efforts and our obligations as a public company.

Furthermore, the extent of the ultimate impact of the COVID- 19 pandemic on our operational and financial performance will depend on various developments, including the duration and spread of the pandemic, and its impact on potential customers, employees, and vendors, all of which cannot be reasonably predicted at this time.

To attain and sustain profitability, we must succeed in developing and commercializing drugs with significant market potential. This will require us to be successful in a range of challenging activities, including the discovery of product candidates, successful completion of preclinical testing and clinical trials of our product candidates, obtaining regulatory approval for these product candidates and manufacturing, marketing and selling those products for which we may obtain regulatory approval. We are only in the preliminary stages of these activities. We may not be successful enough in these activities to generate revenues that are substantial enough to achieve profitability. Even if we do achieve profitability, we may not be able to sustain or increase profitability on a quarterly or annual basis. Our failure to become or remain profitable could depress the market price of our common stock and could impair our ability to raise capital, expand our business, diversify our product offerings or continue our operations. A decline in the market price of our common stock may also cause a loss of a part or all of your investment.

Negative publicity regarding any of our products could impair our ability to market any such product and may require us to spend time and money to address these issues.

If any of our products or any similar products distributed by other companies prove to be, or are asserted to be, harmful to consumers and/or subject to FDA enforcement action, our ability to successfully market and sell our products could be impaired. Because of our dependence on patient and physician perceptions, any adverse publicity associated with illness or other adverse effects resulting from the use or misuse of our products or any similar products distributed by other companies could limit the commercial potential of our products and expose us to potential liabilities.

We may not have sufficient insurance to cover our liability in any current or future litigation claims either due to coverage limits or as a result of insurance carriers seeking to deny coverage of such claims.

We face a variety of litigation-related liability risks. Our certificate of incorporation, bylaws, other applicable agreements, and/or Delaware law require us to indemnify (and advance expenses to) our current and past directors and officers and employees from reasonable expenses related to the defense of any action arising from their service to us, including circumstances under which indemnification is otherwise discretionary. While our directors and officers are included in a director and officer liability insurance policy, which covers all our directors and officers in some circumstances, our insurance coverage does not cover all of our indemnification obligations and may not be adequate to cover any indemnification or other claims against us. In addition, the underwriters of our present coverage may seek to avoid coverage in certain circumstances based upon the terms of the respective policies. If we incur liabilities that exceed our coverage under our directors and officers insurance policy or incur liabilities not covered by our insurance, we would have to self-fund any indemnification amounts owed to our directors and officers and employees in which case our results of operations and financial condition could be materially adversely affected. Further, if D&O insurance becomes prohibitively expensive to maintain in the future, we may be unable to renew such insurance on economic terms or unable renew such insurance at all. The lack of D&O insurance may make it difficult for us to retain and attract talented and skilled directors and officers to serve our company, which could adversely affect our business.

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We may need substantial funding and may be unable to raise capital when needed, which would force us to delay, reduce or eliminate our product development programs or commercialization efforts.

We expect our general and research and development expenses to increase in connection with our ongoing and planned activities, particularly as we conduct Phase 3 clinical trials of sparsentan, and conduct any other later-stage clinical trials of our product candidates. In addition, subject to obtaining regulatory approval of any of our product candidates, we expect to incur significant commercialization expenses for product sales and marketing, securing commercial quantities of product from our manufacturers, and product distribution. We currently have no additional commitments or arrangements for any additional financing to fund the research and development and commercial launch of our product candidates. General market conditions resulting from the ongoing issues arising from the COVID-19 pandemic, as well as market conditions affecting companies in the life sciences industry in general, may make it difficult for us to seek financing from the capital markets on attractive terms, or at all.

Management believes our ability to continue our operations depends on our ability to sustain and grow revenue, results of operations and our ability to access capital markets when necessary to accomplish our strategic objectives. Management believes that we may incur losses in the immediate future. We expect that our operating results will vary significantly from quarter-to-quarter and year-to-year as a result of investments in research and development, specifically our clinical and preclinical development activities. We expect to finance our cash needs from cash on hand and results of operations, and depending on results of operations we may either need additional equity or debt financing, or need to enter into strategic alliances on products in development to continue our operations until we can achieve sustained profitability and positive cash flows from operating activities. Additional funds may not be available to us when we need them on terms that are acceptable to us, or at all. If adequate funds are not available to us on a timely basis, we may be required to reduce or eliminate research development programs or commercial efforts.

Our future capital requirements will depend on many factors, including:

- the progress and results of our pre-clinical and clinical studies of sparsentan for FSGS and IgAN, pegtibatinase (TVT-058) for HCU, Chenodal for CTX, and any other drug candidates;
- the costs, timing and outcome of regulatory review of our product candidates;
- debt service obligations on the 2025 Notes;
- the number and development requirements of other product candidates that we pursue;
- the costs of commercialization activities, including product marketing, sales and distribution;
- the emergence of competing technologies and other adverse market developments;
- the costs of preparing, filing and prosecuting patent applications and maintaining, enforcing and defending intellectual property related claims;
- the extent to which we acquire or invest in businesses, products and technologies; and
- our ability to establish collaborations and obtain milestone, royalty or other payments from any such collaborators.

The market price for shares of our common stock may be volatile and purchasers of our common stock could incur substantial losses.

The price of our stock is likely to be volatile. The stock market in general, and the market for biotechnology companies in particular, have experienced extreme volatility that has often been unrelated to the operating performance of particular companies. The market price for our common stock may be influenced by many factors, including:

- results of clinical trials of our product candidates or those of our competitors;
- our entry into or the loss of a significant collaboration;
- regulatory or legal developments in the United States and other countries, including changes in the health care payment systems;
- our ability to obtain and maintain marketing approvals from the FDA or similar regulatory authorities outside the United States;

- variations in our financial results or those of companies that are perceived to be similar to us;
- changes in the structure of healthcare payment systems;

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- market conditions in the pharmaceutical and biotechnology sectors and issuance of new or changed securities analysts' reports or recommendations;
- general economic, industry and market conditions;
- results of clinical trials conducted by others on drugs that would compete with our product candidates;
- developments or disputes concerning patents or other proprietary rights;
- public concern over our product candidates or any products approved in the future;
- litigation;
- communications from government officials regarding health care costs or pharmaceutical pricing;
- future sales or anticipated sales of our common stock by us or our stockholders; and
- the other factors described in this "Risk Factors" section.

In addition, the stock markets, and in particular, the Nasdaq Global Market, have experienced extreme price and volume fluctuations that have affected and continue to affect the market prices of equity securities of many pharmaceutical companies. The realization of any of the above risks or any of a broad range of other risks, including those described in these "Risk Factors" could have a dramatic and material adverse impact on the market price of our common stock.

We may be unable to successfully integrate new products or businesses we may acquire.

We intend to expand our product pipeline by pursuing acquisition of pharmaceutical products. If an acquisition is consummated, the integration of the acquired business, product or other assets into our company may also be complex and time-consuming and, if such businesses, products and assets are not successfully integrated, we may not achieve the anticipated benefits, cost-savings or growth opportunities. Potential difficulties that may be encountered in the integration process include the following:

- integrating personnel, operations and systems, while maintaining focus on producing and delivering consistent, high quality products;
- coordinating geographically dispersed organizations;
- distracting employees from operations;
- retaining existing customers and attracting new customers; and
- managing inefficiencies associated with integrating the operations of the Company.

Furthermore, these acquisitions and other arrangements, even if successfully integrated, may fail to further our business strategy as anticipated, expose us to increased competition or challenges with respect to our products or geographic markets, and expose us to additional liabilities associated with an acquired business, product, technology or other asset or arrangement. Any one of these challenges or risks could impair our ability to realize any benefit from our acquisitions or arrangements after we have expended resources on them.

Product liability lawsuits against us could cause us to incur substantial liabilities and to limit commercialization of any products that we may develop.

Our business exposes us to potential liability risks inherent in the research, development, manufacturing and marketing of pharmaceutical products. If any of our product candidates in clinical trials or commercialized products harm people we may be subject to costly and damaging product liability claims. We have clinical trial insurance and commercial product liability coverage. However, this insurance may not be adequate to cover all claims. We may be exposed to product liability claims and product recalls, including those which may arise from misuse or malfunction of, or design flaws in, such products, whether or not such problems directly relate to the products and services we have provided. If we cannot successfully defend ourselves against claims that our product candidates or products caused injuries, we will incur substantial liabilities. Regardless of merit or eventual outcome, liability claims may result in:

- decreased demand for any product candidates or products that we may develop;

- damage to our reputation;

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- regulatory investigations that could require costly recalls or product modifications;
- withdrawal of clinical trial participants;
- costs to defend the related litigation;
- substantial monetary awards to trial participants or patients, including awards that substantially exceed our product liability insurance, which we would then be required to pay from other sources, if available, and would damage our ability to obtain liability insurance at reasonable costs, or at all, in the future;
- loss of revenue;
- the diversion of management's attention from managing our business; and
- the inability to commercialize any products that we may develop.

A successful product liability claim or a series of claims brought against us could cause our stock price to fall and, if judgments exceed our insurance coverage, could decrease our available cash and adversely affect our business.

We may become involved in certain litigation matters, any of which could result in substantial costs, divert management's attention and otherwise have a material adverse effect on our business, operating results or financial condition.

From time to time we may become involved in certain litigation matters, including those described in Note 11 of the Consolidated Financial Statements included in this report. Although we intend to vigorously defend our interests in each matter, there is no guarantee that we will be successful and we may have to pay damages awards or otherwise may enter into settlement arrangements in connection with such matters. Any such payments or settlement arrangements could have material adverse effects on our business, operating results or financial condition. Even if we are successful in defending our interests in each matter, litigation with respect to such matters could result in substantial costs and significant adverse impact on our reputation and divert management's attention and resources, which could have a material adverse effect on our business, operating results or financial condition.

We are subject to significant ongoing regulatory obligations and oversight, which may result in significant additional expense and may limit our commercial success.

We are subject to significant ongoing regulatory obligations, such as safety reporting requirements and additional post-marketing obligations, including regulatory oversight of the promotion and marketing of our products. In addition, the manufacture, quality control, labeling, packaging, safety surveillance, adverse event reporting, storage and recordkeeping for our products are subject to extensive and ongoing regulatory requirements. If we become aware of previously unknown problems with any of our products, a regulatory agency may impose restrictions on our products, our contract manufacturers or us. If we, our products and product candidates, or the manufacturing facilities for our products and product candidates fail to comply with applicable regulatory requirements, a regulatory agency, including the FDA, may send enforcement letters, mandate labeling changes, suspend or withdraw regulatory approval, suspend any ongoing clinical trials, refuse to approve pending applications or supplements filed by us, suspend or impose restrictions on manufacturing operations, request a recall of, seize or detain a product, seek criminal prosecution or an injunction, or impose civil or criminal penalties or monetary fines. In such instances, we could experience a significant drop in the sales of the affected products, our product revenues and reputation in the marketplace may suffer, and we could become the target of lawsuits.

We are also subject to regulation by national, regional, state and local agencies, including but not limited to the FDA, CMS, Department of Justice, the Federal Trade Commission, the HHS Office of Inspector General and other regulatory bodies. The FDC Act, Social Security Act, Public Health Service Act and other federal and state statutes and regulations govern to varying degrees the research, development, manufacturing and commercial activities relating to prescription pharmaceutical products, including preclinical testing, clinical research, approval, production, labeling, sale, distribution, post-market surveillance, advertising, dissemination of information, promotion, marketing, and pricing to government purchasers and government health care programs. Our manufacturing partners are subject to many of the same requirements.

Companies may not promote drugs for "off-label" uses—that is, uses that are not described in the product's labeling and that differ from those approved by the FDA or other applicable regulatory agencies. However, a company may share truthful and not misleading information that is otherwise consistent with the product's labeling. A company that is found to have improperly promoted off-label uses may be subject to significant liability, including civil and administrative remedies as well as criminal sanctions. In addition, management's attention could be diverted from our business operations and our reputation could be damaged.

The federal health care program Anti-Kickback statute 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 healthcare programs. This statute has been interpreted broadly to apply to

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arrangements that pharmaceutical companies have with prescribers, purchasers and formulary managers, among others. Further, the PPACA, among other things, amends the intent requirement of the federal anti-kickback statute so that a person or entity no longer needs to have actual knowledge of this statute or specific intent to violate it. In addition, the PPACA 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 civil False Claims Act. Although there are a number of statutory exceptions and regulatory safe harbors under the federal anti-kickback statute protecting certain common manufacturer business arrangements and activities from prosecution, the exceptions and safe harbors are drawn narrowly and an arrangement must meet all of the conditions specified in order to be fully protected from scrutiny under the federal anti-kickback statute. We seek to comply with the exceptions and safe harbors whenever possible, but our practices, such as our patient assistance programs and prompt pay discounts with certain customers, may not in all cases meet all of the criteria for protection from anti-kickback liability and may be subject to scrutiny.

The federal false claims laws, including the federal False Claims Act, prohibit any person or entity 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. Additionally, the civil monetary penalties statute imposes penalties against any person or entity that, among other things, is determined to have presented or caused to be presented a claim to a federal health program that the person knows or should know is for an item or service that was not provided as claimed or is false or fraudulent. Many pharmaceutical and other health care companies have been investigated and have reached substantial financial settlements with the federal government under the federal False Claims Act for a variety of alleged marketing activities, including providing free product to customers with the expectation that the customers would bill federal programs for the product; providing consulting fees, grants, free travel, and other benefits to physicians to induce them to prescribe the company's products; and inflating prices reported to private price publication services, which may be used by states to set drug payment rates under government health care programs. Companies have been prosecuted for causing false claims to be submitted because of the marketing of their products for unapproved uses. Pharmaceutical and other health care companies have also been prosecuted on other legal theories of Medicare and Medicaid fraud.

Legislative and regulatory proposals have been made to expand post-approval requirements and restrict sales and promotional activities for pharmaceutical products. It is not clear whether additional legislative changes will be enacted, or whether the FDA regulations, guidance or interpretations will be changed, or what the impact of such changes on the marketing approvals of any Travere products, if any, may be. In addition, increased scrutiny by the U.S. Congress of the FDA's approval process may significantly delay or prevent marketing approval, as well as subject us to more stringent product labeling and post-marketing testing and other requirements.

We also could become subject to government investigations and related subpoenas. Such subpoenas are often associated with previously filed qui tam actions, or lawsuits filed under seal under the federal False Claims Act. Qui tam actions are brought by private plaintiffs suing on behalf of the federal government for alleged violations of the federal False Claims Act. The time and expense associated with responding to such subpoenas, and any related qui tam or other actions, may be extensive, and we cannot predict the results of our review of the responsive documents and underlying facts or the results of such actions. Responding to government investigations, defending any claims raised, and any resulting fines, restitution, damages and penalties, settlement payments or administrative actions, as well as any related actions brought by stockholders or other third parties, could have a material impact on our reputation, business and financial condition and divert the attention of our management from operating our business.

The number and complexity of both federal and state laws continues to increase, and additional governmental resources are being added to enforce these laws and to prosecute companies and individuals who are believed to be violating them. In particular, the PPACA includes a number of provisions aimed at strengthening the government's ability to pursue anti-kickback and false claims cases against pharmaceutical manufacturers and other healthcare entities, including substantially increased funding for healthcare fraud enforcement activities, enhanced investigative powers, amendments to the federal False Claims Act that make it easier for the government and whistleblowers to pursue cases for alleged kickback and false claim violations and public reporting of certain payments and transfers of value by certain pharmaceutical manufacturers to physicians and teaching hospitals nationwide. We anticipate that government scrutiny of pharmaceutical sales and marketing practices will continue for the foreseeable future and subject us to the risk of further government investigations and enforcement actions. Responding to a government investigation or enforcement action would be expensive and time-consuming, and could have a material adverse effect on our business, financial condition, results of operations and growth prospects.

In February 2021, we entered into a limited co-promotion arrangement with Albireo Pharma, Inc. ("Albireo"), providing for our Cholbam dedicated sales representatives to dedicate a portion of their efforts to promoting Albireo's product, Bylvay (odevixibat), in the United States following approval. In July 2021, Albireo announced that the U.S. Food & Drug Administration ("FDA") has approved Bylvay (odevixibat) for the treatment of pruritis in patients with Progressive Familial Intrahepatic Cholestasis ("PFIC"). In addition to our activities in connection with promoting our own products, if our or Albireo's sales representatives violate or are perceived to have violated any applicable regulatory requirement in promoting Bylvay (odevixibat), we could become subject to investigations, litigation, and/or penalties as described above, reputational harm, as well as contractual liabilities associated with the Albireo co-promotion agreement, any of which could have a material adverse effect on our business.

The U.S. Foreign Corrupt Practices Act, and similar worldwide anti-bribery laws generally prohibit companies and their intermediaries from making improper payments to government officials for the purpose of obtaining or retaining business. Our policies mandate compliance with these anti-bribery laws. We operate in parts of the world that have experienced governmental corruption to some degree and in certain circumstances, strict compliance with anti-bribery laws may conflict with local customs and practices or may require us to interact with doctors and hospitals, some of which may be state controlled, in a manner that is different than in the United States. We cannot assure that our internal control policies and

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procedures will protect us from reckless or criminal acts committed by our employees or agents. Violations of these laws, or allegations of such violations, could disrupt our business and result in criminal or civil penalties or remedial measures, any of which could have a material adverse effect on our business, financial condition and results of operations and could cause the market value of our common stock to decline.

The federal Health Insurance Portability and Accountability Act of 1996 ("HIPAA"), created new federal criminal statutes that prohibit, among other actions, knowingly and willfully executing, or attempting to execute, a scheme to defraud any healthcare benefit program, including private third-party payers, and 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 healthcare benefits, items or services. Like the federal anti-kickback statute, the PPACA amended the intent standard for certain healthcare fraud provisions under HIPAA such that a person or entity no longer needs to have actual knowledge of the statute or specific intent to violate it in order to have committed a violation.

Additionally, the federal Physician Payments Sunshine Act within the PPACA, and its implementing regulations, require that certain manufacturers of drugs, devices, biologicals and medical supplies to report annually information related to certain payments or other transfers of value made or distributed to physicians (defined to include doctors, dentists, optometrists, podiatrists, and chiropractors), other healthcare professionals (such as physician assistants and nurse practitioners), and teaching hospitals, or to entities or individuals at the request of, or designated on behalf of, physicians and teaching hospitals and to report annually certain ownership and investment interests held by physicians and their immediate family members.

Moreover, the Drug Supply Chain Security Act imposes obligations on manufacturers of pharmaceutical products related to product tracking and tracing. We are not sure whether additional legislative changes will be enacted, or whether the current regulations, guidance or interpretations will be changed, or what the impact of such changes on our business, if any, may be.

Also, many states have similar fraud and abuse statutes or regulations, including state anti-kickback and false claims laws, that apply to items and services reimbursed under Medicaid and other state programs, or, in several states, apply regardless of the payer. Further, certain states require implementation of commercial compliance programs and marketing codes, compliance with the pharmaceutical industry's voluntary compliance guidelines, and compliance with the applicable compliance guidance promulgated by the federal government. Other various state level requirements include restricting payments or the provision of other items of value that may be made to healthcare providers and other potential referral sources; restricting various marketing practices; requiring prescription drug companies to report expenses relating to the marketing and promotion of drug products; requiring the posting of information relating to clinical studies and their outcomes; requiring the registration of sales representatives; requiring the reporting of certain information related to drug pricing; and requiring drug manufacturers to track and report information related to payments, gifts, compensation, and other items of value to physicians and other healthcare providers.

If we are not able to obtain and maintain required regulatory approvals, we will not be able to commercialize our products, and our ability to generate revenue will be materially impaired.

Our product candidates, once approved, and the activities associated with their manufacture, marketing, distribution, and sales are subject to extensive regulation by the FDA and other regulatory agencies in the United States and by comparable authorities in other countries. Failure to adhere to regulations set out by these bodies for one or more of our commercial products could prevent us from commercializing the product candidate in the jurisdiction of the regulatory authority. We have only limited experience in meeting the regulatory requirements incumbent on the sale of drugs in the United States and elsewhere, and expect to rely on third-parties to assist us in these processes. If these third parties fail to adequately adhere to the regulations governing drug distribution and promotion we may be unable to sell our products, which could have a material effect on our ability to generate revenue.

Our product candidates and the activities associated with their development and commercialization, including testing, manufacture, safety, efficacy, recordkeeping, labeling, storage, approval, advertising, promotion, sale and distribution, are subject to comprehensive regulation by the FDA and other regulatory agencies in the United States and by comparable authorities in other countries. Failure to obtain regulatory approval for a product candidate will prevent us from commercializing the product candidate in the jurisdiction of the regulatory authority. We have only limited experience in filing and prosecuting the applications necessary to obtain regulatory approvals and expect to rely on third-party contract research organizations to assist us in this process.

Securing FDA approval requires the submission of extensive preclinical and clinical data and supporting information to the FDA for each therapeutic indication to establish the product candidate's safety and efficacy. Securing FDA approval also requires the submission of information about the product manufacturing process to, and successful inspection of manufacturing facilities by, the FDA. Our future products may not be effective, may be only moderately effective or may prove to have undesirable or unintended side effects, toxicities or other characteristics that may preclude our obtaining regulatory approval or prevent or limit commercial use.

Our product candidates may fail to obtain regulatory approval for many reasons, including:

- our failure to demonstrate to the satisfaction of the FDA or comparable regulatory authorities that a product candidate is safe and effective for a particular indication;

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- the results of clinical trials may not meet the level of statistical significance required by the FDA or comparable regulatory authorities for approval;
- our inability to demonstrate that a product candidate's benefits outweigh its risks;
- our inability to demonstrate that the product candidate presents an advantage over existing therapies;
- the FDA's or comparable regulatory authorities' disagreement with the manner in which we interpret the data from preclinical studies or clinical trials;
- failure of the third-party manufacturers with which we contract for clinical or commercial supplies to satisfactorily complete an FDA pre-approval inspection of the facility or facilities at which the product is manufactured to assess compliance with the FDA's cGMP regulations to assure that the facilities, methods and controls are adequate to preserve the drug's identity, strength, quality and purity; and
- a change in the approval policies or regulations of the FDA or comparable regulatory authorities or a change in the laws governing the approval process.

The process of obtaining regulatory approvals is expensive, often takes many years, if approval is obtained at all, and can vary substantially based upon a variety of factors, including the type, complexity and novelty of the product candidates involved. Changes in regulatory approval policies during the development period, changes in or the enactment of additional statutes or regulations, or changes in regulatory review for each submitted product application may cause delays in the approval or rejection of an application. The FDA and non-United States regulatory authorities have substantial discretion in the approval process and may refuse to accept any application or may decide that our data is insufficient for approval and require additional preclinical, clinical or other studies. In addition, varying interpretations of the data obtained from preclinical and clinical testing could delay, limit or prevent regulatory approval of a product candidate. Any regulatory approval we ultimately obtain may be limited or subject to restrictions or post approval commitments that render the approved product not commercially viable. Any FDA or other regulatory approval of our product candidates, once obtained, may be withdrawn, including for failure to comply with regulatory requirements or if clinical or manufacturing problems follow initial marketing.

We are subject to stringent and changing obligations related to data privacy and security. Our actual or perceived failure to comply with such obligations could lead to regulatory investigations or actions; litigation; fines and penalties; disruptions of our business operations; reputational harm; loss of revenue or profits; loss of customers or sales; and other adverse business consequences.

In the ordinary course of business, we collect, receive, store, process, generate, use, transfer, disclose, make accessible, protect, secure, dispose of, transmit, and share (collectively, processing) personal data and other sensitive information, including proprietary and confidential business data, trade secrets, intellectual property, data we collect about trial participants in connection with clinical trials, and sensitive third-party data. Our data processing activities subject us to numerous data privacy and security obligations, such as various laws, regulations, guidance, industry standards, external and internal privacy and security policies, contracts, and other obligations that govern the processing of personal data by us and on our behalf.

In the United States, federal, state, and local governments have enacted numerous data privacy and security laws, including data breach notification laws, personal data privacy laws, and consumer protection laws. For example, HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act ("HITECH"), and their respective implementing regulations, imposes specified requirements relating to the privacy, security and transmission of individually identifiable health information. Among other things, HITECH, through its implementing regulations, makes certain of HIPAA's privacy and security standards directly applicable to business associates, defined as a person or organization, other than a member of a covered entity's workforce, that creates, receives, maintains or transmits protected health information for or on behalf of a covered entity for a function or activity regulated by HIPAA as well as their covered subcontractors. In addition, the California Consumer Privacy Act of 2018 ("CCPA") imposes obligations on businesses to which it applies. These obligations include, without limitation, providing specific disclosures in privacy notices, affording California residents certain rights related to their personal data, and requiring businesses subject to the CCPA to implement certain measures to effectuate California residents' personal data rights. The CCPA allows for statutory fines for noncompliance (up to \$7,500 per violation). In addition, it is anticipated that the California Privacy Rights Act of 2020 ("CPRA"), effective January 1, 2023, will expand the CCPA. For example, the CPRA establishes a new California Privacy Protection Agency to implement and enforce the CCPA (as amended), which could increase the risk of an enforcement action. Other states have enacted data privacy laws. For example, Virginia passed its Consumer Data Protection Act, and Colorado passed the Colorado Privacy Act, both of which differ from the CPRA and become effective in 2023. Additional data privacy and security legislation has been proposed at the federal, state, and local levels in recent years, which, along with existing laws, could increase our potential liability, increase compliance costs, or adversely affect our business.

Outside the United States, an increasing number of laws, regulations, and industry standards apply to data privacy and security. For example, the European Union's General Data Protection Regulation ("EU GDPR"), the United Kingdom's GDPR ("UK GDPR"), Brazil's General Data Protection Law (Lei Geral de Proteção de Dados Pessoais, or "LGPD") (Law No. 13,709/2018), and China's Personal Information Protection Law ("PIPL") impose strict requirements for processing personal data. For example, the EU GDPR imposes significant and complex burdens on processing personal data, particularly for processing "special category personal data" (such as personal data related to health and genetic information), which

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could be relevant to our operations in the context of our conduct of clinical trials and is of interest to relevant regulators. Under the EU GDPR, government regulators may impose temporary or definitive bans on data processing, as well as fines of up to 20 million euros or 4% of annual global revenue, whichever is greater. Further, individuals may initiate litigation related to processing of their personal data.

In addition, privacy advocates and industry groups have proposed, and may propose, standards with which we are legally or contractually bound to comply.

Certain jurisdictions have enacted data localization laws and cross-border personal data transfer laws, which could make it more difficult to transfer information across jurisdictions (such as transferring or receiving personal data that originates in the EU, the UK, Switzerland or in other foreign jurisdictions). Existing mechanisms that facilitate cross-border personal data transfers may change or be invalidated. For example, absent appropriate safeguards or other circumstances, the EU GDPR generally restricts the transfer of personal data to countries outside of the European Economic Area ("EEA") that the European Commission does not consider to provide an adequate level of data privacy and security, such as the United States. The European Commission released a set of "Standard Contractual Clauses" ("SCCs") that are designed to be a valid mechanism to facilitate personal data transfers out of the EEA to these jurisdictions. Currently, these Standard Contractual Clauses are a valid mechanism to transfer personal data outside of the EEA, but there exists some uncertainty regarding whether the SCCs will remain a valid mechanism. Additionally, the SCCs impose additional compliance burdens, such as conducting transfer impact assessments to determine whether additional security measures are necessary to protect the at-issue personal data. As we incorporate the new SCCs into our contractual arrangements, we may be required to expend significant resources to update our contractual arrangements and to comply with such obligations. In addition, Switzerland and the UK similarly restrict personal data transfers outside of those jurisdictions to countries such as the United States that do not provide an adequate level of personal data protection, and have also passed or are considering laws requiring local data residency or otherwise impeding the transfer of personal data across borders, any of which could increase the cost and complexity of doing business.

If we are unable to implement a valid compliance mechanism for cross-border personal data transfers, we may face increased exposure to regulatory actions, substantial fines and injunctions against processing or transferring personal data from Europe. Inability to import personal data from Europe to the United States may significantly and negatively impact our business operations, including by limiting our ability to conduct clinical trials activities in Europe and elsewhere; limiting our ability to collaborate with CROs, service providers, contractors and other companies that are subject to such cross-border data transfer or localization laws; or requiring us to increase our personal data processing capabilities and infrastructure in foreign jurisdictions at significant expense.

