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

FORM 10-Q

(Mark One)

☒ **QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the quarterly period ended June 30, 2022

OR

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the transition period from _____to_____

Commission File Number 001-36352

AKEBIA THERAPEUTICS, INC.

(Exact name of registrant as specified in its charter)

Delaware	**20-8756903**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**
245 First Street, Cambridge, MA	**02142**
(Address of principal executive offices)	**(Zip Code)**

Registrant's telephone number, including area code: (617) 871-2098
n/a
(Former name, former address and former fiscal year, if changed since last report)

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 $0.00001 per share	**AKBA**	**The Nasdaq Global Market**

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

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

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

Large accelerated filer	☒	Accelerated filer	☐
Non-accelerated filer	☐	Smaller reporting company	☐
		Emerging growth company	☐

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

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

Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practicable date.

Outstanding at July 31, 2022
183,848,654

NOTE REGARDING FORWARD-LOOKING

This Quarterly Report on Form 10-Q contains forward-looking statements that are being made pursuant to the provisions of the U.S. Private Securities Litigation Reform Act of 1995 with the intention of obtaining the benefits of the "safe harbor" provisions of that Act. All statements contained in this Quarterly Report on Form 10-Q other than statements of historical fact are forward-looking statements. These forward-looking statements may be accompanied by words such as "anticipate," "believe," "build," "can," "contemplate," "continue," "could," "should," "designed," "estimate," "project," "expect," "forecast," "future," "goal," "intend," "likely," "may," "plan," "possible," "potential," "predict," "strategy," "seek," "target," "will," "would," and other words and terms of similar meaning, but the absence of these words does not necessarily mean that a statement is not forward-looking. These forward-looking statements include, but are not limited to, statements about:

- the potential therapeutic benefits, safety profile, and effectiveness of vadadustat;
- our engaging in discussions with the U.S. Food and Drug Administration and next steps with respect to the development of vadadustat, if any, following our receipt of a complete response letter to our new drug application for vadadustat for the treatment of anemia due to chronic kidney disease in adult patients;
- that delivering value broadly to the kidney community, as well as others who may benefit from our medicines, will result in delivering value for stockholders;
- our pipeline and portfolio, including its potential, and our related research and development activities;
- the timing of or likelihood of regulatory filings and approvals, including with respect to labeling or other restrictions, the potential approval of vadadustat and our outlook related thereto, and potential indications for vadadustat;
- the timing, investment and associated activities involved in continued commercialization of Auryxia® (ferric citrate), its growth opportunities and our ability to execute thereon;
- the potential indications, demand and market opportunity, potential and acceptance of Auryxia and vadadustat, if approved, including the size of eligible patient populations;
- the potential therapeutic applications of the hypoxia inducible factor pathway;
- our competitive position, including estimates, developments and projections relating to our competitors and their products and product candidates, and our industry;
- our expectations, projections and estimates regarding our capital requirements, need for additional capital, financing our future cash needs, costs, expenses, revenues, capital resources, cash flows, financial performance, profitability, tax obligations, liquidity, growth, contractual obligations, the period of time our cash resources and collaboration funding will fund our current operating plan, our internal control over financial reporting and disclosure controls and procedures, and remediation of the material weakness we have identified in our internal control over financial reporting relating to our inventory process or any future deficiencies or material weaknesses in our internal controls and procedures;
- the direct or indirect impacts of the COVID-19 pandemic on our business, operations and the markets and communities in which we and our partners, collaborators, vendors, and customers operate;
- our manufacturing, supply and quality matters and any recalls, write-downs, impairments or other related consequences or potential consequences;
- estimates, beliefs and judgments related to the valuation of intangible assets, goodwill, contingent consideration, debt and other assets and liabilities, including our impairment analysis and our methodology and assumptions regarding fair value measurements;
- the timing of the availability and disclosure of clinical trial data and results;
- our and our collaborators' strategy, plans and expectations with respect to the development, manufacturing, supply, commercialization, launch, marketing and sale of Auryxia and vadadustat, if approved, and the associated timing thereof;
- the designs of our studies, and the type of information and data expected from our studies and the expected benefits thereof;
- our ability to maintain any marketing authorizations we currently hold or will obtain, including our marketing authorizations for Auryxia and our ability to complete post-marketing requirements with respect thereto;
- our ability to negotiate, secure and maintain adequate pricing, coverage and reimbursement terms and processes on a timely basis, or at all, with third-party payors for Auryxia and vadadustat, if approved;
- the timing of initiation of our clinical trials and plans to conduct preclinical studies and clinical trials in the future;

- the timing and amounts of payments from or to our collaborators and licensees, and the anticipated arrangements and benefits under our collaboration and license agreements, including with respect to milestones and royalties;
- our intellectual property position, including obtaining and maintaining patents, and the timing, outcome and impact of administrative, regulatory, legal and other proceedings relating to our patents and other proprietary and intellectual property rights, patent infringement suits that we have filed or may file, or other actions that we may take against companies, and the timing and resolution thereof;
- expected ongoing reliance on third parties, including with respect to the development, manufacturing, supply and commercialization of Auryxia and vadadustat, if approved;
- accounting standards and estimates, their impact, and their expected timing of completion;
- estimated periods of performance of key contracts;
- our facilities, lease commitments, and future availability of facilities;
- cybersecurity;
- insurance coverage;
- remediation of our material weakness;
- estimates with respect to our ability to operate as a going concern;
- management of personnel, including our management team, and our employees, including employee compensation, employee relations, and our ability to attract, train and retain high quality employees;
- the implementation of our business model, current operating plan, and strategic plans for our business, product candidates and technology, and business development opportunities including potential collaborations, alliances, mergers, acquisitions or licensing of assets;
- our workforce reduction, future charges expected to be incurred in connection therewith and estimated reductions in net cash required for operating activities in connection therewith; and
- the timing, outcome and impact of current and any future legal proceedings.

Any or all of these forward-looking statements in this Quarterly Report on Form 10-Q may turn out to be inaccurate. These forward-looking statements involve risks and uncertainties, including those that are discussed below under the heading "Risk Factor Summary", and the risk factors identified further in Part II, Item 1A. "Risk Factors" included in this Quarterly Report on Form 10-Q and elsewhere in this Quarterly Report on Form 10-Q, that could cause our actual results, financial condition, performance or achievements to be materially different from those indicated in these forward-looking statements. Given these risks and uncertainties, you should not place undue reliance on these forward-looking statements. Forward-looking statements speak only as of the date of this Quarterly Report on Form 10-Q. Except as required by law, we assume no obligation to publicly update or revise these forward-looking statements for any reason. Unless otherwise stated, our forward-looking statements do not reflect the potential impact of any future acquisitions, mergers, dispositions, joint ventures or investments we may make.

This Quarterly Report on Form 10-Q also contains estimates and other information concerning our industry and the markets for certain diseases, including data regarding the estimated size of those markets, and the incidence and prevalence of certain medical conditions. Unless otherwise expressly stated, we obtained this industry, market and other data from reports, research surveys, studies and similar data prepared by market research firms and other third parties, industry, medical and general publications, government data and similar sources.

In this Quarterly Report on Form 10-Q, unless otherwise stated or the context otherwise requires, references to “Akebia,” “we,” “us,” “our,” “the Company,” and similar references refer to Akebia Therapeutics, Inc. and, where appropriate, its subsidiaries, including Keryx Biopharmaceuticals, Inc.

RISK FACTORS SUMMARY

Investing in our common stock involves numerous risks, including the risks summarized below and described in further detail in "Part II, Item 1A. Risk Factors" of this Quarterly Report on Form 10-Q, any one of which could materially adversely affect our business, financial condition, results of operations, and prospects. These risks include, but are not limited to, the following:

- We have incurred significant losses since our inception, and anticipate that we will continue to incur significant losses and cannot guarantee when, if ever, we will become profitable or attain positive cash flows.
- We will require substantial additional financing to achieve our goals. A failure to obtain this necessary capital when needed, or on acceptable terms, could force us to delay, limit, reduce or terminate our product development or commercialization efforts.
- Our independent registered public accounting firm included an explanatory paragraph relating to our ability to continue as a going concern in its report on our audited financial statements included in our Annual Report on Form 10-K and any future concerns relating to our ability to continue as a going concern would materially adversely affect us.
- Raising additional capital may cause dilution to our existing stockholders, restrict our operations or require us to relinquish rights to our product and product candidates on unfavorable terms to us.
- If we fail to regain compliance with the continued listing requirements of Nasdaq, our common stock may be delisted and the price of our common stock and our ability to access the capital markets could be negatively impacted.
- We may not be successful in our efforts to identify, acquire, in-license, discover, develop and commercialize additional products or product candidates or our decisions to prioritize the development of certain product candidates over others may not be successful, which could impair our ability to grow.
- We may engage in strategic transactions to acquire assets, businesses, or rights to products, product candidates or technologies or form collaborations or make investments in other companies or technologies that could harm our operating results, dilute our stockholders' ownership, increase our debt, or cause us to incur significant expense.
- Our business has been and may continue to be, directly or indirectly, adversely affected by the COVID-19 pandemic.
- Our obligations in connection with the loan agreement with Pharmakon and requirements and restrictions in the loan agreement could adversely affect our financial condition and restrict our operations.
- Our Royalty Interest Acquisition Agreement with HealthCare Royalty Partners IV, L.P. contains various covenants and other provisions, which, if violated, could materially adversely affect our financial condition.
- Our business is substantially dependent on the commercial success of Auryxia. If we are unable to continue to successfully commercialize Auryxia, our results or operations and financial condition will be materially harmed.
- If we are unable to maintain or expand, or, if vadadustat is approved, initiate, sales and marketing capabilities or enter into additional agreements with third parties, we may not be successful in commercializing Auryxia, vadadustat, if approved, or any other product candidates that may be approved.
- Our, or our partners', failure to obtain or maintain adequate coverage, pricing and reimbursement for Auryxia, vadadustat, if approved, or any other future approved products, could have a material adverse effect on our or our collaboration partners' ability to sell such approved products profitably and otherwise have a material adverse impact on our business.
- We face substantial competition, which may result in others discovering, developing or commercializing products before, or more successfully than, we do.
- The commercialization of Riona™ and Vafseo™ in Japan and our current and potential future efforts with respect to the development and commercialization of our products and product candidates outside of the United States subject us to a variety of risks associated with international operations, which could materially adversely affect our business.
- Clinical drug development involves a lengthy and expensive process with an uncertain outcome, and we will incur additional costs in connection with, and may experience delays in completing, or ultimately be unable to complete, the development and, if approved, commercialization of vadadustat and any other product candidates.
- We may find it difficult to enroll patients in our clinical trials, which could delay or prevent clinical trials of Auryxia, vadadustat or any other product or product candidate, including those that may be in-licensed or acquired.
- Conducting clinical trials outside of the United States makes us subject to additional risks and complexities and we may not complete such trials successfully, in a timely manner, or at all, which could affect our ability to obtain regulatory approvals.
- Auryxia, vadadustat or any other product or product candidate, including those that may be in-licensed or acquired, may cause undesirable side effects or have other properties that may delay or prevent marketing approval or limit their commercial potential.
- We may not be able to obtain marketing approval for, or successfully commercialize, vadadustat or any other product candidate, or we may experience significant delays in doing so, any of which would materially harm our business.
- Products approved for marketing are subject to extensive post-marketing regulatory requirements and could be subject to post-marketing restrictions or withdrawal from the market, and we may be subject to penalties, including withdrawal of marketing approval, if we fail to comply with regulatory requirements or if we experience unanticipated problems with our products, or product candidates, when and if any of them is approved.
- We are subject to a complex regulatory scheme that requires significant resources to ensure compliance and our failure to comply with applicable laws could subject us to government scrutiny or enforcement, potentially resulting in costly

investigations, fines, penalties or sanctions, contractual damages, reputational harm, administrative burdens and diminished profits and future earnings.

- We will incur significant liability if it is determined that we are promoting any “off-label” use of Auryxia or any other product we may develop, in-license or acquire or if it is determined that any of our activities violates the federal Anti-Kickback Statute.
- Disruptions in the FDA, regulatory authorities outside the U.S. and other government agencies caused by global health concerns or funding shortages could prevent new products and services from being developed or commercialized in a timely manner, which could negatively impact our business.
- Compliance with privacy and data security requirements could result in additional costs and liabilities to us or inhibit our ability to collect and process data globally, and the failure to comply with such requirements could subject us to significant fines and penalties, which may have a material adverse effect on our business, financial condition or results of operations.
- Legislative and regulatory healthcare reform may increase the difficulty and cost for us to obtain marketing approval of and commercialize our product candidates and affect the prices we may obtain for any products that are approved in the United States or foreign jurisdictions.
- We depend on collaborations with third parties for the development and commercialization of Auryxia, Riona, Vafseo and vadadustat and if these collaborations are not successful or if our collaborators terminate their agreements with us, we may not be able to capitalize on the market potential of Auryxia, Riona, Vafseo and vadadustat, and our business could be materially harmed.
- We may seek to establish additional collaborations and, if we are not able to establish them on commercially reasonable terms, or at all, we may have to alter our development and commercialization plans.
- We rely upon third parties to conduct all aspects of our product manufacturing and the loss of these manufacturers, their failure to supply us on a timely basis, or at all, or their failure to successfully carry out their contractual duties or comply with regulatory requirements, cGMP requirements, or guidance could cause delays in or disruptions to our supply chain and substantially harm our business.
- We rely upon third parties to conduct our clinical trials and certain of our preclinical studies. If they do not successfully carry out their contractual duties, comply with regulatory requirements or meet expected deadlines, we may not be able to obtain or maintain marketing approval for Auryxia, vadadustat or any of our product candidates, and our business could be substantially harmed.
- If the licensor of certain intellectual property relating to Auryxia terminates, modifies or threatens to terminate existing contracts or relationships with us, our business may be materially harmed.
- If we are unable to adequately protect our intellectual property, third parties may be able to use our intellectual property, which could adversely affect our ability to compete in the market.
- We may not be able to protect our intellectual property rights throughout the world.
- The intellectual property that we own or have licensed and related non-patent exclusivity relating to our current and future products is, and may be, limited, which could adversely affect our ability to compete in the market and adversely affect the value of Auryxia.
- The market entry of one or more generic competitors or any third party’s attempt to challenge our intellectual property rights will likely limit Auryxia sales and have an adverse impact on our business and results of operation.
- Litigation, including third party claims of intellectual property infringement, may be costly and time consuming and may delay or harm our drug discovery, development and commercialization efforts.
- We are currently involved in an opposition and invalidation proceedings and may in the future be involved in additional lawsuits or administrative proceedings to challenge the patents of our competitors or to protect or enforce our patents, which could be expensive, time consuming, and unsuccessful.
- We may be subject to claims that our employees, consultants or independent contractors have wrongfully used or disclosed confidential information of third parties.
- If we fail to attract, retain and motivate senior management and qualified personnel, we may be unable to successfully develop, obtain and/or maintain marketing approval of and commercialize vadadustat or commercialize Auryxia.
- Our cost savings plan and the associated workforce reduction implemented in April and May 2022 may not result in anticipated savings, could result in total costs and expenses that are greater than expected and could disrupt our business.
- We may encounter difficulties in managing our growth, including with respect to our employee base, and managing our operations successfully.
- We have identified a material weakness in our internal control over financial reporting relating to our inventory process. If we are not able to remediate this material weakness, or if we experience additional material weaknesses or other deficiencies in the future or otherwise fail to maintain an effective system of internal control over financial reporting, we may not be able to accurately report our financial results or prevent fraud.
- We are currently subject to legal proceedings that could result in substantial costs and divert management's attention, and we could be subject to additional legal proceedings.
- Our stock price has been and may continue to be volatile, which could result in substantial losses for holders or future purchasers of our common stock and lawsuits against us and our officers and directors.