Our obligations related to data privacy and security are quickly changing in an increasingly stringent fashion, creating some uncertainty as to the effective future legal framework. Additionally, these obligations may be subject to differing applications and interpretations, which may be inconsistent or conflict among jurisdictions. Preparing for and complying with these obligations requires significant resources and may necessitate changes to our information technologies, systems, and practices and to those of any third parties that process personal data on our behalf. Although we endeavor to comply with all applicable data privacy and security obligations, we may at times fail (or be perceived to have failed) to do so. Moreover, despite our efforts, our personnel or third parties upon whom we rely may fail to comply with such obligations, which could negatively impact our business operations and compliance posture. For example, any failure by a third-party service provider to comply with applicable law, regulations, or contractual obligations could result in adverse effects, including proceedings against us by governmental entities or others. If we or any of our partners fail to comply or are perceived to have failed to comply with applicable regulatory requirements, we or they could be subject to a range of regulatory actions or litigation that could affect our or our partners' ability to commercialize our products and conduct necessary research and development, and could harm or prevent sales of the affected products, or could substantially increase the costs and expenses of commercializing and marketing our products. Any threatened or actual government enforcement action or litigation could also generate adverse publicity and require that we devote substantial resources that could otherwise be used in other aspects of our business. Compliance with applicable federal, state, and foreign laws is difficult and time consuming, and companies that violate them may face substantial penalties. The potential sanctions include significant criminal fines, civil monetary penalties, administrative penalties, disgorgement, exclusion from participation in federal health care programs, individual imprisonment, injunctions, recall or seizure of products, total or partial suspension of production, reputational harm, administrative burdens, interruption or cessation of clinical trials, additional oversight and reporting obligations if we become subject to a corporate integrity agreement or similar agreement to resolve allegations of non-compliance with these laws, diminished profits and future earnings, and the curtailment or restructuring of our operations, and other sanctions. Because of the breadth of these laws, it is possible that some of our business activities could be subject to challenge under one or more of these laws. Such a challenge, irrespective of the underlying merits of the challenge or the ultimate outcome of the matter, could have a material adverse effect on our business, financial condition, results of operations and growth prospects.

If our information technology systems or data, or those of third parties upon which we rely, are or were compromised, we could experience adverse impacts resulting from such compromise, including, but not limited to, regulatory investigations or actions; litigation; fines and penalties; interruptions to our operations

such as clinical trials; harm to our reputation; loss of revenue or profits; and a loss of sales and other adverse consequences.

In the ordinary course of our business, we may collect, receive, store, process, generate, use, transfer, disclose, make accessible, protect, secure, dispose of, transmit, and share (collectively, processing) proprietary, confidential, and sensitive data, including personal data (such as health-related data), intellectual property, and trade secrets (collectively, sensitive information). We may rely upon third-party service providers and technologies to operate critical business systems to process sensitive information in a variety of contexts, including, without limitation, third-party providers of cloud-

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based infrastructure, encryption and authentication technology, employee email, and other functions. Our ability to monitor these third parties' information security practices is limited, and these third parties may not have adequate information security measures in place. We may share or receive sensitive information with or from third parties.

Cyberattacks, malicious internet-based activity, and online and offline fraud are prevalent and continue to increase. These threats are becoming increasingly difficult to detect. These threats come from a variety of sources, including traditional computer "hackers," threat actors, personnel (such as through theft or misuse), sophisticated nation-states, and nation-state-supported actors. We and the third parties upon which we rely may be subject to a variety of evolving threats, including, but not limited to, social-engineering attacks (including through phishing attacks), malicious code (such as viruses and worms), malware (including as a result of advanced persistent threat intrusions), denial-of-service attacks (such as credential stuffing), personnel misconduct or error, ransomware attacks, supply-chain attacks, software bugs, server malfunctions, software or hardware failures, loss of data or other information technology assets, adware, telecommunications failures, and other similar threats. Ransomware attacks, including those from organized criminal threat actors, nation-states and nation-state supported actors, are becoming increasingly prevalent and severe and can lead to significant interruptions, delays, or outages in our operations, disruption of clinical trials, loss of data (including data related to clinical trials), loss of income, significant extra expenses to restore data or systems, reputational loss and the diversion of funds. To alleviate the financial, operational and reputational impact of a ransomware attack, it may be preferable to make extortion payments, but we may be unwilling or unable to do so (including, for example, if applicable laws prohibit such payments). Similarly, supply chain attacks have increased in frequency. The Company's data and information systems may also fail for reasons other than a security incident or breach, such as server malfunctions, software or hardware failures, and telecommunications failures. Additionally, the COVID-19 pandemic and our remote workforce poses increased risks to our information technology systems and data, as more of our employees work from home, utilizing network connections outside our premises. Future or past business transactions (such as acquisitions or integrations) could also expose us to additional cybersecurity risks and vulnerabilities, as our systems could be negatively affected by vulnerabilities present in acquired or integrated entities' systems and technologies.

Any of the previously identified or similar threats could cause a security incident or other interruption. A security incident or other interruption could result in unauthorized, unlawful, or accidental acquisition, modification, destruction, loss, alteration, encryption, disclosure of, or access to our sensitive information. A security incident or other interruption could disrupt our ability (and that of third parties upon whom we rely) to provide our products and services. We may expend significant resources or modify our business activities (including our clinical trial activities) to try to protect against security incidents. Certain data privacy and security obligations may require us to implement and maintain specific security measures, industry-standard or reasonable security measures to protect our information technology systems and sensitive information.

While we have implemented security measures designed to protect against security incidents, there can be no assurance that these measures will be effective. We may be unable in the future to detect vulnerabilities in our information technology systems (including our products) because such threats and techniques change frequently, are often sophisticated in nature, and may not be detected until after a security incident has occurred. Despite our efforts to identify and remediate vulnerabilities, if any, in our information technology systems, our efforts may not be successful and could result in a material disruption of our programs and operations. For example, the loss of clinical trial data from completed or ongoing clinical trials for any of our product candidates could result in delays in our regulatory approval efforts and significantly increase our costs to recover or reproduce the data. Further, we may experience delays in developing and deploying remedial measures designed to address any such identified vulnerabilities.

Applicable data security laws, privacy policies and data security obligations may require us to notify relevant stakeholders of any security incidents, including affected individuals, customers, and regulators. Such disclosures are costly, and the disclosures or the failure to comply with such requirements, could lead to adverse consequences. If we (or a third party upon whom we rely) experience a security incident or are perceived to have experienced a security incident, we may experience adverse consequences. These consequences may include: government enforcement actions (for example, investigations, fines, penalties, audits, and inspections); additional reporting requirements and/or oversight; restrictions on processing sensitive information (including personal data); litigation (including class claims); indemnification obligations; negative publicity; reputational harm; monetary fund diversions; interruptions in our operations (including availability of data); financial loss; and other similar harms. Security incidents and attendant consequences may cause customers to stop using our products or services, deter new customers from using our products or services, and negatively impact our ability to grow and operate our business.

Our contracts may not contain limitations of liability, and even where they do, there can be no assurance that limitations of liability in our contracts are sufficient to protect us from liabilities, damages, or claims related to our data privacy and security obligations. In addition, our insurance coverage may not be adequate or sufficient to protect us from or to mitigate liabilities arising out of our privacy and security practices or that such coverage will continue to be available on commercially reasonable terms or at all, or that such coverage will pay future claims.

Changes in tax laws or regulations that are applied adversely to us or our customers may have a material adverse effect on our business, cash flow, financial condition or results of operations.

New income, sales, use or other tax laws, statutes, rules, regulations or ordinances could be enacted at any time, which could affect the tax treatment of our domestic and foreign earnings. Any new taxes could adversely affect our domestic and international business operations, and our business and financial performance. Further, existing tax laws, statutes, rules, regulations or ordinances could be interpreted, changed, modified or applied adversely to us. For example, the Biden administration and Congress have proposed various U.S. federal tax law changes, which if enacted could have a material impact on our business, cash flow, financial condition or results of operations. In addition, it is uncertain if and to what extent various states will conform to the Tax Act, the CARES Act, or any newly enacted federal tax legislation. Changes in corporate tax rates, the

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realization of net deferred tax assets relating to our operations, the taxation of foreign earnings, and the deductibility of expenses under the Tax Act or future reform legislation could have a material impact on the value of our deferred tax assets, could result in significant one-time charges, and could increase our future U.S. tax expense.

Our effective tax rate may fluctuate, and we may incur obligations in tax jurisdictions in excess of accrued amounts.

Our effective tax rate is derived from a combination of applicable tax rates in the various places that we operate. In preparing our financial statements, we estimate the amount of tax that will become payable in each of such places. Nevertheless, our effective tax rate may be different than experienced in the past due to numerous factors, including changes in the mix of our profitability from state to state, the results of examinations and audits of our tax filings, our inability to secure or sustain acceptable agreements with tax authorities, changes in accounting for income taxes and changes in tax laws. Any of these factors could cause us to experience an effective tax rate significantly different from previous periods or our current expectations and may result in tax obligations in excess of amounts accrued in our financial statements.

Our ability to use net operating loss carryforwards and certain other tax attributes to offset future taxable income and taxes may be subject to limitations.

Under current law, our federal net operating losses ("NOLs") generated in tax years beginning after December 31, 2017, may be carried forward indefinitely, but the deductibility of such federal NOLs in tax years beginning after December 31, 2020, is limited to 80% of taxable income. As of December 31, 2021, we had federal net operating loss ("NOL") of \$85.8 million. It is uncertain if and to what extent various states will conform to federal tax laws. In addition, under Sections 382 and 383 of the Internal Revenue Code of 1986, as amended, and corresponding provisions of state law, if a corporation undergoes an "ownership change," which is 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-change NOL carryforwards and other pre-change U.S. tax attributes (such as research tax credits) to offset its post-change income or taxes may be limited. It is possible that we have experienced an ownership change in the past. In addition, we may experience ownership changes in the future as a result of subsequent shifts in our stock ownership, some of which may be outside of our control.

As a result, our federal NOL carryforwards may be subject to a percentage limitation if used to offset income in tax years following an ownership change. In addition, it is possible that we have in the past undergone, and in the future may undergo, additional ownership changes that could limit our ability to use all of our pre-change NOL carryforwards and other pre-change tax attributes (such as research tax credits) to offset our post-change income or taxes. Similar provisions of state tax law may also apply to limit our use of accumulated state tax attributes. In addition, at the state level, there may be periods during which the use of NOL carryforwards is suspended or otherwise limited, which could accelerate or permanently increase state taxes owed. As a result, we may be unable to use all or a material portion of our NOL carryforwards and other tax attributes, which would harm our future operating results by effectively increasing our future tax obligations.

Changes in funding for the FDA, the SEC and other government agencies could hinder their ability to hire and retain key leadership and other personnel, prevent new products and services from being developed or commercialized in a timely manner or otherwise prevent those agencies from performing normal functions on which the operation of our business may rely, which could negatively impact our business.

The ability of the FDA to review and approve new products can be affected by a variety of factors, including government budget and funding levels, ability to hire and retain key personnel and accept payment of user fees, and statutory, regulatory, and policy changes. Average review times at the agency have fluctuated in recent years as a result. In addition, government funding of the SEC and other government agencies on which our operations may rely, including those that fund research and development activities is subject to the political process, which is inherently fluid and unpredictable.

Disruptions at the FDA and other agencies may also slow the time necessary for new drugs to be reviewed and/or approved by necessary government agencies, which would adversely affect our business. For example, over the last several years, the U.S. government has shut down several times and certain regulatory agencies, such as the FDA and the SEC, have had to furlough critical FDA, SEC and other government employees and stop critical activities. If a prolonged government shutdown occurs, or if resource constraints continue to arise from the COVID-19 pandemic, it could significantly impact the ability of the FDA to timely review and process our regulatory submissions, which could have a material adverse effect on our business. Further, future government shutdowns could impact our ability to access the public markets and obtain necessary capital in order to properly capitalize and continue our operations.

The withdrawal of the United Kingdom from the European Union, commonly referred to as "Brexit," may adversely impact our ability to obtain regulatory approvals of our product candidates in the European Union, result in restrictions or imposition of taxes and duties for importing our product candidates into the European Union, and may require us to incur additional expenses in order to develop, manufacture and commercialize our product candidates in the European Union.

Following the result of a referendum in 2016, the United Kingdom left the European Union on January 31, 2020, commonly referred to as “Brexit.” Pursuant to the formal withdrawal arrangements agreed between the United Kingdom and the European Union, the United Kingdom was subject to a

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transition period that ended December 31, 2020, or the Transition Period, during which EU rules continued to apply. A trade and cooperation agreement, or the Trade and Cooperation Agreement, that outlines the future trading relationship between the United Kingdom and the European Union was agreed in December 2020.

Since a significant proportion of the regulatory framework in the United Kingdom applicable to our business and our product candidates is derived from EU directives and regulations, Brexit has had, and may continue to have, a material impact on the regulatory regime with respect to the development, manufacture, importation, approval and commercialization of our product candidates in the United Kingdom or the European Union. For example, Great Britain is no longer covered by the centralized procedures for obtaining EU-wide marketing authorization from the EMA and, and a separate marketing authorization will be required to market our product candidates in Great Britain. It is currently unclear whether the Medicines & Healthcare products Regulatory Agency ("MHRA") in the U.K. is sufficiently prepared to handle the increased volume of marketing authorization applications that it is likely to receive.

While the Trade and Cooperation Agreement provides for the tariff-free trade of medicinal products between the UK and the EU there may be additional non-tariff costs to such trade which did not exist prior to the end of the Transition Period. Further, should the UK diverge from the EU from a regulatory perspective in relation to medicinal products, tariffs could be put into place in the future. We could therefore, both now and in the future, face significant additional expenses (when compared to the position prior to the end of the Transition Period) to operate our business, which could significantly and materially harm or delay our ability to generate revenues or achieve profitability of our business. Any further changes in international trade, tariff and import/export regulations as a result of Brexit or otherwise may impose unexpected duty costs or other non-tariff barriers on us. These developments, or the perception that any of them could occur, may significantly reduce global trade and, in particular, trade between the impacted nations and the UK. It is also possible that Brexit may negatively affect our ability to attract and retain employees, particularly those from the EU. These developments, or the perception that any of them could occur, may significantly reduce global trade and, in particular, trade between the impacted nations and the United Kingdom.

Business disruptions could seriously harm our future revenue and financial condition and increase our costs and expenses.

Our operations, and those of our third-party manufacturers, CROs and other contractors and consultants, could be subject to earthquakes, power shortages, telecommunications failures, water shortages, floods, hurricanes, typhoons, fires, extreme weather conditions, medical epidemics and other natural or man-made disasters or business interruptions, for which we are predominantly self-insured. The occurrence of any of these business disruptions could seriously harm our operations and financial condition and increase our costs and expenses.

Our corporate headquarters are located in San Diego, California, an area prone to wildfires and earthquakes. These and other natural disasters could severely disrupt our operations, and have a material adverse effect on our business, results of operations, financial condition and prospects. If a natural disaster, power outage or other event occurred that prevented us from using all or a significant portion of our headquarters, that damaged critical infrastructure, such as the manufacturing facilities of our third-party contract manufacturers, or that otherwise disrupted operations, it may be difficult or, in certain cases, impossible for us to continue our business for a substantial period of time. Any disaster recovery and business continuity plans we have in place may prove inadequate in the event of a serious disaster or similar event. We may incur substantial expenses as a result of the limited nature of our disaster recovery and business continuity plans, which, could have a material adverse effect on our business.

In addition, we rely on third-party manufacturers, some of whom are located in China, to manufacture API for certain of our product candidates, including sparsentan. Any disruption in production or inability of our manufacturers in China to produce or ship adequate quantities to meet our needs, whether as a result of a natural disaster or other causes (such as the COVID-19 pandemic), could impair our ability to operate our business on a day-to-day basis and to continue our research and development of our product candidates. In addition, we are exposed to the possibility of product supply disruption and increased costs in the event of changes in the policies of the United States or Chinese governments (such as tariffs on chemical intermediates we use that are manufactured in China), political unrest or unstable economic conditions in China. Any recall of the manufacturing lots or similar action regarding our API used in clinical trials could delay the trials or detract from the integrity of the trial data and its potential use in future regulatory filings. In addition, manufacturing interruptions or failure to comply with regulatory requirements by any of these manufacturers could significantly delay clinical development of potential products and reduce third-party or clinical researcher interest and support of proposed trials. These interruptions or failures could also impede commercialization of our product candidates and impair our competitive position.

Risks Related to our Indebtedness and Investments

Our indebtedness could adversely affect our financial condition.

As of December 31, 2021, we had approximately \$276 million of total debt outstanding, classified as long term. As a result of our indebtedness, a portion of our cash flow will be required to pay interest and principal on the 2025 Notes if the notes are

not converted to shares of common stock prior to maturity. We may not generate sufficient cash flow from operations or have future borrowings available to enable us to repay our indebtedness or to fund other liquidity needs.

Our indebtedness pursuant to the 2025 Notes could have important consequences. For example, it could:

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- make it more difficult for us to satisfy our obligations with respect to any other debt we may incur in the future;
- increase our vulnerability to general adverse economic and industry conditions;
- require us to dedicate a substantial portion of our cash flow from operations to payments on our indebtedness and related interest, thereby reducing the availability of our cash flow to fund working capital, capital expenditures and other general corporate purposes;
- limit our flexibility in planning for, or reacting to, changes in our business and the industry in which we operate;
- increase our cost of borrowing;
- place us at a competitive disadvantage compared to our competitors that may have less debt; and
- limit our ability to obtain additional financing for working capital, capital expenditures, acquisitions, debt service requirements or general corporate purposes.

We expect to use cash flow from operations and outside financings to meet our current and future financial obligations, including funding our operations, debt service and capital expenditures. Our ability to make these payments depends on our future performance, which will be affected by financial, business, economic and other factors, many of which we cannot control. Our business may not generate sufficient cash flow from operations in the future, which could result in our being unable to repay indebtedness, or to fund other liquidity needs. If we do not generate sufficient cash from operations, we may be forced to reduce or delay our business activities and capital expenditures, sell assets, obtain additional debt or equity capital or restructure or refinance all or a portion of our debt, including the 2025 Notes, on or before maturity. We cannot make any assurances that we will be able to accomplish any of these alternatives on terms acceptable to us, or at all. In addition, the terms of existing or future indebtedness may limit our ability to pursue any of these alternatives.

We may be unable to raise the funds necessary to repurchase the 2025 Notes for cash following a fundamental change, or to pay any cash amounts due upon conversion, and our future indebtedness may limit our ability to repurchase the 2025 Notes or pay cash upon their conversion.

Noteholders may require us to repurchase their 2025 Notes following a fundamental change at a cash repurchase price generally equal to the principal amount of the 2025 Notes to be repurchased, plus accrued and unpaid interest to, but excluding, the fundamental change repurchase date. In addition, upon conversion, we will satisfy part or all of our conversion obligation in cash unless we elect to settle conversions solely in shares of our common stock.

We may not have enough available cash or be able to obtain financing at the time we are required to repurchase the 2025 Notes or pay the cash amounts due upon conversion of the 2025 Notes. In addition, applicable law, regulatory authorities and the agreements governing our future indebtedness may restrict our ability to repurchase the 2025 Notes or pay the cash amounts due upon conversion of the 2025 Notes. Our failure to repurchase the 2025 Notes or to pay the cash amounts due upon conversion of the 2025 Notes when required will constitute a default under the base and supplemental indentures that will govern the 2025 Notes, which we refer to collectively as the "indenture." We may not have sufficient funds to satisfy all amounts due under the other indebtedness and the 2025 Notes.

A default under the 2025 Notes may have a material adverse effect on our financial condition.

If an event of default under the 2025 Notes occurs, the principal amount of the 2025 Notes, plus accrued and unpaid interest (including additional interest, if any) may be declared immediately due and payable, subject to certain conditions set forth in the indenture governing such notes. Events of default include, but are not limited to:

- failure to pay (for more than 30 days) interest when due;
- failure to pay principal when due;
- failure to deliver shares of common stock upon conversion of a 2025 Notes;
- failure to provide notice of a fundamental change;
- acceleration on our other indebtedness in excess of \$10 million (other than indebtedness that is non-recourse to us); or
- certain types of bankruptcy or insolvency involving us.

Accordingly, the occurrence of a default under the 2025 Notes, unless cured or waived, may have a material adverse effect on our results of operations.

Provisions of the 2025 Notes could discourage an acquisition of us by a third party.

Certain provisions of the 2025 Notes could make it more difficult or more expensive for or prevent a third party to acquire us. Upon the occurrence of certain transactions constituting a fundamental change, holders of the 2025 Notes will have the right, at their option, to require us to repurchase all of their 2025 Notes or any portion of the principal amount of such Notes in integral multiples of \$1,000. We may also be required to increase the conversion rate for conversions in connection with certain fundamental changes.

Conversion of the Notes may dilute the ownership interest of existing stockholders, including holders who had previously converted their 2025 Notes.

To the extent we issue shares of common stock upon conversion of the 2025 Notes, the conversion of some or all of the 2025 Notes will dilute the ownership interests of existing stockholders. Any sales in the public market of shares of the common stock issuable upon such conversion could adversely affect prevailing market prices of shares of our common stock. In addition, the existence of the 2025 Notes may encourage short selling by market participants because the conversion of the 2025 Notes could depress the price of shares of our common stock.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

We lease the following locations to conduct our business:

Location	Address	Lease Expiration	Square Feet
San Diego, California	3611 Valley Centre Drive, Suite 300	August 31, 2028	149,123

We believe these facilities are adequate to conduct our business.

For additional information regarding our lease agreements, see Note 18 of the Consolidated Financial Statements included in this report.

ITEM 3. LEGAL PROCEEDINGS

The information required by this Item is incorporated herein by reference to the Legal Proceedings paragraph of Note 11 of the Consolidated Financial Statements included in this report.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Market Information

Our common stock is listed for quotation on the Nasdaq Global Market under the trading symbol "TVTX" and is part of the Nasdaq Biotechnology Index (Nasdaq: NBI).

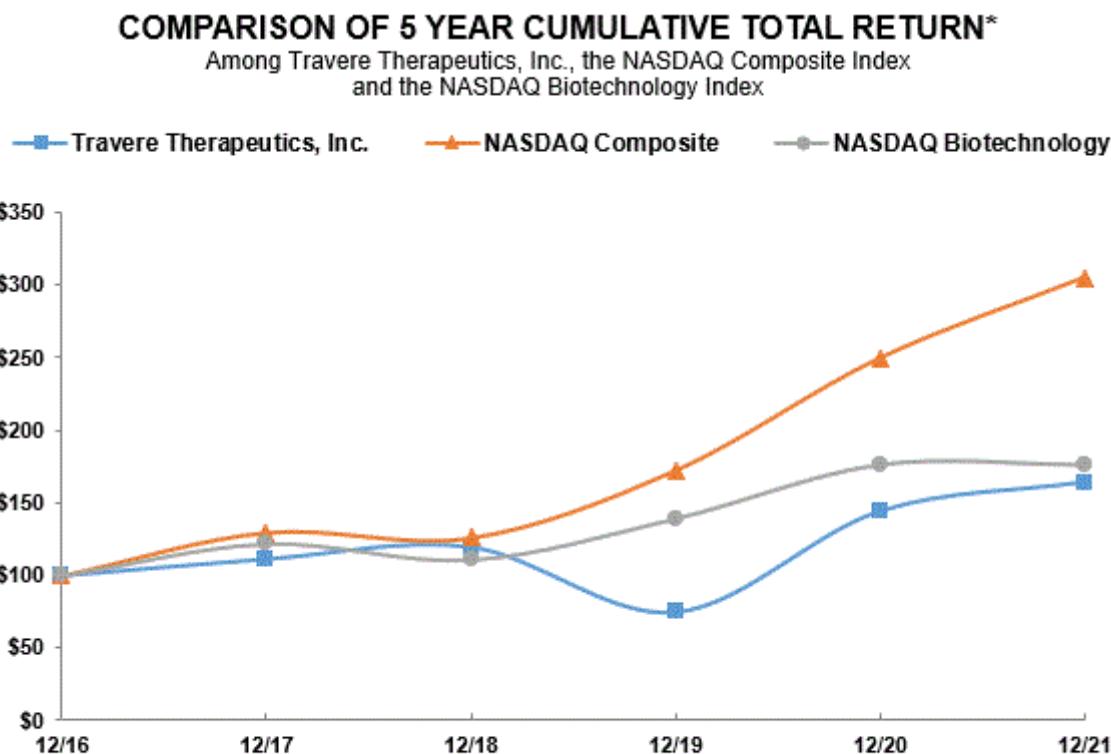
As of February 22, 2022, the last reported sale price of our Common Stock as reported by the Nasdaq was \$27.94.

As of February 22, 2022, we had approximately 177 holders of record of our common stock.

Performance Graph

The following is not deemed "filed" with the Securities and Exchange Commission and is not to be incorporated by reference into any filing we make under the Securities Act of 1933, as amended, whether made before or after the date hereof and irrespective of any general incorporation by reference language in such filing.

Our common stock is traded on the Nasdaq Global Market and is a component of both the Nasdaq Composite Index and the Nasdaq Biotechnology Index. The total return for our common stock and for each index assumes the reinvestment of dividends, although dividends have never been declared on our common stock, and is based on the returns of the component companies weighted according to their capitalizations as of the end of each monthly period. The Nasdaq-Composite tracks the aggregate price performance of equity securities of companies traded on the Nasdaq National Market. The Nasdaq Biotechnology Index contains securities and tracks the aggregate price performance of equity securities of Nasdaq-listed companies classified according to the Industry Classification Benchmark as either Biotechnology or Pharmaceuticals which also meet other eligibility criteria. The comparisons shown in the graph are based upon historical data and we caution that the stock price performance shown in the graph is not indicative of, nor intended to forecast, the potential future performance of our stock.



*\$100 invested on 12/31/16 in stock or index, including reinvestment of dividends.
Fiscal year ending December 31.

Dividends

Since inception we have not paid any dividends on our common stock. We currently do not anticipate paying any cash dividends in the foreseeable future on our common stock. Although we intend to retain our earnings, if any, to finance the exploration and growth of our business, our Board of Directors will have the discretion to declare and pay dividends in the future. Payment of dividends in the future will depend upon our earnings, capital requirements and other factors which our Board of Directors may deem relevant.

ITEM 6. RESERVED

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Our discussion and analysis of our financial condition and results of operations for 2021 as compared to 2020 are discussed below, and should be read in conjunction with our audited Consolidated Financial Statements, including the notes thereto. For a discussion of our financial condition and results of operations for 2020 as compared to 2019, please refer to Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations" in our [2020 Annual Report on Form 10-K](#), except as set forth below.

Overview

We are a biopharmaceutical company headquartered in San Diego, California, focused on identifying, developing and delivering life-changing therapies to people living with rare kidney, liver, and metabolic diseases.

Uncertainty Related to the COVID-19 Pandemic

While the impact of the ongoing COVID-19 pandemic did not have a material adverse effect on our financial position or results of operations for the year ended December 31, 2021, we have been monitoring the developments and assessing areas where there is potential for our business to be impacted. As of December 31, 2021, the majority of our labor force is remote, which could, among other things, negatively impact our ability to conduct research and development activities, engage in sales-related initiatives, or efficiently conduct day-to-day operations. Remote work operations also heighten the risk of cyber-attacks and make it more difficult for companies to protect their confidential information. Circumstances arising from the pandemic have slowed and could continue to slow the pace of enrollment in our clinical trials or otherwise hinder patients' abilities to comply with the clinical trial protocols and could ultimately delay the availability of results and analysis of outcomes. Disruptions in the supply chain could negatively impact our ability to source materials or manufacture and distribute product. While to date we have not experienced a material reduction in demand for our commercialized products as a result of the pandemic, we could experience a decrease in new patient identification and increased requests for patient assistance due to increased levels of unemployment, either of which would negatively impact our revenues and hinder our cash flows. Similarly, we could face challenges with regard to healthcare programs, including access and changes in coverage. Growth in revenue could also be impeded by these factors. The financial markets have been subject to significant volatility that could impact our ability to enter into, modify, and negotiate favorable terms and conditions relative to equity and debt financing activities. We had \$552.9 million in cash and cash equivalents and available-for-sale securities as of December 31, 2021, which we believe provides sufficient capital to fund our operations for at least the next twelve months. While we have not yet experienced a material impact to date, the full magnitude of the pandemic cannot be measured at this time, and therefore any of the aforementioned circumstances, as well as other factors, may cause our results of operations to vary substantially from year to year and quarter to quarter.