Akebia Therapeutics, Inc.

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PART I—FINANCIAL INFORMATION

Item 1. Financial Statements.

AKEBIA THERAPEUTICS, INC.

Condensed Consolidated Balance Sheets
(Unaudited)
(in thousands, except share and per share data)

	June 30, 2022	December 31, 2021
Assets		
Current assets:		
Cash and cash equivalents	$ 143,893	$ 149,800
Inventory	36,272	38,195
Accounts receivable, net	81,869	50,875
Prepaid expenses and other current assets	42,129	33,140
Total current assets	304,163	272,010
Property and equipment, net	6,035	6,754
Operating lease assets	31,494	33,852
Goodwill	55,053	55,053
Other intangible assets, net	90,106	108,127
Other assets	34,953	49,754
Total assets	$ 521,804	$ 525,550
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable	$ 24,944	$ 33,588
Accrued expenses and other current liabilities	91,284	104,456
Short-term deferred revenue	5,047	20,906
Current portion of refund liability to customer	14,247	—
Current portion of long-term debt	98,158	97,543
Total current liabilities	233,680	256,493
Deferred revenue, net of current portion	43,296	21,474
Operating lease liabilities, net of current portion	31,733	33,703
Derivative liability	1,110	1,820
Liability related to sale of future royalties, net	56,743	53,079
Refund liability to customer, net of current portion	26,053	—
Other non-current liabilities	66,889	82,525
Total liabilities	459,504	449,094
Commitments and contingencies (Note 13)		
Stockholders' equity:		
Preferred stock $0.00001 par value, 25,000,000 shares authorized; 0 shares issued and outstanding at June 30, 2022 and December 31, 2021	—	—
Common stock $0.00001 par value; 350,000,000 shares authorized at June 30, 2022 and December 31, 2021; 183,704,654 and 177,000,963 shares issued and outstanding at June 30, 2022 and December 31, 2021, respectively	2	1
Additional paid-in capital	1,555,788	1,536,800
Accumulated other comprehensive loss	6	6
Accumulated deficit	(1,493,496)	(1,460,351)
Total stockholders' equity	62,300	76,456
Total liabilities and stockholders' equity	$ 521,804	$ 525,550

See accompanying notes to unaudited condensed consolidated financial statements.

AKEBIA THERAPEUTICS, INC.

Condensed Consolidated Statements of Operations and Comprehensive Income (Loss)
(Unaudited)
(in thousands, except share and per share data)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2022	2021	2022	2021
Revenues:				
Product revenue, net	$ 43,703	$ 32,959	$ 85,151	$ 63,367
License, collaboration and other revenue	83,056	19,954	103,307	41,850
Total revenues	126,759	52,913	188,458	105,217
Cost of goods sold:				
Product	9,589	43,484	31,923	69,079
Amortization of intangibles	9,011	9,011	18,021	18,021
Total cost of goods sold	18,600	52,495	49,944	87,100
Operating expenses:				
Research and development	26,027	37,214	69,860	77,825
Selling, general and administrative	32,807	41,651	77,134	82,979
License expense	892	894	1,580	1,590
Restructuring	14,531	—	14,531	—
Total operating expenses	74,257	79,759	163,105	162,394
Operating income (loss)	33,902	(79,341)	(24,591)	(144,277)
Other income (expense):				
Interest expense	(5,037)	(4,962)	(10,099)	(9,768)
Other income	411	1,265	1,545	1,427
Net income (loss)	$ 29,276	$ (83,038)	$ (33,145)	$ (152,618)
Net income (loss) per share - basic	$ 0.16	$ (0.51)	$ (0.18)	$ (0.97)
Weighted-average number of common shares - basic	183,597,766	161,329,990	181,609,452	157,596,143
Net income (loss) per share - diluted	$ 0.15	$ (0.51)	$ (0.18)	$ (0.97)
Weighted-average number of common shares - diluted	190,375,317	161,329,990	181,609,452	157,596,143
Comprehensive income (loss):				
Net income (loss)	$ 29,276	$ (83,038)	$ (33,145)	$ (152,618)
Other comprehensive loss - unrealized loss on debt securities	—	(3)	—	(7)
Total comprehensive income (loss)	$ 29,276	$ (83,041)	$ (33,145)	$ (152,625)

See accompanying notes to unaudited condensed consolidated financial statements.

AKEBIA THERAPEUTICS, INC.

Condensed Consolidated Statements of Stockholders' Equity
(Unaudited)
(in thousands, except share data)

	Common Stock					
	Number of Shares	$0.00001 Par Value	Additional Paid-In Capital	Unrealized Gain/(Loss)	Accumulated Deficit	Total Stockholders' Equity
Balance at December 31, 2020	148,074,085	$ 1	$ 1,425,115	$ 13	$ (1,177,511)	$ 247,618
Issuance of common stock, net of issuance costs	9,228,017	1	29,497	—	—	29,498
Proceeds from sale of stock under employee stock purchase plan	154,276	—	367	—	—	367
Stock-based compensation expense	—	—	5,992	—	—	5,992
Restricted stock unit vesting	1,063,711	—	—	—	—	—
Unrealized loss	—	—	—	(4)	—	(4)
Net loss	—	—	—	—	(69,580)	(69,580)
Balance at March 31, 2021	158,520,089	$ 2	$ 1,460,971	$ 9	$ (1,247,091)	$ 213,891
Issuance of common stock, net of issuance costs	10,446,160	—	37,266	—	—	37,266
Stock-based compensation expense	—	—	6,515	—	—	6,515
Restricted stock unit vesting	685,174	—	—	—	—	—
Unrealized loss	—	—	—	(3)	—	(3)
Net loss	—	—	—	—	(83,038)	(83,038)
Balance at June 30, 2021	169,651,423	$ 2	$ 1,504,752	$ 6	$ (1,330,129)	$ 174,631
Balance at December 31, 2021	177,000,963	$ 1	$ 1,536,800	$ 6	$ (1,460,351)	$ 76,456
Issuance of common stock, net of issuance costs	4,404,600	1	7,177	—	—	7,178
Proceeds from sale of stock under employee stock purchase plan	191,146	—	367	—	—	367
Stock-based compensation expense	—	—	4,536	—	—	4,536
Restricted stock unit vesting	1,789,326	—	—	—	—	—
Net loss	—	—	—	—	(62,421)	(62,421)
Balance at March 31, 2022	183,386,035	$ 2	$ 1,548,880	$ 6	$ (1,522,772)	$ 26,116
Stock-based compensation expense	—	—	6,841	—	—	6,841
Exercise of options	142,440	—	67	—	—	67
Restricted stock unit vesting	176,179	—	—	—	—	—
Net income	—	—	—	—	29,276	29,276
Balance at June 30, 2022	183,704,654	$ 2	$ 1,555,788	$ 6	$ (1,493,496)	$ 62,300

See accompanying notes to unaudited condensed consolidated financial statements

AKEBIA THERAPEUTICS, INC.

Condensed Consolidated Statements of Cash Flows
(Unaudited)
(in thousands)

	Six Months Ended	
	June 30, 2022	June 30, 2021
Operating activities:		
Net loss	$ (33,145)	$ (152,618)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	833	1,012
Amortization of intangibles	18,021	18,021
Amortization of premium/discount on investments	—	(15)
Non-cash interest expense related to sale of future royalties	4,428	4,427
Non-cash royalty revenue related to sale of future royalties	(764)	(116)
Non-cash collaboration revenue	(9,550)	—
Non-cash interest expense	916	539
Non-cash operating lease expense	(1,198)	(965)
Fair value step-up of inventory sold or written off	—	21,575
Write-down of inventory	7,430	5,425
Change in excess inventory purchase commitments	(773)	21,338
Stock-based compensation	11,453	12,506
Change in fair value of derivative liability	(710)	(490)
Changes in operating assets and liabilities:		
Accounts receivable	(30,994)	(8,152)
Inventory	1,159	(35,710)
Prepaid expenses and other current assets	561	3,301
Other long-term assets	9,347	4,149
Accounts payable	(8,807)	(1,120)
Accrued expense	(18,625)	(15,706)
Operating lease liabilities	1,205	804
Deferred revenue	5,963	(12,092)
Other non-current liabilities	(9,030)	—
Net cash used in operating activities	(52,280)	(133,887)
Investing activities:		
Purchase of equipment	(114)	(59)
Proceeds from the maturities of available for sale securities	—	40,000
Net cash (used in) provided by investing activities	(114)	39,941
Financing activities:		
Proceeds from sale of future royalties, net	—	44,783
Proceeds from refund liabilities to customers	40,000	—
Proceeds from the issuance of common stock, net of issuance costs	7,102	66,696
Proceeds from the sale of stock under employee stock purchase plan	367	367
Proceeds from the exercise of stock options	67	—
Net cash provided by financing activities	47,536	111,846
(Decrease) increase in cash, cash equivalents, and restricted cash	(4,858)	17,900
Cash, cash equivalents, and restricted cash at beginning of the period	151,839	231,132
Cash, cash equivalents, and restricted cash at end of the period	$ 146,981	$ 249,032
Non-cash financing activities		
Unpaid offering costs	$ —	$ 68

See accompanying notes to unaudited condensed consolidated financial statements

1. Nature of Organization and Operations

Akebia Therapeutics, Inc., referred to as Akebia or the Company, was incorporated in the State of Delaware in 2007. Akebia is a biopharmaceutical company with the purpose of bettering the lives of people impacted by kidney disease. The Company has one commercial product, Auryxia® (ferric citrate), which is approved by the U.S. Food and Drug Administration, or FDA, and marketed for two indications in the United States: the control of serum phosphorus levels in adult patients with chronic kidney disease, or CKD, on dialysis, or DD-CKD, and the treatment of iron deficiency anemia, or IDA, in adult patients with CKD not on dialysis, or NDD-CKD. Ferric citrate is also approved and marketed in Japan as an oral treatment for IDA in adult patients for the improvement of hyperphosphatemia in such patients with DD-CKD and NDD-CKD under the trade name Riona (ferric citrate hydrate).

Vadadustat, the Company's lead investigational product candidate, is an investigational oral hypoxia-inducible factor prolyl hydroxylase, or HIF-PH, inhibitor designed to mimic the physiologic effect of altitude on oxygen availability. On March 29, 2022, the Company received a complete response letter, or CRL, from the FDA. The CRL provided that the FDA had completed its review of the Company's new drug application, or NDA, for vadadustat for the treatment of anemia due to CKD in adult patients and had determined that it could not approve the NDA in its present form. The Company held an end of review conference with the FDA and are in the process of determining next steps for a potential U.S. approval for vadadustat as a treatment of anemia due to CKD in patients on dialysis. On May 12, 2022, the Company received notice from its former collaboration partner, Otsuka Pharmaceutical Co. Ltd., or Otsuka, that Otsuka had elected to terminate the Collaboration and License Agreement dated December 18, 2016, or the Otsuka U.S. Agreement, and the Collaboration and License Agreement dated April 25, 2017, or the Otsuka International Agreement. On June 30, 2022, the Company and Otsuka entered into a Termination and Settlement Agreement, or the Termination Agreement, pursuant to which, among other things, the Company and Otsuka agreed to terminate the Otsuka U.S. Agreement and the Otsuka International Agreement as of June 30, 2022 (see Note 4 for further details). In October 2021, Otsuka submitted a Marketing Authorization Application, or MAA, for vadadustat for the treatment of anemia due to CKD in adult patients with DD-CKD and NDD-CKD to the European Medicines Agency, or EMA. In connection with the Termination Agreement, in July 2022, Otsuka filed a request with the EMA to transfer the MAA for vadadustat to the Company. Vadadustat is approved in Japan as a treatment for anemia due to CKD in both DD-CKD and NDD-CKD patients under the trade name Vafseo™, and marketed and sold in Japan by Mitsubishi Tanabe Pharma Corporation, or MTPC.

In addition, the Company continues to explore additional development opportunities to expand its pipeline and portfolio of novel therapeutics.

Since inception, the Company has devoted most of its resources to research and development, including its preclinical and clinical development activities, commercializing Auryxia, and providing general and administrative support for these operations. The Company began recording revenue from the U.S. sales of Auryxia and revenue from sublicensing rights to Auryxia in Japan from the Company's Japanese partners, Japan Tobacco, Inc. and its subsidiary Torii Pharmaceutical Co., Ltd., collectively JT and Torii, in December 2018. Additionally, following regulatory approval of vadadustat in Japan, the Company began recognizing royalty revenues from MTPC from the sale of Vafseo in August 2020. In February 2021, the Company entered into a royalty interest acquisition agreement with HealthCare Royalty Partners IV, L.P., or HCR, or the Royalty Agreement, whereby the Company sold its right to receive royalties and sales milestones under its Collaboration Agreement with MTPC, or the MTPC Agreement, subject to certain caps and other terms and conditions (see Note 6 for additional information). The Company has not generated a profit to date, and may never generate profits, from product sales. Vadadustat and the Company's other potential product candidates are subject to long development cycles, and the Company may be unsuccessful in its efforts to develop, obtain marketing approval for or market vadadustat and its other potential product candidates. If the Company does not successfully commercialize Auryxia, vadadustat, if approved, or any other potential product candidate, it may be unable to achieve profitability.

Going Concern

The Company's management completed its going concern assessment in accordance with Accounting Standards Codification, or ASC, 205-40, *Disclosure of Uncertainties about an Entity's Ability to Continue as a Going Concern*, or ASC 205-40. Pursuant to the requirements of ASC 205-40, the Company's management must evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the Company's ability to continue as a going concern within one year after the date the financial statements are issued. This evaluation initially does not take into consideration the potential mitigating effect of management's plans that have not been fully implemented as of the date the financial statements are issued.

When substantial doubt exists under this methodology, the Company's management evaluates whether the mitigating effect of its plans sufficiently alleviates substantial doubt about the Company's ability to continue as a going concern. The mitigating effect of the Company's plans, however, is only considered if both (1) it is probable that the plans will be effectively implemented within one year after the date that the financial statements are issued and (2) it is probable that the plans, when implemented, will mitigate the relevant conditions or events that raise substantial doubt about the entity's ability to continue as a going concern within one year after the date that the financial statements are issued.

As of June 30, 2022, the Company had cash and cash equivalents of approximately $143.9 million. The Company believes that its cash resources will be sufficient to allow the Company to fund its current operating plan through at least the next twelve months from the filing of this Quarterly Report on Form 10-Q. However, the Company's operating plan includes assumptions pertaining to cost avoidance measures and the reduction of overhead costs that would result from the planned amendment of certain contractual arrangements, including with certain supply and collaboration partners, and the reduction of certain infrastructure costs. Therefore, because these cost avoidance initiatives and certain other elements of the Company's operating plan are outside of its control, including the planned amendment of certain contractual arrangements, including with supply and collaboration partners, and the reduction of certain infrastructure costs, there is uncertainty as to whether the Company's cash resources will be adequate to support its operations for a period through at least the next twelve months from the date of issuance of these financial statements.