License and Collaboration Agreement with Vifor Pharma

On September 15, 2021, we entered into a License Agreement with Vifor Pharma, pursuant to which we granted an exclusive license to Vifor Pharma for the commercialization of sparsentan in the Licensed Territories. Under the terms of the License Agreement, we received an upfront payment of \$55.0 million in September 2021, and will be eligible for up to \$135.0 million in aggregate regulatory and market access related milestone payments and up to \$655.0 million in aggregate sales-based milestone payments for a total potential value of up to \$845.0 million. We are also entitled to receive tiered double-digit royalties of up to 40 percent of annual net sales of sparsentan in the Licensed Territories.

The Agreement includes a sublicense to Vifor Pharma under our license agreement with Ligand Pharmaceuticals, Inc. ("Ligand"). We remain obligated to make payments to Ligand upon achievement of certain regulatory and sales milestones, as well as an escalating annual royalty between 15 percent and 17 percent of global net sales of licensed products.

Acquisition of Orphan Technologies Limited

In November 2020, we completed the acquisition of Orphan Technologies Limited ("Orphan"), including Orphan's rare metabolic disorder drug pectibatinase (TVT-058). We acquired Orphan by purchasing all of the outstanding shares. In exchange for the shares, we made an upfront cash payment at closing of \$90.0 million plus closing adjustments, net liabilities assumed, and transaction expenses of \$1.2 million, \$1.8 million, and \$4.2 million, respectively. Under the Agreement, we have also agreed to make contingent cash payments up to an aggregate of \$427.0 million based on the achievement of certain development, regulatory and commercialization events as set forth in the Agreement, as well as additional tiered mid-single digit royalty payments based upon future net sales of any pectibatinase products in the US and Europe, subject to certain reductions as set forth in the Agreement, and a contingent payment in the event a pediatric rare disease voucher for any pectibatinase product is granted. In December 2021, Orphan was re-domiciled and renamed Travere Therapeutics Switzerland GmbH ("TTSG").

Research and Development

Sparsentan

Sparsentan, a Dual Endothelin Angiotensin Receptor Antagonist (DEARA), is a novel investigational product candidate. Pre-clinical data have shown that blockade of both endothelin type A and angiotensin II type 1 pathways in forms of rare chronic kidney disease, reduces proteinuria, protects podocytes and prevents glomerulosclerosis and mesangial cell proliferation. Sparsentan has been granted Orphan Drug Designation for the treatment of FSGS and IgAN in the U.S. and Europe. Sparsentan is currently being evaluated in two pivotal Phase 3 clinical studies in rare kidney diseases, including:

- **Focal segmental glomerulosclerosis ("FSGS")** is a leading cause of end-stage kidney disease (ESKD) and nephrotic syndrome. There are currently no United States Food and Drug Administration ("FDA") approved pharmacologic treatments for FSGS and there remains a high unmet need for patients living with FSGS as off-label treatments such as ACE/ARBs, steroids, and immunosuppressant agents are effective in only a subset of patients and use of some of these off-label treatments may be further inhibited by their safety profiles. Every year approximately 5,400 patients are diagnosed with FSGS and we estimate that there are more than 40,000 FSGS patients in the United States and a similar number in Europe with approximately half of them being candidates for sparsentan. In 2016, we generated positive data from our Phase 2 DUET study in FSGS. In 2018, we announced the initiation of the Phase 3 DUPLEX study of sparsentan in FSGS. The DUPLEX Study is a global, randomized, multicenter, double-blind, parallel-arm, active-controlled clinical trial evaluating the safety and efficacy of sparsentan in 371 patients. The DUPLEX Study protocol provided for an unblinded analysis of at least 190 patients to be performed after 36 weeks of treatment to evaluate the interim efficacy endpoint - the proportion of patients achieving a FSGS partial remission of proteinuria endpoint (FPRE), which is defined as urine protein-to-creatinine ratio (Up/C) ≤ 1.5 g/g and a $>40\%$ reduction in Up/C from baseline, at week 36. In February 2021, we announced that the ongoing Phase 3 DUPLEX Study achieved its pre-specified interim FSGS partial remission of proteinuria endpoint following the 36-week interim period. After 36 weeks of treatment, 42.0 percent of patients receiving sparsentan achieved FPRE, compared to 26.0 percent of irbesartan-treated patients ($p=0.0094$). A preliminary review of the results from the interim analysis suggest that to date in the study, sparsentan has been generally well-tolerated and the overall safety results in the study to date have been generally comparable between treatment groups. The confirmatory primary endpoint of the DUPLEX Study to support full regulatory approval is the rate of change in eGFR over 108 weeks of treatment. As of the time of the interim analyses, available long-term eGFR data for the confirmatory endpoint were limited. Consistent with the DUPLEX Study protocol, patients will continue in a blinded manner to assess the treatment effect on eGFR slope over 108 weeks in the confirmatory endpoint analysis. The DUPLEX Study is fully enrolled and topline results from the confirmatory endpoint are expected in the first half of 2023.

In May 2021, we provided a regulatory update regarding the sparsentan FSGS program, including feedback from the FDA that additional data would be needed to potentially support a submission for accelerated approval under subpart H. At a subsequent Type A meeting, we and the FDA reached alignment on a pathway for us to proceed with a submission for accelerated approval, pending additional supportive eGFR data. We intend to provide the FDA with additional eGFR data from the ongoing DUPLEX Study in the first half of 2022, and if such data are supportive, submit an application for accelerated approval in the U.S. in mid-2022.

In mid-2022, we and Vifor (International) Ltd. ("Vifor Pharma"), with whom we entered into a license and collaboration agreement ("License Agreement") in September 2021, plan to submit an application for conditional marketing authorization ("CMA") of sparsentan for the treatment of FSGS and IgAN in Europe. If sparsentan receives marketing authorization in any of the licensed territories, Vifor Pharma will be responsible for all commercialization activities in such licensed territories. We remain responsible for the clinical development of sparsentan and will retain all rights to sparsentan in the United States and rest of world outside of the licensed territories, provided that Vifor Pharma has a right of negotiation to expand the licensed territories into Canada, China, Brazil and/or Mexico.

- **Immunoglobulin A nephropathy ("IgAN")** is characterized by hematuria, proteinuria, and variable rates of progressive renal failure. With an estimated prevalence of more than 100,000 people in the United States and greater numbers in Europe and Asia, IgAN is the most common primary glomerular disease. Most patients are diagnosed between the ages of 16 and 35, with up to 40% progressing to end stage kidney disease within 15 years. There are currently no non-immunosuppressive treatments for IgAN approved by the FDA. The current standard of care is renin-angiotensin-aldosterone system ("RAAS") blockade with immunosuppression also being commonly used

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for patients with significant proteinuria or rapidly progressive glomerulonephritis. In 2018, we announced that the first patient had been dosed in the PROTECT Study, a global, randomized, multicenter, double-blind, parallel-arm, active-controlled pivotal Phase 3 clinical trial evaluating the safety and efficacy of sparsentan in 404 patients with IgAN.

The PROTECT Study protocol provided for an unblinded analysis of at least 280 patients to be performed after 36 weeks of treatment to evaluate the primary efficacy endpoint - the change in proteinuria (urine protein-to-creatinine ratio) at week 36 from baseline. Secondary efficacy endpoints include the rate of change in eGFR following the initiation of randomized treatment over 58-week and 110-week periods, as well as the rate of change in eGFR over 52-week and 104-week periods following the first six weeks of randomized treatment in approximately 380 patients. In August 2021, we announced positive topline interim results from the ongoing Phase 3 PROTECT Study. The PROTECT Study met its pre-specified interim primary efficacy endpoint with statistical significance. After 36 weeks of treatment, patients receiving sparsentan achieved a mean reduction in proteinuria from baseline of 49.8 percent, compared to a mean reduction in proteinuria from baseline of 15.1 percent for irbesartan-treated patients ($p < 0.0001$). We believe that preliminary eGFR data available at the time of the interim analysis are indicative of a potential clinically meaningful treatment effect after two years of treatment. Preliminary results at the time of the interim assessment suggested that sparsentan had been generally well-tolerated to date in the study and consistent with its overall observed safety profile. The PROTECT Study is fully enrolled and is scheduled to continue as planned on a blinded basis to assess the treatment effect on eGFR slope over 110 weeks in the confirmatory endpoint analysis. Topline results from the confirmatory endpoint analysis are expected in the second half of 2023.

Subsequent to the announcement of the interim results from the PROTECT Study, we conducted pre-NDA interactions with the FDA, during which we confirmed alignment with our plan to submit in the first quarter of 2022 an NDA for accelerated approval of sparsentan for IgAN.

In mid-2022, we and Vifor Pharma plan to submit a combined application for conditional marketing authorization ("CMA") of sparsentan for the treatment of FSGS and IgAN in Europe.

Pegtibatinase (TVT-058)

Pegtibatinase (TVT-058) is a novel investigational human enzyme replacement candidate being evaluated for the treatment of classical homocystinuria (HCU). Classical HCU is a rare metabolic disorder characterized by elevated levels of plasma homocysteine that can lead to vision, skeletal, circulatory and central nervous system issues. It is estimated that there are at least 3,500 people living with HCU in the United States with similar numbers in Europe. Pegtibatinase has been granted Rare Pediatric Disease and Fast Track designations by the FDA, as well as orphan drug designation in the United States and European Union. Pegtibatinase is currently being evaluated in the Phase 1/2 COMPOSE Study, a double blind, randomized, placebo-controlled dose escalation study to assess its safety, tolerability, pharmacokinetics, pharmacodynamics and clinical effects in patients with classical HCU.

In December 2021, we announced positive topline results from the Phase 1/2 COMPOSE Study. Pegtibatinase demonstrated dose-dependent reductions in total homocysteine (tHcy) during the 12 weeks of treatment, and in the highest dose cohort to date evaluating 1.5mg/kg of pegtibatinase twice weekly (BIW), treatment with pegtibatinase resulted in rapid and sustained reductions in total homocysteine (tHcy) through 12 weeks of treatment, including a 55.1% mean relative reduction in tHcy from baseline as well as maintenance of tHcy below a clinically meaningful threshold of 100 μmol . Additionally, in a dose-dependent manner in the study to date, methionine levels were substantially reduced and cystathione levels were substantially elevated following treatment with pegtibatinase, suggesting that pegtibatinase acts in a manner similar to the native CBS enzyme. To date in the study, pegtibatinase has been generally well-tolerated, with no discontinuations due to treatment-related adverse events.

Based on these results, the Company is in the process of engaging with regulators to establish next steps for a pivotal development program to ultimately support potential approvals of pegtibatinase for the treatment of HCU. In parallel, the Company has initiated one additional cohort in the COMPOSE Study to inform and refine formulation work for future development and commercial purposes and to further evaluate the dose response curve for pegtibatinase.

We acquired pegtibatinase as part of the November 2020 acquisition of Orphan Technologies Limited.

Chenodal

Chenodal (chenodeoxycholic acid or CDCA) is a naturally occurring bile acid that is approved for the treatment of people with radiolucent stones in the gallbladder. While indicated for radiolucent stones in the gallbladder, Chenodal has been recognized as the standard of care for cerebrotendinous xanthomatosis (CTX) for more than three decades, although it is not currently labeled for this indication. CTX is a rare, progressive and underdiagnosed bile acid synthesis disorder affecting many parts of the body. In January 2020, we randomized the first patients in our Phase 3 RESTORE Study to evaluate the effects of Chenodal in adult and pediatric patients with CTX, and the study enrollment remains open. The pivotal study is intended to support an NDA submission for marketing authorization of Chenodal for CTX in the United States.

Preclinical Programs

We are a participant in two Cooperative Research and Development Agreements ("CRADAs"), which form a multi-stakeholder approach to pool resources with leading experts, and incorporate the patient perspective early in the therapeutic identification and development process. We have partnered with the National Institutes of Health's National Center for Advancing Translational Sciences ("NCATS") and leading patient advocacy organizations, CDG Care and Alagille Syndrome Alliance, aimed at the identification of potential small molecule therapeutics for NGLY1 deficiency and Alagille syndrome ("ALGS"), respectively. There are no treatment options currently approved for these diseases.

Approved Products

Thiola and Thiola EC (tiopronin)

Thiola and Thiola EC are approved by the FDA for the treatment of cystinuria, a rare genetic cystine transport disorder that causes high cystine levels in the urine and the formation of recurring kidney stones. Due to the larger stone size, cystine stones may be more difficult to pass, often requiring surgical procedures to remove. More than 80 percent of people with cystinuria develop their first stone by the age of 20. More than 25 percent will develop cystine stones by the age of 10. Recurring stone formation can cause loss of kidney function in addition to substantial pain and loss of productivity associated with renal colic and stone passage. While a portion of people living with the disease are able to manage symptoms through diet and fluid intake, the prevalence of cystinuria in the US is estimated to be 10,000 to 12,000, indicating that there may be as many as 4,000 to 5,000 affected individuals with cystinuria in the US that would be candidates for Thiola or Thiola EC.

In June 2019 we announced that the FDA approved 100 mg and 300 mg tablets of Thiola EC, an enteric-coated formulation of Thiola, to be used for the treatment of cystinuria. Thiola EC offers the potential for administration with or without food, and the ability to reduce the number of tablets necessary to manage cystinuria. Thiola EC became available to patients in July 2019.

In May 2021, a generic option for the 100 mg version of the original formulation of Thiola (tiopronin tablets) became available. While the impact to our business has been minimal to date, we are not able to estimate any future impact, including the impact of additional generic entrants, if any.

Cholbam (cholic acid)

The FDA approved Cholbam (cholic acid capsules) in March 2015, the first FDA-approved treatment for pediatric and adult patients with bile acid synthesis disorders due to single enzyme defects, and for adjunctive treatment of patients with peroxisome biogenesis disorder-Zellweger spectrum disorder. The effectiveness of Cholbam has been demonstrated in clinical trials for bile acid synthesis disorders and the adjunctive treatment of peroxisomal disorders. An estimated 200 to 300 patients are current candidates for therapy.

Chenodal (chenodiol)

Chenodal is a synthetic oral form of chenodeoxycholic acid ("CDCA"), a naturally occurring primary bile acid synthesized from cholesterol in the liver. The FDA approved Chenodal for the treatment of people with radiolucent stones in the gallbladder. In 2010, Chenodal was granted orphan drug designation for the treatment of cerebrotendinous xanthomatosis ("CTX"), a rare autosomal recessive lipid storage disease. We acquired Chenodal in March 2014.

While Chenodal is not labeled for CTX, it received a medical necessity determination in the US by the FDA and has been used as the standard of care for more than three decades. We are working to obtain FDA approval of Chenodal for the treatment of CTX and initiated a Phase 3 clinical trial for this indication in January 2020. The prevalence of CTX is estimated in the literature to be as high as 1 in 70,000 in the overall population. Pathogenesis of CTX involves deficiency of the enzyme 27-hydroxylase (encoded by the gene CYP27A1), a rate-limiting enzyme in the synthesis of primary bile acids, including CDCA, from cholesterol. The disruption of primary bile acid synthesis in CTX leads to toxic accumulation of cholesterol and cholestanol in most tissues. Patients may present with intractable diarrhea, premature cataracts, tendon xanthomas, atherosclerosis, and cardiovascular disease in childhood and adolescence. Neurological manifestations of the disease, including dementia and cognitive and cerebellar deficiencies, emerge during late adolescence and adulthood. The types, combinations and severity of symptoms can be different from person to person, and making diagnosis challenging and often delayed. Oral administration of CDCA has been shown to normalize primary bile acid synthesis in patients with CTX.

Financial Overview

Acquired IPR&D

We assess whether IPR&D assets acquired from others in an asset acquisition have alternative future use (in research and development projects or otherwise) at the acquisition date. If such assets have alternative future use, they are capitalized and recognized as an intangible asset. If such assets do not have alternative use, nor is there an alternative indication that the Company plans to pursue, the upfront consideration transferred, including any contingent consideration that is probable and reasonably estimable, is charged to expense at the acquisition date. We expensed the

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acquired IPR&D associated with the acquisition of Orphan Technologies, which included the developmental product candidate for the treatment of classical homocystinuria (HCU), pegtibatinase (TVT-058).

Research and Development Costs

Research and development costs include expenses related to sparsentan, discontinued programs fosmetpantotenate and CNSA-001, and our other pipeline programs, including the recently acquired pegtibatinase (TVT-058) program. We expense all research and development costs as they are incurred. Our research and development costs are comprised of salaries and bonuses, benefits, non-cash share-based compensation, license fees, milestones under license agreements, costs paid to third-party contractors to perform research, conduct clinical trials, and develop drug materials and delivery methods, and associated overhead expenses and facilities costs. We charge direct internal and external program costs to the respective development programs. We also incur indirect costs that are not allocated to specific programs because such costs benefit multiple development programs and allow us to increase our pharmaceutical development capabilities. These consist of internal shared resources related to the development and maintenance of systems and processes applicable to all of our programs.

We record expenses in connection with our clinical trials under contracts with contract research organizations ("CROs") that support conducting and managing clinical trials. The financial terms and activities of these agreements vary from contract to contract and may result in uneven expense levels. Generally, these agreements set forth activities that drive the recording of expenses such as start-up, initiation activities, enrollment, treatment of patients, or the completion of other clinical trial activities.

Expenses related to clinical trials are accrued based on our estimates and/or representations from service providers regarding work performed, including actual level of patient enrollment, completion of patient studies and progress of the clinical trials. Other incidental costs related to patient enrollment or treatment are accrued when reasonably certain. If the amounts we are obligated to pay under our clinical trial agreements are modified (for instance, as a result of changes in the clinical trial protocol or scope of work to be performed), we adjust our accruals accordingly on a prospective basis. Revisions to our contractual payment obligations are charged to expense in the period in which the facts that give rise to the revision become reasonably certain.

We currently have three Phase 3 clinical trials in process that are in varying stages of activity, with ongoing non-clinical support studies. As such, clinical trial expenses will vary depending on the all the factors set forth above and may fluctuate significantly from quarter to quarter.

At any point in time, we typically have various early stage research and drug discovery projects. Our internal resources, employees and infrastructure are not directly tied to any one research or drug discovery project and are typically deployed across multiple projects. As such, we do not maintain information regarding costs incurred for these early stage research and drug discovery programs on a project-specific basis.

We routinely engage vendors and service providers for scientific research, clinical trial, regulatory compliance, manufacturing and other consulting services. We also make grants to research and non-profit organizations to conduct research which may lead to new intellectual properties that we may subsequently license under separately negotiated license agreements. Such grants may be funded in lump sums or installments.

The following table summarizes our research and development expenses during the years ended December 31, 2021, 2020 and 2019. The internal costs include personnel, facility costs, and discovery and research related activities associated with our pipeline. The external program costs reflect external costs attributable to our clinical development candidates and preclinical candidates selected for further development. Such expenses primarily include third-party contract costs relating to clinical trial activities, nonclinical studies and manufacturing.

	For the Year Ended December 31, (in thousands)		
	2021	2020	2019
External service provider costs:			
Sparsentan	\$ 103,350	\$ 70,486	\$ 48,533
Fosmetpantotenate (discontinued)	(124) ¹	(2,295) ¹	31,193
Censa (discontinued)	—	—	3,166
Pegtibatinase	27,823	1,962	—
Other product candidates	6	—	496
General	18,780	15,433	19,638
Total external service provider costs	149,835	85,586	103,026
Internal personnel costs	60,493	46,187	37,937
Total research and development	\$ 210,328	\$ 131,773	\$ 140,963

¹Credit received in 2021 and 2020.

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Most of our product development programs are in clinical trials which are highly uncertain and may not result in approved products. Completion dates and completion costs can vary significantly for each product candidate and are difficult to project. Given the uncertainty associated with clinical trial enrollments and the risks inherent in the development process, we are unable to determine the duration and completion costs of current or future clinical trials of our product candidates, or if and to what extent we will generate revenues, if any, from the commercialization and sale of any of our product candidates.

Selling, General and Administrative

Selling, general and administrative expenses consist of salaries and bonuses, benefits, non-cash share-based compensation, legal and other professional fees, rent, depreciation and amortization, travel, insurance, business development, sales and marketing programs, and other operating expenses.

Other Income/Expenses

Other income/expenses consists of interest income and expense, finance expense and miscellaneous other income/expenses.

License Agreements

Ligand License Agreement

In 2012, we entered into a license agreement with Ligand, granting us a worldwide license for the development, manufacture and commercialization of sparsentan, which we are developing in connection with the treatment of FSGS. Under the license agreement, Ligand granted us a sublicense under certain of its patents and other intellectual property in connection with the development and commercialization of sparsentan. Under the license agreement, Ligand is obligated to transfer to us certain information, records, regulatory filings, materials and inventory controlled by Ligand and relating to or useful for developing sparsentan. We must use commercially reasonable efforts to develop and commercialize sparsentan in specified major market countries and other countries in which we believe it is commercially reasonable to develop and commercialize such products.

As consideration for the license, we are required to make payments upon the achievement of certain milestones, totaling up to \$114.1 million. Should we commercialize sparsentan or any products containing any of the licensed compounds, we will be obligated to pay Ligand an escalating annual royalty between 15% and 17% of net sales of all such products. Through 2021, we made milestone payments to Ligand of \$7.2 million under the license agreement.

Under the terms of the license agreement, Bristol-Myers Squibb Company ("BMS") has a right of first negotiation and Ligand has a right of second negotiation with respect to any license arrangement for a licensed compound, except to the extent such rights may be waived.

The license agreement will continue until neither party has any further payment obligations under the agreement and is expected to continue for approximately 10 to 20 years from the effective date. Ligand may terminate the license agreement due to (i) our insolvency, (ii) our material uncured breach of the agreement, (iii) our failure to use commercially reasonable efforts to develop and commercialize sparsentan as described above or (iv) certain other conditions. We may terminate the license agreement due to a material uncured breach of the agreement by Ligand.

Thiola License Agreement

In 2014, we entered into a license agreement with Mission Pharmacal ("Mission"), pursuant to which we obtained an exclusive, royalty-bearing license to market, sell and commercialize Thiola (tiopronin) in the United States and Canada, and a non-exclusive license to use know-how relating to Thiola to the extent necessary to market Thiola. We paid Mission an up-front license fee of \$3.0 million and will pay guaranteed minimum royalties during each calendar year the greater of \$2.0 million or 20% of our net sales of Thiola in the United States and Canada.

In October 2015, the license agreement was amended to allow for us to secure enough API to ensure an adequate level of safety stock to prevent an interruption in the supply of Thiola and to prepare for a reformulation development project.

In March 2016, the license agreement was amended to, among other things, include a new formulation development project for tiopronin tablets.

In November 2017, we amended the license agreement to extend the term through May of 2029.

In November 2018, the license agreement was amended to remove all territorial restrictions on our license rights. As consideration for the expanded territory we paid an up-front fee of \$0.3 million and will pay guaranteed minimum royalties

equaling the greater of \$0.1 million or 20% of our Thiola net sales generated outside of the United States during each calendar year.

See Note 9 to Consolidated Financial Statements for further discussion.

License and Collaboration Agreement with Vifor Pharma

On September 15, 2021, we entered into a License Agreement with Vifor Pharma, pursuant to which we granted an exclusive license to Vifor Pharma for the commercialization of sparsentan in the Licensed Territories. Under the terms of the License Agreement, we received an upfront payment of \$55.0 million in September 2021, and will be eligible for up to \$135.0 million in aggregate regulatory and market access related milestone payments and up to \$655.0 million in aggregate sales-based milestone payments for a total potential value of up to \$845.0 million. We are also entitled to receive tiered double-digit royalties of up to 40 percent of annual net sales of sparsentan in the Licensed Territories.

The License Agreement includes a sublicense to Vifor Pharma under our license agreement with Ligand Pharmaceuticals, Inc. ("Ligand"). We remain obligated to make payments to Ligand upon achievement of certain regulatory and sales milestones, as well as an escalating annual royalty between 15 percent and 17 percent of global net sales of licensed products.

See Note 4 to Consolidated Financial Statements for further discussion.

Results of Operations

Revenue

The following table provides information regarding revenue, including net product sales and license and collaboration revenue (*in thousands*):

	Year Ended December 31,			Year Ended December 31,		
	2021	2020	Change	2020	2019	Change
Tiopronin products	\$ 115,122	\$ 108,883	\$ 6,239	\$ 108,883	\$ 95,638	\$ 13,245
Bile acid products	95,654	89,438	6,216	89,438	79,700	9,738
Total net product sales	210,776	198,321	12,455	198,321	175,338	22,983
License and collaboration revenue	16,714	—	16,714	—	—	—
Total revenue	\$ 227,490	\$ 198,321	\$ 29,169	\$ 198,321	\$ 175,338	\$ 22,983

Net product sales for the years ended December 31, 2021, 2020 and 2019 were \$210.8 million, \$198.3 million and \$175.3 million, respectively, and consisted of sales of Thiola ("Tiopronin products"), Chenodal and Cholbam ("Bile acid products").

The increase in net product sales for the year ended December 31, 2021 as compared to the same period in 2020, is due to increased patient counts for all products.

We use a direct-to-patient distributor. Under this distribution model, we record revenues when customers take control of the product (at delivery).

License and collaboration revenue for the year ended December 31, 2021 was \$16.7 million. We had no license or collaboration revenue for the years ended December 31, 2020 and 2019. License and collaboration revenue recognized in 2021 was attributable to the license and collaboration agreement entered into with Vifor Pharma in September 2021. We recognized \$12.0 million from the license based upon the allocation of the stand-alone selling price, and \$4.7 million from the clinical development activities based upon the ratio of costs incurred to total estimated costs.

Operating Expenses

The following table provides information regarding operating expenses (*in thousands*):

	Year Ended December 31,			Year Ended December 31,		
	2021	2020	Change	2020	2019	Change
Cost of goods sold	\$ 6,784	\$ 6,126	\$ 658	\$ 6,126	\$ 5,234	\$ 892
Research and development	210,328	131,773	78,555	131,773	140,963	(9,190)
Selling, general and administrative	149,883	135,799	14,084	135,799	128,951	6,848
Change in fair value of contingent consideration	22,260	3,655	18,605	3,655	15,051	(11,396)
Impairment of L-UDCA IPR&D intangible asset	—	—	—	—	25,500	(25,500)
Write off of L-UDCA contingent consideration	—	—	—	—	(18,000)	18,000
Acquired IPR&D expense	—	97,131	(97,131)	97,131	—	97,131
Impairment of long-term investment	—	—	—	—	15,000	(15,000)
	\$ 389,255	\$ 374,484	\$ 14,771	\$ 374,484	\$ 312,699	\$ 61,785

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2021 versus 2020 results

Operating expenses for the year ended December 31, 2021, were \$389.3 million compared to \$374.5 million for the year ended December 31, 2020, an increase of \$14.8 million.

Cost of goods sold increased by \$0.7 million due to increased sales.

Research and development costs increased by \$78.6 million due to increases in clinical trial expenses, chemistry manufacturing and control costs, preclinical study expenses, and related expenses associated with the advancement of our programs in development, particularly sparsentan and pegtibatinase, which saw increases in external service provider costs of \$32.9 million and \$25.9 million, respectively. Internal personnel costs to support these programs also increased by \$14.3 million.

Selling, general and administrative expenses increased by \$14.1 million due to increased personnel expenses, including increased headcount as we prepare for commercialization of sparsentan and enhance support for other programs in development.

Fair value of contingent consideration increased by \$18.6 million due to changes in discount factors, along with changes in revenue forecasts and timing of payments.

Acquired IPR&D of \$97.1 million in 2020 was due to the November 2020 acquisition of Orphan Technologies Limited, which included the developmental rare metabolic disorder drug pegtibatinase.

Other Income/Expenses

The following table provides information regarding other income (expenses) (*in thousands*):

	Year Ended December 31,			Year Ended December 31,		
	2021	2020	Change	2020	2019	Change
Interest income	\$ 1,993	\$ 5,003	\$ (3,010)	\$ 5,003	\$ 10,055	\$ (5,052)
Interest expense	(20,141)	(19,050)	(1,091)	(19,050)	(18,828)	(222)
Other income (expense), net	231	1,420	(1,189)	1,420	(314)	1,734
	<u>\$ (17,917)</u>	<u>\$ (12,627)</u>	<u>\$ (5,290)</u>	<u>\$ (12,627)</u>	<u>\$ (9,087)</u>	<u>\$ (3,540)</u>

Other expense for the year ended December 31, 2021 was \$17.9 million compared to other expense of \$12.6 million for the year ended December 31, 2020, which represents a change of \$5.3 million. The change was primarily attributable to a decrease in interest income earned on our available-for-sale marketable debt securities. The decrease in interest income earned was due to a decline in short-term interest rates.

Income Tax Benefit (Provision)

We follow ASC 740, Income Taxes, which requires recognition of deferred tax assets and liabilities for the expected future tax consequences of events that have been included in the financial statements or tax returns. Under this method, deferred tax assets and liabilities are based on the differences between the financial statement and tax basis of assets and liabilities using enacted tax rates in effect for the year in which the differences are expected to reverse. Deferred tax assets are reduced by a valuation allowance to the extent management concludes it is more likely than not that the asset will not be realized.

The standard addresses the determination of whether tax benefits claimed or expected to be claimed on a tax return should be recorded in the financial statements. Under ASC 740, we may recognize the tax benefit from an uncertain tax position only if it is more likely than not that the tax position will be sustained on examination by the tax authorities, based on the technical merits of the position. The tax benefits recognized in the financial statements from such a position should be measured based on the largest benefit that has a greater than fifty percent likelihood of being realized upon ultimate settlement. ASC 740 also provides guidance on de-recognition, classification, interest and penalties on income taxes, accounting in interim periods and requires increased disclosures. Our policy is to record estimated interest and penalty related to the underpayment of income taxes or unrecognized tax benefits as a component of its income tax provision.

The change in tax provision of \$0.4 million for fiscal 2021 as compared to a tax benefit of \$19.4 million for fiscal 2020 was due to the income tax benefit related to the CARES Act NOL carryback that was recognized in 2020.

Inflation

Inflation generally affects us by increasing our salaries and fees paid to third-party contract service providers.

Liquidity and Capital Resources

We have financed our operations through a combination of borrowings, sales of our equity securities, and revenues generated from our commercialized products and license and collaboration agreements. Research and development activities have required significant capital investment and are expected to continue to require significant cash expenditure in the future, particularly as our pipeline of drug candidates and our employee headcount have expanded. In addition, we continue to evaluate potential opportunities to expand our pipeline and approved products through licenses and acquisitions of products in areas that we believe offer attractive growth characteristics, which may require considerable upfront capital to pursue as well as possible contingent payments upon the future achievement of certain milestones.

We believe that our available cash and short-term investments as of the date of this filing will be sufficient to fund our anticipated level of operations beyond the next 12 months. Management believes that our operating results will vary from quarter to quarter and year to year depending upon various factors including revenues, general and administrative expenses, and research and development expenses.

For the years ended December 31, 2021 and 2020, we had the following balances and financial performance (*in thousands*):

	December 31, 2021	December 31, 2020
Revenue	\$ 227,490	\$ 198,321
Net loss	(180,091)	(169,431)
Cash & cash equivalents	165,753	84,772
Marketable debt securities	387,129	276,817
Accumulated deficit	(765,966)	(585,875)
Stockholders' equity	302,112	211,213
Working capital	\$ 458,739	\$ 317,747
Working capital ratio	4.70	4.43

Collaboration and License Proceeds

License and Collaboration Agreement with Vifor Pharma

On September 15, 2021, we entered into a License Agreement with Vifor Pharma, pursuant to which we granted an exclusive license to Vifor Pharma for the commercialization of sparsentan in the Licensed Territories. Under the terms of the License Agreement, we received an upfront payment of \$55.0 million in September 2021, and will be eligible for up to \$135.0 million in aggregate regulatory and market access related milestone payments and up to \$655.0 million in aggregate sales-based milestone payments for a total potential value of up to \$845.0 million. We are also entitled to receive tiered double-digit royalties of up to 40 percent of annual net sales of sparsentan in the Licensed Territories.

The Agreement includes a sublicense to Vifor Pharma under our license agreement with Ligand Pharmaceuticals, Inc. ("Ligand"). We remain obligated to make payments to Ligand upon achievement of certain regulatory and sales milestones, as well as an escalating annual royalty between 15 percent and 17 percent of global net sales of licensed products.

Equity Offerings

2021 Underwritten Public Offering of Common Stock

In February 2021, we sold an aggregate of 7.5 million shares of our common stock in an underwritten public offering, at a price to the public of \$26.75 per share. The net proceeds to us from the offering, after deducting the underwriting discounts and offering expenses, were \$189.3 million.

2020 Underwritten Public Offering of Common Stock

In June 2020, we sold an aggregate of 7.5 million shares of our common stock in an underwritten public offering, at a price to the public of \$15.50 per share. The net proceeds to us from the offering, after deducting the underwriting discounts and offering expenses, were \$108.7 million.

At-the-Market Equity Offering

In February 2020, we entered into an Open Market Sale Agreement ("ATM Agreement") with Jefferies LLC, as agent ("Jefferies"), pursuant to which we may offer and sell, from time to time through Jefferies, shares of our common stock having an aggregate offering price of up to \$100.0 million. Of the \$100.0 million originally authorized for sale under the ATM Agreement, approximately \$28.6 million were sold under our prior registration statement on Form S-3 (Registration Statement No. 333-227182). An additional \$31.7 million were sold under our effective registration statement on Form S-3 (Registration Statement No. 333-259311).

In 2020, the Company sold 867,806 shares under the ATM Agreement, resulting in gross proceeds of \$23.5 million. In 2021, the Company sold a combined 1,240,640 shares under the ATM Agreement, resulting in gross proceeds of \$36.8 million. Through December 31, 2021, we have sold a

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total of 2,108,446 shares under the ATM Agreement, resulting in gross proceeds of \$60.3 million. As of December 31, 2021, an aggregate amount of \$39.7 million remained eligible for sale under the facility.

Authorized Shares of Common Stock

On May 14, 2021, in connection with the Company's 2021 Annual Meeting of Stockholders, the Company's stockholders approved, among other matters, a Certificate of Amendment ("Certificate of Amendment") to the Company's Certificate of Incorporation to increase the number of shares of common stock authorized for issuance thereunder from 100,000,000 to 200,000,000. Effective May 18, 2021, the Certificate of Amendment was filed with the Secretary of State of the State of Delaware.

Operating Leases

Future Minimum Rental Commitments

We have future minimum rental commitments totaling \$43.7 million arising from our operating leases. These commitments represent the aggregate base rent through August 2028.

Contingent Cash Payments

Acquisition Agreement with Orphan Technologies Limited

In November 2020, we completed the acquisition of Orphan Technologies Limited ("Orphan"), including Orphan's rare metabolic disorder drug pectibatinase. We acquired Orphan by purchasing all of its outstanding shares. In exchange for the shares, we made an upfront cash payment at closing of \$90.0 million plus closing adjustments, net liabilities assumed, and transaction expenses of \$1.2 million, \$1.8 million, and \$4.2 million, respectively. Under the Agreement, we also agreed to make contingent cash payments up to an aggregate of \$427.0 million based on the achievement of certain development, regulatory and commercialization events as set forth in the Agreement, as well as additional tiered mid-single digit royalty payments based upon future net sales of any pectibatinase products in the US and Europe, subject to certain reductions as set forth in the Agreement, and a contingent payment in the event a pediatric rare disease voucher for any pectibatinase product is granted.

License Agreement Obligations

See discussion above under the heading "License Agreements".

Borrowings

Convertible Senior Notes Due 2025

On September 10, 2018, we completed a registered underwritten public offering of \$276 million aggregate principal amount of 2.50% Convertible Senior Notes due 2025 ("2025 Notes"), and entered into a base indenture and supplemental indenture agreement ("2025 Indenture") with respect to the 2025 Notes. The 2025 Notes will mature on September 15, 2025 ("Maturity Date"), unless earlier repurchased, redeemed, or converted. The 2025 Notes are senior unsecured obligations of ours and bear interest at an annual rate of 2.50%, payable semi-annually in arrears on March 15 and September 15 of each year.

The net proceeds from the issuance of the 2025 Notes were approximately \$267.2 million, after deducting commissions and the offering expenses payable by us. A portion of the net proceeds from the 2025 Notes were used by us to repurchase \$23.4 million aggregate principal amount of its then-outstanding 4.5% senior convertible notes due in 2019 in privately-negotiated transactions.

The initial conversion rate for the 2025 Notes is 25.7739 shares of our common stock per \$1,000 principal amount of 2025 Notes, which represents an initial conversion price of approximately \$38.80 per share. If a "make-whole fundamental change" (as defined in the 2025 Indenture) occurs, then we will, in certain circumstances, increase the conversion rate for a specified period of time.

The 2025 Notes will be redeemable, in whole or in part, at our option at any time, and from time to time, on or after September 15, 2022 and, in the case of any partial redemption, on or before the 40th scheduled trading day before the Maturity Date, at a cash redemption price equal to the principal amount of the 2025 Notes to be redeemed, plus accrued and unpaid interest, if any, to, but excluding, the redemption date, but only if the last reported sale price per share of our common stock exceeds 130% of the conversion price on each of at least 20 trading days during the 30 consecutive trading days ending on, and including, the trading day immediately before the date we send the related redemption notice. If a fundamental change (as defined in the 2025 Indenture) occurs, then, subject to certain exceptions, holders may require us to repurchase their 2025 Notes at a cash repurchase price equal to the principal amount of the 2025 Notes to be repurchased, plus accrued and unpaid interest, if any, to, but excluding, the fundamental change repurchase date.

The effective interest rate on the liability components of the 2025 Notes for the period from the date of issuance was 7.7%.

Convertible Senior Notes Due 2019

On May 29, 2014, the Company entered into a Note Purchase Agreement relating to a private placement by the Company of \$46.0 million aggregate principal amount of 2019 Notes which were convertible into shares of the Company's common stock at an initial conversion price of \$17.41 per share. The conversion price was subject to customary anti-dilution protection. The 2019 Notes bore interest at a rate of 4.5% per annum, payable semiannually in arrears on May 15 and November 15 of each year. The maturity date of the 2019 Notes was on May 30, 2019, and there were no contractual payments due prior to that date.

In September 2018, the Company used part of the net proceeds from the issuance of the 2025 Notes to repurchase \$23.4 million aggregate principal amount of the 2019 Notes in privately-negotiated transactions for approximately \$40.2 million in cash. The partial repurchase of the 2019 Notes resulted in a \$17.0 million loss on early extinguishment of debt in September 2018.

In May 2019, the remaining \$22.6 million outstanding principal amount of 2019 Notes was converted by the holders thereof into approximately 1.3 million shares of common stock. At December 31, 2019, there was no outstanding balance on the 2019 Notes.

Interest Expense

Total interest expense recognized for the years ended December 31, 2021, 2020 and 2019 was \$20.1 million, \$19.1 million, and \$18.8 million, respectively.

Funding Requirements

We believe that our available cash and short-term investments as of the date of this filing will be sufficient to fund our anticipated level of operations beyond the next 12 months. This belief is based on many factors, some of which are beyond our control. Factors that may affect financing requirements include, but are not limited to:

- the rate of progress and cost of our clinical trials, preclinical studies and other discovery and research and development activities, including any delays resulting from the COVID-19 pandemic;
- the timing of, and costs involved in, seeking and obtaining marketing approvals for our products, and in maintaining quality systems standards for our products;
- increases or decreases in revenue from our marketed products, including decreases in revenue resulting from the COVID-19 pandemic, if any;
- debt service obligations on the 2025 Notes;
- our ability to manufacture sufficient quantities of our products to meet expected demand;
- the costs of preparing, filing, prosecuting, maintaining and enforcing any patent claims and other intellectual property rights, litigation costs and the results of litigation;
- our ability to enter into collaboration, licensing or distribution arrangements and the terms and timing of these arrangements;
- the potential need to expand our business, resulting in additional payroll and other overhead expenses;
- the potential in-licensing of other products or technologies; and
- the emergence of competing technologies or other adverse market or technological developments.

Future cash requirements will also depend on the extent to which we acquire or invest in additional complementary businesses, products and technologies.

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Cash Flows

The following table summarizes our cash flows for the periods set forth below (*in thousands*):

	Twelve Months Ended December 31,		
	2021	2020	2019
Net cash used in operating activities	\$ (14,792)	\$ (42,743)	\$ (58,214)
Net cash (used in) provided by investing activities	(137,623)	(61,327)	19,863
Net cash provided by (used in) financing activities	231,683	127,713	(2,077)
Effect of exchange rate changes on cash	1,713	(1,307)	(9)
Net increase (decrease) in cash & cash equivalents	80,981	22,336	(40,437)
 Cash & cash equivalents, beginning of period	 84,772	 62,436	 102,873
Cash & cash equivalents, end of period	<u>\$ 165,753</u>	<u>\$ 84,772</u>	<u>\$ 62,436</u>

Management considers marketable debt securities to be available to fund current operations, and they are classified as available for sale and included within current assets in our Consolidated Balance Sheets. Therefore, cash and short-term investments available to fund operations is \$552.9 million as of December 31, 2021.

Cash Flows from Operating Activities

Operating activities used \$14.8 million of cash during the year ended December 31, 2021 compared to \$42.7 million of cash used for the year ended December 31, 2020. The decrease in cash used was primarily attributable to the \$55.0 million upfront payment received in connection with the license and collaboration agreement entered into with Vifor Pharma in September 2021, along with increased net product sales, offset by increased research and development expenses.

Cash Flows from Investing Activities

Cash used in investing activities for the year ended December 31, 2021 was \$137.6 million compared to cash used of \$61.3 million for the year ended December 31, 2020. The increase in cash used was due to the increase in net purchases of marketable debt securities, offset by expenses arising from the acquisition of Orphan Technologies in 2020.

Cash Flows from Financing Activities

For the year ended December 31, 2021, cash provided by financing activities was \$231.7 million compared to cash provided of \$127.7 million for the year ended December 31, 2020. The increase in cash provided was due to the February 2021 issuance of stock through an underwritten public offering that provided \$189.3 million and an At-The-Market public offering that provided \$36.8 million.

Critical Accounting Policies and Estimates

Management makes certain judgments and uses certain estimates and assumptions when applying accounting principles generally accepted in the United States ("GAAP") in the preparation of our Consolidated Financial Statements. We evaluate our estimates and judgments on an ongoing basis and base our estimates on historical experience and on assumptions that we believe to be reasonable under the circumstances. Our experience and assumptions form the basis for our judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual results may vary from what we anticipate and different assumptions or estimates about the future could change our reported results. We believe the following accounting policies are the most critical to us, in that they require our most difficult, subjective or complex judgments in the preparation of our Consolidated financial statements. For further information, see Note 2, Summary of Significant Accounting Policies, to our Consolidated Financial Statements, which outlines our application of significant accounting policies.

Revenue Recognition

We recognize revenue when the customer obtains control of promised goods or services, in an amount that reflects the consideration which the entity expects to receive in exchange for those goods or services. To determine revenue recognition for arrangements that an entity determines are within the scope of Accounting Standards Codification ("ASC") 606, *Revenue from Contracts with Customers* ("ASC 606"), the entity performs the following five steps: (i) identify the contract(s) with a customer; (ii) identify the performance obligations in the contract; (iii) determine the transaction price; (iv) allocate the transaction price to the performance obligations in the contract; and (v) recognize revenue when (or as) the entity satisfies a performance obligation. We only apply the five-step model to contracts when it is probable that the entity will collect substantially all the consideration it is entitled to in exchange for the goods or services it transfers to the customer.

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We recognize revenues from product sales are recognized when the customer obtains control of the product, which occurs upon delivery to our customer. We receive payments from our product sales based on terms that generally are within 30 days of delivery of product to the patient.

Revenues from product sales are recorded at the net sales price, which includes provisions resulting from discounts, rebates and co-pay assistance that are offered to its customers, health care providers, payors and other indirect customers relating to the sale of our products. In order to determine the transaction price, we estimate, utilizing the expected value method, the amount of variable consideration to which we will be entitled. These provisions are based on the amounts earned or to be claimed on the related sales and are classified as a reduction of accounts receivable (if the amount is payable to the customer) or as a current liability (if the amount is payable to a party other than a customer). Calculating these provisions involves estimates and judgements. Where appropriate, these reserves take into consideration our historical experience, current contractual and statutory requirements and specific known market events and trends. Overall, these reserves reflect our best estimates of the amount of consideration to which it is entitled based on the terms of the contract. If actual results in the future vary from the provisions, we will adjust the provision, which would affect net product revenue and earnings in the period such variances become known. Our historical experience is that such adjustments have been immaterial.

Payments received under collaboration and licensing agreements may include non-refundable fees at the inception of the arrangements, milestone payments for specific achievements and royalties on the sale of products. At the inception of arrangements that include milestone payments, we use judgement to evaluate whether the milestones are probable of being achieved and estimates the amount to include in the transaction price utilizing the most likely amount method. If it is probable that a significant revenue reversal will not occur, the estimated amount is included in the transaction price. Milestone payments that are not within our or the licensee's control, such as regulatory approvals are not included in the transaction price until those approvals are received. At the end of each reporting period, we re-evaluate the probability of achievement of development milestones and any related constraint and adjusts the estimate of the overall transaction price, if necessary. We recognize aggregate sales-based milestones and royalty payments from product sales at the later of when the related sales occur or when the performance obligation to which the sales-based milestone or royalty has been allocated has been satisfied. If it is probable that a significant revenue reversal will not occur, we estimate the sales-based milestone and royalty payments using the most likely amount method.

We utilize significant judgement to develop estimates of the stand-alone selling price for each distinct performance obligation based upon the relative stand-alone selling price. Variable consideration that relates specifically to our efforts to satisfy specific performance obligations is allocated entirely to those performance obligations. The stand-alone selling price for license-related performance obligations requires judgement in developing assumptions to project probability-weighted cash flows based upon estimates of forecasted revenues, clinical and regulatory timelines and discount rates. The stand-alone selling price for clinical development performance obligations is based on forecasted expected costs of satisfying a performance obligation plus an appropriate margin.

If the licenses to intellectual property are determined to be distinct from the other performance obligations identified in the arrangement, we recognize revenues from non-refundable, upfront fees allocated to the license when the license is transferred to the licensee and the licensee is able to benefit from the license. For licenses that are not distinct from other promises, we apply judgment to assess the nature of the combined performance obligation to determine whether the combined performance obligation is satisfied over time or a point in time and, if over time, the appropriate method of measuring progress for purposes of recognizing revenue from non-refundable, upfront fees. We evaluate the measure of progress each reporting period and, if necessary, adjust the related revenue recognition accordingly.

The selection of the method to measure progress towards completion requires judgment and is based on the nature of the products or services to be provided. Revenue is recorded proportionally as costs are incurred. We generally utilize the cost-to-cost method of progress because it best measures the transfer of control to the customer which occurs as we incur costs. Under the cost-to-cost measure of progress, the extent of progress towards completion is measured based on the ratio of costs incurred to date to the total estimated costs at completion of the performance obligation. We use judgment to estimate the total costs expected to complete the clinical development performance obligations, which include subcontractor costs, labor, materials, other direct costs and an allocation of indirect costs. We evaluate these cost estimates and the progress each reporting period and adjusts the measure of progress, if necessary.

Changes in assumptions where management utilizes significant judgement could have a material impact on the revenue we recognize.

Clinical Trial Expenses

We record expenses in connection with our clinical trials under contracts with contract research organizations (CROs) that support conducting and managing clinical trials. The financial terms and activities of these agreements vary from contract to contract and may result in uneven expense levels. Generally, these agreements set forth activities that drive the recording of expenses such as start-up and initiation activities, enrollment and treatment of patients, or the completion of other clinical trial activities.

Expenses related to clinical trials are accrued based on our estimates and/or representations from service providers regarding work performed, including actual level of patient enrollment, completion of patient studies and progress of the clinical trials. We currently have three Phase 3 clinical trials in process that are in varying stages of activity, with ongoing non-clinical support trials that are significant and changes in estimates and representations from service providers could have a material impact on expenses we recognize.

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Stock-Based Compensation

We account for share-based compensation arrangements in accordance with ASC 718, *Compensation – Stock Compensation*, which requires the measurement and recognition of compensation expense for all share-based payment awards to be based on estimated fair values. We use the Black-Scholes option valuation model to estimate the fair value of its stock options at the date of grant. The Black-Scholes option valuation model requires the input of subjective assumptions to calculate the value of stock options. For restricted stock units, the value of the award is based on our stock price at the grant date. For performance-based restricted stock unit awards, the value of the award is based on our stock price at the grant date, with consideration given to the probability of the performance condition being achieved. We use historical data and other information to estimate the expected price volatility for stock option awards and the expected exercise activity for all awards. Expense is recognized over the vesting period for all awards and commences at the grant date for time-based awards and upon our determination that the achievement of such performance conditions is probable for performance-based awards. The valuation, including the assumptions, require significant judgment by management.

Contingent Consideration

We record contingent consideration resulting from a business combination at its fair value on the acquisition date. On a quarterly basis, we revalue these obligations and record increases or decreases from their fair value as an adjustment to the Consolidated Statements of Operations and Comprehensive Loss. In estimating the fair value of our contingent consideration, we use a Monte Carlo Simulation. Changes to contingent consideration obligations can result from changes to discount rates, accretion of the liability due to the passage of time, changes in revenue forecasts and changes in our estimates of the likelihood or timing of achieving commercial revenue milestones. The determination of the contingent consideration liabilities requires significant judgments including the appropriateness of the valuation model and reasonableness of estimates and assumptions included in the forecasts of future net sales and the discount rates applied to such forecasts. Changes in these estimates and assumptions could have a significant impact on the fair value of the contingent consideration liabilities.

Impairment of Intangible Assets subject to amortization

Intangible assets subject to amortization include certain license agreements and purchased technologies. Intangible assets subject to amortization are reviewed for impairment whenever events or circumstances indicate that the carrying amount of these assets may not be recoverable and are also reviewed annually to determine whether any impairment is necessary.

Income Taxes

We follow ASC 740, *Income Taxes*, which requires recognition of deferred tax assets and liabilities for the expected future tax consequences of events that have been included in the financial statements or tax returns. Under this method, deferred tax assets and liabilities are based on the differences between the financial statement and tax basis of assets and liabilities using enacted tax rates in effect for the year in which the differences are expected to reverse. Deferred tax assets are reduced by a valuation allowance to the extent management concludes it is more likely than not that the asset will not be realized.

The standard addresses the determination of whether tax benefits claimed or expected to be claimed on a tax return should be recorded in the financial statements. Under ASC 740, we may recognize the tax benefit from an uncertain tax position only if it is more likely than not that the tax position will be sustained on examination by the tax authorities, based on the technical merits of the position. The tax benefits recognized in the financial statements from such a position should be measured based on the largest benefit that has a greater than fifty percent likelihood of being realized upon ultimate settlement.

Recently Issued Accounting Pronouncements

See Note 2 to the Consolidated Financial Statements for discussion.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Our primary exposure to market risk is related to changes in interest rates. As of December 31, 2021, we had cash equivalents and marketable debt securities of approximately \$552.9 million, consisting of money market funds, U.S. government agency debt, corporate debt and commercial paper. This exposure to market risk is interest rate sensitivity, which is affected by changes in the general level of U.S. interest rates, particularly because our investments are in short-term debt securities. Our debt securities are subject to interest rate risk and will fall in value if market interest rates increase. Due to the short-term duration of our investment portfolio and the low risk profile of our investments, a change in interest rates of 100 basis points would have approximately a \$1.7 million impact on our investments.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

The Consolidated Financial Statements and supplementary data of Travere Therapeutics, Inc. required by this Item are described in Item 15 of this Annual Report on Form 10-K and are presented beginning on page F-1.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

ITEM 9A. CONTROLS AND PROCEDURES

We maintain disclosure controls and procedures that are designed to ensure that information required to be disclosed in our Exchange Act reports is recorded, processed, summarized and reported within the timelines specified in the SEC's rules and forms, and that such information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure. In designing and evaluating the disclosure controls and procedures, management recognized that any controls and procedures, no matter how well designed and operated, can only provide reasonable assurance of achieving the desired control objectives, and in reaching a reasonable level of assurance, management necessarily was required to apply its judgment in evaluating the cost-benefit relationship of possible controls and procedures.

As required by Rule 13a-15(b) of the Exchange Act, 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 the design and operation of our disclosure controls and procedures (as defined in Exchange Act Rule 13a-15(e) and 15d-15(e)), as of the end of the year covered by this report. Based on the foregoing, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective at the reasonable assurance level.

Management's Annual Report on Internal Control Over Financial Reporting

Internal control over financial reporting refers to the process designed by, or under the supervision of, our Chief Executive Officer and Chief Financial Officer, and effected by our board of directors, management and other personnel, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles, and includes those policies and procedures that:

- (1) Pertain to the maintenance of records that in reasonable detail accurately and fairly reflect the transactions and dispositions of our assets;
- (2) Provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that our receipts and expenditures are being made only in accordance with authorization of our management and directors; and
- (3) Provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on the financial statements.

Internal control over financial reporting cannot provide absolute assurance of achieving financial reporting objectives because of its inherent limitations. Internal control over financial reporting is a process that involves human diligence and compliance and is subject to lapses in judgment and breakdowns resulting from human failures. Internal control over financial reporting also can be circumvented by collusion or improper management override. Because of such limitations, there is a risk that material misstatements may not be prevented or detected on a timely basis by internal control over financial reporting. However, these inherent limitations are known features of the financial reporting process. Therefore, it is possible to design into the process safeguards to reduce, though not eliminate, this risk. Management is responsible for establishing and maintaining adequate internal control over financial reporting for the company.

Management has used the framework set forth in the report entitled Internal Control-Integrated Framework (2013 framework) published by the Committee of Sponsoring Organizations of the Treadway Commission, known as COSO, to evaluate the effectiveness of our internal control over financial reporting. Based on this assessment, our Chief Executive Officer and Chief Financial Officer concluded that our internal control over financial reporting was effective as of December 31, 2021. BDO USA, LLP, our independent registered public accounting firm, has issued an attestation report on our internal control over financial reporting as of December 31, 2021, which is included herein.

Changes in Internal Control Over Financial Reporting

There have not been any changes in our internal control over financial reporting during the quarter ended December 31, 2021 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

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Report of Independent Registered Public Accounting Firm

Shareholders and Board of Directors

Travere Therapeutics, Inc.

San Diego, California

Opinion on Internal Control over Financial Reporting

We have audited Travere Therapeutics, Inc. and its subsidiaries' (the "Company's") internal control over financial reporting as of December 31, 2021, based on criteria established in *Internal Control – Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (the "COSO criteria"). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2021, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) ("PCAOB"), the consolidated balance sheets of the Company and subsidiaries as of December 31, 2021 and 2020, the related consolidated statements of operations and comprehensive loss, stockholders' equity, and cash flows for each of the three years in the period ended December 31, 2021, and the related notes and our report dated February 24, 2022, expressed an unqualified opinion thereon.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Item 9A, Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the 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 of internal control over financial reporting in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed 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. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ BDO USA, LLP

San Diego, California

ITEM 9B. OTHER INFORMATION

None.

ITEM 9C. DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS

Not applicable.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Information required by this item will be contained under the captions "Election of Directors," "Information Regarding the Board of Directors and Corporate Governance," in our Definitive Proxy Statement for our 2022 Annual Meeting of Stockholders, to be filed pursuant to Regulation 14A with the Securities and Exchange Commission within 120 days of December 31, 2021 (the "Proxy Statement"). Such information is incorporated herein by reference.