In addition, on July 15, 2022, or the Effective Date, the Company entered into the Second Amendment and Waiver with BioPharma Credit PLC, or the Collateral Agent, BPCR Limited Partnership, as a Lender, and BioPharma Credit Investments V (Master) LP, as a Lender, or the Second Amendment and Waiver, which amends and waives certain provisions of the loan agreement entered on November 11, 2019, between the Company, with Keryx Biopharmaceuticals, Inc., or Keryx, as guarantor, and the Collateral Agent, as collateral agent and a lender, and BioPharma Credit Investments V (Master) LP as a lender, or the Loan Agreement, as amended by the First Amendment and Waiver among the Collateral Agent, the Lenders and the Company, dated February 18, 2022, or the First Amendment and Waiver. The Collateral Agent and the Lenders are collectively referred to as Pharmakon (see Note 11). Pursuant to the Second Amendment and Waiver, on the Effective Date, the Company made prepayments totaling $25.0 million together with a prepayment premium of $0.5 million plus all accrued and unpaid interest on such prepayments of principal to the Effective Date, and Pharmakon agreed to waive or modify certain covenants in the Loan Agreement (see Note 11). If an event of default occurs and is continuing under the Loan Agreement, the Collateral Agent is entitled to take enforcement action, including acceleration of amounts due under the Loan Agreement, which the Company may not have the available cash resources to repay at such time. For example, pursuant to covenants in the Loan Agreement, the Company's Annual Reports on Form 10-K must not be subject to any qualification as a going concern. If any of the Company's future Annual Reports on Form 10-K is subject to any qualification related to going concern, it will result in an event of default under the Loan Agreement.

These conditions raise substantial doubt regarding the Company's ability to continue as a going concern for a period of one year after the date the financial statements are issued. Management's plans to alleviate the conditions that raise substantial doubt through cost avoidance measures, including amending certain contractual arrangements, and deprioritizing and cancelling certain infrastructure activities for the Company to continue as a going concern for a period of twelve months from the date the financial statements are issued. However, the Company has concluded that the likelihood that its plan to extend its cash runway from one or more of these approaches will be successful, while reasonably possible, is less than probable. Accordingly, the Company has concluded that substantial doubt exists about its ability to continue as a going concern for a period of at least twelve months from the date of issuance of these financial statements.

The accompanying financial statements have been prepared on a going concern basis, which contemplates the realization of assets and satisfaction of liabilities in the ordinary course of business. The financial statements do not include any adjustments relating to the recoverability and classification of recorded asset amounts or the amounts and classification of liabilities, other than obligations under the Loan Agreement classified as current, that might result from the outcome of the uncertainties described above.

2. Summary of Significant Accounting Policies

Basis of Presentation

The accompanying unaudited condensed consolidated financial statements have been prepared in conformity with accounting principles generally accepted in the U.S., or GAAP, for interim financial reporting and as required by Regulation S-X, Rule 10-01. Accordingly, they do not include all of the information and footnotes required by GAAP for complete financial statements. Any reference in these notes to applicable guidance is meant to refer to the authoritative GAAP as found in the ASC and Accounting Standards Update, or ASU, of the Financial Accounting Standards Board, or FASB.

In the opinion of management, all adjustments, consisting of normal recurring accruals and revisions of estimates, considered necessary for a fair presentation of the unaudited condensed consolidated financial statements have been included. Interim

results for the three and six months ended June 30, 2022 are not necessarily indicative of the results that may be expected for the fiscal year ending December 31, 2022 or any other future period.

The accompanying unaudited condensed consolidated financial statements include the accounts of the Company and its wholly-owned subsidiaries. All intercompany balances and transactions have been eliminated in consolidation. Management has determined that the Company operates in one segment, which is the business of developing and commercializing novel therapeutics for people with kidney disease. The information included in this Quarterly Report on Form 10-Q should be read in conjunction with the Company's consolidated financial statements and the accompanying notes included in the Company's Annual Report on Form 10-K for the year ended December 31, 2021 filed with the U.S. Securities and Exchange Commission on March 1, 2022, or the 2021 Annual Report on Form 10-K.

The significant accounting policies used in preparation of these unaudited condensed consolidated financial statements for the three and six months ended June 30, 2022 are consistent with those discussed in Note 2 to the consolidated financial statements in the Company's 2021 Annual Report on Form 10-K and are updated below as necessary.

New Accounting Pronouncements – Not Yet Adopted

In March 2020, the FASB issued ASU 2020-04, *Reference Rate Reform (Topic 848): Facilitation of the Effects of Reference Rate Reform on Financial Reporting*. The amendments provide optional guidance for a limited time to ease the potential burden in accounting for reference rate reform. The new guidance provides optional expedients and exceptions for applying GAAP to contracts, hedging relationships and other transactions affected by reference rate reform if certain criteria are met. The amendments apply only to contracts and hedging relationships that reference LIBOR or another reference rate expected to be discontinued due to reference rate reform. These amendments are effective immediately and may be applied prospectively to contract modifications made and hedging relationships entered into or evaluated on or before December 31, 2022. The Company is currently evaluating its contracts and the optional expedients provided by the new standard.

Use of Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results may differ from those estimates. Management considers many factors in selecting appropriate financial accounting policies and controls, and in developing the estimates and assumptions that are used in the preparation of these financial statements. Management must apply significant judgment in this process. In addition, other factors may affect estimates, including expected business and operational changes, sensitivity and volatility associated with the assumptions used in developing estimates, and whether historical trends are expected to be representative of future trends. The estimation process often may yield a range of potentially reasonable estimates of the ultimate future outcomes, and management must select an amount that falls within that range of reasonable estimates. Estimates are used in the following areas, among others: prepaid and accrued research and development expense, operating lease assets and liabilities, derivative liabilities, refund liabilities to customers, other non-current liabilities, including the excess purchase commitment liability, stock-based compensation expense, product and collaboration revenues including various rebates and reserves related to product sales, non-cash interest expense on the liability related to sale of future royalties, inventories, income taxes, intangible assets and goodwill.

Although the Company regularly assesses these estimates, actual results could differ materially from these estimates. Changes in estimates are recorded in the period they become known. The Company bases its estimates on historical experience and various other assumptions that it believes to be reasonable under the circumstances.

3. Product Revenue and Reserves for Variable Consideration

To date, the Company's only source of product revenue has been from the U.S. sales of Auryxia. Total net product revenue was $43.7 million and $33.0 million for the three months ended June 30, 2022 and 2021, respectively, and $85.2 million and $63.4 million for the six months ended June 30, 2022 and 2021, respectively. The following table summarizes activity in each of the product revenue allowance and reserve categories for the six months ended June 30, 2022 and 2021 (in thousands):

	Chargebacks and Discounts	Rebates, Fees and other Deductions	Returns	Total
Balance at December 31, 2021	$ 1,278	$ 26,625	$ 475	$ 28,378
Current provisions related to sales in current year	4,928	42,566	2,871	50,365
Adjustments related to prior year sales	131	784	—	915
Credits/payments made	(5,236)	(43,803)	(2,804)	(51,843)
Balance at June 30, 2022	$ 1,101	$ 26,172	$ 542	$ 27,815
Balance at December 31, 2020	$ 802	$ 39,912	$ 649	$ 41,363
Current provisions related to sales in current year	6,084	69,163	3,616	78,863
Adjustments related to prior year sales	(6)	812	—	806
Credits/payments made	(5,588)	(63,795)	(3,715)	(73,098)
Balance at June 30, 2021	$ 1,292	$ 46,092	$ 550	$ 47,934

Chargebacks, discounts and returns are recorded as a direct reduction of revenue on the unaudited condensed consolidated statement of operations with a corresponding reduction to accounts receivable on the unaudited condensed consolidated balance sheets. Rebates, distribution-related fees, and other sales-related deductions are recorded as a reduction in revenue on the unaudited condensed consolidated statement of operations with a corresponding increase to accrued liabilities or accounts payable on the unaudited condensed consolidated balance sheets.

Accounts receivable, net related to product sales was approximately $24.8 million and $24.6 million as of June 30, 2022 and December 31, 2021, respectively.

4. License, Collaboration and Other Significant Agreements

During the three and six months ended June 30, 2022 and 2021, the Company recognized the following revenues from its license, collaboration and other significant agreements and had the following deferred revenue balances as of June 30, 2022:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2022	2021	2022	2021
License, Collaboration and Other Revenue:	(in thousands)		(in thousands)	
MTPC Agreement	$ 434	$ 4,594	$ 8,398	$ 4,612
Otsuka U.S. Agreement	81,135	9,170	86,773	22,844
Otsuka International Agreement	—	4,700	5,503	11,672
Total Proportional Performance Revenue	$ 81,569	$ 18,464	$ 100,674	$ 39,128
JT and Torii	1,487	1,490	2,633	2,649
MTPC Other Revenue	—	—	—	73
Total License, Collaboration and Other Revenue	$ 83,056	$ 19,954	$ 103,307	$ 41,850

	June 30, 2022		
	Short-Term	Long-Term	Total
Deferred Revenue:		(in thousands)	
MTPC Agreement	$ 5,047	$ —	$ 5,047
Vifor Pharma Agreement	—	43,296	43,296
Total	$ 5,047	$ 43,296	$ 48,343

The following table presents changes in the Company’s contract assets and liabilities during the six months ended June 30, 2022 and 2021 (in thousands):

Six Months Ended June 30, 2022	Balance at Beginning of Period	Additions	Deductions	Balance at End of Period
Contract assets:				
Accounts receivable(1)	$ 19,094	$ 92,146	$ (54,614)	$ 56,626
Prepaid expenses and other current assets	$ 4,309	$ 9,550	$ (4,309)	$ 9,550
Contract liabilities:				
Deferred revenue	$ 42,380	$ 65,042	$ (59,079)	$ 48,343
Accounts payable	$ 3,171	$ —	$ (3,171)	$ —
Accrued expenses and other current liabilities	$ —	$ —	$ —	$ —
Six Months Ended June 30, 2021				
Contract assets:				
Accounts receivable(1)	$ 3,045	$ 18,884	$ (19,112)	$ 2,817
Prepaid expenses and other current assets	$ 1,722	$ 211	$ (5)	$ 1,928
Contract liabilities:				
Deferred revenue	$ 40,559	$ 36,679	$ (48,770)	$ 28,468
Accounts payable	$ 7,227	$ —	$ (7,227)	$ —
Accrued expenses and other current liabilities	$ 10,000	$ —	$ —	$ 10,000

(1) Excludes accounts receivable from other services related to clinical and regulatory activities performed by the Company on behalf of MTPC that are not included in the performance obligations identified under the MTPC Agreement as of June 30, 2022 and 2021 and December 31, 2021 and 2020. Also excludes accounts receivable related to amounts due to the Company from product sales which are included in the accompanying unaudited condensed consolidated balance sheet as of June 30, 2022 and December 31, 2021.

During the three and six months ended June 30, 2022 and 2021, the Company recognized the following revenues as a result of changes in the contract asset and contract liability balances in the respective periods (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
Revenue Recognized in the Period:	2022	2021	2022	2021
Amounts included in deferred revenue at the beginning of the period	$ 15,503	$ 5,822	$ 22,105	$ 10,895
Performance obligations satisfied in previous periods	$ —	$ —	$ —	$ —

Mitsubishi Tanabe Pharma Corporation Collaboration Agreement

Summary of Agreement

On December 11, 2015, the Company and MTPC entered into the MTPC Agreement, providing MTPC with exclusive development and commercialization rights to vadadustat in Japan and certain other Asian countries, collectively, the MTPC Territory. In addition, the Company will supply vadadustat for both clinical and commercial use in the MTPC Territory, subject to MTPC's option to manufacture commercial drug product in the MTPC Territory. In February 2021, the Company entered into the Royalty Agreement with HCR, whereby the Company sold its right to receive royalties and sales milestones under the MTPC Agreement, subject to certain caps and other terms and conditions (see Note 6 for additional information). A more detailed description of the MTPC Agreement and the Company's evaluation of this agreement under ASC 606 can be found in Note 4 of the Notes to the Consolidated Financial Statements in the 2021 Annual Report on Form 10-K.

The Company identified two performance obligations in connection with its material promises under the MTPC Agreement as follows: (i) *License, Research and Clinical Supply Performance Obligation* and (ii) *Rights to Future Know-How Performance Obligation.* The Company allocates the transaction price to each performance obligation based on the Company's best estimate of the relative standalone selling price. The Company developed a best estimate of the standalone selling price for the Rights to Future Know-How Performance Obligation primarily based on the likelihood that additional intellectual property covered by the license conveyed will be developed during the term of the arrangement and determined it is immaterial. As such, the

Company did not develop a best estimate of standalone selling price for the License, Research and Clinical Supply Performance Obligation and allocated the entire transaction price to this performance obligation. The deliverables associated with the License, Research and Clinical Supply Performance Obligation were satisfied as of June 30, 2018.

As of June 30, 2022, the transaction price was comprised of: (i) the up-front payment of $20.0 million, (ii) the cost for the Phase 2 studies of $20.5 million, (iii) the cost of all clinical supply provided to MTPC for the Phase 3 studies, (iv) $10.0 million in development milestones received, (v) $25.0 million in regulatory milestones received, comprised of $10.0 million relating to the NDA filing in Japan and $15.0 million relating to regulatory approval of vadadustat in Japan, and (vi) $2.0 million in royalties from net sales of Vafseo. As of June 30, 2022, all development milestones and $25.0 million in regulatory milestones have been achieved. No other regulatory milestones have been assessed as probable of being achieved and as a result have been fully constrained. The Company re-evaluates the transaction price in each reporting period and as uncertain events are resolved or other changes in circumstances occur. Revenue for the License, Research and Clinical Supply Performance Obligation for the MTPC Agreement is being recognized using a proportional performance method, for which all deliverables have been completed. During the three and six months ended June 30, 2022, the Company recognized revenue from MTPC royalties totaling approximately $0.4 million and $0.7 million, respectively, and approximately $0.1 million during each of the three and six months ended June 30, 2021. As noted above, in February 2021, the Company entered into the Royalty Agreement, whereby the Company sold its right to receive these royalties and sales milestones under the MTPC Agreement, subject to certain caps and other terms and conditions (see Note 6 for additional information). The revenue is classified as license, collaboration and other revenue in the accompanying unaudited condensed consolidated statements of operations and comprehensive loss. As of June 30, 2022, the Company recorded $0.2 million in accounts receivable, no deferred revenue, and no contract assets. There were no asset or liability balances classified as long-term in the unaudited condensed consolidated balance sheet as of June 30, 2022.

Supply of Drug Product to MTPC

On July 15, 2020, the Company and its collaboration partner MTPC entered into a supply agreement, or the MTPC Supply Agreement. The MTPC Supply Agreement includes the terms and conditions under which the Company will supply vadadustat drug product to MTPC for commercial use in Japan and certain other Asian countries, as contemplated by the MTPC Agreement. A more detailed description of this supply agreement can be found in Note 4 of the Notes to the Consolidated Financial Statements in the 2021 Annual Report on Form 10-K.

The Company recognized no revenue and $7.6 million in revenue under the MTPC Supply Agreement during the three and six months ended June 30, 2022, respectively, and $4.5 million during each of the three and six months ended June 30, 2021. As of June 30, 2022, the Company recorded $0.4 million in accounts receivable, $5.0 million in deferred revenue, $19.5 million in other current liabilities and no other non-current liabilities.

U.S. Collaboration and License Agreement with Otsuka Pharmaceutical Co. Ltd.

On December 18, 2016, the Company entered into the Otsuka U.S. Agreement. The collaboration was focused on the development and commercialization of vadadustat in the United States. The Company was responsible for leading the development of vadadustat, for which it submitted an NDA to the FDA in March 2021, and for which it received a CRL in March 2022.

Under the terms of the Otsuka U.S. Agreement, the Company granted to Otsuka a co-exclusive, non-sublicensable license under certain intellectual property controlled by the Company solely to perform medical affairs activities and to conduct non-promotional and commercialization activities related to vadadustat in the United States in accordance with the associated plans. The co-exclusive license related to activities that will be jointly conducted by the Company and Otsuka pursuant to the terms of the Otsuka U.S. Agreement. A more detailed description of this collaboration agreement and the Company's evaluation of this agreement under ASC 606 can be found in Note 4 of the Notes to the Consolidated Financial Statements in the 2021 Annual Report on Form 10-K.

The Company identified three performance obligations in connection with its obligations under the Otsuka U.S. Agreement as follows: (i) License and Development Services Combined (License Performance Obligation); (ii) Rights to Future Intellectual Property (Future IP Performance Obligation) and (iii) Joint Committee Services (Committee Performance Obligation). The Company allocated the transaction price to each performance obligation based on the Company’s best estimate of the relative standalone selling price. The Company developed a best estimate of standalone selling price for the Committee Performance Obligation after considering the nature of the services to be performed and estimates of the associated effort and rates applicable to such services that would be expected to be realized under similar contracts. The Company developed a best estimate of standalone selling price for the Future IP Performance Obligation primarily based on the likelihood that additional

intellectual property covered by the license conveyed would be developed during the term of the arrangement. The Company did not develop a best estimate of standalone selling price for the License Performance Obligation due to the following: (i) the best estimates of standalone selling price associated with the Future IP Performance Obligation was determined to be immaterial and (ii) the period of performance and pattern of recognition for the License Performance Obligation and the Committee Performance Obligation was determined to be similar.

The Company re-evaluated the transaction price in each reporting period and as uncertain events were resolved or other changes in circumstances occurred. The Company determined that under ASC 606, the contract was modified in the second quarter of 2019, when the Company elected to require Otsuka to increase the aggregate percentage of current global development costs it funds under the Otsuka U.S. Agreement and the Otsuka International Agreement, as defined below, from 52.5% to 80%, or the Otsuka Funding Option, and the Company became eligible to receive the amount from the Otsuka Funding Option. In connection with the modification, the Company adjusted the transaction price to include the amount from the Otsuka Funding Option as additional variable consideration. The Company constrained the variable consideration to an amount for which a significant revenue reversal is not probable.

Pursuant to the Otsuka U.S. Agreement, the Company received: (i) an up-front payment of $125.0 million, (ii) a cost share payment with respect to amounts incurred by the Company through December 31, 2016 of $33.8 million, and (iii) net cost share consideration with respect to amounts incurred by the Company under the global development plan of approximately $319.2 million with respect to amounts incurred by the Company subsequent to December 31, 2016.

On May 12, 2022, the Company received notice from Otsuka that it had elected to terminate the Otsuka U.S. Agreement and the Otsuka International Agreement. On June 30, 2022, the Company and Otsuka entered into the Termination Agreement, pursuant to which, among other things, the Company and Otsuka agreed to terminate, as of June 30, 2022, the Otsuka U.S. Agreement and the Otsuka International Agreement. In July 2022, the Company received a nonrefundable and non-creditable payment of $55.0 million in consideration for the covenants and agreements set forth in the Termination Agreement, including the settlement and release of all disputes and claims as provided therein. The Company determined that the Termination Agreement met the definition of a contract modification and was accounted for as a cumulative catch-up adjustment at the time of modification under ASC 606. During the three months ended June 30, 2022, the Company recognized $81.1 million of collaboration revenue from Otsuka in its condensed consolidated statement of operations and comprehensive income (loss). This is primarily comprised of the $55.0 million payment to be received pursuant to the Termination Agreement, $15.5 million related to previously deferred revenue as of the date of termination and $9.6 million of non-cash consideration related to Otsuka's obligations to complete certain agreed upon clinical activities related to the Phase 3b clinical trial of vadadustat Otsuka is conducting. During the six months ended June 30, 2022, the Company recognized $92.3 million of collaboration revenue from the Otsuka U.S. Agreement and the Otsuka International Agreement in its condensed consolidated statement of operations and comprehensive income (loss).

During the three and six months ended June 30, 2021, the Company recognized revenue totaling $9.2 million and $22.8 million, respectively, with respect to the Otsuka U.S. Agreement. The revenue is classified as collaboration revenue in the accompanying unaudited condensed consolidated statements of operations. As of June 30, 2022, there was no deferred revenue related to the Otsuka U.S. Agreement. Additionally, as of June 30, 2022, there was $55.0 million in accounts receivable and $9.6 million in prepaid expenses and other current assets in the accompanying unaudited condensed consolidated balance sheet. As of December 31, 2021, there was approximately $2.0 million in contract liabilities (included in accounts payable) and $3.0 million in prepaid expenses and other current assets in the consolidated balance sheet.

International Collaboration and License Agreement with Otsuka Pharmaceutical Co. Ltd.

On April 25, 2017, the Company entered into the Otsuka International Agreement. The collaboration was focused on the development and commercialization of vadadustat in Europe, Russia, China, Canada, Australia, the Middle East and certain other territories, collectively, the Otsuka International Territory.

Under the terms of the Otsuka International Agreement, the Company granted to Otsuka an exclusive, sublicensable license under certain intellectual property controlled by the Company to develop and commercialize vadadustat and products containing or comprising vadadustat in the Otsuka International Territory. Additionally, under the terms of this agreement, the Company was responsible for leading the development of vadadustat. Otsuka had the sole responsibility, at its own cost, for the commercialization of vadadustat in the Otsuka International Territory, subject to the approval by the relevant regulatory authorities. A more detailed description of this collaboration agreement and the Company's evaluation of this agreement under ASC 606 can be found in Note 4 of the Notes to the Consolidated Financial Statements in the 2021 Annual Report on Form 10-K.

The Company identified three performance obligations in connection with its obligations under the Otsuka International Agreement as follows: (i) License and Development Services Combined (License Performance Obligation); (ii) Rights to

Future Intellectual Property (Future IP Performance Obligation) and (iii) Joint Committee Services (Committee Performance Obligation). The Company allocated the transaction price to each performance obligation based on the Company's best estimate of the relative standalone selling price. The Company developed a best estimate of standalone selling price for the Committee Performance Obligation after considering the nature of the services to be performed and estimates of the associated effort and rates applicable to such services that would be expected to be realized under similar contracts. The Company developed a best estimate of standalone selling price for the Future IP Performance Obligation primarily based on the likelihood that additional intellectual property covered by the license conveyed will be developed during the term of the arrangement. The Company did not develop a best estimate of standalone selling price for the License Performance Obligation due to the following: (i) the best estimates of standalone selling price associated with the Future IP Performance Obligation was determined to be immaterial and (ii) the period of performance and pattern of recognition for the License Performance Obligation and the Committee Performance Obligation was determined to be similar.

The Company re-evaluated the transaction price in each reporting period and as uncertain events were resolved or other changes in circumstances occurred. Pursuant to the Otsuka International Agreement, the Company received: (i) an up-front payment of $73.0 million, (ii) the cost share payment with respect to amounts incurred by the Company during the quarter ended March 31, 2017 of $0.2 million, and (iii) the net cost share consideration with respect to amounts incurred by the Company under the global development plan subsequent to March 31, 2017 of $216.7 million.

As discussed above, the Otsuka International Agreement was terminated on June 30, 2022 pursuant to the Termination Agreement. Refer to earlier in this Note 4 for further details of the recognition of this Termination Agreement in the Company's condensed consolidated statement of operations and comprehensive income (loss).

During the three and six months ended June 30, 2021, the Company recognized revenue totaling approximately $4.7 million and $11.7 million, respectively, with respect to the Otsuka International Agreement. The revenue is classified as collaboration revenue in the accompanying unaudited condensed consolidated statements of operations. As of June 30, 2022, there was no deferred revenue related to the Otsuka International Agreement. As of June 30, 2022, there were no accounts receivable and no prepaid expenses and other current assets in the accompanying unaudited condensed consolidated balance sheet specific to the Otsuka International Agreement. As of December 31, 2021, there was approximately $0.9 million in contract liabilities (included in accounts payable) and $1.3 million in prepaid expenses and other current assets in the consolidated balance sheet.

Janssen Pharmaceutica NV Research and License Agreement

On February 9, 2017, the Company entered into a Research and License Agreement, or the Janssen Agreement, with Janssen Pharmaceutica NV, or Janssen, a subsidiary of Johnson & Johnson, pursuant to which Janssen granted the Company an exclusive license under certain intellectual property rights to develop and commercialize worldwide certain HIF prolyl hydroxylase targeted compounds. Under the terms of the Janssen Agreement, Janssen granted to the Company a license for a three-year research term to conduct research on the HIF compound portfolio, which research term is now expired. A more detailed description of this collaboration agreement can be found in Note 4 of the Notes to the Consolidated Financial Statements in the 2021 Annual Report on Form 10-K.

Under the terms of the Janssen Agreement, the Company made an upfront payment of $1.0 million in cash to Janssen and issued a warrant, or the Warrant, to purchase 509,611 shares of the Company's common stock, which expired on February 9, 2022. In addition, Janssen could be eligible to receive up to an aggregate of $16.5 million from the Company in specified development milestone payments on a product-by-product basis. Janssen could also be eligible to receive up to $215.0 million from the Company in specified commercial milestones as well as tiered, escalating royalties ranging from a low- to mid-single digit percentage of net sales, on a product-by-product basis, and subject to reduction upon expiration of patent rights or the launch of a generic product in the territory. A more detailed description of this collaboration agreement can be found in Note 4 of the Notes to the Consolidated Financial Statements in the 2021 Annual Report on Form 10-K. On August 1, 2022, the Company notified Janssen that it was exercising its right to terminate the Janssen Agreement, and Janssen agreed to the termination which became effective on August 2, 2022.

Cyclerion Therapeutics License Agreement

On June 4, 2021, the Company entered into a License Agreement, the Cyclerion Agreement, with Cyclerion Therapeutics Inc., or Cyclerion, pursuant to which Cyclerion granted the Company an exclusive global license under certain intellectual property rights to research, develop and commercialize praliciguat, an investigational oral soluble guanylate stimulator.

Under the terms of the Cyclerion Agreement, the Company made an upfront payment of $3.0 million in cash to Cyclerion, which was paid during the second quarter of 2021 and recorded to research and development expense in June 2021. Substantially all of the fair value of the assets acquired in conjunction with the Cyclerion Agreement was concentrated in the

acquired license. As a result, the Company accounted for this transaction as an asset acquisition under ASU No. 2017-01, *Business Combinations (Topic 805): Clarifying the Definition of a Business*. The upfront payment was charged to expense at acquisition, as it relates to a development stage compound with no alternative future use. In addition, Cyclerion is eligible to receive up to an aggregate of $222.0 million from the Company in specified development and regulatory milestone payments on a product-by-product basis. Cyclerion will also be eligible to receive specified commercial milestones as well as tiered royalties ranging from a low-single-digit- to mid-double-digit percentage of net sales, on a product-by-product basis, and subject to reduction upon expiration of patent rights or the launch of a generic product in the territory. A more detailed description of this agreement can be found in Note 4 of the Notes to the Consolidated Financial Statements in the 2021 Annual Report on Form 10-K.

Vifor Pharma License Agreement

Summary of License Agreement

On May 12, 2017, the Company entered into a License Agreement, or the Vifor Agreement, with Vifor (International) Ltd., or Vifor Pharma, pursuant to which the Company granted Vifor Pharma an exclusive license to sell vadadustat solely to Fresenius Kidney Care Group LLC, or FKC, an affiliate of Fresenius Medical Care North America, or FMCNA, in the United States. On April 8, 2019, the Company and Vifor Pharma entered into an Amended and Restated License Agreement, or the Vifor First Amended Agreement, which amended and restated in full the Vifor Agreement. On February 18, 2022, the Company and Vifor Pharma entered into a Second Amended and Restated License Agreement, or the Vifor Second Amended Agreement, which amends and restates the Vifor First Amended Agreement.

Pursuant to the Vifor Second Amended Agreement, the Company granted Vifor Pharma an exclusive license to sell vadadustat to Fresenius Medical Care North America and its affiliates, including Fresenius Kidney Care Group LLC, to certain third party dialysis organizations approved by the Company, to independent dialysis organizations that are members of certain group purchasing organizations, and to certain non-retail specialty pharmacies, or collectively, the Supply Group, in the United States, or the Territory. Pursuant to the Vifor Second Amended Agreement, Vifor Pharma agreed that it would not sell or otherwise supply vadadustat until the FDA has granted regulatory approval for vadadustat in the DD-CKD Indication in the Territory and until Vifor Pharma has entered a supply agreement with the applicable member of the Supply Group.

Similar to the Vifor First Amended Agreement, the Vifor Second Amended Agreement is structured as a profit share arrangement between the Company and Vifor Pharma in which the Company will receive approximately 66% of the profit, net of certain pre-specified costs. Under the Vifor Second Amended Agreement, Vifor Pharma made an upfront payment to the Company of $25.0 million in lieu of the previously disclosed milestone payment of $25.0 million that Vifor Pharma was to pay the Company following approval of vadadustat by the FDA, as established under the Vifor First Amended Agreement.

Unless earlier terminated, the Vifor Second Amended Agreement will expire upon the later of the expiration of all patents that claim or cover vadadustat or expiration of marketing or regulatory exclusivity for vadadustat in the Territory. Vifor Pharma may terminate the Vifor Second Amended Agreement in its entirety upon 30 months' prior written notice after the first anniversary of the receipt of regulatory approval, if approved from the FDA for vadadustat for dialysis-dependent CKD patients. The Company may terminate the Vifor Second Amended Agreement in its entirety for convenience, following the earlier of a certain period of time elapsing or following certain specified regulatory events, and upon six months’ prior written notice. If the Company so terminates for convenience, subject to specified exceptions, the Company will pay a termination fee to Vifor Pharma. In addition, either party may, subject to a cure period, terminate the Vifor Second Amended Agreement in the event of the other party’s uncured material breach or bankruptcy.