We have adopted a Code of Business Conduct that applies to our directors and employees (including our principal executive officer, principal financial officer, principal accounting officer and controller), and have posted the text of the policy on our website (<https://ir.travere.com/governance-documents>). In addition, we intend to promptly disclose on our website in the future (i) the date and nature of any amendment (other than technical, administrative or other non-substantive amendments) to the policy that applies to our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions and relates to any element of the code of ethics definition enumerated in Item 406(b) of Regulation S-K, and (ii) the nature of any waiver, including an implicit waiver, from a provision of the policy that is granted to one of these specified individuals that relates to one or more of the elements of the code of ethics definition enumerated in Item 406(b) of Regulation S-K, the name of such person who is granted the waiver and the date of the waiver.

ITEM 11. EXECUTIVE COMPENSATION

Information required by this item will be contained under the captions "Compensation Discussion and Analysis," "Executive Compensation," "Director Compensation Summary" and "Compensation Committee Interlocks and Insider Participation" in the Proxy Statement. Such information is incorporated herein by reference.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

Information required by this item will be contained under the captions "Security Ownership of Certain Beneficial Owners and Management" and "Securities Authorized for Issuance Under Equity Compensation Plans" in the Proxy Statement. Such information is incorporated herein by reference.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

Information required by this item will be contained under the caption "Transaction With Related Persons" and "Information Regarding the Board of Directors and Corporate Governance" in the Proxy Statement. Such information is incorporated herein by reference.

ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

Information required by this item will be contained under the caption "Principal Accountant Fees and Services" in the Proxy Statement. Such information is incorporated herein by reference.

PART IV

ITEM 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES

- (a) The financial statements at page F-1 are incorporated by reference to a part of this Annual Report on Form 10-K.

Financial statement schedules are omitted because they are not applicable or the required information is shown in the financial statements or notes thereto.

- (b) Exhibits: The exhibits to this report are listed in the exhibit index below.

**Exhibit
No.****Description**

1.1	Open Market Sales Agreement, dated February 24, 2020, by and between the Company and Jefferies LLC, (incorporated by reference to Exhibit 1.1 to the Company's Annual Report on Form 10-K filed with the SEC on February 24, 2020).
2.1+	Asset Purchase Agreement dated January 10, 2015 by and between the Company and Asklepiion Pharmaceuticals, LLC (incorporated by reference to Exhibit 10.6 to the Company's Quarterly Report on Form 10-Q, filed with the SEC on May 11, 2015).
2.2+	Asset Purchase Agreement dated as of June 9, 2016 between the Company and Asklepiion Pharmaceuticals, LLC (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q, filed with the SEC on August 5, 2016).
2.3*	Stock Purchase Agreement, dated October 21, 2020, by and among the Company, Orphan Technologies Limited and Citco Trustees (Cayman) Limited acting solely in its capacity as the sole trustee of The Fuhrer Family Trust (incorporated by reference to Exhibit 2.1 to the Company's Current Report on Form 8-K, filed with the SEC on November 18, 2020).
3.1	Certificate of Incorporation of the Company (incorporated by reference to Exhibit 3.1 to Amendment No. 2 to the Company's General Form for Registration of Securities on Form 10-12G, filed with the SEC on October 28, 2010).
3.2	Certificate of Amendment of Certificate of Incorporation of the Company (incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K, filed with the SEC on June 11, 2015).
3.3	Certificate of Amendment of Certificate of Incorporation of the Company (incorporated by reference to Exhibit 3.2 to the Company's Current Report on Form 8-K, filed with the SEC on November 16, 2020).
3.4	Certificate of Amendment to the Certificate of Incorporation of the Company (incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K, filed with the SEC on May 18, 2021).
3.5	Amended and Restated Bylaws of the Company (incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K, filed with the SEC on November 16, 2020).
3.6	Certificate of Amendment of Bylaws of the Company, effective June 9, 2021 (incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K, filed with the SEC on June 10, 2021).
4.1	Reference is made to Exhibits to 3.1 , 3.2 , 3.3 , 3.4 , 3.5 and 3.6 .
4.2	Description of Common Stock.
4.3	Base Indenture, dated September 10, 2018, between the Company and U.S. Bank National Association, as Trustee (incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K, filed with the SEC on September 10, 2018).
4.4	First Supplemental Indenture, dated September 10, 2018, between the Company and U.S. Bank National Association, as Trustee (including the form of 2.50% Convertible Senior Note due 2025) (incorporated by reference to Exhibit 4.2 to the Company's Current Report on Form 8-K, filed with the SEC on September 10, 2018).
10.1	Form of Indemnity Agreement (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q, filed with the SEC on May 1, 2018).
10.2†	Employment Agreement, dated January 4, 2019, by and between the Company and Eric M. Dube (incorporated by reference to Exhibit 10.34 to the Company's Annual Report on Form 10-K, filed with the SEC on February 26, 2019).
10.3†	Employment Agreement, dated March 2, 2015, by and between the Company and Laura M. Clague (incorporated by reference to Exhibit 10.25 to the Company's Annual Report on Form 10-K, filed with the SEC on March 11, 2015).
10.4†	Amendment to Employment Agreement, entered into as of April 11, 2017 and modifies the Employment Agreement dated March 2, 2015, by and between the Company and Laura M. Clague (incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q, filed with the SEC on May 5, 2017).
10.5†	Employment Agreement, dated February 13, 2017, and Amendment to Employment Agreement, dated April 11, 2017, by and between the Company and William Rote (incorporated by reference to Exhibit 10.3 to the Company's Quarterly Report on Form 10-Q, filed with the SEC on May 1, 2018).
10.6†	Employment Agreement, dated February 6, 2017, and Amendment to Employment Agreement, dated April 11, 2017, by and between the Company and Elizabeth E. Reed (incorporated by reference to Exhibit 10.4 to the Company's Quarterly Report on Form 10-Q, filed with the SEC on May 1, 2018).
10.7†	Employment Agreement, dated October 1, 2019, by and between the Company and Peter Heerma (incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q, filed with the SEC on May 5, 2020).
10.8†	Employment Agreement, dated July 26, 2018, by and between the Company and Noah Rosenberg, M.D. (incorporated by reference to Exhibit 10.35 to the Company's Annual Report on Form 10-K, filed with the SEC on February 26, 2019).

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- 10.9† [Transition Agreement, dated October 12, 2021, between the Company and Noah Rosenberg, M.D. \(incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K, filed with the SEC on October 12, 2021\).](#)
- 10.10† [Consulting Services Agreement dated January 1, 2022, between the Company and Noah Rosenberg, M.D. \(incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K, filed with the SEC on January 6, 2022\).](#)
- 10.11† [Retirement Agreement, dated January 4, 2019, by and between the Company and Stephen Aselage \(incorporated by reference to Exhibit 10.33 to the Company's Annual Report on Form 10-K, filed with the SEC on February 26, 2019\).](#)
- 10.12† [Non-Employee Director Compensation Program \(incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q, filed with the SEC on May 11, 2020\).](#)
- 10.13† [The Company's 2021 Executive Officer Annual Bonus Plan \(incorporated by reference to Exhibit 10.38 to the Company's Annual Report on Form 10-K, filed with the SEC on March 1, 2021\).](#)
- 10.14† [The Company's 2022 Executive Officer Annual Bonus Plan.](#)
- 10.15† [The Company's 2014 Incentive Compensation Plan as amended \(incorporated by reference to Exhibit 99.1 to the Company's Current Report on Form 8-K, filed with the SEC on February 9, 2015\).](#)
- 10.16† [The Company's 2015 Equity Incentive Plan, as amended \(incorporated by reference to Exhibit 99.1 to the Company's Current Report on Form 8-K, filed with the SEC on May 18, 2017\).](#)
- 10.17† [Form of Stock Option Grant Notice, Option Agreement and Notice of Exercise for Inducement Grant Outside of 2015 Equity Incentive Plan \(incorporated by reference to Exhibit 99.3 to the Company's current report on Form S-8, filed with the SEC on June 8, 2017\).](#)
- 10.18† [Form of Restricted Stock Unit Grant Notice and Restricted Stock Unit Award Agreement for Inducement Grant Outside of 2015 Equity Incentive Plan \(incorporated by reference to Exhibit 99.4 to the Company's current report on Form S-8, filed with the SEC on June 8, 2017\).](#)
- 10.19† [The Company's 2017 Employee Stock Purchase Plan \(incorporated by reference to Exhibit 99.2 to the Company's Current report on Form 8-K, filed with the SEC on May 18, 2017\).](#)
- 10.20† [The Company's 2018 Equity Incentive Plan, as amended \(incorporated by reference to Exhibit 99.1 to the Company's Current Report on Form 8-K, filed with the SEC on May 18, 2021\).](#)
- 10.21† [Form of Stock Option Grant Notice, Option Agreement and Exercise Notice for use under the Company's 2018 Equity Incentive Plan, as amended.](#)
- 10.22† [Form of Restricted Stock Unit Grant Notice and Restricted Stock Unit Award Agreement for use under the Company's 2018 Equity Incentive Plan, as amended.](#)
- 10.23† [Form of Stock Option Grant Notice, Option Agreement and Notice of Exercise for Inducement Grant Outside of 2018 Equity Incentive Plan, as amended \(incorporated by reference to Exhibit 99.2 to the Company's Registration Statement on Form S-8 \(File No. 333-232857\), filed with the SEC on July 26, 2019\).](#)
- 10.24† [Form of Restricted Stock Unit Grant Notice and Restricted Stock Unit Award Agreement for Inducement Grant Outside of 2018 Equity Incentive Plan, as amended \(incorporated by reference to Exhibit 99.3 to the Company's Registration Statement on Form S-8 \(File No. 333-232857\), filed with the SEC on July 26, 2019\).](#)
- 10.25+‡ [Sublicense Agreement, dated February 16, 2012, by and among Ligand Pharmaceuticals Incorporated, a Delaware corporation, Pharmacopeia, Inc., a Delaware limited liability company, and the Company, a Delaware limited liability company.](#)
- 10.26* [Amendment No. 3 to Sublicense Agreement dated as of February 27, 2015, between the Company and Ligand Pharmaceuticals Incorporated.](#)
- 10.27* [Amendment No. 4 to Sublicense Agreement dated as of September 17, 2015, between the Company and Ligand Pharmaceuticals Incorporated.](#)
- 10.28 [Amendment No. 5 to Sublicense Agreement dated as of March 20, 2018, between the Company and Ligand Pharmaceuticals Incorporated \(incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q, filed with the SEC on May 1, 2018\).](#)
- 10.29 [International Rights Purchase Agreement, dated as of March 26, 2014, by and between Manchester Pharmaceuticals LLC and Retrophin Therapeutics International, LLC \(incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K, filed with the SEC on March 31, 2014\).](#)
- 10.30 [Trademark License and Supply Agreement, dated May 29, 2014, by and between the Company and Mission Pharmacal Company \(incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K, filed with the SEC on June 4, 2014\).](#)
- 10.31 [First Amendment to Trademark License and Supply Agreement, effective as of July 28, 2014, by and between Mission Pharmacal Company and the Company \(incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K, filed with the SEC on July 29, 2014\).](#)
- 10.32 [Addendum to Trademark License and Supply Agreement, dated October 19, 2015, by and between the Company and Mission Pharmacal \(incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q, filed with the SEC on November 6, 2015\).](#)
- 10.33+ [Third Amendment to Trademark License and Supply Agreement dated as of March 17, 2016, between the Company and Mission Pharmacal \(incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q, filed with the SEC on May 5, 2016\).](#)
- 10.34+ [Amendment One to the Third Amendment to Trademark License and Supply Agreement, dated September 12, 2016, by and between the Company and Mission Pharmacal Company \(incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q, filed with the SEC on November 4, 2016\).](#)
- 10.35+ [Amendment Two to the Third Amendment to Trademark License and Supply Agreement, dated November 3, 2017, by and between the Company and Mission Pharmacal Company \(incorporated by reference to Exhibit 10.20 to the Company's Annual Report on Form 10-K, filed with the SEC on February 27, 2018\).](#)
- 10.36 [Fourth Amendment to Trademark License and Supply Agreement dated as of November 28, 2018, between the Company and Mission Pharmacal \(incorporated by reference to Exhibit 10.19 to the Company's Annual Report on Form 10-K, filed with the SEC on February 26, 2019\).](#)

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10.37+	Fifth Amendment to Trademark License and Supply Agreement dated as of September 30, 2020, between the Company and Mission Pharmacal Company (incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q, filed with the SEC on November 5, 2020).
10.38¥*	Master Manufacturing Supply Agreement, dated September 30, 2020, between the Company and STA Pharmaceutical Hong Kong Limited, a subsidiary of WuXi AppTec (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q, filed with the SEC on November 5, 2020).
10.39¥*	License and Collaboration Agreement, dated September 15, 2021, by and among Orphan Technologies and Vifor (International) Ltd., and, solely with respect to Article 15, the Company (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q, filed with the SEC on October 29, 2021).
10.40¥*	Commercial Supply Agreement, dated December 21, 2021, between the Company and Catalent Pharma Solutions, LLC.
10.41	Office Lease, effective April 12, 2019, between the Company and Kilroy Realty, L.P. (incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q, filed with the SEC on August 6, 2019).
10.42*	First Amendment to Office Lease, dated November 7, 2019, between the Company and Kilroy Realty, L.P. (incorporated by reference to Exhibit 99.1 to the Company's Current Report on Form 8-K, filed with the SEC on June 8, 2020).
10.43	Third Amendment to Existing Office Lease and Second Amendment to Long Term Lease, dated May 29, 2020, between the Company and Kilroy Realty, L.P. (incorporated by reference to Exhibit 99.2 to the Company's Current Report on Form 8-K, filed with the SEC on June 8, 2020).
21.1	List of subsidiaries of the Company.
23.1	Consent of BDO USA, LLP.
24.1	Power of Attorney (see signature page hereto).
31.1	Chief Executive Officer's Certification pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Chief Financial Officer's Certification pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1	Chief Executive Officer's Certification pursuant to Section 906 of Sarbanes Oxley Act of 2002.
32.2	Chief Financial Officer's Certification pursuant to Section 906 of Sarbanes Oxley Act of 2002.
101.INS	Inline XBRL Instance Document.
101.SCH	Inline XBRL Taxonomy Extension Schema Document.
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document.
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document.
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document.
101.PRE	Taxonomy Extension Presentation Linkbase Document.
104	The cover page to this Annual Report on Form 10-K has been formatted in Inline XBRL.

- + We have received confidential treatment of certain portions of this agreement, which have been omitted and filed separately with the SEC pursuant to Rule 406 under the Securities Act of 1933, as amended, or Rule 24b-2 of the Securities Exchange Act of 1934, as amended.
- † Indicates management contract or compensatory plan.
- ¥ Schedules have been omitted pursuant to Item 601(a)(5) of Regulation S-K. The Company undertakes to furnish supplemental copies of any of the omitted schedules upon request by the SEC.
- * Certain portions of this exhibit are omitted pursuant to Item 601(b)(10)(iv).

ITEM 16. FORM 10-K SUMMARY

None.

SIGNATURES

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

Date: February 24, 2022

Traverse Therapeutics, Inc.

By: /s/ Eric M. Dube

Name: Eric M. Dube

Title: Chief Executive Officer

POWER OF ATTORNEY

Know all persons by these presents, that each person whose signature appears below constitutes and appoints Eric Dube and Laura Clague, and each of them, as his attorneys-in-fact and agents, each with power of substitution in any and all capacities, to sign any amendments to this annual report on Form 10-K, and to file the same with exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, hereby ratifying and confirming all that the attorney-in-fact or his substitute or substitutes may do or cause to be done by virtue hereof.

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

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Signature	Title	Date
/s/ Eric M. Dube Eric M. Dube	Chief Executive Officer and Director (Principal Executive Officer)	February 24, 2022
/s/ Laura Clague Laura Clague	Chief Financial Officer (Principal Financial Officer)	February 24, 2022
/s/ Sandra Calvin Sandra Calvin	Vice President, Corporate Controller and Chief Accounting Officer (Principal Accounting Officer)	February 24, 2022
/s/ Stephen Aselage Stephen Aselage	Director	February 24, 2022
/s/ Roy D. Baynes Roy D. Baynes	Director	February 24, 2022
/s/ Suzanne Bruhn Suzanne Bruhn	Director	February 24, 2022
/s/ Timothy Coughlin Timothy Coughlin	Director	February 24, 2022
/s/ Gary Lyons Gary Lyons	Director	February 24, 2022
/s/ Jeffrey A. Meckler Jeffrey A. Meckler	Director	February 24, 2022
/s/ John A. Orwin John A. Orwin	Director	February 24, 2022
/s/ Sandra E. Poole Sandra E. Poole	Director	February 24, 2022
/s/ Ron Squarer Ron Squarer	Director	February 24, 2022
/s/ Ruth Williams-Brinkley Ruth Williams-Brinkley	Director	February 24, 2022

TRAVERE THERAPEUTICS, INC. AND SUBSIDIARIES

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Report of Independent Registered Public Accounting Firm

Shareholders and Board of Directors

Travere Therapeutics, Inc.

San Diego, California

Opinion on the Consolidated Financial Statements

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

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) ("PCAOB"), the Company's internal control over financial reporting as of December 31, 2021, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO") and our report dated February 24, 2022 expressed an unqualified opinion thereon.

Basis for Opinion

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

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud.

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

Critical Audit Matters

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

Business Combination-Related Contingent Consideration

As described in Note 8 to the consolidated financial statements, the Company acquired two businesses, related to the Cholbam and Chenodal products, whose purchase price included potential future payments that are contingent on the achievement of certain milestones and percentages of future net sales derived from the products acquired. The Company recorded business combination-related contingent consideration liabilities at their fair value on the acquisition date and revalues them at the end of each reporting period.

We identified the determination of the fair value of business combination-related contingent consideration as a critical audit matter. The determination of the fair value of business combination-related contingent consideration requires management to

make significant judgments including the appropriateness of the valuation model selected, the reasonableness of estimates and assumptions utilized in forecasts of future net sales and the discount rates applied to such forecasts. Changes in these judgments could have a significant impact on the fair value of the business combination-

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related contingent consideration. Auditing these elements involved especially challenging auditor judgment due to the subjectivity, nature and extent of auditor effort required to address the matter, including the extent of specialized skills and knowledge needed.

The primary procedures we performed to address this critical audit matter included:

- Testing the design and operating effectiveness of certain controls over the development of the significant assumptions used in the valuation model selected, including controls over assumptions related to: (i) forecasts of future net sales and (ii) discount rates applied to the forecasts.
- Assessing the reasonableness of certain significant assumptions used in the valuation model, by: (i) reviewing the products' historical performance, (ii) evaluating the reasonableness of significant assumptions (including net sales projections) against budgets and the current performance of the Company, and (iii) performing sensitivity analyses to test the potential effect of changes in certain assumptions on the valuation.
- Utilizing professionals with specialized skills and knowledge in valuation to assist in evaluating the appropriateness of the valuation models utilized by management and to assess the reasonableness of certain estimates and assumptions used by management to develop the discount rates applied to the net sales forecasts.

License and Collaboration Agreement with Vifor

As discussed in Note 4 to the consolidated financial statements, in September 2021, the Company entered into a license and collaboration agreement with Vifor (International) Ltd. ("Vifor Pharma"). Under the terms of the agreement, the Company granted Vifor Pharma an exclusive license to commercialize sparsentan in Europe, Australia, and New Zealand. In exchange for the license, the Company received an upfront payment of \$55.0 million during 2021 and is eligible to receive additional regulatory and market access related milestones and sales-based milestones and royalties.

We have identified the identification of performance obligations under the Vifor license and collaboration agreement as a critical audit matter. Determining the distinct performance obligations included in the agreement required management to make judgements with respect to the appropriate application of relevant authoritative accounting guidance. Auditing management's judgments and the resulting impacts on the accounting and revenue recognition for the Vifor license and collaboration agreement required increased auditor effort.

The primary procedures we performed to address this critical audit matter included:

- a. Assessing the key terms in the license and collaboration agreement under the relevant authoritative accounting guidance to evaluate management's conclusion that the license and collaboration agreement contains two distinct performance obligations.
- a. Utilizing professionals with increased experience and expertise in technical accounting for license and collaboration agreements to assist in evaluation of management's conclusions with respect to the performance obligations identified.

/s/ BDO USA, LLP

We have served as the Company's auditor since 2014.

San Diego, California

February 24, 2022

TRAVERE THERAPEUTICS, INC. AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS
(In thousands, except share and per share amounts)

	December 31, 2021	December 31, 2020
Assets		
Current assets:		
Cash and cash equivalents	\$ 165,753	\$ 84,772
Marketable debt securities, at fair value	387,129	276,817
Accounts receivable, net	15,914	15,925
Inventory, net	7,313	7,608
Tax receivable	247	17,142
Prepaid expenses and other current assets	6,471	8,143
Total current assets	582,827	410,407
Property and equipment, net	11,106	9,418
Operating lease right of use assets	23,196	25,675
Intangible assets, net	148,435	154,125
Other assets	11,069	7,814
Total assets	<u>\$ 776,633</u>	<u>\$ 607,439</u>
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable	\$ 15,144	\$ 12,133
Accrued expenses	75,180	56,793
Deferred revenue, current portion	16,268	—
Business combination-related contingent consideration	7,400	17,400
Operating lease liabilities, current portion	3,908	357
Other current liabilities	6,188	5,977
Total current liabilities	124,088	92,660
Convertible debt	226,581	215,339
Deferred revenue, less current portion	20,379	—
Business combination-related contingent consideration, less current portion	59,700	47,700
Operating lease liabilities, less current portion	31,497	28,336
Other non-current liabilities	12,276	12,191
Total liabilities	<u>474,521</u>	<u>396,226</u>
Commitments and Contingencies (See Note 11)		
Stockholders' Equity:		
Preferred stock \$0.0001 par value; 20,000,000 shares authorized; 0 issued and outstanding as of December 31, 2021 and 2020	—	—
Common stock \$0.0001 par value; 200,000,000 and 100,000,000 shares authorized; 62,491,498 and 52,248,431 issued and outstanding as of December 31, 2021 and 2020, respectively	6	5
Additional paid-in capital	1,068,634	797,985
Accumulated deficit	(765,966)	(585,875)
Accumulated other comprehensive loss	(562)	(902)
Total stockholders' equity	302,112	211,213
Total liabilities and stockholders' equity	<u>\$ 776,633</u>	<u>\$ 607,439</u>

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

TRAVERE THERAPEUTICS, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS
(In thousands, except share and per share amounts)

	Years Ended December 31,		
	2021	2020	2019
Net product sales	\$ 210,776	\$ 198,321	\$ 175,338
License and collaboration revenue	16,714	—	—
Total revenue	<u>227,490</u>	<u>198,321</u>	<u>175,338</u>
Operating expenses:			
Cost of goods sold	6,784	6,126	5,234
Research and development	210,328	131,773	140,963
Selling, general and administrative	149,883	135,799	128,951
Change in fair value of contingent consideration	22,260	3,655	15,051
Impairment of L-UDCA IPR&D intangible asset	—	—	25,500
Write off of L-UDCA contingent consideration	—	—	(18,000)
Acquired IPR&D expense	—	97,131	—
Impairment of long-term investment	—	—	15,000
Total operating expenses	<u>389,255</u>	<u>374,484</u>	<u>312,699</u>
Operating loss	<u>(161,765)</u>	<u>(176,163)</u>	<u>(137,361)</u>
Other Income (expense), net:			
Interest income	1,993	5,003	10,055
Interest expense	(20,141)	(19,050)	(18,828)
Other income (expense), net	<u>231</u>	<u>1,420</u>	<u>(314)</u>
Total other expense, net	<u>(17,917)</u>	<u>(12,627)</u>	<u>(9,087)</u>
Loss before (provision) benefit for income taxes	<u>(179,682)</u>	<u>(188,790)</u>	<u>(146,448)</u>
Income tax (provision) benefit	<u>(409)</u>	<u>19,359</u>	<u>21</u>
Net loss	<u><u>\$ (180,091)</u></u>	<u><u>\$ (169,431)</u></u>	<u><u>\$ (146,427)</u></u>
Basic and diluted net loss per common share	<u>\$ (3.01)</u>	<u>\$ (3.56)</u>	<u>\$ (3.46)</u>
Basic and diluted weighted average common shares outstanding	<u>59,832,287</u>	<u>47,539,631</u>	<u>42,339,961</u>
Comprehensive loss:			
Net loss	\$ (180,091)	\$ (169,431)	\$ (146,427)
Foreign currency translation gain (loss)	1,515	(1,452)	92
Unrealized (loss) gain on debt securities	(1,175)	(176)	2,163
Comprehensive loss	<u><u>\$ (179,751)</u></u>	<u><u>\$ (171,059)</u></u>	<u><u>\$ (144,172)</u></u>

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

TRAVERE THERAPEUTICS, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(In thousands, except share amounts)

	Common Stock		Additional Paid in Capital	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount				
BALANCE - DECEMBER 31, 2018	41,389,524	\$ 4	\$ 589,795	\$ (1,529)	\$ (270,017)	\$ 318,253
Share based compensation	—	—	20,463	—	—	20,463
Unrealized gain/(loss) on marketable debt securities	—	—	—	2,163	—	2,163
Foreign currency translation adjustments	—	—	—	92	—	92
Issuance of common shares under the equity incentive plan and proceeds from exercise.	272,730	—	1,618	—	—	1,618
Employee stock purchase program stock purchase and expense	129,324	—	2,444	—	—	2,444
Convertible debt issue	1,297,343	—	22,590	—	—	22,590
Net loss	—	—	—	—	(146,427)	(146,427)
BALANCE - DECEMBER 31, 2019	43,088,921	\$ 4	\$ 636,910	\$ 726	\$ (416,444)	\$ 221,196
Share based compensation	—	—	22,733	—	—	22,733
Issuance of common stock under the equity incentive plan and proceeds from exercise	649,075	—	3,895	—	—	3,895
Equity offering, net of issuance costs of \$7.2 million	7,475,000	1	108,691	—	—	108,692
Issuance of common stock under At-The-Market offering, net of offering costs	867,806	—	22,828	—	—	22,828
Unrealized gain/(loss) on marketable debt securities	—	—	—	(176)	—	(176)
Foreign currency translation adjustments	—	—	—	(1,452)	—	(1,452)
Employee stock purchase program stock purchase and expense	167,629	—	2,928	—	—	2,928
Net loss	—	—	—	—	(169,431)	(169,431)
BALANCE - DECEMBER 31, 2020	52,248,431	\$ 5	\$ 797,985	\$ (902)	\$ (585,875)	\$ 211,213
Share based compensation	—	—	29,862	—	—	29,862
Issuance of common stock under the equity incentive plan and proceeds from exercise	1,302,966	—	12,841	—	—	12,841
Equity offering, net of issuance costs of \$12.2 million	7,532,500	1	189,278	—	—	189,279
Issuance of common stock under At-The-Market offering, net of offering costs	1,240,640	—	35,656	—	—	35,656
Unrealized gain/(loss) on marketable debt securities	—	—	—	(1,175)	—	(1,175)
Foreign currency translation adjustments	—	—	—	1,515	—	1,515
Employee stock purchase program stock purchase and expense	166,961	—	3,012	—	—	3,012
Net loss	—	—	—	—	(180,091)	(180,091)
BALANCE - DECEMBER 31, 2021	62,491,498	\$ 6	\$ 1,068,634	\$ (562)	\$ (765,966)	\$ 302,112

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

TRAVERE THERAPEUTICS, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS
(In thousands)

	For the year ended December 31,		
	2021	2020	2019
Cash Flows from Operating Activities:			
Net loss	\$ (180,091)	\$ (169,431)	\$ (146,427)
Adjustments to reconcile net loss to net cash used in operating activities:			
Share based compensation	30,766	23,614	21,105
Depreciation and amortization	26,617	24,579	20,408
Change in estimated fair value of contingent consideration	22,260	3,655	(2,948)
Payments from change in fair value of contingent consideration	(14,375)	(12,407)	(5,661)
Amortization of debt discount and deferred financing costs	11,242	10,478	9,903
Loss on allowance for inventory	2,110	2,225	1,468
Amortization of premiums (discounts) on investments	2,008	703	(788)
Acquired IPR&D expense	—	97,131	—
Impairment of intangible assets	—	—	25,500
Loss on impairment of long-term investment	—	—	15,000
Other	4,692	2,752	1,602
Changes in operating assets and liabilities, net of asset acquisition:			
Accounts receivable	(59)	2,301	(5,184)
Inventory	(1,815)	(5,067)	(1,958)
Prepaid expenses and other current assets	(1,438)	(4,314)	208
Tax receivable	17,099	(15,746)	555
Change in lease assets and liabilities, net	5,577	(1,203)	(4,854)
Accounts payable	2,770	(6,036)	9,255
Accrued expenses and other current liabilities	19,545	4,023	4,602
Deferred revenue, current and non-current	38,300	—	—
Net cash used in operating activities	<u>(14,792)</u>	<u>(42,743)</u>	<u>(58,214)</u>
Cash Flows from Investing Activities:			
Purchase of fixed assets	(5,101)	(6,767)	(195)
Purchase of intangible assets	(19,050)	(17,799)	(15,370)
Proceeds from the sale/maturity of marketable debt securities	433,604	273,482	259,140
Purchase of marketable debt securities	(547,076)	(214,964)	(223,712)
Purchased IPR&D, net of cash acquired	—	(95,279)	—
Net cash (used in) provided by investing activities	<u>(137,623)</u>	<u>(61,327)</u>	<u>19,863</u>
Cash Flows from Financing Activities:			
Payment of acquisition-related contingent consideration	(6,104)	(7,648)	(3,388)
Payment of guaranteed minimum royalty	(2,100)	(2,100)	(2,084)
Proceeds from exercise of stock options	12,841	3,895	1,618
Proceeds from the issuance of common stock in At-the-Market equity offering	35,656	22,828	—
Proceeds from the issuance of common stock, net of issuance costs	189,278	108,692	—
Proceeds from the issuance of common stock under the employee stock purchase program	2,112	2,046	1,777
Net cash provided by (used in) financing activities	<u>231,683</u>	<u>127,713</u>	<u>(2,077)</u>
Effect of exchange rate changes on cash	1,713	(1,307)	(9)
Net increase (decrease) in cash and cash equivalents	80,981	22,336	(40,437)
Cash and cash equivalents, beginning of year	84,772	62,436	102,873
Cash and cash equivalents, end of year	\$ 165,753	\$ 84,772	\$ 62,436
Supplemental Disclosure of Cash Flow Information:			
Cash paid for interest	\$ 7,327	\$ 6,901	\$ 7,669
Cash refunded (paid) for income taxes	<u>\$ 16,420</u>	<u>\$ 3,373</u>	<u>\$ (656)</u>
Non-cash Investing and financing activities:			
Accrued royalty in excess of minimum payable to the sellers of Thiola	<u>\$ 19,362</u>	<u>\$ 18,168</u>	<u>\$ 15,815</u>

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

TRAVERE THERAPEUTICS, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

NOTE 1. DESCRIPTION OF BUSINESS

Organization and Description of Business

Travere Therapeutics, Inc. ("we", "our", "us", "Travere" and the "Company") refers to Travere Therapeutics, Inc., a Delaware corporation, as well as our direct and indirect subsidiaries. Travere is a fully integrated biopharmaceutical company headquartered in San Diego, California focused on identifying, developing and delivering life-changing therapies to people with rare diseases. We regularly evaluate and, where appropriate, act on opportunities to expand our product pipeline through licenses and acquisitions of products in areas that will serve patients with serious or rare diseases and that we believe offer attractive growth characteristics.