Investment Agreement

In connection with the Vifor Agreement, in May 2017, the Company and Vifor Pharma entered into an investment agreement, or the First Investment Agreement, pursuant to which the Company sold an aggregate of 3,571,429 shares of the Company’s common stock, or the 2017 Shares, to Vifor Pharma at a price per share of $14.00 for a total of $50.0 million. The amount representing the premium over the closing stock price of $12.69 on the date of the transaction, totaling $4.7 million, was determined by the Company to represent consideration related to the Vifor Agreement.

Vifor Pharma agreed to a lock-up restriction such that it agreed not to sell the 2017 Shares for a period of time following the effective date of the First Investment Agreement as well as a customary standstill agreement. In addition, the First Investment Agreement contains voting agreements made by Vifor Pharma with respect to the 2017 Shares. The 2017 Shares have not been

registered pursuant to the Securities Act of 1933, as amended, or the Securities Act, and were issued and sold in reliance upon the exemption from registration contained in Section 4(a)(2) of the Securities Act and Rule 506 promulgated thereunder.

In connection with entering into the Vifor Second Amended Agreement, on February 18, 2022, the Company and Vifor Pharma entered into an investment agreement, or the Second Investment Agreement, pursuant to which the Company sold an aggregate of 4,000,000 shares of its common stock, or the 2022 Shares, to Vifor Pharma for a total of $20 million on February 22, 2022. The amount representing the premium over the grant date fair value on the date of the transaction, $13.6 million, was determined by the Company to represent the consideration related to the Vifor Second Amended Agreement. Vifor Pharma has agreed to a lock-up restriction to not sell or otherwise dispose of the 2022 Shares for a period of time following the effective date of the Second Investment Agreement as well as a customary standstill agreement. In addition, the Second Investment Agreement contains voting agreements made by Vifor Pharma with respect to the 2022 Shares. The 2022 Shares have not been registered pursuant to the Securities Act and were issued and sold in reliance upon the exemption from registration contained in Section 4(a)(2) of the Securities Act and/or Rule 506 promulgated thereunder, as the transaction does not involve any public offering within the meaning of Section 4(a)(2) of the Securities Act.

Revenue Recognition

The Company evaluated the elements of the Vifor Second Amended Agreement in accordance with the provisions of ASC 606 and concluded that the contract counterparty, Vifor Pharma, is a customer. The Company's arrangement with Vifor Pharma contains one material promise under the contract at inception, which is the non-sublicensable, non-transferrable license under certain of the Company's intellectual property to (i) sell vadadustat solely to the Supply Group, (ii) sell vadadustat to Designated Wholesalers solely for resale to members of the Supply Group, (iii) conduct medical affairs with respect to vadadustat in the Territory in the field during the term of the Vifor Second Amended Agreement and (iv) use the Akebia Trademark solely in connection with the sale of vadadustat (the License Deliverable).

The Company has identified one performance obligation in connection with its obligations under the Vifor Second Amended Agreement, which is the License Deliverable, or License Performance Obligation. The transaction price at inception was comprised of: (i) the up-front payment of $25.0 million, (ii) the premium paid by Vifor Pharma on the First Investment Agreement of $4.7 million, and (iii) the premium paid by Vifor Pharma on the Second Investment Agreement of $13.6 million. Pursuant to the terms of the Vifor Second Amended Agreement, these payments from Vifor Pharma are non-refundable and non-creditable against any other amount due to the Company. Also pursuant to the Vifor Second Amended Agreement, if the Centers for Medicare & Medicaid Services, or CMS, determines that vadadustat is excluded from the Transitional Drug Add-on Payment Adjustment, or TDAPA, the Company can terminate the Vifor Second Amended Agreement and will be required to repay the up-front payment and the premiums paid by Vifor Pharma in the First Investment Agreement and Second Investment Agreement, respectively. The Company considered whether the transaction price was constrained as required per the guidance in ASC 606-10-32-11. As part of its evaluation of the constraint, the Company considered numerous factors, including the CRL received from the FDA for vadadustat, the uncertainty associated with a potential future approval of vadadustat by the FDA, and if approval of vadadustat is received in the future, whether vadadustat would be included in certain reimbursement bundles by CMS, which are all outside of the Company's control. Vifor Pharma also agreed that it will not sell or otherwise supply vadadustat until the FDA has granted regulatory approval for vadadustat in the DD-CKD Indication. The Company constrains the variable consideration to an amount for which a significant revenue reversal is not probable. Therefore, the Company determined that the entire transaction price at inception was constrained under ASC 606, and the Company has recorded the transaction price to deferred revenue as of June 30, 2022.

Refund Liability to Customer

Pursuant to the Vifor Second Amended Agreement, Vifor Pharma contributed $40.0 million to a working capital fund established to partially fund the Company's costs of purchasing vadadustat from its contract manufacturers, or the Working Capital Fund, which amount of funding will fluctuate, and which funding the Company will repay to Vifor over time. The $40 million initial contribution to the Working Capital Fund represents 50% of the amount of purchase orders that the Company has placed with its contract manufacturers for the supply of vadadustat for the Territory already delivered as of the effective date of the Vifor Second Amended Agreement, and to be delivered through the end of 2022. The amount of the Working Capital Fund will be reviewed at specified intervals and is adjusted based on a number of factors including outstanding supply commitments for vadadustat for the Territory and agreed upon vadadustat inventory levels held by the Company for the Territory. Upon termination or expiration of the Vifor Second Amended Agreement for any reason other than convenience by Vifor Pharma (including following receipt of a CRL for vadadustat), the Company will be required to refund the outstanding balance of the Working Capital Fund on the date of termination or expiration.

The Company has recorded the Working Capital Fund as a refund liability under ASC 606. The Company has determined that the refund liability itself does not represent an obligation to transfer goods or services to Vifor Pharma in the future. The Company has therefore determined that this refund liability is not a contract liability under ASC 606. The Company accounted for the refund liability as a debt arrangement with zero coupon interest. The Company imputed interest on the refund liability to the customer at a rate of 15.0% per annum, which was determined based on certain factors, including the Company's credit rating, comparable securities yield, and the expected repayment period of the Working Capital Fund. The Company recorded an initial discount on the refund liability to the customer and a corresponding deferred gain to the refund liability to customer on the condensed consolidated balance sheet as of the date the funds were received from Vifor Pharma, which was March 18, 2022. The discount on the note payable is being amortized to interest expense using the effective interest method over the expected term of the refund liability. The deferred gain is being amortized to interest income on a straight-line basis over the expected term of the refund liability. The amortization of the discount was $1.1 million and the amortization of the deferred gain was $0.8 million for the three and six months ended June 30, 2022. Of the $40.3 million total refund liability, net of deferred gain and discount, the Company classified $14.2 million as a short-term refund liability based on management's estimate of potential amounts that could be refundable within a one-year period as a result of anticipated changes to the Company's operating plan following the CRL.

Priority Review Voucher Letter Agreement

On February 14, 2020, the Company entered into a letter agreement, or the Letter Agreement, with Vifor Pharma relating to Vifor Pharma’s agreement with a third party to purchase a Priority Review Voucher, or the PRV, issued by the FDA, subject to satisfaction of customary closing conditions, or the PRV Purchase. A PRV entitles the holder to priority review of an NDA, or a Biologics License Application for a new drug, which reduces the target FDA review time to six months after official acceptance of the submission, and could lead to expedited approval. Pursuant to the Letter Agreement, Akebia paid Vifor Pharma $10.0 million in connection with the closing of the PRV Purchase.

On August 21, 2021, the Company and Vifor Pharma executed an amendment to the Letter Agreement whereby the parties agreed that Vifor Pharma would sell the PRV to a third party, and the Company and Vifor Pharma would share the proceeds from the sale based on certain terms. In the fourth quarter of 2021, Vifor Pharma sold the PRV to a third party, and Vifor Pharma paid the Company $8.6 million in proceeds from the sale, which was recorded as contra research and development expense. These proceeds were subsequently paid to Otsuka as reimbursement for their contribution to the purchase of the PRV, as required under a separate letter agreement executed with Otsuka. A more detailed description of this transaction can be found in Note 4 of the Notes to the Consolidated Financial Statements in the 2021 Annual Report on Form 10-K.

License Agreement with Panion & BF Biotech, Inc.

As a result of the merger with Keryx, or the Merger, the Company had a license agreement, which was amended from time to time, with Panion & BF Biotech, Inc., or Panion, under which Keryx, the Company's wholly owned subsidiary, was the contracting party, or the Panion License Agreement, pursuant to which Keryx in-licensed the exclusive worldwide rights, excluding certain Asian-Pacific countries, or the Licensor Territory, for the development and commercialization of ferric citrate.

On April 17, 2019, the Company and Panion entered into a second amended and restated license agreement, or the Panion Amended License Agreement, which amends and restates in full the Panion License Agreement, effective as of April 17, 2019. The Panion Amended License Agreement provides Keryx with an exclusive license under Panion-owned know-how and patents with the right to sublicense, develop, make, use, sell, offer for sale, import and export ferric citrate worldwide, excluding the Licensor Territory. The Panion Amended License Agreement also provides Panion with an exclusive license under the Keryx-owned patents, with the right to sublicense (with the Company’s written consent), develop, make, use, sell, offer for sale, import and export ferric citrate in certain countries in the Licensor Territory. Under the Panion Amended License Agreement, Panion is eligible to receive from the Company or any sublicensee royalty payments based on a mid-single digit percentage of sales of ferric citrate in the Company’s licensed territories. The Company is eligible to receive from Panion or any sublicensee royalty payments based on a mid-single digit percentage of net sales of ferric citrate in Panion’s licensed territories. A more detailed description of this license agreement can be found in Note 4 of the Notes to the Consolidated Financial Statements in the 2021 Annual Report on Form 10-K.

The Company recognized royalty payments due to Panion of approximately $3.5 million and $2.8 million during the three months ended June 30, 2022 and 2021, respectively, and $6.6 million and $5.3 million during the six months ended June 30, 2022 and 2021, respectively, relating to the Company’s sales of Auryxia in the United States and JT and Torii’s net sales of Riona in Japan, as the Company is required to pay a mid-single digit percentage of net sales of ferric citrate in the Company’s licensed territories to Panion under the terms of the Panion Amended License Agreement.

Sublicense Agreement with Japan Tobacco, Inc. and its subsidiary, Torii Pharmaceutical Co., Ltd.

As a result of the Merger, the Company has an Amended and Restated Sublicense Agreement, which was amended in June 2013, with JT and Torii, or the JT and Torii Sublicense Agreement, under which Keryx, the Company's wholly owned subsidiary, remains the contracting party. Under the JT and Torii Sublicense Agreement, JT and Torii obtained the exclusive sublicense rights for the development and commercialization of ferric citrate hydrate in Japan. JT and Torii are responsible for the future development and commercialization costs in Japan. A more detailed description of this sublicense agreement can be found in Note 4 of the Notes to the Consolidated Financial Statements in the 2021 Annual Report on Form 10-K.

The Company identified two performance obligations in connection with its obligations under the JT and Torii Sublicense Agreement: (i) *License and Supply Performance Obligation* and (ii) *Rights to Future Know-How Performance Obligation*. The Company allocated the transaction price to each performance obligation based on the Company's best estimate of the relative standalone selling price. The Company developed a best estimate of the standalone selling price for the Rights to Future Know-How Performance Obligation primarily based on the likelihood that additional intellectual property covered by the license conveyed will be developed during the term of the arrangement and determined it immaterial. As such, the Company did not develop a best estimate of standalone selling price for the License and Supply Performance Obligation and allocated the entire transaction price to this performance obligation.

The Company recognized license revenue of $1.5 million during each of the three months ended June 30, 2022 and 2021 and $2.6 million during each of the six months ended June 30, 2022 and 2021 related to royalties earned on net sales of Riona in Japan. The Company records the associated mid-single digit percentage of net sales royalty expense due to Panion, the licensor of Riona, in the same period as the royalty revenue from JT and Torii is recorded.

5. Restructuring

On April 4, 2022, the Board of Directors of the Company approved a reduction of the Company's workforce by approximately 42% across all areas of the Company (47% inclusive of the closing of the majority of open positions) following the receipt of a CRL from the FDA to the Company's NDA for vadadustat for the treatment of anemia due to CKD in adult patients. This workforce reduction was substantially completed as of June 30, 2022. On May 5, 2022, the Company implemented a further reduction in workforce consisting of several members of management. This workforce reduction is expected to be substantially complete by the end of January 2023. These actions reflect the Company's determination to refocus its strategic priorities around its commercial product, Auryxia®, and its development portfolio, and are steps in a cost savings plan to significantly reduce the Company's expense profile in line with being a single commercial product company.

The workforce reduction is expected to include total restructuring charges of approximately $14.8 million. During each of the three and six months ended June 30, 2022, the Company recognized $14.5 million of restructuring charges in the condensed consolidated statement of operations. These charges included $11.2 million of one-time termination benefits and contractual termination benefits for severance, healthcare, and related benefits and $3.3 million of non-cash share-based compensation expense. The charges were recorded pursuant to ASC 712, *Compensation-Nonretirement Postemployment Benefits* or ASC 420, *Exit or Disposal Cost Obligations*, depending on the employee. The Company will fully recognize the remaining $0.3 million in the third quarter of 2022.

Details of the restructuring liability activity for the Company's workforce reduction for the period ended June 30, 2022 are as follows:

	June 30, 2022 (in thousands)
Balance at December 31, 2021	$ —
Restructuring charges	14,531
Stock-based compensation expense	(3,303)
Severance payments and adjustments	(4,313)
Balance at June 30, 2022	$ 6,915

6. Liability Related to Sale of Future Royalties

On February 25, 2021, the Company entered into the Royalty Agreement with HCR, pursuant to which the Company sold to HCR its right to receive royalties and sales milestones for vadadustat in Japan and certain other Asian countries, such countries, collectively, the MTPC Territory, and such payments collectively the Royalty Interest Payments, in each case, payable to the Company under the MTPC Agreement, subject to an annual maximum "cap" of $13.0 million, or the Annual Cap, and an aggregate maximum "cap" of $150.0 million, or the Aggregate Cap. The Company received $44.8 million from HCR (net of certain transaction expenses) under the Royalty Agreement. The Company retains the right to receive all potential future regulatory milestones for vadadustat under the MTPC Agreement. Although the Company sold its right to receive royalties and sales milestones for vadadustat in the MTPC Territory as described above, as a result of its ongoing involvement in the cash flows related to these royalties, the Company will continue to account for these royalties as revenue. The Company recognized the proceeds received from HCR as a liability that is being amortized using the effective interest method over the life of the arrangement. At the transaction date, the Company recorded the net proceeds of $44.8 million as a liability. In order to determine the amortization of the liability, the Company is required to estimate the total amount of future net royalty payments to be made to HCR over the term of the Royalty Agreement. The total threshold of net royalties to be paid, less the net proceeds received, will be recorded as interest expense over the life of the liability. The Company imputes interest on the unamortized portion of the liability using the effective interest method. The annual effective interest rate as of June 30, 2022 was 15.1% which is reflected as interest expense in the unaudited condensed consolidated statements of operations and comprehensive loss. On a quarterly basis, the Company reassesses the effective interest rate and adjusts the rate prospectively as needed. A more detailed description of Royalty Agreement can be found in Note 5 of the Notes to the Consolidated Financial Statements in the 2021 Annual Report on Form 10-K.