The ongoing novel coronavirus (COVID-19) pandemic has resulted in travel restrictions, quarantines, "stay-at-home" and "shelter-in-place" orders and extended shutdown of certain businesses around the world. While the impact of the COVID-19 pandemic did not have a material adverse effect on our financial position or results of operations for the twelve months ended December 31, 2021, these governmental actions and similar actions that may be enacted in the future, and the widespread economic disruption arising from the pandemic, have the potential to materially impact our business and influence our business decisions. The extent and duration of the pandemic is unknown, and the future effects on our business are uncertain and difficult to predict. The Company is continuing to monitor the events and circumstances surrounding the COVID-19 pandemic, which may require adjustments to the Company's estimates and assumptions in the future.

Clinical Programs:

Sparsentan is a novel investigational product candidate and has been granted Orphan Drug Designation for the treatment of focal segmental glomerulosclerosis (FSGS) and immunoglobulin A nephropathy (IgAN) in the U.S. and Europe. Sparsentan is currently being evaluated in two pivotal Phase 3 clinical studies in rare kidney diseases.

Pegtibatinase (TVT-058) is a novel investigational human enzyme replacement candidate being evaluated for the treatment of classical homocystinuria (HCU). Pegtibatinase has been granted Rare Pediatric Disease and Fast Track designations by the FDA, as well as orphan drug designation in the United States and European Union. Pegtibatinase is currently being evaluated in the Phase 1/2 COMPOSE Study to assess its safety, tolerability, pharmacokinetics, pharmacodynamics and clinical effects in patients with classical HCU. The Company acquired pegtibatinase as part of the November 2020 acquisition of Orphan Technologies Limited.

Chenodal (chenodeoxycholic acid or CDCA) is a naturally occurring bile acid that is approved for the treatment of people with radiolucent stones in the gallbladder. In January 2020, we randomized the first patients in our Phase 3 RESTORE Study to evaluate the effects of Chenodal in adult and pediatric patients with cerebrotendinous xanthomatosis (CTX), and the study enrollment remains open. The pivotal study is intended to support an NDA submission for marketing authorization of Chenodal for CTX in the United States.

Preclinical Programs:

We are a participant in two Cooperative Research and Development Agreements ("CRADAs"), which form a multi-stakeholder approach to pool resources with leading experts, and incorporate the patient perspective early in the therapeutic identification and development process. We have partnered with the National Institutes of Health's National Center for Advancing Translational Sciences ("NCATS") and leading patient advocacy organizations, CDG Care and Alagille Syndrome Alliance, aimed at the identification of potential small molecule therapeutics for NGLY1 deficiency and Alagille syndrome ("ALGS"), respectively. There are no treatment options currently approved for these diseases.

Approved products:

- Chenodal (chenodiol tablets) is approved in the United States for the treatment of patients suffering from gallstones in whom surgery poses an unacceptable health risk due to disease or advanced age.
- Cholbam® (cholic acid capsules) is approved in the United States for the treatment of bile acid synthesis disorders due to single enzyme defects and is further indicated for adjunctive treatment of patients with peroxisomal disorders.
- Thiola® and Thiola EC® (tiopronin tablets) are approved in the United States for the prevention of cystine (kidney) stone formation in patients with severe homozygous cystinuria.

NOTE 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

A summary of the significant accounting policies applied in the preparation of the accompanying consolidated financial statements follows:

Principles of Consolidation

The consolidated financial statements represent the consolidation of the accounts of the Company and its subsidiaries in conformity with accounting principles generally accepted in the United States ("U.S. GAAP"). All intercompany accounts and transactions have been eliminated in consolidation.

Use of Estimates

In preparing financial statements in conformity with U.S. GAAP, management is required to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements, as well as the reported amounts of expenses during the reporting period. Due to inherent uncertainty involved in making estimates, actual results reported in future periods may be affected by changes in these estimates. On an ongoing basis, the Company evaluates its estimates and assumptions. These estimates and assumptions include revenue recognition, forecasting probability-weighted cash flows based upon estimates of forecasted revenues, clinical and regulatory timelines and discount rates, valuing equity securities in share-based payments, estimating expenses of contracted research organizations, estimating the useful lives of depreciable and amortizable assets, goodwill impairment, estimating the fair value of contingent consideration, estimating of valuation allowances and uncertain tax positions, and estimates associated with the assessment of impairment for long-lived assets.

Revenue Recognition

The Company recognizes revenue when its customer obtains control of promised goods or services, in an amount that reflects the consideration which the entity expects to receive in exchange for those goods or services. To determine revenue recognition for arrangements that an entity determines are within the scope of Accounting Standards Codification ("ASC") 606, Revenue from Contracts with Customers ("ASC 606"), the entity performs the following five steps: (i) identify the contract(s) with a customer; (ii) identify the performance obligations in the contract; (iii) determine the transaction price; (iv) allocate the transaction price to the performance obligations in the contract; and (v) recognize revenue when (or as) the entity satisfies a performance obligation. The Company only applies the five-step model to contracts when it is probable that the entity will collect substantially all the consideration it is entitled to in exchange for the goods or services it transfers to the customer. See Note 3 and Note 4 for further discussion.

Payments received under collaboration and licensing agreements may include non-refundable fees at the inception of the arrangements, milestone payments for specific achievements and royalties on the sale of products. At the inception of arrangements that include milestone payments, the Company uses judgement to evaluate whether the milestones are probable of being achieved and estimates the amount to include in the transaction price utilizing the most likely amount method. If it is probable that a significant revenue reversal will not occur, the estimated amount is included in the transaction price. Milestone payments that are not within the Company or the licensee's control, such as regulatory approvals are not included in the transaction price until those approvals are received. At the end of each reporting period, the Company re-evaluates the probability of achievement of development milestones and any related constraint and adjusts the estimate of the overall transaction price, if necessary. The Company recognizes aggregate sales-based milestones and royalty payments from product sales at the later of when the related sales occur or when the performance obligation to which the sales-based milestone or royalty has been allocated has been satisfied. If it is probable that a significant revenue reversal will not occur, the Company estimates the sales-based milestone and royalty payments using the most likely amount method.

The Company utilizes significant judgement to develop estimates of the stand-alone selling price for each distinct performance obligation based upon the relative stand-alone selling price. Variable consideration that relates specifically to the Company's efforts to satisfy specific performance obligations is allocated entirely to those performance obligations. The stand-alone selling price for license-related performance obligations requires judgement in developing assumptions to project probability-weighted cash flows based upon estimates of forecasted revenues, clinical and regulatory timelines and discount rates. The stand-alone selling price for clinical development performance obligations is based on forecasted expected costs of satisfying a performance obligation plus an appropriate margin.

If the licenses to intellectual property are determined to be distinct from the other performance obligations identified in the arrangement and have stand-alone functionality, the Company recognizes revenues from non-refundable, upfront fees allocated to the license when the license is transferred to the licensee and the licensee is able to benefit from the license. For licenses that are not distinct from other promises, the Company applies judgment to assess the nature of the combined performance obligation to determine whether the combined performance obligation is satisfied over time or a point in time and, if over time, the appropriate method of measuring progress for purposes of recognizing revenue from non-refundable,

upfront fees. The Company evaluates the measure of progress each reporting period and, if necessary, adjusts the related revenue recognition accordingly.

The selection of the method to measure progress towards completion requires judgment and is based on the nature of the products or services to be provided. Revenue is recorded proportionally as costs are incurred. The Company generally utilizes the cost-to-cost method of progress because it

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best measures the transfer of control to the customer which occurs as the Company incurs costs. Under the cost-to-cost measure of progress, the extent of progress towards completion is measured based on the ratio of costs incurred to date to the total estimated costs at completion of the performance obligation. The Company uses judgment to estimate the total costs expected to complete the clinical development performance obligations, which include subcontractor costs, labor, materials, other direct costs and an allocation of indirect costs. The Company evaluates these cost estimates and the progress each reporting period and adjusts the measure of progress, if necessary.

Research and Development Costs

Research and development includes expenses related to sparsentan, pectibatinase, and the Company's other pipeline programs. The Company expenses all research and development costs as they are incurred. The Company's research and development costs are comprised of salaries and bonuses, benefits, share-based compensation, license fees, milestones under license agreements, costs paid to third-party contractors to perform research, conduct clinical trials, and develop drug materials and delivery devices, and associated overhead expenses and facilities costs. The Company charges direct internal and external program costs to the respective development programs. The Company also incurs indirect costs that are not allocated to specific programs because such costs benefit multiple development programs and allow us to increase our pharmaceutical development capabilities. These consist of internal shared resources related to the development and maintenance of systems and processes applicable to all of our programs.

Clinical Trial Expenses

The Company records expenses in connection with clinical trials under contracts with contract research organizations (CROs) that support conducting and managing clinical trials. The financial terms and activities of these agreements vary from contract to contract and may result in uneven expense levels. Generally, these agreements set forth activities that drive the recording of expenses such as start-up and initiation activities, enrollment and treatment of patients, or the completion of other clinical trial activities.

Expenses related to clinical trials are accrued based on our estimates and/or representations from service providers regarding work performed, including actual level of patient enrollment, completion of patient studies and progress of the clinical trials. Other incidental costs related to patient enrollment or treatment are accrued when reasonably certain. If the amounts we are obligated to pay under our clinical trial agreements are modified (for instance, as a result of changes in the clinical trial protocol or scope of work to be performed), the Company adjusts its accruals accordingly on a prospective basis. Revisions to the Company's contractual payment obligations are charged to expense in the period in which the facts that give rise to the revision become reasonably certain.

The Company currently has three Phase 3 clinical trials in process that are in varying stages of activity, with ongoing non-clinical support trials. As such, clinical trial expenses will vary depending on the all the factors set forth above and may fluctuate significantly from quarter to quarter.

Share-Based Compensation

The Company recognizes all employee share-based compensation as a cost in the financial statements. Equity-classified awards principally related to stock options, restricted stock units ("RSUs") and performance stock units ("PSUs"), are measured at the grant date fair value of the award. The Company determines grant date fair value of stock option awards using the Black-Scholes option-pricing model. The fair value of RSUs and PSUs are determined using the closing price of the Company's common stock on the grant date. For service based vesting grants, expense is recognized over the requisite service period based on the number of options or shares expected to ultimately vest. For PSUs, expense is recognized over the implicit service period, assuming vesting is probable. No expense is recognized for PSUs if it is not probable the vesting criteria will be satisfied. Forfeitures are accounted for as they occur.

	Expiration Term	Vesting Term
Stock Options	10 years	3 to 4 years
Restricted Stock Units	----	1 to 4 years

Earnings (Loss) Per Share

The Company calculates basic earnings per share by dividing net income/(loss) by the weighted average number of shares outstanding during the period. The diluted earnings/(loss) per share computation includes the effect, if any, of shares that would be issuable upon the exercise of outstanding stock options, derivative warrant liability, convertible debt and RSUs, reduced by the number of shares which are assumed to be purchased by the Company from the resulting proceeds at the average market price during the year, when such amounts are dilutive to the earnings per share calculation.

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Cash and Cash Equivalents

The Company considers all highly liquid marketable securities with an original maturity of three months or less to be cash equivalents. Due to the short-term maturity of such investments, the carrying amounts are a reasonable estimate of fair value.

Concentration of Credit Risk

The Company maintains its cash and cash equivalents at insured financial institutions, the balances of which may, at times, exceed federally insured limits. Generally, these deposits may be redeemed upon demand, and the Company believes there is minimal risk of losses on such balances.

The Company monitors its investments with counterparties with the objective of minimizing concentrations of credit risk. The Company's investment policy is to invest only in institutions that meet high credit quality standards and established limits on the amount and time to maturity of investments with any individual counterparty. The policy also requires that investments are only entered into with corporate and financial institutions that meet high quality standards.

Marketable Debt Securities

The Company accounts for marketable debt securities held as "available-for-sale" in accordance with ASC 320, "Investments - Debt Securities" ("ASC 320"). The Company classifies these investments as current assets and carries them at fair value. Unrealized gains and losses on marketable debt securities are recorded as a separate component of stockholders' equity as accumulated other comprehensive loss, unless an impairment is determined to be the result of credit-related factors or the Company intends to sell the security or it is more likely than not that the Company will be required to sell the security before recovery. Realized gains or losses on debt security transactions and declines in value that are determined to be the result of credit losses, if any, are reported in the Consolidated Statements of Operations and Comprehensive Loss. Marketable debt securities are maintained at one financial institution and are governed by the Company's investment policy. See Note 6 for further discussion.

Trade Receivables, Net

Trade accounts receivable are recorded net of reserves for prompt pay discounts and expected credit losses. Estimates for allowances for credit losses are determined based on existing contractual obligations, historical payment patterns and individual customer circumstances. The allowance for credit losses was zero at both December 31, 2021 and 2020, respectively. For the years ended December 31, 2021, 2020 and 2019, bad debt expense recorded in the Consolidated Statements of Operations and Comprehensive Loss was immaterial. The Company's evaluation and application of ASU No. 2016-13, Financial Instruments - Credit Losses for the current period included an assessment of our aged trade receivables balances and their underlying credit risk characteristics. Our evaluation of past events, current conditions, and reasonable and supportable forecasts about the future resulted in an expectation of immaterial credit losses.

Inventory, Related Reserves and Cost of Goods Sold

Inventory, which is recorded at the lower of cost or net realizable value, includes materials, labor, and other direct and indirect costs and is valued using the first-in, first-out method. The Company periodically analyzes its inventory levels to identify inventory that may expire prior to expected sale or has a cost basis in excess of its estimated realizable value, and writes down such inventory as appropriate. In addition, the Company's products are subject to strict quality control and monitoring which the Company's manufacturers perform throughout their manufacturing process. The Company does not directly manufacture any product. The Company has single suppliers for products Chenodal and Thiola, and prospectively arranges for manufacture from contract service providers for its product Cholbam. The inventory reserve was \$4.1 million and \$3.6 million at December 31, 2021 and 2020, respectively.

Inventory, net of reserve, consisted of the following at December 31, 2021 and 2020 (*in thousands*):

	December 31, 2021	December 31, 2020
Raw material	\$ 5,205	\$ 3,219
Finished goods	2,108	4,389
Total inventory	\$ 7,313	\$ 7,608

Cost of goods sold includes the cost of inventory sold, third party manufacturing and supply chain costs, product shipping and handling costs, and provisions for excess and obsolete inventory.

Segment Information

The Company currently operates in one operating segment focused on the development and commercialization of innovative therapies for people with serious and life-threatening rare diseases and medical conditions. The Company is not organized by market and is managed and operated as one business. A single management team reports to the chief operating decision maker who comprehensively manages the entire business. The

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Company does not operate any separate lines of business or separate business entities with respect to its products. Accordingly, the Company does not accumulate discrete financial information with respect to separate products, other than revenues, and does not have separately reportable segments.

Property and Equipment, net

Property and equipment are stated at cost, net of accumulated depreciation. Depreciation is computed using the straight-line method over the related estimated useful lives as presented in the table below. Significant additions and improvements are capitalized, while repairs and maintenance are charged to expense as incurred. Property and equipment purchased for specific research and development projects with no alternative use is expensed as incurred.

The major classifications of property and equipment, including their respective expected useful lives, consist of the following:

Computers and equipment	3 years
Furniture and fixtures	7 years
Leasehold improvements	Shorter of length of lease or life of the asset

Leases

The Company determines whether a contract is, or contains, a lease at inception. The Company classifies each of its leases as operating or financing considering factors such as the length of the lease term, the present value of the lease payments, the nature of the asset being leased, and the potential for ownership of the asset to transfer during the lease term. Leases with terms greater than one year are recognized on the Consolidated Balance Sheets as Right-of-use assets and Lease liabilities and are measured at the present value of the fixed payments due over the expected lease term minus the present value of any incentives, rebates or abatements expected to be received from the lessor. Options to extend a lease are typically excluded from the expected lease term as the exercise of the option is typically not reasonably certain. The interest rate implicit in lease contracts is typically not readily determinable. As such, the Company utilizes the appropriate incremental borrowing rate, which is the rate incurred to borrow on a collateralized basis an amount equal to the lease payments over a similar term and in a similar economic environment. The Company records expense to recognize fixed lease payments on a straight-line basis over the expected lease term. Costs determined to be variable and not based on an index or rate are not included in the measurement of the lease liability and are expensed as incurred.

Intangible Assets, Net

The Company's intangible assets consist of licenses and purchased technology. Intangible assets with definite lives are amortized on a straight-line basis over their estimated useful lives and are reviewed periodically for impairment.

Intangible assets related to in-process research and development (IPR&D) projects are considered to be indefinite-lived until the completion or abandonment of the associated research and development efforts. During the period the assets are considered indefinite-lived, they will not be amortized but will be tested for impairment. If and when development is complete, which generally occurs when regulatory approval to market a product is obtained, the associated assets are deemed finite-lived and are amortized over a period that best reflects the economic benefits provided by these assets.

Intangible Assets with Cost Accumulation Model

In 2014, the Company entered into a license agreement with Mission Pharmacal in which the Company obtained the exclusive right to license the trademark of Thiola. The acquisition of the Thiola license qualified as an asset acquisition under the principles of ASC 805, Business Combinations ("ASC 805") in effect at the time of acquisition. The license agreement requires the Company to make royalty payments based on net sales of Thiola. The liability for royalties in excess of the annual contractual minimum is recognized in the period in which the royalties become probable and estimable, which is typically in the period corresponding with the respective sales. The Company records an offsetting increase to the cost basis of the asset under the cost accumulation model. The additional cost basis is subsequently amortized over the remaining life of the license agreement.

Consistent with all prior periods since Thiola was acquired, the Company has not accrued any liability for royalties in excess of the annual contractual minimum at December 31, 2021 as such royalties are not yet probable and estimable.

Goodwill

Goodwill represents the excess of purchase price over fair value of net assets acquired in a business combination and is not amortized. Goodwill is subject to impairment testing at least annually or when a triggering event occurs that could indicate a

potential impairment. The Company has one segment and one reporting unit and as such reviews goodwill for impairment at the consolidated level.

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For the years ended December 31, 2021, 2020 and 2019 there were no impairments to goodwill.

Impairment of Long-Lived Assets

The Company's long-lived assets are primarily comprised of intangible assets, right-of-use assets, and property and equipment. The Company evaluates its finite-lived intangible assets, right-of-use assets, and property and equipment for impairment whenever events or changes in circumstances indicate the carrying value of an asset or group of assets may not be recoverable. If these circumstances exist, recoverability of assets to be held and used is measured by a comparison of the carrying amount of an asset group to future undiscounted net cash flows expected to be generated by the use and eventual disposition of the asset group. If such assets are considered to be impaired, the impairment to be recognized is measured by the amount by which the carrying amount of the assets exceeds the fair value of the assets.

In addition, indefinite-lived intangible assets, comprised of IPR&D, are reviewed for impairment annually and whenever events or changes in circumstances indicate that it is more likely than not that the asset is impaired by comparing the fair value to the carrying value of the asset. To determine the fair value of the asset, the Company used the multi-period excess earnings method of the income approach. The more significant assumptions inherent in the application of this method include: the amount and timing of projected future cash flows (including revenue, cost of sales, research and development costs, and sales and marketing expenses), and the discount rate selected to measure the risks inherent in the future cash flows.

There were no impairments related to finite-lived intangible assets in the years ended December 31, 2021, 2020 and 2019.

Contingent Consideration

The Company records contingent consideration resulting from a business combination at its fair value on the acquisition date. On a quarterly basis, the Company revalues these obligations and record increases or decreases from their fair value as an adjustment to the consolidated statement of operations. Changes to contingent consideration obligations can result from changes to discount rates, accretion of the liability due to the passage of time, changes in revenue forecasts and changes in our estimates of the likelihood or timing of achieving commercial revenue milestones.

Income Taxes

The Company follows ASC 740, Income Taxes, which requires recognition of deferred tax assets and liabilities for the expected future tax consequences of events that have been included in the financial statements or tax returns. Under this method, deferred tax assets and liabilities are based on the differences between the financial statement and tax basis of assets and liabilities using enacted tax rates in effect for the year in which the differences are expected to reverse. Deferred tax assets are reduced by a valuation allowance to the extent management concludes it is more likely than not that the asset will not be realized.

The standard addresses the determination of whether tax benefits claimed or expected to be claimed on a tax return should be recorded in the financial statements. Under ASC 740, the Company may recognize the tax benefit from an uncertain tax position only if it is more likely than not that the tax position will be sustained on examination by the tax authorities, based on the technical merits of the position. The tax benefits recognized in the financial statements from such a position should be measured based on the largest benefit that has a greater than fifty percent likelihood of being realized upon ultimate settlement. ASC 740 also provides guidance on de-recognition, classification, interest and penalties on income taxes, accounting in interim periods and requires increased disclosures. The Company's policy is to record estimated interest and penalty related to the underpayment of income taxes or unrecognized tax benefits as a component of its income tax provision.

Foreign Currency Translation

Functional and presentation currency

Items included in the financial statements of each entity comprising the Company are measured using the currency of the primary economic environment in which the entity operates (the functional currency).

Transactions and balances

Foreign currency transactions in each entity comprising the Company are remeasured into the functional currency of the entity using the exchange rates prevailing at the respective transaction dates. Foreign exchange gains and losses resulting from the settlement of such transactions and from the remeasurement at year-end exchange rates of monetary assets and liabilities denominated in foreign currencies are recognized within Other operating expense, net except for changes related to the liability related to the sale of future royalties which are recorded in Other non-operating (income) expense, net in the Consolidated Statements of Operations and Comprehensive Loss.

The results and financial position of the Company that have a functional currency different from the US dollar are translated as follows:

- a. assets and liabilities presented are translated at the closing exchange rate as of December 31, 2021 and 2020;

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- b. income and expenses for the statements of operations and comprehensive loss are translated at average exchange rates that are relevant for the respective periods for which the income and expenses occurred; and
- c. significant transactions use the exchange rate on the date of the transaction;

All resulting exchange differences arising from such translations are recognized directly in comprehensive income and presented as a separate component of equity.

Reclassifications

Certain reclassifications have been made to the prior year financial statements in order to conform to the current year's presentation, including reclassifying operating lease right of use assets and operating lease liabilities from other assets and other liabilities, respectively on the Consolidated Balance Sheets. These reclassifications did not have an impact on total assets or total liabilities of the Consolidated Balance Sheets.

Patents

The Company expenses external costs, such as filing fees and associated attorney fees, incurred to obtain issued patents and patent applications pending. The Company also expenses costs associated with maintaining and defending patents subsequent to their issuance in the period incurred.

Legal Contingencies

The Company may, from time to time, be involved in various claims and legal actions that arise in the ordinary course of business. The Company accrues for legal contingencies when it is determined probable that a liability has been incurred and the amount of the loss can be reasonably estimated. See Note 11 for further discussion.

Recently Issued Accounting Pronouncements

From time to time, new accounting pronouncements are issued by the Financial Accounting Standards Board ("FASB") or other standard setting bodies. Unless otherwise discussed, the Company believes that the impact of recently issued standards that are not yet effective will not have a material impact on its consolidated financial position or results of operations upon adoption.

In August 2020, the FASB issued ASU No. 2020-06, Accounting for Convertible Instruments and Contracts in an Entity's Own Equity. The ASU includes amendments to the guidance on convertible instruments and the derivative scope exception for contracts in an entity's own equity and simplifies the accounting for convertible instruments which include beneficial conversion features or cash conversion features by removing certain separation models in Subtopic 470-20. Additionally, the ASU will require entities to use the "if-converted" method when calculating diluted earnings per share for convertible instruments. The ASU is effective for fiscal years beginning after December 15, 2021, including interim periods within those fiscal years. The new standard will impact the Company's accounting for its Convertible Senior Notes Due 2025 (2025 Notes), discussed in Note 7, which are currently accounted for using the cash conversion model applied under ASC 470-20, Debt with Conversion and Other Options ("ASC 470-20"). Under the new guidance, the Company intends to apply the modified retrospective method as the transition approach at adoption, which will result in adjustments to the January 1, 2022 opening balances of convertible debt, additional paid-in capital, and accumulated deficit. Additionally, from January 1, 2022, the Company will no longer incur non-cash interest expense for the amortization of debt discount resulting in lower interest expense for the 2025 Notes.

NOTE 3. REVENUE RECOGNITION

Product Sales, Net

Product sales consist of Bile Acid products (Chenodal and Cholbam) and Tiopronin products (Thiola and Thiola EC). The Company sells its products through direct-to-patient distributors worldwide, with the United States and Canada representing 98% and 2% of net product sales, respectively, based on the product shipment destination.

Revenues from product sales are recognized when the customer obtains control of the Company's product, which occurs upon delivery to the customer. The Company receives payments from its product sales based on terms that generally are within 30 days of delivery of product to the patient.

Deductions from Revenue

Revenues from product sales are recorded at the net sales price, which includes provisions resulting from discounts, rebates and co-pay assistance that are offered to its customers, health care providers, payers and other indirect customers relating to the Company's sales of its products. These

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provisions are based on the amounts earned or to be claimed on the related sales and are classified as a reduction of accounts receivable (if the amount is payable to the customer) or as a current liability (if the amount is payable to a party other than a customer). Where appropriate, these reserves take into consideration the Company's historical experience, current contractual and statutory requirements and specific known market events and trends. Overall, these reserves reflect the Company's best estimates of the amount of consideration to which it is entitled based on the terms of the contract. If actual results in the future vary from the Company's provisions, the Company will adjust the provision, which would affect net product revenue and earnings in the period such variances become known. Our historical experience is that such adjustments have been immaterial.

Government Rebates: We calculate the rebates that we will be obligated to provide to government programs and deduct these estimated amounts from our gross product sales at the time the revenues are recognized. Allowances for government rebates and discounts are established based on actual payer information, which is reasonably estimated at the time of delivery, and the government-mandated discounts applicable to government-funded programs. Rebate discounts are included in accrued expenses in the accompanying Consolidated Balance Sheets.

Commercial Rebates: We calculate the rebates that we incur due to contracts with certain commercial payers and deduct these amounts from our gross product sales at the time the revenues are recognized. Allowances for commercial rebates are established based on actual payer information, which is reasonably estimated at the time of delivery. Rebate discounts are included in accrued expenses in the accompanying Consolidated Balance Sheets.

Prompt Pay Discounts: We offer discounts to certain customers for prompt payments. We accrue for the calculated prompt pay discount based on the gross amount of each invoice for those customers at the time of sale.

Product Returns: Consistent with industry practice, we offer our customers a limited right to return product purchased directly from the Company, which is principally based upon the product's expiration date. Generally, shipments are only made upon a patient prescription thus returns are minimal.

Co-pay Assistance: We offer a co-pay assistance program, which is intended to provide financial assistance to qualified commercially insured patients with prescription drug co-payments required by payers. The calculation of the accrual for co-pay assistance is based on an identification of claims and the cost per claim associated with product that has been recognized as revenue.

The following table summarizes net product sales for the twelve months ended December 31, 2021, 2020 and 2019 (*in thousands*):

	Twelve Months Ended December 31,		
	2021	2020	2019
Tiopronin products	\$ 115,122	\$ 108,883	\$ 95,638
Bile acid products	95,654	89,438	79,700
Total net product revenue	\$ 210,776	\$ 198,321	\$ 175,338

NOTE 4. COLLABORATION AND LICENSE AGREEMENTS

On September 15, 2021, the Company entered into a license and collaboration agreement ("License Agreement") with Vifor (International) Ltd. ("Vifor Pharma"), pursuant to which the Company granted an exclusive license to Vifor Pharma for the commercialization of sparsentan in Europe, Australia and New Zealand ("Licensed Territories"). Vifor Pharma also has first right of negotiation to expand the licensed territories into Canada, China, Brazil and/or Mexico. Under the terms of the License Agreement, the Company received an upfront payment of \$55.0 million and will be eligible for up to \$135.0 million in aggregate regulatory and market access related milestone payments and up to \$655.0 million in aggregate sales-based milestone payments for a total potential value of up to \$845.0 million. The Company is also entitled to receive tiered double-digit royalties of up to 40 percent of annual net sales of sparsentan in the Licensed Territories.

Under the License Agreement, Vifor Pharma will be responsible for all commercialization activities in the Licensed Territories. The Company remains responsible for the worldwide clinical development of sparsentan through regulatory approval as defined and will retain all rights to sparsentan in the United States and rest of world outside of the Licensed Territories. Development costs for any post regulatory approval development activities, subject to approval by both parties, will be borne by the Company and Vifor Pharma as defined, respectively. The License Agreement will remain in effect, unless terminated earlier, until the expiration of all royalty terms for sparsentan in the licensed territories. Each party has the right to terminate the License Agreement for the other party's uncured material breach, insolvency or if the time required for performance under the License Agreement by the other party is extended due to a force majeure event that continues for six months or more.

The Company assessed the License Agreement and determined that it meets both criteria to be considered a collaborative agreement within the Scope of ASC 808, *Collaborative Arrangements* ("ASC 808") of active participation by both parties and exposures to significant risks and rewards dependent on the commercial success of the activities. Both parties participate on joint steering and other committees overseeing the collaboration

activities. Also, both parties are exposed to significant risks and rewards based on the economic outcomes of regulatory approvals and commercialization of sparsentan.

The Company determined the transaction price under the License Agreement totaled \$55.0 million, consisting of the fixed non-refundable upfront payment. The variable regulatory and access related milestones were excluded from the transaction price given the substantial uncertainty related to their achievement. Sales-based milestone payments and royalties on net sales were excluded from the transaction price and will be recognized at the later of when the related sales occur or when the performance obligation to which the sales-based milestone or royalty has been allocated have been satisfied.

The Company concluded that Vifor Pharma represented a customer and applied relevant guidance from ASC 606 to evaluate the accounting under the License Agreement. In accordance with this guidance, the Company concluded that the promise to grant the license is distinct from the promise to provide clinical development services resulting in two performance obligations as the license has stand-alone functionality due to sparsentan being a later stage asset and the clinical development services are primarily related to achieving regulatory approval. As a result, the Company allocated \$12.0 million of the transaction price, based on the performance obligations' relative standalone selling prices, to the license. The remaining \$43.0 million of the transaction price was allocated to the clinical development activities and recorded as deferred revenue, which will be recognized over the development period based upon the ratio of costs incurred to date to the total estimated costs. The Company recognized a total of \$16.7 million in license and collaboration revenue for the twelve months ended December 31, 2021, which consisted of \$12.0 million from the license and \$4.7 million from the clinical development activities, based upon the ratio of costs incurred to total estimated costs.

Deferred revenue related to the clinical development activities as of December 31, 2021 was \$36.6 million. Of this amount, \$16.3 million was classified as current as of December 31, 2021, based upon amount expected to be realized within the next year.

In February 2021, the Company entered into a limited co-promotion agreement with Albireo Pharma, Inc. ("Albireo"), whereby the Company's Cholbam dedicated sales representatives will dedicate a portion of their efforts to promoting Albireo's product, Bylvay (odevixibat), in the United States. The initial term of the arrangement is two years from the July 2021 launch of Bylvay, terminable at will by either party after one year following launch. For the year ended December 31, 2021, the Company recognized \$1.8 million, offset against selling, general, and administrative expenses.

NOTE 5. ACQUISITIONS

Acquisition of Orphan Technologies Limited

In November 2020, the Company completed the acquisition of Orphan Technologies Limited ("Orphan"), including Orphan's rare metabolic disorder drug pectibatinase (TVT-058). The Company acquired Orphan by purchasing all of the outstanding shares. In exchange for the shares, the Company made an upfront cash payment at closing of \$90.0 million plus closing adjustments, net liabilities assumed, and transaction expenses of \$1.2 million, \$1.8 million, and \$4.2 million, respectively. Under the Agreement, the Company has also agreed to make contingent cash payments up to an aggregate of \$427.0 million based on the achievement of certain development, regulatory and commercialization events as set forth in the Agreement, as well as additional tiered mid-single digit royalty payments based upon future net sales of any pectibatinase products in the US and Europe, subject to certain reductions as set forth in the Agreement, and a contingent payment in the event a pediatric rare disease voucher for any pectibatinase product is granted.

The Company applied the principles of ASC 805 in determining the proper accounting treatment for the acquisition. Substantially all of the value of the assets acquired was concentrated within pectibatinase, and as of the acquisition date, the Company did not anticipate any economic benefit to be derived from pectibatinase other than the primary indication. Accordingly, the transaction was treated as an asset acquisition with amounts charged to expense for the acquired in-process research and development on the date of acquisition. The Company incurred \$97.1 million in expenses related to the Orphan acquisition, which was recognized in 2020.

In accordance with ASC 450, contingent cash payments will be accrued for when it is probable that a liability has been incurred and the amount can be reasonably estimated. As of December 31, 2021, no contingent cash payments have been accrued.

NOTE 6. MARKETABLE DEBT SECURITIES

The Company's marketable debt securities as of December 31, 2021 and 2020 were comprised of available-for-sale corporate and government debt securities. These securities are carried at fair value, with the unrealized gains and losses reported in accumulated other comprehensive income (loss), unless an impairment is determined to be the result of credit-related factors or the Company intends to sell the security or it is more likely than not that the Company will be required to sell the security before recovery. The amortized cost of marketable debt securities is adjusted for amortization of premiums and accretion of discounts to maturity. Such amortization and accretion is included in interest income. Realized gains and losses and declines in value that are determined to be the result of credit losses, if any, on available-for-sale securities are included in other income or expense. Unrealized losses that are determined to be credit-related are also recorded as an allowance against the amortized cost basis. The cost of securities sold is based on the specific identification method. Interest and dividends on securities classified as available-for-sale are included in interest income. All available-for-sale securities are classified as current assets, even if the maturity when acquired by the Company is greater than one year due to the ability to liquidate within the next 12 months.

Marketable debt securities consist of the following (*in thousands*):

	As of December 31,	
	2021	2020
Marketable debt securities:		
Commercial paper	\$ 127,379	\$ 135,145
Corporate debt securities	233,319	98,646
Securities of government sponsored entities	26,431	43,026
Total marketable debt securities	<u>\$ 387,129</u>	<u>\$ 276,817</u>

The following is a summary of short-term marketable debt securities classified as available-for-sale as of December 31, 2021 (*in thousands*):

	Contractual Maturity (in years)	Amortized Cost	Unrealized Gains	Unrealized Losses	Aggregate Estimated Fair Value
Marketable debt securities:					
Commercial paper	Less than 1	\$ 127,435	\$ —	\$ (57)	\$ 127,378
Corporate debt securities	Less than 1	113,001	—	(97)	112,904
Securities of government-sponsored entities	Less than 1	21,909	—	(5)	21,904
Total maturity less than 1 year		<u>262,345</u>	<u>—</u>	<u>(159)</u>	<u>262,186</u>
Corporate debt securities	1 to 2	120,705	—	(289)	120,416
Securities of government-sponsored entities	1 to 2	4,549	—	(22)	4,527
Total maturity 1 to 2 years		<u>125,254</u>	<u>—</u>	<u>(311)</u>	<u>124,943</u>
Total available-for-sale marketable debt securities		<u>\$ 387,599</u>	<u>\$ —</u>	<u>\$ (470)</u>	<u>\$ 387,129</u>

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The following is a summary of short-term marketable debt securities classified as available-for-sale as of December 31, 2020 (*in thousands*):

	Contractual Maturity (in years)	Amortized Cost	Unrealized Gains	Unrealized Losses	Aggregate Estimated Fair Value
Marketable debt securities:					
Commercial paper	Less than 1	\$ 135,161	\$ 1	\$ (17)	\$ 135,145
Corporate debt securities	Less than 1	92,906	723	—	93,629
Securities of government-sponsored entities	Less than 1	43,031	—	(5)	43,026
Total maturity less than 1 year		271,098	724	(22)	271,800
Corporate debt securities	1 to 2	5,013	4	—	5,017
Total maturity 1 to 2 years		5,013	4	—	5,017
Total available-for-sale marketable debt securities		\$ 276,111	\$ 728	\$ (22)	\$ 276,817

During 2021, the Company had less than \$0.1 million in realized gains on marketable debt securities. During 2020, the Company had \$0.1 million in realized gains on marketable debt securities. The Company received proceeds from the sale or maturity of marketable debt securities of \$433.6 million, \$273.5 million and \$259.1 million for 2021, 2020 and 2019, respectively.

The primary objective of the Company's investment portfolio is to preserve capital and liquidity while enhancing overall returns. The Company's investment policy limits interest-bearing security investments to certain types of instruments issued by institutions with primarily investment grade credit ratings and places restrictions on maturities and concentration by asset class and issuer.

The Company reviews the available-for-sale marketable debt securities for declines in fair value below the cost basis each quarter. For any security whose fair value is below its amortized cost basis, the Company first evaluates whether it intends to sell the impaired security, or will otherwise be more likely than not required to sell the security before recovery. If either are true, the amortized cost basis of the security is written down to its fair value at the reporting date. If neither circumstance holds true, the Company assesses whether any portion of the unrealized loss is a result of a credit loss. Any amount deemed to be attributable to credit loss is recognized in the income statement, with the amount of the loss limited to the difference between fair value and amortized cost and recorded as an allowance for credit losses. The portion of the unrealized loss related to factors other than credit losses is recognized in other comprehensive income (loss).

The following is a summary of available-for-sale marketable debt securities in an unrealized loss position with no credit losses reported as of December 31, 2021 (*in thousands*):

Description of Securities	Less Than 12 Months		12 Months or Greater		Total	
	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses
Commercial paper	\$ 122,380	\$ 57	\$ —	\$ —	\$ 122,380	\$ 57
Corporate debt securities	231,879	386	—	—	231,879	386
Securities of government-sponsored entities	26,431	27	—	—	26,431	27
Total	\$ 380,690	\$ 470	\$ —	\$ —	\$ 380,690	\$ 470

The following is a summary of available-for-sale marketable debt securities in an unrealized loss position with no credit losses reported as of December 31, 2020 (*in thousands*):

Description of Securities	Less Than 12 Months		12 Months or Greater		Total	
	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses
Commercial paper	\$ 112,148	\$ 17	\$ —	\$ —	\$ 112,148	\$ 17
Securities of government-sponsored entities	43,026	5	—	—	43,026	5
Total	\$ 155,174	\$ 22	\$ —	\$ —	\$ 155,174	\$ 22

As of December 31, 2021 and December 31, 2020, the amortized cost of the available-for-sale marketable debt securities in an unrealized loss position was \$381.2 million and \$155.2 million, respectively.

As of December 31, 2021 and December 31, 2020, the Company does not intend to sell these investments and it is not more likely than not that the Company will be required to sell the investments before recovery of their amortized cost basis. The Company does not believe the unrealized losses incurred during the period are due to credit-related factors. Liquidity issues that arose from economic circumstances surrounding the COVID-19 pandemic have eased and the credit ratings of the securities held remain of the highest quality. While certain securities in the portfolio may be downgraded momentarily, the Federal Reserve has allowed institutions to continue to issue debt where there is need, with the government itself purchasing such securities. Moreover, the Company continues to receive payments of interest and principal as they become due, and our expectation is that those payments will continue to be received timely. Uncertainty surrounding the COVID-19 pandemic, as well as other factors unknown to us at this time, may cause actual results to differ and require adjustments to the Company's estimates and assumptions in the future.

NOTE 7. CONVERTIBLE SENIOR NOTES

Convertible Senior Notes Due 2025

On September 10, 2018, the Company completed its registered underwritten public offering of the "2025 Notes" and entered into a base indenture and supplemental indenture agreement ("2025 Indenture") with respect to the 2025 Notes. The 2025 Notes will mature on September 15, 2025 ("Maturity Date"), unless earlier repurchased, redeemed, or converted. The 2025 Notes are senior unsecured obligations of the Company and bear interest at an annual rate of 2.50%, payable semi-annually in arrears on March 15 and September 15 of each year, beginning on March 15, 2019.

The composition of the Company's 2025 Notes are as follows (*in thousands*):

	December 31, 2021	December 31, 2020
2.50% convertible senior notes due 2025	\$ 276,000	\$ 276,000
Unamortized debt discount	(46,045)	(56,384)
Unamortized debt issuance costs	(3,374)	(4,277)
Total 2025 Notes, net of unamortized debt discount and debt issuance costs	\$ 226,581	\$ 215,339

The net proceeds from the issuance of the 2025 Notes were approximately \$267.2 million, after deducting commissions and the offering expenses payable by the Company. A portion of the net proceeds from the 2025 Notes were used by the Company to repurchase \$23.4 million aggregate principal amount of its 4.5% senior convertible notes due in 2019 in privately-negotiated transactions.

Holders may convert their 2025 Notes at their option only in the following circumstances: (1) during any calendar quarter commencing after the calendar quarter ending on December 31, 2018 (and only during such calendar quarter), if the last reported sale price per share of the Company's common stock for each of at least 20 trading days, whether or not consecutive, during the period of 30 consecutive trading days ending on, and including, the last trading day of the immediately preceding calendar quarter exceeds 130% of the conversion price on the applicable trading day; (2) during the five consecutive business days immediately after any 10 consecutive trading day period ("measurement period") if the trading price per \$1,000 principal amount of 2025 Notes for each trading day of the measurement period was less than 98% of the product of the last reported sale price per share of the Company's common stock on such trading day and the conversion rate on such trading day; (3) upon the occurrence of certain corporate events or distributions on the Company's common stock; (4) if the Company calls the 2025 Notes for redemption; and (5) at any time from, and including, May 15, 2025 until the close of business on the scheduled trading day immediately before the Maturity Date. The Company will settle conversions by paying or delivering, as applicable, cash, shares of the Company's common stock, or a combination of cash and shares of the Company's common stock, at the Company's election, based on the applicable conversion rate.

The initial conversion rate for the 2025 Notes is 25.7739 shares of the Company's common stock per \$1,000 principal amount of 2025 Notes, which represents an initial conversion price of approximately \$38.80 per share. If a "make-whole fundamental change" (as defined in the 2025 Indenture) occurs, then the company will, in certain circumstances, increase the conversion rate for a specified period of time.

The 2025 Notes will be redeemable, in whole or in part, at the Company's option at any time, and from time to time, on or after September 15, 2022 and, in the case of any partial redemption, on or before the 40th scheduled trading day before the Maturity Date, at a cash redemption price equal to the principal amount of the 2025 Notes to be redeemed, plus accrued and unpaid interest, if any, to, but excluding, the redemption date, but only if the last reported sale price per share of the Company's common stock exceeds 130% of the conversion price on each of at least 20 trading days during the 30 consecutive trading days ending on, and including, the trading day immediately before the date the Company sends the related redemption notice. If a fundamental change (as defined in the 2025 Indenture) occurs, then, subject to certain

exceptions, holders may require the Company to repurchase their 2025 Notes at a cash repurchase price equal to the principal amount of the 2025 Notes to be repurchased, plus accrued and unpaid interest, if any, to, but excluding, the fundamental change repurchase date.

As of December 31, 2021, the 2025 Notes had a market price of \$1,089 per \$1,000 principal amount, or \$300.6 million. In the event of conversion, holders would forgo all future interest payments, any unpaid accrued interest and the possibility of further stock price appreciation. Upon the receipt of conversion requests, the settlement of the 2025 Notes will be paid pursuant to the terms of the 2025 Indenture. In the event that all of the 2025

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Notes are converted, the Company would be required to repay the \$276.0 million in principal value and any conversion premium in any combination of cash and shares of its common stock at the Company's option. In addition, calling the 2025 Notes for redemption will constitute a "make whole fundamental change."

The 2025 Notes are the Company's general unsecured obligations that rank senior in right of payment to all of its indebtedness that is expressly subordinated in right of payment to the 2025 Notes, and equal in right of payment to the Company's unsecured indebtedness.

The 2025 Notes are currently classified on the Company's consolidated balance sheet at December 31, 2021 as long-term convertible debt.

Under ASC 470-20, an entity must separately account for the liability and equity components of convertible debt instruments (such as the 2025 Notes) that may be settled entirely or partially in cash upon conversion, in a manner that reflects the issuer's economic interest cost. The liability component of the instrument is valued in a manner that reflects the market interest rate for a similar nonconvertible instrument at the date of issuance. The initial carrying value of the liability component was \$198.6 million. The equity component of \$77.4 million, representing the conversion option, was determined by deducting the fair value of the liability component from the par value of the 2025 Notes and was recorded in additional paid-in capital on the Consolidated Balance Sheets at the issuance date. That equity component is treated as a discount on the liability component of the 2025 Notes, which is amortized over the seven-year term of the 2025 Notes using the effective interest rate method. The equity component is not re-measured as long as it continues to meet the conditions for equity classification. The Company allocated the total transaction costs of approximately \$8.8 million related to the issuance of the 2025 Notes to the liability and equity components of the 2025 Notes based on their relative values. Transaction costs attributable to the liability component are amortized to interest expense over the seven-year term of the 2025 Notes, and transaction costs attributable to the equity component are netted with the equity component in stockholders' equity.

The effective interest rate on the liability components of the 2025 Notes for the years ended December 31, 2021, 2020 and 2019 was 7.7%. The following table sets forth total interest expense recognized related to the 2025 Notes (*in thousands*):

	Twelve Months Ended December 31,		
	2021	2020	2019
Contractual interest expense	\$ 6,900	\$ 6,900	\$ 6,900
Amortization of debt discount	10,339	9,578	8,874
Amortization of debt issuance costs	903	900	896
Total interest expense for the 2025 Notes	<u>\$ 18,142</u>	<u>\$ 17,378</u>	<u>\$ 16,670</u>

The 2025 Notes do not contain any financial or operating covenants or any restrictions on the payment of dividends, the issuance of other indebtedness or the issuance or repurchase of securities by the Company. The 2025 Indenture contains customary events of default with respect to the 2025 Notes, including that upon certain events of default, 100% of the principal and accrued and unpaid interest on the 2025 Notes will automatically become due and payable.

Interest Expense

Total interest expense recognized for the years ended December 31, 2021, 2020 and 2019 was \$20.1 million, \$19.1 million and \$18.8 million, respectively.

NOTE 8. FAIR VALUE MEASUREMENTS

The Company accounts for financial instruments in accordance with ASC 820, "Fair Value Measurements and Disclosures" ("ASC 820"). ASC 820 establishes a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurements) and the lowest priority to unobservable inputs (Level 3 measurements). The three levels of the fair value hierarchy under ASC 820 are described below:

Level 1 – Unadjusted quoted prices in active markets that are accessible at the measurement date for identical, unrestricted assets or liabilities;

Level 2 – Quoted prices in markets that are not active or financial instruments for which all significant inputs are observable, either directly or indirectly; and

Level 3 – Prices or valuations that require inputs that are both significant to the fair value measurement and unobservable.

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The valuation techniques used to measure the fair value of the Company's debt securities and all other financial instruments, all of which have counter-parties with high credit ratings, were valued based on quoted market prices or model driven valuations using significant inputs derived from or corroborated by observable market data. Based on the fair value hierarchy, the Company classified debt securities within Level 2.

The Company acquired two businesses, related to the Cholbam and Chenodal products, whose purchase price included potential future payments that are contingent on the achievement of certain milestones and percentages of future net sales derived from the products acquired. The Company recorded contingent consideration liabilities at their fair value on the acquisition date and revalues them at the end of each reporting period. In estimating the fair value of the Company's contingent consideration, the Company uses a Monte Carlo Simulation. The determination of the contingent consideration liabilities requires significant judgments including the appropriateness of the valuation model and reasonableness of estimates and assumptions included in the forecasts of future net sales and the discount rates applied to such forecasts. Changes in these estimates and assumptions could have a significant impact on the fair value of the contingent consideration liabilities.

Discount rates used to determine the fair value at December 31, 2021 and 2020 are as follows:

	Revenue Discount		Payment Discount
	Cholbam	Chenodal	
December 31, 2021	6.25%	7.25%	6.48%
December 31, 2020	6.50%	8.50%	7.45%

Based on the fair value hierarchy, the Company classified the fair value of contingent consideration within Level 3 because valuation inputs are based on projected revenues discounted to a present value.

Financial instruments with carrying values approximating fair value include cash and cash equivalents, accounts receivable, and accounts payable, due to their short-term nature. As of December 31, 2021, the fair value of the Company's 2.5% Convertible Senior Notes due 2025 was \$300.6 million, which was estimated utilizing market quotations, and are considered Level 2.

The following table presents the Company's asset and liabilities, measured and recognized at fair value on a recurring basis, classified under the appropriate level of the fair value hierarchy as of December 31, 2021 (*in thousands*):

	As of December 31, 2021		Fair Value Hierarchy at December 31, 2021		
	Total carrying and estimated fair value		Quoted prices in active markets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)
Asset:					
Cash and Cash Equivalents	\$ 165,753	\$ 165,753	\$ —	\$ —	\$ —
Marketable debt securities, available-for-sale	387,129	—	387,129	—	—
Total	\$ 552,882	\$ 165,753	\$ 387,129	\$ —	\$ —
Liabilities:					
Business combination-related contingent consideration	\$ 67,100	\$ —	\$ —	\$ —	\$ 67,100
Total	\$ 67,100	\$ —	\$ —	\$ —	\$ 67,100

The following table presents the Company's assets and liabilities that are measured and recognized at fair value on a recurring basis, classified under the appropriate level of the fair value hierarchy as of December 31, 2020 (*in thousands*):

	As of December 31, 2020		Fair Value Hierarchy at December 31, 2020		
	Total carrying and estimated fair value	Quoted prices in active markets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)	
Asset:					
Cash and Cash Equivalents	\$ 84,772	\$ 84,772	\$ —	\$ —	\$ —
Marketable debt securities, available-for-sale	276,817	—	276,817	—	—
Total	\$ 361,589	\$ 84,772	\$ 276,817	\$ —	\$ —
Liabilities:					
Business combination-related contingent consideration	\$ 65,100	\$ —	\$ —	\$ —	\$ 65,100
Total	\$ 65,100	\$ —	\$ —	\$ —	\$ 65,100

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The following table sets forth a summary of changes in the estimated fair value of the Company's Level 3 business combination-related contingent consideration for the years ended December 31, 2021 and 2020 (*in thousands*):

	Fair Value Measurements of Acquisition-Related Contingent Consideration (Level 3)	
	2021	2020
Balance at January 1,	\$ 65,100	\$ 70,900
Changes in the fair value of contingent consideration	22,260	3,655
Contractual payments	(17,444)	(7,003)
Contractual payments included in accrued liabilities at December 31	(2,700)	(2,488)
Foreign currency impact	(116)	36
Balance at December 31,	<u>\$ 67,100</u>	<u>\$ 65,100</u>

NOTE 9. INTANGIBLE ASSETS

Ligand License Agreement

In 2013, the Company entered into a \$2.5 million agreement with Ligand for a worldwide sublicense to develop, manufacture and commercialize a drug technology compound including sparsentan (the "Ligand License Agreement"). The cost of the Ligand License Agreement, which is presented net of amortization in the accompanying Consolidated Balance Sheets in intangible assets, net, is being amortized to research and development on a straight-line basis through September 30, 2023. As consideration for the license, we are required to make substantial payments upon the achievement of certain milestones, totaling up to \$114.1 million. Through 2021, we have made milestone payments to Ligand of \$7.2 million under the terms of the Ligand License Agreement. Should we commercialize sparsentan or any products containing related compounds, we will be obligated to pay to Ligand an escalating annual royalty between 15% and 17% of net sales of all such products.

In September 2015, the Ligand License Agreement was amended to facilitate sub-licensing in Asia-Pacific. As consideration for the amendment the Company paid \$1.0 million.

In March 2018, the Ligand License Agreement was amended to update certain development milestones set forth in the Sublicense Agreement to comport with the current development timeline for sparsentan. As consideration, the Company paid Ligand \$4.6 million, which replaced the amount that would have been due upon initiation of the first Phase 3 trial for sparsentan.

Manchester Pharmaceuticals LLC

In 2014, the Company acquired intangible assets with finite lives related to the Chenodal product rights, trade names, and customer relationships with the values of \$67.8 million, \$0.2 million, and \$0.4 million, respectively. The useful lives related to the acquired product rights, trade names, and customer relationships are expected to be approximately 16, 1 and, 10 years, respectively. Amortization of product rights, trade names and customer relationships are being recorded in selling, general and administrative expense over their respective lives.

Thiola License Agreement

The Company entered into a license agreement with Mission Pharmacal in 2014, in which the Company obtained an exclusive, royalty-bearing license to market, sell and commercialize Thiola (tiopronin) in the United States and Canada, and a non-exclusive license to use know-how relating to Thiola to the extent necessary to market Thiola. The initial term of the license is 10 years and will automatically renew thereafter for periods of one year.

The acquisition of the Thiola license qualified as an asset acquisition under the principles of ASC 805 in effect at the time of acquisition. The license agreement requires the Company to make royalty payments based on net sales of Thiola. The liability for royalties in excess of the annual contractual minimum is recognized in the period in which the royalties become probable and estimable, which is typically in the period corresponding with the respective sales. The Company records an offsetting increase to the cost basis of the asset under the cost accumulation model. The additional cost basis is subsequently amortized over the remaining life of the license agreement.