The following table shows the activity within the liability account for the six months ended June 30, 2022:

	June 30, 2022 (in thousands)
Liability related to sale of future royalties, net beginning balance at December 31, 2021	$ 53,079
MTPC royalties payable	(764)
Non-cash interest expense recognized	4,428
Liability related to sale of future royalties, net — ending balance	$ 56,743

7. Fair Value of Financial Instruments

The Company utilizes a portfolio management company for the valuation of the majority of its investments. This portfolio management company is an independent, third-party vendor recognized to be an industry leader with access to market information that obtains or computes fair market values from quoted market prices, pricing for similar securities, recently executed transactions, cash flow models with yield curves and other pricing models. For valuations obtained from the pricing service, the Company performs due diligence to understand how the valuation was calculated or derived, focusing on the valuation technique used and the nature of the inputs.

Based on the fair value hierarchy, the Company classifies its cash equivalents within Level 1 or Level 2. This is because the Company values its cash equivalents using quoted market prices or alternative pricing sources and models utilizing market observable inputs.

Assets measured or disclosed at fair value on a recurring basis as of June 30, 2022 and December 31, 2021 are summarized below:

	Fair Value Measurements Using			
	Level 1	Level 2	Level 3	Total
	(in thousands)			
June 30, 2022				
Assets:				
Cash and cash equivalents	$ 143,893	$ —	$ —	$ 143,893
	$ 143,893	$ —	$ —	$ 143,893
Liabilities:				
Derivative liability	$ —	$ —	$ 1,110	$ 1,110
	$ —	$ —	$ 1,110	$ 1,110

	Fair Value Measurements Using			
	Level 1	Level 2	Level 3	Total
	(in thousands)			
December 31, 2021				
Assets:				
Cash and cash equivalents	$ 149,800	$ —	$ —	$ 149,800
	$ 149,800	$ —	$ —	$ 149,800
Liabilities:				
Derivative liability	$ —	$ —	$ 1,820	$ 1,820
	$ —	$ —	$ 1,820	$ 1,820

The Company's Loan Agreement with Pharmakon (see Note 11) contains certain provisions that change the underlying cash flows of the debt instrument, including a potential extension to the interest-only period dependent on both (i) no event of default having occurred and continuing and (ii) the Company achieving certain regulatory and revenue conditions. One of the regulatory conditions was approval of vadadustat by August 2022, however, in March 2022, the Company received a CRL from the FDA stating that the FDA had determined that it could not approve the NDA for vadadustat in its present form. Therefore, the Company is no longer eligible for the interest-only extension period and this no longer changes the underlying cash flows of the debt instrument. The Company also assessed the acceleration of the obligations under the Loan Agreement under certain events of default. In addition, under certain circumstances, a default interest rate will apply on all outstanding obligations during the occurrence and continuance of an event of default. In accordance with ASC 815, the Company concluded that these features are not clearly and closely related to the host instrument, and represent a single compound derivative that is required to be re-measured at fair value on a quarterly basis.

The potential events of default assessed include failure to maintain, on an annual basis, a minimum liquidity threshold which started in 2021, and on a quarterly basis, a minimum net sales threshold for Auryxia which started in the fourth quarter of 2020. The Company recorded a derivative liability related to the Company's Loan Agreement with Pharmakon of $1.1 million and $1.8 million as of June 30, 2022 and December 31, 2021, respectively. The Company classified the derivative liability as a non-current liability on the unaudited condensed consolidated balance sheet as of June 30, 2022 and December 31, 2021. The estimated fair value of the derivative liability on both June 30, 2022 and December 31, 2021 was determined using a scenario-based approach and discounted cash flow model that includes principal and interest payments under various scenarios involving clinical development success for vadadustat and various cash flow assumptions. The Company used a 0% probability of clinical development success due to receipt of a CRL from the FDA for vadadustat. Should the Company's assessment of the probabilities around these scenarios change, including for changes in market conditions, there could be a change to the fair value of the derivative liability.

The following table provides a roll-forward of the fair value of the derivative liability (in thousands):

Balance at December 31, 2021	$	1,820
Change in fair value of derivative liability, recorded as other income		(710)
Balance at March 31, 2022	$	1,110
Change in fair value of derivative liability, recorded as other income		—
Balance at June 30, 2022	$	1,110

The Company had no other assets or liabilities measured at fair value on a recurring basis using significant unobservable inputs (Level 3) at June 30, 2022 and December 31, 2021.

8. Inventory

The components of inventory are summarized as follows:

	June 30, 2022	December 31, 2021
	(in thousands)	
Raw materials	$ 757	$ 1,763
Work in process	38,466	62,635
Finished goods	18,843	14,661
Total inventory	$ 58,066	$ 79,059

Long-term inventory, which primarily consists of raw materials and work in process, is included in other assets in the Company's unaudited condensed consolidated balance sheets.

	June 30, 2022	December 31, 2021
	(in thousands)	
Balance Sheet Classification:		
Inventory	$ 36,272	$ 38,195
Other assets	21,794	40,864
Total inventory	$ 58,066	$ 79,059

Inventory amounts written down as a result of excess, obsolescence, scrap or other reasons and charged to cost of goods sold totaled $2.1 million and $0.4 million during the three months ended June 30, 2022 and 2021, respectively, and $7.4 million and $5.4 million during the six months ended June 30, 2022 and 2021, respectively. The increase in inventory amounts written down for the three and six months ended June 30, 2022 as compared to the three and six months ended June 30, 2021 was primarily due to higher write-downs to inventory reserves related to expired inventory. In addition, there were no related step-up charges during the six months ended June 30, 2022 and $8.7 million related step-up charges during the six months ended June 30, 2021. During the six months ended June 30, 2022, the Company recorded a $9.8 million reduction to the excess purchase commitment liability related to Auryxia inventory previously identified as excess, reflecting Auryxia inventory that was received during the period.

If future sales of Auryxia are lower than expected, the Company may be required to write-down the value of such inventories. Inventory write-downs and losses on purchase commitments are recorded as a component of cost of goods sold in the unaudited condensed consolidated statement of operations.

9. Intangible Assets and Goodwill

Intangible Assets

The following table presents the Company's intangible assets at June 30, 2022 and December 31, 2021 (in thousands):

	June 30, 2022		
	Gross Carrying Value	Accumulated Amortization	Total
Intangible assets:			
Developed product rights for Auryxia	$ 213,603	$ (123,497)	$ 90,106
Total	$ 213,603	$ (123,497)	$ 90,106

	December 31, 2021		
	Gross Carrying Value	Accumulated Amortization	Total
Intangible assets:			
Developed product rights for Auryxia	$ 213,603	$ (105,476)	$ 108,127
Total	$ 213,603	$ (105,476)	$ 108,127

The Company amortizes its definite-lived intangible assets using the straight-line method, which is considered the best estimate of economic benefit, over its estimated useful life of six years. The Company recorded $9.0 million in amortization expense related to the developed product rights for Auryxia during each of the three months ended June 30, 2022 and 2021, and $18.0 million during each of the six months ended June 30, 2022 and 2021.

Goodwill

The Company's goodwill results from the acquisition of Keryx in December 2018. Goodwill was $55.1 million as of June 30, 2022 and December 31, 2021. The Company operates in one operating segment which the Company considers to be the only reporting unit. Goodwill is evaluated for impairment at the reporting unit level on an annual basis as of October 1, and more frequently if indicators are present or changes in circumstances suggest that it is more likely than not that the fair value of the reporting unit is less than its carrying amount. Events that could indicate impairment and trigger an interim impairment assessment include, but are not limited to, an adverse change in current economic or market conditions, including a significant prolonged decline in market capitalization, a significant adverse change in legal factors, unexpected adverse business conditions, and an adverse action by a regulator. During the six months ended June 30, 2022, the Company evaluated business factors, including the receipt of a CRL from the FDA for vadadustat, the Company's market capitalization as impacted by a recent decline in the Company's stock price, and the impact of the Otsuka Termination Agreement on the Company's future cash flows to determine if there were events or changes in circumstance to indicate that the fair value of the reporting unit was less than its carrying value. The Company performed qualitative interim impairment assessments of the Company's goodwill balance as of each of the three months ended March 31, 2022 and June 30, 2022. The Company determined that it was not more likely than not that the fair value of the reporting unit was less than its carrying value and, therefore, did not perform a further quantitative interim impairment test for any period.

The Company's qualitative assessments were based on the Company's estimates and assumptions, a number of which are dependent on external factors and actual results may differ materially from these estimates. In addition, the future occurrence of events including, but not limited to, an adverse change in current economic and market conditions, including a significant prolonged decline in market capitalization, a significant adverse change in legal factors, unexpected adverse business conditions and an adverse action or assessment by a regulator could indicate potential impairment and trigger an interim impairment assessment of goodwill, which could result in an impairment of goodwill. As a result of the significance of goodwill, the Company's results of operations and financial position in a future period could be negatively impacted should an impairment test be triggered that results in an impairment of goodwill.

10. Accrued Expenses

Accrued expenses as of June 30, 2022 and December 31, 2021 are as follows:

	June 30, 2022	December 31, 2021
	(in thousands)	
Product revenue allowances	$ 26,171	$ 26,624
Accrued clinical	7,622	14,036
Amounts due to collaboration partners	20,797	22,654
Accrued payroll and related	6,883	15,863
Lease liability	4,422	4,802
Royalties	3,457	3,472
Professional fees	1,815	1,899
Accrued commercial manufacturing	3,420	3,843
Accrued restructuring	6,915	—
Accrued other	9,782	11,263
Total accrued expenses	$ 91,284	$ 104,456

11. Debt

Term Loans

On November 11, 2019, the Company, with Keryx as guarantor, entered into a loan agreement, or the Loan Agreement, with BioPharma Credit PLC as collateral agent and a lender, or the Collateral Agent, and BioPharma Credit Investments V (Master) LP as a lender, pursuant to which term loans in an aggregate principal amount of $100.0 million were made available to the Company in two tranches, subject to certain terms and conditions, or the Term Loans. BioPharma Credit PLC subsequently transferred its interest in the Term Loans, solely in its capacity as a lender, to its affiliate, BPCR Limited Partnership. The Collateral Agent and the lenders are collectively referred to as Pharmakon (see Note 1 to our condensed consolidated financial statements). The first tranche of $80.0 million, or Tranche A, was drawn on November 25, 2019, or the Tranche A Funding Date, and the second tranche of $20.0 million, or Tranche B, was drawn on December 10, 2020, or the Tranche B Funding Date. Each of the Tranche A Funding Date and the Tranche B Funding Date, a Funding Date.

Proceeds from the Term Loans may be used for general corporate purposes. The Company and Keryx entered into a Guaranty and Security Agreement with the Collateral Agent, or the Guaranty and Security Agreement, on the Tranche A Funding Date. Pursuant to the Guaranty and Security Agreement, the Company's obligations under the Term Loans are unconditionally guaranteed by Keryx, or the Guarantee. Additionally, the obligations of the Company and Keryx under the Term Loans and the Guarantee are secured by a first priority lien on certain assets of the Company and Keryx, including Auryxia and certain related assets, cash, and certain equity interests held by the Company and Keryx, collectively the Collateral.

The Term Loans bear interest at a floating rate per annum equal to the three-month LIBOR rate plus 7.50%, subject to a 2.00% LIBOR floor and a 3.35% LIBOR cap, payable quarterly in arrears. The Term Loans will mature on the fifth anniversary of the Tranche A Funding Date, or the Maturity Date. The Company will repay the principal under the Term Loans in equal quarterly payments starting on the 33rd-month anniversary of the applicable Funding Date, or the Amortization Schedule. If certain conditions are met, it would have the option to repay the principal in equal quarterly payments starting on the 48th-month anniversary of the applicable Funding Date. One of these conditions was approval of vadadustat; however, the Company received a CRL from the FDA in March 2022 stating that the FDA had determined that it could not approve the NDA in its present form. Therefore, the Company is no longer eligible for this option to delay repayment of the principal under the Loan Agreement. Under certain circumstances, unless certain liquidity conditions are met, the Maturity Date may decrease by up to one year, and the Amortization Schedule may correspondingly commence up to one year earlier.

On the Tranche A Funding Date, the Company paid to Pharmakon a facility fee equal to 2.00% of the aggregate principal amount of the Term Loans, or $2.0 million, in addition to other expenses incurred by Pharmakon and reimbursed by the Company, or Lender Expenses. The Tranche A draw was $77.3 million, net of facility fee, Lender Expenses and issuance costs. The Tranche B draw was $20.0 million, net of immaterial Lender Expenses and issuance costs. The Loan Agreement permits voluntary prepayment at any time in whole or in part, subject to a prepayment premium. The prepayment premium would be 2.00% of the principal amount being prepaid prior to the third anniversary of the applicable Funding Date, 1.00% on or after the third anniversary, but prior to the fourth anniversary, of the applicable Funding Date, and 0.50% on or after the fourth anniversary of the applicable Funding Date but prior to the Maturity Date, and a make-whole premium on or prior to the second anniversary of the applicable Funding Date in an amount equal to foregone interest through the second anniversary of the applicable Funding Date. A change of control triggers a mandatory prepayment of the Term Loans.

The Loan Agreement contains customary representations, warranties, events of default and covenants of the Company and its subsidiaries, including maintaining, on an annual basis, a minimum liquidity threshold which started in 2021, and on a quarterly basis, a minimum net sales threshold for Auryxia which started in the fourth quarter of 2020. On February 18, 2022, the Loan Agreement was amended by the First Amendment and Waiver, which waived the provision under the Loan Agreement that required the Company to not be subject to any qualification as a going concern within the Company's 2021 Annual Report on Form 10-K. Pursuant to the First Amendment and Waiver, the Company's filings of Form 10-Q for fiscal quarters ending June 30, 2022 and September 30, 2022, and its future Annual Reports on Form 10-K, must not be subject to any qualification as to going concern, which requirement as to the Company's filings on Form 10-Q was waived in the Second Amendment and Waiver. If the Company does not satisfy the covenant as to going concern in any of these filings, the Company will be in default under the Loan Agreement. There is uncertainty as to whether or not the Company will meet its future annual debt covenants related to qualification as to going concern. If an event of default occurs and is continuing under the Loan Agreement, the Collateral Agent is entitled to take enforcement action, including acceleration of amounts due under the Loan Agreement. Therefore, as of June 30, 2022, the Company continued to classify the borrowings under the Loan Agreement as current. Under certain circumstances, a default interest rate will apply on all outstanding obligations during the occurrence and continuance of an event of default. As of June 30, 2022 and December 31, 2021, the Company determined that no events of default had occurred.

The Company assessed the terms and features of the Loan Agreement in order to identify any potential embedded features that would require bifurcation or any beneficial conversion feature. As part of this analysis, the Company assessed the economic characteristics and risks of the Loan Agreement, including put and call features. The terms and features assessed include a potential extension to the interest-only period dependent on both no event of default having occurred and continuing and the Company achieving certain regulatory and revenue conditions. The Company also assessed the acceleration of the obligations under the Loan Agreement under an event of default. In addition, under certain circumstances, a default interest rate will apply on all outstanding obligations during the occurrence and continuance of an event of default. In accordance with ASC 815, the Company concluded that these features are not clearly and closely related to the host instrument, and represent a single compound derivative that is required to be re-measured at fair value on a quarterly basis.