The Company paid Mission an up-front license fee of \$3 million and will pay guaranteed minimum royalties during each calendar year the greater of \$2 million or twenty percent (20%) of the Company's net sales of Thiola through May 28, 2024.

In November 2017, the Company amended its agreement with Mission to extend the term of the current exclusive U.S. and Canada licensing agreement by an additional five years, to 2029. The royalty rate and guaranteed minimum payment were

also extended through the new agreement term. Upon execution of the amendment, the Company capitalized an additional \$5.9 million in intangible assets and recorded a guaranteed minimum liability for the same amount.

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In November 2018, the Company amended its agreement with Mission to remove all territorial restrictions on our license. As consideration for the expanded territory the Company paid an up-front fee of \$0.3 million and will pay guaranteed minimum royalties equaling the greater of \$0.1 million or 20% of our Thiola net sales generated outside of the United States during each calendar year. Upon execution of the amendment, the Company capitalized an additional \$1.0 million in intangible assets and recorded a guaranteed minimum liability of \$0.7 million related to this amendment.

The present value of guaranteed minimum royalties payable using a discount rate of ranging from approximately 7% to 11% based on the Company's then borrowing rate is \$12.3 million and \$13.4 million as of December 31, 2021 and 2020, respectively. As of December 31, 2021, the guaranteed minimum royalty current and long-term liability was approximately \$2.1 million and \$10.2 million, respectively, and is recorded as Other Liability in the Consolidated Balance Sheet. As of December 31, 2020, the guaranteed minimum royalty current and long-term liability was approximately \$2.1 million and \$11.3 million, respectively, and is recorded as Other Liability in the Consolidated Balance Sheet. The Company has capitalized \$123.3 million related to the Thiola intangible asset which consists of the up-front license fee, professional fees, present value of the guaranteed minimum royalties and any additional payments through 2021 in excess of minimum royalties. In 2021 the Company added \$19.4 million to the intangible asset related to the royalties in excess of the minimum. Consistent with all prior periods since Thiola was acquired, the Company has not accrued any liability for royalties in excess of the annual contractual minimum at December 31, 2021, as such royalties are not yet probable and estimable.

There are 7.4 years remaining in the term of the license agreement.

Cholbam Asset Purchase

On March 31, 2015, the Company completed its acquisition from Asklepion of all worldwide rights, titles and ownership of Cholbam, including all related contracts, data assets, intellectual property, regulatory assets and the PRV. The Company capitalized \$75.9 million and \$7.3 million for the U.S. and international economic interest, respectively.

Amortizable intangible assets as of December 31, 2021 (*in thousands*):

	Useful Life	Gross Carrying Amount	Accumulated Amortization	Net Book Value
Thiola License	15	\$ 123,316	\$ (37,992)	\$ 85,324
Chenodal Product Rights	16	67,849	(32,938)	34,911
Economic Interest - U.S. revenue Cholbam	10	75,900	(51,258)	24,642
Ligand License	11	7,900	(5,875)	2,025
Economic Interest - International revenue Cholbam	10	7,982	(7,483)	499
Manchester Customer Relationships	10	403	(313)	90
Internal use software	5	207	(199)	8
Total		\$ 283,557	\$ (136,058)	\$ 147,499

Amortizable intangible assets as of December 31, 2020 (*in thousands*):

	Useful Life	Gross Carrying Amount	Accumulated Amortization	Net Book Value
Thiola License	15	\$ 103,992	\$ (28,117)	\$ 75,875
Chenodal Product Rights	16	67,849	(28,700)	39,149
Economic Interest - U.S. revenue Cholbam	10	75,900	(43,675)	32,225
Ligand License	11	7,900	(4,717)	3,183
Economic Interest - International revenue Cholbam	10	8,250	(5,673)	2,577
Manchester Customer Relationships	10	403	(273)	130
Internal use software	5	207	(157)	50
Manchester trade name	1	175	(175)	—
Total		\$ 264,676	\$ (111,487)	\$ 153,189

The following table summarizes amortization expense for the twelve months ended December 31, 2021, 2020 and 2019 (*in thousands*):

	2021	2020	2019
Research and development	\$ 1,158	\$ 1,162	\$ 1,158
Selling, general and administrative	23,788	21,275	18,549
Total amortization expense	\$ 24,946	\$ 22,437	\$ 19,707

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As of December 31, 2021, amortization expense for the next five years and thereafter is expected to be as follows (*in thousands*):

2022	\$ 25,040
2023	24,241
2024	23,408
2025	17,621
2026	15,751
Thereafter	41,438
Total	<u>\$ 147,499</u>

Goodwill

As of December 31, 2021 and 2020, the Company had goodwill of \$0.9 million.

NOTE 10. ACCRUED EXPENSES

Accrued expenses consist of the following at December 31, 2021 and 2020 (*in thousands*):

	2021	2020
Research and development	\$ 26,841	\$ 10,166
Compensation related costs	25,998	17,912
Accrued royalties and contingent consideration	8,402	7,857
Government rebates payable	7,493	10,707
Miscellaneous accrued	3,302	6,207
Selling, general and administrative	3,144	3,944
Total accrued expenses	<u>\$ 75,180</u>	<u>\$ 56,793</u>

NOTE 11. COMMITMENTS AND CONTINGENCIES

Contingencies

In October 2021, our Kolbam distributor in France notified us that the French authorities are asking for reimbursement for a portion of Kolbam sales in France during the periods from 2015-2020. During this period, the Company had aggregate revenues from sales of Kolbam in France of approximately \$8.0 million. At this time, the Company is not able to estimate the potential liability that may be incurred, if any.

Legal Proceedings

From time to time in the normal course of business, the Company is subject to various legal matters such as threatened or pending claims or litigation. Although the results of claims and litigation cannot be predicted with certainty, the Company does not believe it is a party to any claim or litigation the outcome of which, if determined adversely to it, would individually or in the aggregate be reasonably expected to have a material adverse effect on its results of operations or financial condition.

NOTE 12. STOCKHOLDERS' EQUITY

Common Stock

The Company is currently authorized to issue up to 200,000,000 shares of \$0.0001 par value common stock. All issued shares of common stock are entitled to vote on a 1 share/1 vote basis.

Preferred Stock

The Company is currently authorized to issue up to 20,000,000 shares of \$0.0001 par value preferred stock, of which 1,000 shares are designated Class "A" Preferred shares. Class A Preferred Shares are not entitled to interest, have certain liquidation preferences, special voting rights and other provisions. No preferred stock has been issued to date.

2015 Equity Incentive Plan

On June 8, 2015, the Company's stockholders approved the 2015 Equity Incentive Plan (the "2015 Plan"). The 2015 Plan is intended as the successor to and continuation of the Company's 2014 Incentive Compensation Plan. Stockholders approved 1.4 million new shares to be issued under the 2015 Plan, in addition to 0.6 million unallocated shares remaining available for issuance under the 2014 Incentive Compensation Plan that were added to the 2015 Plan. Options issued under the 2015 Plan will generally expire ten years from the date of grant and vest over a three-year or four-year period.

On May 18, 2016, the Company's stockholders approved an amendment to the 2015 Plan (the "Amended 2015 Plan"). The amendment provides for an additional 1.6 million new shares to be issued under the Amended 2015 Plan, in addition to 0.7 million unallocated shares remaining available for issuance. The amendment also includes a provision that on or after March 21, 2016, the number of shares available for issuance under the Amended 2015 Plan will be reduced by one share for each share subject to a stock option or stock appreciation right and by 2.0 shares for each share subject to any other type of stock award issued pursuant to the Amended 2015 Plan, and any such shares will return to the share reserve at the same rates upon cancellation or other forfeiture of such awards or shares.

On May 17, 2017, the Company's stockholders approved an amendment to the Amended 2015 Plan. The amendment provides for an additional 1.8 million new shares to be issued under the Amended 2015 Plan.

2018 Equity Incentive Plan

On May 9, 2018, the Company's stockholders approved the 2018 Equity Incentive Plan (the "2018 Plan"). The 2018 Plan is intended as the successor to and continuation of the Amended 2015 Plan. Stockholders approved 1.8 million new shares to be issued under the 2018 Plan, in addition to 1.6 million unallocated shares remaining available for issuance under the Amended 2015 Plan that were added to the 2018 Plan. Options issued under the 2018 Plan will generally expire ten years from the date of grant and vest over a four-year period.

On May 9, 2019, the Company's stockholders approved an amendment to the 2018 Plan that increased the number of authorized shares issuable under the 2018 Plan by 2.0 million shares.

On May 15, 2020, the Company's stockholders approved an amendment to the 2018 Plan that increased the number of authorized shares issuable under the 2018 Plan by 2.4 million shares.

On May 14, 2021, the Company's stockholders approved an amendment to the 2018 Plan that increased the number of authorized shares issuable under the 2018 Plan by 3.2 million shares.

2017 Employee Stock Purchase Plan

The 2017 Employee Stock Purchase Plan ("2017 ESPP") originated with 380,000 shares of common stock available for issuance. Beginning on January 1, 2018, and ending on (and including) January 1, 2026, the number of shares of common stock available for issuance under the 2017 ESPP shall increase by an amount equal to the lesser of (i) one percent (1%) of the total number of shares of common stock outstanding on December 31st of the preceding calendar year and (ii) 300,000 shares of common stock.

Substantially all employees are eligible to participate and, through payroll deductions, can purchase shares on established dates semi-annually. The purchase price per share sold pursuant to the 2017 ESPP will be the lower of (i) 85% of the fair market value of common stock on the first day of the offering period or (ii) 85% of the fair market value on the purchase date. Each offering period will span up to six months. Purchases may be up to 15% of qualified compensation, with an annual limit of \$25,000. The 2017 ESPP is intended to qualify as an "employee stock purchase plan" under Section 423 of the Internal Revenue Code.

As of December 31, 2021, there were approximately 1,580,000 shares authorized and 989,052 shares reserved for future issuance under the 2017 ESPP.

Stock Options

The fair values of stock option grants during the years ended December 31, 2021, 2020 and 2019 were calculated on the date of grant using the Black-Scholes option pricing model. Compensation expense is recognized over the period of service, generally the vesting period. During the year ended December 31, 2021, 1,850,407 stock options were granted by the Company. The following weighted average assumptions were used in the Black-Scholes options pricing model to estimate the fair value of stock options for the specified reporting periods:

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	Twelve Months Ended December 31,		
	2021	2020	2019
Risk free rate	0.6 %	1.5 %	2.3 %
Expected volatility	59 %	64 %	68 %
Expected life (in years)	6.4	6.3	6.2
Expected dividend yield	—	—	—

The risk-free interest rate was based on rates established by the Federal Reserve. The Company's expected volatility was based on analysis of the Company's volatility. In years prior to 2020, the assessment also took into account the volatilities of guideline companies due to limited history of the Company's own activity. The expected life of the Company's options was determined using the Company's historical exercise activity. In years prior to 2020, the Company applied the simplified method as a result of limited historical data regarding the Company's exercise activity. The dividend yield is based upon the fact that the Company has not historically paid dividends, and does not expect to pay dividends in the foreseeable future.

The following table summarizes our stock option activity and related information for the year ended December 31, 2021:

	Weighted Average			
	Shares Underlying Options	Exercise Price	Remaining Contractual Term (in years)	Aggregate Intrinsic Value (in thousands)
Outstanding at December 31, 2020	8,242,996	\$ 18.97	6.43	\$ 71,641
Granted	1,850,407	25.32	—	—
Forfeited and expired	(427,289)	24.37	—	—
Exercised	(779,830)	16.47	—	7,538
Outstanding at December 31, 2021	8,886,284	\$ 20.26	6.27	\$ 96,577

The following table summarizes our stock options exercisable at December 31, 2021, 2020 and 2019:

	Weighted Average			
	Shares Underlying Options	Exercise Price	Remaining Contractual Term (in years)	Aggregate Intrinsic Value (in thousands)
2019	4,936,995	\$ 18.93	5.62	\$ 4,490
2020	5,488,207	\$ 19.37	5.36	\$ 46,626
2021	6,011,349	\$ 19.34	5.16	\$ 71,063

The weighted average grant date fair value of options granted was \$14.00, \$9.54, and \$12.11 during the years ended December 31, 2021, 2020 and 2019, respectively. The aggregate intrinsic value for outstanding options is calculated as the difference between the exercise price of the underlying awards and the closing price of the Company's common stock of \$31.04, \$27.25 and \$14.20 as of December 31, 2021, 2020 and 2019, respectively. Unrecognized compensation cost associated with unvested stock options amounts to \$30.0 million as of December 31, 2021, which will be expensed over a weighted average remaining vesting period of 2.5 years.

Restricted Stock Units

As of December 31, 2021, there was approximately \$23.2 million of unrecognized compensation cost related to restricted stock units ("RSUs") granted. This amount is expected to be recognized over a weighted average period of 2.4 years.

The following table summarizes our restricted stock unit activity for the year ended December 31, 2021:

	Number of RSUs	Weighted Average	
		Grant Date Fair Value	
Unvested December 31, 2020	1,109,942	\$ 17.84	
Granted	911,523	25.06	
Vested	(408,136)	18.08	
Forfeited/cancelled	(139,380)	21.62	
Unvested December 31, 2021	1,473,949	\$ 21.88	

Performance-based Stock Units

PSUs are subject to vest only if certain specified criteria are achieved. As of December 31, 2021, there was less than \$0.1 million of unrecognized compensation cost related to performance-based stock units ("PSUs") granted. This amount is expected to be recognized over a weighted average period of 0.5 years.

The following table summarizes our performance-based stock unit activity for the year ended December 31, 2021:

	Number of PSUs	Weighted Average Grant Date Fair Value
Unvested December 31, 2020	167,500	\$ 16.48
Granted	—	—
Vested	(115,000)	15.46
Forfeited/cancelled	—	—
Unvested December 31, 2021	<u>52,500</u>	<u>\$ 18.73</u>

Share Based Compensation

Total non-cash stock-based compensation expense consisted of the following for the years ended December 31, 2021, 2020 and 2019 (*in thousands*):

	Twelve Months Ended December 31,		
	2021	2020	2019
Selling, general and administrative expenses	\$ 18,134	\$ 14,247	\$ 14,195
Research and development expenses	12,632	9,367	6,910
Total	<u>\$ 30,766</u>	<u>\$ 23,614</u>	<u>\$ 21,105</u>

NOTE 13. NET LOSS PER COMMON SHARE

Basic and diluted net loss per common share is calculated by dividing net loss applicable to common stockholders by the weighted-average number of common shares outstanding during the period. The Company's potentially dilutive shares, which include outstanding stock options, restricted stock units, and shares issuable upon conversion of the 2025 Notes, are considered to be common stock equivalents and are not included in the calculation of diluted net loss per share because their effect is anti-dilutive.

Basic and diluted net loss per share is calculated as follows (*net loss amounts are stated in thousands*):

	For the year ended December 31,								
	2021			2020			2019		
	Shares	Net loss	EPS	Shares	Net loss	EPS	Shares	Net loss	EPS
Basic and diluted loss per share	<u>59,832,287</u>	<u>\$ (180,091)</u>	<u>\$(3.01)</u>	<u>47,539,631</u>	<u>\$ (169,431)</u>	<u>\$(3.56)</u>	<u>42,339,961</u>	<u>\$ (146,427)</u>	<u>\$(3.46)</u>

For the years ended December 31, 2021, 2020 and 2019, the following shares were excluded because they were anti-dilutive:

	For the year ended December 31,		
	2021	2020	2019
Convertible debt	7,113,402	7,113,402	7,632,414
Restricted stock	1,569,470	1,368,096	599,298
Options	9,214,188	8,349,310	7,644,251
Total anti-dilutive shares	<u>17,897,060</u>	<u>16,830,808</u>	<u>15,875,963</u>

NOTE 14. INCOME TAXES

For financial reporting purposes, net loss before income taxes includes the following components (*in thousands*):

	Year Ended December 31,		
	2021	2020	2019
United States	\$ (124,132)	\$ (65,881)	\$ (129,452)
Foreign*	(55,550)	(122,909)	(16,996)
Total	<u>\$ (179,682)</u>	<u>\$ (188,790)</u>	<u>\$ (146,448)</u>

*Foreign losses in 2020 include charges relate to IPR&D. See Note 5 for further discussion.

The components of the provision (benefit) for income taxes, in the Consolidated Statements of Operations are as follows (*in thousands*):

	2021	2020	2019
Current			
Federal	\$ —	\$ (19,436)	\$ (319)
State	412	74	298
Foreign	(3)	3	—
	<u>409</u>	<u>(19,359)</u>	<u>(21)</u>
Deferred			
Federal	—	—	—
State	—	—	—
	<u>—</u>	<u>—</u>	<u>—</u>
Total tax provision (benefit)	<u>\$ 409</u>	<u>\$ (19,359)</u>	<u>\$ (21)</u>

The following is a reconciliation of the statutory federal income tax rate to the Company's effective tax rate expressed as a percentage of loss before income taxes:

	2021	2020	2019
Statutory rate - federal	(21.00)%	(21.00)%	(21.00)%
State taxes, net of federal benefit	(2.71)%	(1.57)%	(4.35)%
Foreign rate differential	3.28 %	6.65 %	— %
IPR&D	— %	6.50 %	— %
Federal IRS Audit settlement	— %	1.62 %	— %
Nondeductible executive compensation	0.48 %	— %	— %
Excess tax benefits associated with share-based awards	0.19 %	— %	— %
Other permanent differences	0.15 %	0.09 %	0.24 %
Tax credits	(10.87)%	(4.49)%	(15.17)%
Return to provision adjustments and other true-ups	2.42 %	4.88 %	0.44 %
CARES Act-Net operating loss carryback	— %	(9.58)%	— %
Other	0.20 %	(0.10)%	2.32 %
Change in valuation allowance	<u>28.09 %</u>	<u>6.75 %</u>	<u>37.50 %</u>
Income tax provision (benefit)	<u>0.23 %</u>	<u>(10.25)%</u>	<u>(0.02)%</u>

The significant components of the Company's deferred tax assets and liabilities as of December 31, 2021 and 2020 are as follows (*in thousands*):

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	2021	2020
Deferred Tax Assets:		
Net operating loss	\$ 38,618	\$ 19,114
Research and development and other tax credits	69,213	46,294
Contingent consideration	16,726	16,311
Other accrued expenses	8,678	7,489
Stock based compensation	18,003	21,886
Charitable contributions	3,427	2,575
Intangible assets greater than book	48,801	45,520
Interest expense limitation	2,802	1,659
Operating lease liabilities	8,825	7,314
Tax basis depreciation greater than book depreciation	13	76
	<hr/> 215,106	<hr/> 168,238
Deferred Tax Liabilities:		
Operating lease right of use assets	(5,782)	(6,544)
Convertible debt	(11,020)	(13,868)
	<hr/> (16,802)	<hr/> (20,412)
Net deferred tax assets before valuation allowance	198,304	147,826
Valuation allowance	(198,304)	(147,826)
Total deferred tax assets	<hr/> \$ —	<hr/> \$ —

The Company has established a full valuation allowance against its U.S. federal, state, and foreign deferred tax assets due to the uncertainty surrounding the realization of such assets in future periods. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the periods in which temporary differences become deductible. Management considers the scheduled reversal of deferred liabilities and tax planning strategies in making this assessment and evaluates the recoverability of the deferred tax assets as of each reporting date. At such time as it is determined that it is more likely than not that deferred assets are realizable, the valuation allowance will be reduced accordingly and recorded as a tax benefit.

The Company has recorded a valuation allowance of \$198.3 million as of December 31, 2021 to reflect the estimated amount of deferred tax assets that may not be realized. The Company increased its valuation allowance by \$50.5 million and \$63.1 million for the years ended December 31, 2021 and 2020, respectively.

At December 31, 2021, the Company had available unused U.S. federal and state net operating loss ("NOL") carryforwards of \$85.8 million and \$151.2 million, respectively, all of which are fully offset by a valuation allowance. Additionally, the Company had an interest expense limitation carryforward of \$12.6 million that is fully offset by a valuation allowance. The federal NOL and interest expense limitation carryforward have an indefinite life. The state NOL carryforwards will begin to expire in 2022. In addition, at December 31, 2021, the Company had federal orphan drug tax credit carryforwards of \$61.7 million that begin to expire in 2035 unless utilized, federal research and development tax credit carryforwards of \$5.4 million that begin to expire in 2033 unless utilized, state research and development tax credit carryforwards of \$10.1 million that begin to expire in 2030 unless utilized, and California Competes tax credit carryforwards of \$2.0 million that begin to expire in 2022. Pursuant to Internal Revenue Code Sections 382 and 383, use of the Company's federal net operating loss and credit carryforwards may be limited upon a cumulative change in ownership of more than 50% within a three-year period.

At December 31, 2021, the Company had Irish NOL carryforwards of \$15.9 million which are fully offset by a valuation allowance and have an indefinite life. The Company also had Swiss NOL carryforwards of \$77.3 million which are fully offset by a valuation allowance and begin to expire in 2023 as well as Federal Act on Tax Reform and AHV Financing ("TRAF") cantonal tax benefits of \$526.2 million which expire in 2029.

The Company accounts for uncertain tax benefits in accordance with the provisions of ASC 740-10 of the *Accounting for Uncertainty in Income Taxes*. As of December 31, 2021, the Company had \$7.8 million in unrecognized tax benefits of which \$7.5 million related to orphan drug and research and development tax credits which was recorded as a reduction to the deferred tax assets with a corresponding reduction in the Company's valuation allowance of \$7.5 million. To the extent unrecognized tax benefits are recognized at a time when a valuation allowance does not exist, the recognition of the \$7.5 million tax benefit would reduce the effective tax rate.

The Company does not anticipate that the amount of unrecognized tax benefits as of December 31, 2021 will change materially within the following 12 months.

A reconciliation of the Company's unrecognized tax benefits for the years 2021 and 2020 is provided in the following table (*in thousands*):

	2021	2020
Balance as of January 1:	\$ 5,193	\$ 235
Increase in current period positions	2,255	1,187
Decrease in prior period positions	—	(235)
Increase in prior period positions	377	4,006
Balance as of December 31:	<u>\$ 7,825</u>	<u>\$ 5,193</u>

The Company files income tax returns in the U.S. federal jurisdiction, various state and local, and foreign jurisdictions. With few exceptions, the Company's income tax returns are open to examination by federal authorities for the years ended December 31, 2018, and forward, and for state and foreign tax authorities, for the years ended December 31, 2017, and forward.

The Company recognizes interest and penalties as a component of income tax expense. Interest and penalties for the year ended December 31, 2021 were less than \$0.1 million. The Company did not recognize any interest or penalties for the years ended December 31, 2020 and 2019.

NOTE 15. EQUITY OFFERINGS

Underwritten Public Offerings of Common Stock

In February 2021, we sold an aggregate of 7.5 million shares of our common stock in an underwritten public offering, at a price to the public of \$26.75 per share. The net proceeds to us from the offering, after deducting the underwriting discounts and offering expenses, were \$189.3 million.

In June 2020, the Company sold an aggregate of 7.5 million shares of its common stock in an underwritten public offering, at a price to the public of \$15.50 per share. The net proceeds to the Company from the offering, after deducting the underwriting discounts and offering expenses, were \$108.7 million.

At-the-Market Equity Offering

In February 2020, the Company entered into an Open Market Sale Agreement ("ATM Agreement") with Jefferies LLC, as agent ("Jefferies"), pursuant to which the Company may offer and sell, from time to time through Jefferies, shares of its common stock having an aggregate offering price of up to \$100.0 million. Of the \$100.0 million originally authorized for sale under the ATM Agreement, approximately \$28.6 million were sold under our prior registration statement on Form S-3 (Registration Statement No. 333-227182). An additional \$31.7 million were sold under our effective registration statement on Form S-3 (Registration Statement No. 333-259311).

In 2020, the Company sold 867,806 shares under the ATM Agreement, resulting in gross proceeds of \$23.5 million. In 2021, the Company sold a combined 1,240,640 shares under the ATM Agreement, resulting in gross proceeds of \$36.8 million. Through December 31, 2021, the Company has sold a total of 2,108,446 shares under the ATM Agreement, resulting in gross proceeds of \$60.3 million. As of December 31, 2021, an aggregate amount of \$39.7 million remained eligible for sale under the facility.

Authorized Shares of Common Stock

On May 14, 2021, in connection with the Company's 2021 Annual Meeting of Stockholders, the Company's stockholders approved, among other matters, a Certificate of Amendment ("Certificate of Amendment") to the Company's Certificate of Incorporation to increase the number of shares of common stock authorized for issuance thereunder from 100,000,000 to 200,000,000. Effective May 18, 2021, the Certificate of Amendment was filed with the Secretary of State of the State of Delaware.

NOTE 16. RETIREMENT PLAN

The Company has a 401(k) defined contribution savings plan for the benefit of all eligible employees. Employer matching contributions were \$1.3 million, \$1.2 million, and \$1.0 million for the years ended December 31, 2021, 2020 and 2019, respectively.

NOTE 17. PROPERTY AND EQUIPMENT

Property, plant and equipment, net consisted of the following (*in thousands*):

	December 31,	
	2021	2020
Computers and equipment	\$ 1,950	\$ 595
Furniture and fixtures	2,783	1,791
Leasehold improvements	8,790	4,630
Construction-in-progress	631	6,339
	14,154	13,355
Less: Accumulated depreciation	(3,048)	(3,937)
Total property and equipment, net	\$ 11,106	\$ 9,418

The construction-in-process balance consists of costs related to the Company's leasehold improvements at its facilities in San Diego, California.

Non-cash investing activities for the years ending December 31, 2021 and 2020 included accrued capital expenditures of \$0.1 million and \$1.9 million, respectively. There were no accrued capital expenditures for the year ending December 31, 2019.

Depreciation expense for the years ended December 31, 2021, 2020 and 2019 was \$1.7 million, \$2.1 million and \$0.7 million, respectively.

NOTE 18. LEASES

As of December 31, 2021, the Company had one operating lease with Kilroy Realty, L.P. (the "Landlord") for office space located in San Diego, California, which was entered into in April 2019 and subsequently amended in May 2020. Coinciding with our ability to direct the use of the office space, which occurred in phases over 2020, and utilizing a discount rate equal to our borrowing rate, the Company established ROU assets totaling \$34.6 million and lease liabilities totaling \$34.5 million. The total ROU asset and lease liability at measurement were each offset by lease incentives associated with tenant improvement allowances totaling \$7.9 million.

The initial term of the office lease ends in August 2028, and the Landlord has granted the Company an option to extend the term of the lease by a period of 5 years. At this time, it is not reasonably certain that we will extend the term of the lease and therefore the renewal period has been excluded from the aforementioned ROU asset and lease liability measurements. The measurement of the lease term occurs from the February 2021 occupancy date of the office space delivered in September 2020. The aggregate base rent due over the initial term of the lease is approximately \$49.5 million.

Following is a schedule of the future minimum rental commitments for our operating leases reconciled to the lease liability and ROU asset as of December 31, 2021 (*in thousands*):

	December 31, 2021
2022	\$ 6,020
2023	6,200
2024	6,386
2025	6,578
2026	6,775
Thereafter	11,760
Total undiscounted future minimum payments	43,719
Present value discount	(8,314)
Total operating lease liability	35,405
Unamortized lease incentives	(6,559)
Cash payments in excess of straight-line lease expense	(5,650)
Total ROU asset	\$ 23,196

For the twelve months ended December 31, 2021, 2020 and 2019 the Company recorded \$4.9 million, \$2.0 million, and \$2.4 million, respectively, in expense related to operating leases, including amortized tenant improvement allowances.

Supplemental cash flow information related to leases is as follows (*in thousands*):

	2021	2020	2019
Operating cash flows used for operating leases	\$ 2,205	\$ 2,537	\$ 2,639

NOTE 19. SUBSEQUENT EVENTS

At-the-Market Equity Offering

From January 1, 2022 through February 22, 2022, the Company sold 701,600 shares of its common stock under the ATM Agreement, resulting in gross proceeds of \$20.1 million. After giving effect to such sales as of February 22, 2022, an aggregate amount of \$19.6 million remained eligible for sale under the facility.