The fair value of the derivative liability related to the Company’s Loan Agreement with Pharmakon was $1.1 million and $1.8 million as of June 30, 2022 and December 31, 2021, respectively. The Company classified the derivative liability as a non-current liability on the unaudited condensed consolidated balance sheet as of June 30, 2022.

The Company recognized interest expense related to the Loan Agreement of $2.7 million during each of the three months ended June 30, 2022 and 2021, and $5.4 million for each of the six months ended June 30, 2022 and 2021.

Second Amendment and Waiver to Loan Agreement with Pharmakon

On July 15, 2022, or the Effective Date, the Company and Pharmakon entered into the Second Amendment and Waiver, or the Second Amendment and Waiver, which amends and waives certain provisions of the Loan Agreement, as amended by the First Amendment and Waiver.

Pursuant to the Second Amendment and Waiver, on the Effective Date, the Company made a $5.0 million prepayment of the principal of the tranche A loan, or the Second Amendment Effective Date Tranche A Prepayment, and a $20.0 million prepayment of principal of the tranche B loan, or the Second Amendment Effective Date Tranche B Prepayment, in each case, together with any and all accrued and unpaid interest on such prepayments of principal to the Effective Date. In connection therewith, the Company also paid $0.5 million in prepayment premiums under the Loan Agreement. Subject to the payment in full of Second Amendment Effective Date Tranche A Prepayment and the Second Amendment Effective Date Tranche B Prepayment, Pharmakon agreed to, among other things, (1) increase the amount of the working capital facility established in connection with the Company’s Second Amended and Restated License Agreement with Vifor Pharma, which facility is part of the definition of Permitted Indebtedness (as such term is defined in the Loan Agreement) under the Loan Agreement, that the Company is permitted to repay to Vifor Pharma without causing an acceleration of the liabilities under the Loan Agreement, (2) waive the requirement that the Company’s Quarterly Reports on Form 10-Q for the fiscal quarters ending June 30, 2022 and September 30, 2022 not be subject to any qualification as to going concern, and (3) waive certain amounts payable under the Loan Agreement in connection with the Second Amendment Effective Date Tranche B Prepayment. Future principal payments pursuant to the contractual terms of the Loan Agreement, as amended by the Second Amendment and Waiver, are as follows (in thousands):

	Principal Payments (in thousands)
2022	$ 33,000
2023	32,000
2024	35,000
2025	—
2026	—
Thereafter	—
Total before unamortized discount and issuance costs	100,000
Less: unamortized discount and issuance costs	(1,842)
Total term loans	$ 98,158

12. Stockholders' Equity

Authorized and Outstanding Capital Stock

On June 5, 2020, the Company filed a Certificate of Amendment to its Ninth Amended and Restated Certificate of Incorporation, or its Charter, to increase the number of authorized shares of common stock from 175,000,000 to 350,000,000. As of June 30, 2022, the authorized capital stock of the Company included 350,000,000 shares of common stock, par value $0.00001 per share, of which 183,704,654 and 177,000,963 shares were issued and outstanding as of June 30, 2022 and December 31, 2021, respectively; and 25,000,000 shares of undesignated preferred stock, par value $0.00001 per share, of which no shares were issued and outstanding as of June 30, 2022 and December 31, 2021.

At-the-Market Facility

On March 12, 2020, the Company filed a prospectus supplement relating to the Company's sales agreement with Cantor Fitzgerald & Co., or the Prior Sales Agreement, pursuant to which it was able to offer and sell up to $65.0 million of its common stock at current market prices from time to time. Through December 31, 2020, the Company sold 3,509,381 shares of common stock under this program with net proceeds (after deducting commissions and other offering expenses) of $10.6 million. During the three months ended March 31, 2021, the Company sold 5,224,278 shares of common stock under this program with net proceeds (after deducting commissions and other offering expenses) of $15.9 million.

On February 25, 2021, the Company filed a prospectus relating to the Prior Sales Agreement with its new shelf registration statement (which replaced the prior shelf registration statement and the sales agreement prospectus supplement), pursuant to which it was able to offer and sell up to $100.0 million of its common stock at current market prices from time to time. Through December 31, 2021, the Company sold 21,128,065 shares of common stock under this program with net proceeds (after deducting commissions and other offering expenses) of $72.4 million. On March 1, 2022, the Company filed a prospectus relating to the Prior Sales Agreement, pursuant to which it was authorized to offer and sell up to $25.3 million of its common stock at current market prices from time to time. On March 16, 2022, the Company terminated the Prior Sales Agreement. During the three months ended March 31, 2022, the Company sold 404,600 shares of common stock under this program with net proceeds (after deducting commissions and other offering expenses) of $0.8 million.

On April 7, 2022, the Company entered into an Open Market Sale Agreement℠, or the Sales Agreement, with Jefferies LLC, or Jefferies, as agent, for the offer and sale of common stock at current market prices in amounts to be determined from time to time. Also, on April 7, 2022, the Company filed a prospectus supplement relating to the Sales Agreement, pursuant to which it is able to offer and sell under the Sales Agreement up to $26.0 million of its common stock at current market prices from time to time. From the date of filing of the prospectus supplement through the date of the filing of this Quarterly Report on Form 10-Q, the Company has not sold any shares of its common stock under this program.

Equity Plans

The Company maintains one stock incentive plan, the 2014 Incentive Plan, or the 2014 Plan, as well as the 2014 Employee Stock Purchase Plan, or the 2014 ESPP. The 2014 Plan replaced the Company's Amended and Restated 2008 Equity Incentive Plan, or the 2008 Plan, however, options or other awards granted under the 2008 Plan prior to the adoption of the 2014 Plan that have not been settled or forfeited remain outstanding and effective. On June 6, 2019, the Company's stockholders approved the Amended and Restated 2014 Employee Stock Purchase Plan, or the ESPP. The Company also maintains an inducement award program that is separate from the Company's equity plans under which inducement awards may be granted consistent with

Nasdaq Listing Rule 5635(c)(4). During the six months ended June 30, 2022, the Company granted 297,000 options to purchase shares of the Company's common stock to new hires as inducements material to such employees' entering into employment with the Company, of which 174,000 options remained outstanding as of June 30, 2022.

The 2014 Plan allows for the granting of stock options, stock appreciation rights, or SARs, restricted stock, unrestricted stock, RSUs, performance awards and other awards convertible into or otherwise based on shares of the Company's common stock. Dividend equivalents may also be provided in connection with an award under the 2014 Plan. The Company's employees, officers, directors and consultants and advisors are eligible to receive awards under the 2014 Plan. The Company initially reserved 1,785,000 shares of its common stock for the issuance of awards under the 2014 Plan. The 2014 Plan provides that the number of shares reserved and available for issuance under the 2014 Plan will automatically increase annually on January 1 of each calendar year, by an amount equal to three percent (3%) of the number of the Company's outstanding shares on a fully diluted basis as of the close of business on the immediately preceding December 31, or the 2014 Plan Evergreen Provision. The Company's Board of Directors may act prior to January 1 of any year to provide that there will be no automatic increase in the number of Akebia Shares available for grant under the 2014 Plan for that year (or that the increase will be less than the amount that would otherwise have automatically been made). On December 12, 2018, in connection with the consummation of the Merger, the Company assumed outstanding and unexercised options to purchase Keryx's stock, as adjusted by the Exchange Multiplier pursuant to the terms of the Merger Agreement, under the following Keryx equity plans, or the Keryx Equity Plans: the Keryx 1999 Share Option Plan, the Keryx 2004 Long-Term Incentive Plan, the Keryx 2007 Incentive Plan, the Keryx Amended and Restated 2013 Incentive Plan, and the Keryx 2018 Equity Incentive Plan, or the Keryx 2018 Plan. In addition, the number of Keryx Shares available for issuance under the Keryx 2018 Plan, as adjusted by the Exchange Multiplier pursuant to the terms of the Merger Agreement, may be used for awards granted by the Company under its 2014 Plan, or the Assumed Shares, provided that the Company uses the Assumed Shares for individuals who were not employees or directors of the Company prior to the consummation of the Merger.

The Company grants annual service-based stock options to employees under the 2014 Plan. During the six months ended June 30, 2022, the Company issued 3,233,500 options to employees. In addition, the Company issues stock options to directors, new hires and occasionally to other employees not in connection with the annual grant process. During the six months ended June 30, 2022, the Company issued 140,700 options to directors under the 2014 Plan. Options granted by the Company generally vest over periods of between 12 and 48 months, subject, in each case, to the individual's continued service through the applicable vesting date. Options generally vest either 100% on the first anniversary of the grant date or in installments of (i) 25% at the one year anniversary and (ii) 12 equal quarterly installments beginning after the one year anniversary of the grant date, subject to the individual's continuous service with the Company. Options generally expire 10 years after the date of grant.

The Company also grants performance-based stock options to employees under the 2014 Plan. The Company issued 400,000 performance-based stock options during the six months ended June 30, 2022. The performance-based stock options granted by the Company generally vest in connection with the achievement of specified commercial and regulatory milestones. The performance-based stock options also generally feature a time-based vesting component. The expense recognized for these awards is based on the grant date fair value of the Company's common stock multiplied by the number of options granted and recognized over time based on the probability of meeting such commercial and regulatory milestones.

The Company also grants annual service-based restricted stock units, or RSUs, to employees and directors under the 2014 Plan. The Company also occasionally issues RSUs not in connection with the annual grant process to employees and directors. During the six months ended June 30, 2022, the Company issued 5,212,308 RSUs to employees and 95,900 RSUs to directors under the 2014 Plan. Generally, RSUs granted by the Company vest in one of the following ways: (i) 100% of each RSU grant vests on the first anniversary of the grant date, (ii) one third of each RSU grant vests on the first, second and third anniversaries of the grant date, (iii) 50% of each RSU grant vests on the first anniversary and 25% of each RSU grant vests every six months after the one year anniversary of the grant date, or (iv) one third of each RSU grant vest on the first anniversary and eight quarterly installments beginning after the one year anniversary, subject, in each case, to the individual's continued service through the applicable vesting date. The expense recognized for these awards is based on the grant date fair value of the Company's common stock multiplied by the number of units granted and recognized on a straight-line basis over the vesting period.

The Company also grants performance-based restricted stock units, or PSUs, to employees under the 2014 Plan. The Company issued 400,000 PSUs during the six months ended June 30, 2022. The PSUs granted by the Company generally vest in connection with the achievement of specified commercial, regulatory and corporate milestones. The PSUs also generally feature a time-based vesting component. The expense recognized for these awards is based on the grant date fair value of the Company's common stock multiplied by the number of units granted and recognized over time based on the probability of meeting such commercial, regulatory and corporate milestones.

The ESPP provides for the issuance of options to purchase shares of the Company's common stock to participating employees at a discount to their fair market value. As noted above, the Company's stockholders approved the ESPP, which amended and restated the Company's 2014 ESPP, on June 6, 2019. As of June 30, 2022, the maximum aggregate number of shares of the Company's common stock available for future issuance under the ESPP is 4,981,995. Under the ESPP, each offering period is six months, at the end of which employees who elect to purchase shares of the Company's common stock through payroll deductions made over the term of the offering. The per-share purchase price at the end of each offering period is equal to the lesser of eighty-five percent (85%) of the closing price of the Company's common stock at the beginning or end of the offering period. The Company issued 191,146 shares under the ESPP during the six months ended June 30, 2022.

13. Commitments and Contingencies

Leases

The Company leases approximately 65,167 square feet of office and lab space in Cambridge, Massachusetts under a lease which was most recently amended in November 2020, collectively the Cambridge Lease. Under the Third Amendment to the Cambridge Lease, or the Third Amendment, executed in July 2016, total monthly lease payments under the initial base rent were approximately $242,000 and are subject to annual rent escalations. In addition to such annual rent escalations, base rent payments for a portion of said premises commenced on January 1, 2017 in the monthly amount of approximately $22,000. The Fourth Amendment to the Cambridge Lease, executed in May 2017, provided additional storage space to the Company and did not impact rent payments. In April 2018, the Company entered into a Fifth Amendment to the Cambridge Lease, or the Fifth Amendment, for an additional 19,805 square feet of office space on the 12th floor. Monthly lease payments for the existing 45,362 square feet of office and lab space, under the Third Amendment, remain unchanged. The new space leased by the Company was delivered in September 2018 and additional monthly lease payments of approximately $135,000 commenced in February 2019 and are subject to annual rent escalations, which commenced in September 2019. In November 2020, the Company entered into a Sixth Amendment to the Cambridge Lease, or the Sixth Amendment, to extend the term of the Cambridge Lease with respect to the lab space from November 30, 2021 to January 31, 2025. The Sixth Amendment includes two months of free rent starting in December 2020 and additional monthly lease payments of approximately $48,000, which commenced in December 2021, and is subject to annual rent escalations, which commence in December 2022.

Additionally, as a result of the Merger, the Company has a lease for 27,300 square feet of office space in Boston, Massachusetts, or the Boston Lease. The total monthly lease payments under the initial base rent were approximately $136,000 and are subject to annual rent escalations. In February 2022, the Company entered into the First Amendment to the Boston Lease, or the First Lease Amendment, to extend the term of the Boston Lease from February 2023 to July 2031. The First Lease Amendment includes five months of free rent starting in March 2023 and monthly lease payments of $200,122 commencing on August 1, 2023, with an annual rent escalation of approximately 2% commencing on August 1, 2024. The First Lease Amendment also includes a landlord's allowance for certain leasehold improvements to the premises in an amount of up to $1,954,680, provided that such allowance must be used prior to August 1, 2024.

The term of the Cambridge Lease with respect to the office space expires on September 11, 2026, with one five-year extension option available. The term of the Boston Lease office space expires on July 31, 2031, with an extension option for one additional five-year term available. The renewal options in these real estate leases were not included in the calculation of the operating lease assets and operating lease liabilities as the renewal is not reasonably certain. The term of the Cambridge Lease with respect to the lab space expires on January 31, 2025, with an extension option for one additional period through September 11, 2026. The renewal option in this real estate lease was included in the calculation of the operating lease assets and operating lease liabilities as the renewal is reasonably certain. The lease agreements do not contain residual value guarantees. Operating lease costs were $1.8 million and $1.7 million for the three months ended June 30, 2022 and 2021, respectively, and $3.6 million and $3.3 million for the six months ended June 30, 2022 and 2021, respectively. Cash paid for amounts included in the measurement of operating lease liabilities was $1.8 million for each of the three months ended June 30, 2022 and 2021 and $3.7 million and $3.5 million for the six months ended June 30, 2022 and 2021, respectively.

In September 2019, Keryx entered into an agreement to sublease the Boston office space to Foundation Medicine, Inc., or Foundation. The sublease is subject and subordinate to the Boston Lease between Keryx and the landlord. The term of the sublease commenced on October 16, 2019, upon receipt of the required consent from the landlord for the sublease agreement, and expires on February 27, 2023. Foundation is obligated to pay Keryx rent that approximates the rent due from Keryx to its landlord with respect to the Boston Lease. Sublease rental income is recorded to other income. Keryx continues to be obligated for all payment terms pursuant to the Boston Lease, and the Company will guaranty Keryx's obligations under the sublease. Keryx recorded $0.4 million in sublease rental income from Foundation during each of the three months ended June 30, 2022 and 2021, respectively, and $0.9 million during each of the six months ended June 30, 2022 and 2021.

The Company has not entered into any material short-term leases or financing leases as of June 30, 2022.

The total security deposit in connection with the Cambridge Lease is $1.6 million as of June 30, 2022. Additionally, the Company recorded $1.4 million for the security deposit under the Boston Lease. Both the Cambridge Lease and the Boston Lease have their security deposits in the form of a letter of credit, all of which are included as restricted cash in other assets in the Company's unaudited condensed consolidated balance sheets as of June 30, 2022.

As of June 30, 2022, undiscounted minimum rental commitments under non-cancelable leases, for each of the next five years and total thereafter are as follows:

	Operating Leases	Lease Payments to be Received from Sublease	Net Operating Lease Payments
		(in thousands)	
Remaining 2022	$ 3,671	$ 915	$ 2,756
2023	6,954	307	6,647
2024	8,167	—	8,167
2025	8,293	—	8,293
2026	6,571	—	6,571
Thereafter	12,200	—	12,200
Total	$ 45,856	$ 1,222	$ 44,634

In arriving at the operating lease liabilities, the Company applied incremental borrowing rates ranging from 6.65% to 7.25%, which were based on the remaining lease term at either the date of adoption of ASC 842 or the effective date of any subsequent lease term extensions. As of June 30, 2022, the remaining lease terms ranged from 4.20 years to 9.09 years. As of June 30, 2022, the following represents the difference between the remaining undiscounted minimum rental commitments under non-cancelable leases and the operating lease liabilities:

	Operating Leases
	(in thousands)
Undiscounted minimum rental commitments	$ 45,856
Present value adjustment using incremental borrowing rate	(9,359)
Operating lease liabilities	$ 36,497

Manufacturing Agreements

As a result of the Merger, the Company's contractual obligations include Keryx's commercial supply agreements with BioVectra Inc., or BioVectra, and Siegfried Evionnaz SA, or Siegfried, to supply commercial drug substance for Auryxia.

Pursuant to the Manufacture and Supply Agreement with BioVectra and the Product Manufacture and Supply and Facility Construction Agreement with BioVectra, the Company agreed to purchase minimum quantities of Auryxia drug substance annually at predetermined prices. On September 4, 2020, the Company and BioVectra entered into an Amended and Restated Product Manufacture and Supply and Facility Construction Agreement, which provided for reduced minimum quantity commitments and revised the predetermined prices. The price per kilogram decreases with an increase in quantity above the predetermined purchase quantity tiers. In addition, the Manufacture and Supply Agreement with BioVectra and the Amended and Restated Product Manufacture and Supply and Facility Construction Agreement with BioVectra, require the Company to reimburse BioVectra for certain costs in connection with construction of a new facility for the manufacture and supply of Auryxia drug substance. These construction costs are recorded in other assets and amortized into drug substance as inventory is released to the Company from BioVectra. The term of the Manufacture and Supply Agreement with BioVectra expires on December 31, 2022. The term of the Amended and Restated Product Manufacture and Supply and Facility Construction Agreement expires on December 31, 2026, after which it automatically renews for successive one-year terms unless either party gives notice of its intention to terminate within a specified time prior to the end of the then-current term. In addition, the Company and BioVectra each have the ability to terminate these agreements upon the occurrence of certain conditions. As of June 30, 2022, the Company is required to reimburse BioVectra for certain costs in connection with the construction of the new facility and to purchase minimum quantities of Auryxia drug substance annually for a total cost of approximately $82.4 million through the end of the contract term.

Pursuant to the Siegfried Master Manufacturing Services and Supply Agreement, as amended (the most recent amendment having been executed on February 11, 2021), or the Siegfried Agreement, the Company has agreed to purchase a minimum quantity of drug substance of Auryxia at predetermined prices. The price per kilogram will decrease with an increase in quantity above the minimum purchase quantity. The term of the Siegfried Agreement expires on December 31, 2022, subject to the Company's option to extend the term through December 31, 2023 by providing 12 months' prior written notice to Siegfried. The Siegfried Agreement provides the Company and Siegfried with certain early termination rights. In the first quarter of 2022, the Company notified Siegfried that the Company has elected not to exercise the option to extend the term of the Siegfried Agreement through December 31, 2023. As of June 30, 2022, the Company is required to purchase a minimum quantity of drug substance for Auryxia annually at a total cost of approximately $10.5 million through the year ending December 31, 2022.

The Company has executory contracts in the commercial supply agreements between Keryx and its contract manufacturers for Auryxia, which include future firm purchase commitments. These executory contracts were deemed to have an off-market element related to the amount of purchase commitments that exceed the current forecast. The Company regularly reviews its estimate of the excess purchase commitment liability including a review of assumptions of expected future demand, estimates of anticipated expiry of inventory under firm purchase commitments that are estimated to expire before they could be sold as well as any modifications to supply agreements during each reporting period. The excess purchase commitment liability relating to these executory contracts was $66.9 million and $76.7 million as of June 30, 2022 and December 31, 2021, respectively. During the quarter ended June 30, 2022, the Company reviewed the detailed assumptions above and reduced the excess purchase commitment liability by $5.8 million for inventory received that had been previously identified as excess. During the quarter ended March 31, 2022, the Company recorded a $0.8 million reduction to the excess purchase commitments liability within cost of goods sold and reduced the excess purchase commitment liability by $3.2 million for inventory received that had previously been identified as excess.

On April 9, 2019, the Company entered into a Supply Agreement with Esteve Química, S.A., or Esteve, or the Esteve Agreement. The Esteve Agreement includes the terms and conditions under which Esteve will manufacture vadadustat drug substance for commercial use. Pursuant to the Esteve Agreement, the Company provides rolling forecasts to Esteve on a quarterly basis, or the Esteve Forecast. The Esteve Forecast reflects the Company's needs for vadadustat drug substance produced by Esteve over a certain number of months, represented as a quantity of vadadustat drug substance per calendar quarter. The parties have agreed to a volume-based pricing structure under the Esteve Agreement. The Esteve Agreement has an initial term of four years, beginning April 9, 2019 and ending April 9, 2023. Pursuant to the Esteve Agreement, the Company has agreed to purchase a certain percentage of the global demand for vadadustat drug substance from Esteve. As of June 30, 2022, the Company has committed to purchase $32.4 million of vadadustat drug substance from Esteve through the second quarter of 2023.

On March 11, 2020, the Company entered into a Supply Agreement with Patheon Inc., or Patheon, or the Patheon Agreement. The Patheon Agreement includes the terms and conditions under which Patheon will manufacture vadadustat drug product for commercial use. Pursuant to the Patheon Agreement, the Company provides Patheon a long-term forecast on an annual basis, as well as short-term forecasts on a quarterly basis, or the Patheon Forecast. The Patheon Forecast reflects the Company's needs for commercial supply of vadadustat drug product produced by Patheon, represented as a quantity of drug product per calendar quarter. The parties have agreed to a volume-based pricing structure under the Patheon Agreement. The Patheon Agreement has an initial term beginning March 11, 2020 and ending June 30, 2023. Pursuant to the Patheon Agreement, the Company has agreed to purchase a certain percentage of the global demand for vadadustat drug product from Patheon. As of June 30, 2022, the Company had a minimum commitment with Patheon for $3.3 million through the fourth quarter of 2022.

On April 2, 2020, the Company entered into a Supply Agreement with STA Pharmaceutical Hong Kong Limited, a subsidiary of WuXi AppTec, or WuXi STA, as amended on April 15, 2021, or the WuXi STA DS Agreement. The WuXi STA DS Agreement includes the terms and conditions under which WuXi STA will manufacture vadadustat drug substance for commercial use. Pursuant to the WuXi STA DS Agreement, the Company provides rolling forecasts to WuXi STA on a quarterly basis, or the WuXi STA DS Forecast. The WuXi STA DS Forecast reflects the Company's needs for vadadustat drug substance produced by WuXi STA over a certain number of quarters. The parties have agreed to a volume-based pricing structure under the WuXi STA DS Agreement. The WuXi STA DS Agreement has an initial term of four years, beginning April 2, 2020 and ending April 2, 2024. Pursuant to the WuXi STA DS Agreement, the Company has agreed to purchase a certain percentage of the global demand for vadadustat drug substance from WuXi STA. As of June 30, 2022, the Company has committed to purchase $62.0 million of vadadustat drug substance from WuXi STA through the end of 2023.

On February 10, 2021, the Company entered into a Supply Agreement with WuXi STA, or the WuXi STA DP Agreement. The WuXi STA DP Agreement includes the terms and conditions under which WuXi STA will manufacture and supply vadadustat drug product for commercial purposes. Pursuant to the WuXi STA DP Agreement, the Company will provide rolling forecasts to WuXi STA on a quarterly basis, or the WuXi STA DP Forecast. Each WuXi STA DP Forecast will reflect the quantities of vadadustat drug product that the Company expects to order from WuXi STA over a certain number of months, represented as a quantity of vadadustat drug product per calendar quarter. Pursuant to the WuXi STA DP Agreement, the Company has agreed to purchase a certain percentage of global demand for vadadustat drug product from WuXi STA. The parties have agreed to a

volume-based pricing structure under the WuXi STA DP Agreement. The vadadustat drug product price will remain fixed for the first 12 months and thereafter shall be annually reviewed by the Company and WuXi STA. The Company will also reimburse WuXi STA for certain reasonable expenses. The WuXi STA DP Agreement has an initial term of four years, beginning February 10, 2021 and ending February 10, 2025. The WuXi STA DP Agreement may be renewed or extended by mutual agreement of the Company and WuXi STA with at least 18 months' prior written notice. The WuXi STA DP Agreement allows the Company to terminate the agreement on 180 calendar days' prior written notice to WuXi STA for any reason. In addition, each party has the ability to terminate the WuXi STA DP Agreement upon the occurrence of certain conditions.

Other Third-Party Contracts

Under the Company's agreement with IQVIA to provide contract research organization services for the PRO_2TECT and $INNO_2VATE$ programs, the total remaining contract costs as of June 30, 2022 were approximately $4.6 million. Substantive performance for the committed work with IQVIA was completed in 2020 and close out activities will be performed throughout 2022. The Company also contracts with various other organizations to conduct research and development activities with remaining contract costs to the Company of approximately $175.7 million at June 30, 2022. The scope of the services under these research and development contracts can be modified and the contracts cancelled by the Company upon written notice. In some instances, the contracts may be cancelled by the third party upon written notice.

Litigation and Related Matters

From time to time, the Company may become subject to legal proceedings and claims which arise in the ordinary course of its business. Consistent with ASC 450, *Contingencies*, the Company's policy is to record a liability if a loss in a significant legal dispute is considered probable and an amount can be reasonably estimated. The Company provides disclosure when a loss in excess of any reserve is reasonably possible, and if estimable, the Company discloses the potential loss or range of possible loss. Significant judgment is required to assess the likelihood of various potential outcomes and the quantification of loss in those scenarios. The Company's estimates change as litigation progresses and new information comes to light. Changes in Company estimates could have a material impact on the Company's results and financial position. As of June 30, 2022, the Company does not have any significant legal disputes that require a loss liability to be recorded. The Company continually monitors the need for a loss liability for litigation and related matters.

14. Net Loss per Share

For purposes of the diluted net income (loss) per share calculation for the three and six months ended June 30, 2022, as well as the three and six months ended June 30, 2021, preferred stock, stock options, warrants, restricted stock and RSUs are considered to be common stock equivalents and have been excluded from the calculation of diluted net income (loss) per share, as their effect would be anti-dilutive for periods presented. Therefore, basic and diluted net loss per share were the same for all periods presented in the unaudited condensed consolidated statement of operations and comprehensive loss, except for the three months ended June 30, 2022, as the Company had net income for the period. The shares in the table below were excluded from the calculation of diluted net income (loss) per share, prior to the use of the treasury stock method, due to their anti-dilutive effect:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2022	2021	2022	2021
Warrant	—	509,611	—	509,611
Outstanding stock options	13,502,015	11,532,673	13,508,217	11,532,673
Unvested restricted stock units	—	5,574,476	6,771,349	5,574,476
Total	13,502,015	17,616,760	20,279,566	17,616,760

15. Subsequent Events

Second Amendment and Waiver to Loan Agreement with Pharmakon

On July 15, 2022, the Company and Pharmakon entered into the Second Amendment and Waiver, which amends and waives certain provisions of the Loan Agreement, as amended by the First Amendment and Waiver. Refer to Note 11 in this Quarterly Report on Form 10-Q for further details.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

The following information should be read in conjunction with our unaudited condensed consolidated financial statements and related notes included in this Quarterly Report on Form 10-Q and our Annual Report on Form 10-K for the year ended December 31, 2021 filed with the U.S. Securities and Exchange Commission, or the SEC, on March 1, 2022, or the 2021 Annual Report on Form 10-K, including the audited consolidated financial statements and related notes therein. This discussion and analysis contains forward-looking statements that involve significant risks and uncertainties. As a result of many factors, such as those set forth under "Risk Factors" in Part II, Item 1A. of this Quarterly Report on Form 10-Q, our actual results may differ materially from those anticipated in these forward-looking statements.

Business Overview

We are a biopharmaceutical company with the purpose of bettering the life of each person impacted by kidney disease. Since our initial public offering in 2014, we have built a business focused on developing and commercializing innovative renal therapeutics that we believe serves as a foundation for future growth. We established ourselves as a leader in the kidney community, and we remain committed to our purpose as we believe our current and future products have the ability to deliver value. Our current portfolio includes a commercial product and a late-stage investigational product candidate:

- ***Auryxia*® *(ferric citrate)*** is approved and marketed in the United States for two indications: (1) the control of serum phosphorus levels in adult patients with chronic kidney disease, or CKD, on dialysis, or DD-CKD, or the Hyperphosphatemia Indication, and (2) the treatment of iron deficiency anemia, or IDA, in adult patients with CKD not on dialysis, or NDD-CKD, or the IDA Indication. Ferric citrate is also approved and marketed in Japan as an oral treatment the improvement of hyperphosphatemia in adult patients with CKD, including DD-CKD and NDD-CKD, and for the treatment of patients with IDA under the trade name Riona (ferric citrate hydrate). Auryxia is our only product approved for sale in the United States and it generated approximately $43.7 million and $33.0 million in revenue from U.S. product sales during the three months ended June 30, 2022 and 2021, respectively.

- ***Vadadustat*** is an investigational oral hypoxia-inducible factor prolyl hydroxylase, or HIF-PH, inhibitor designed to mimic the physiologic effect of altitude on oxygen availability. At higher altitudes, the body responds to lower oxygen availability with stabilization of hypoxia-inducible factor, or HIF, which stimulates erythropoietin, or EPO, production and can lead to red blood cell, or RBC, production and improved oxygen delivery to tissues. The significance of the HIF pathway was recognized by the 2019 Nobel Prize and the 2016 Albert Lasker Basic Medical Research Award, which honored the three physician-scientists who discovered the HIF pathway and elucidated this primary oxygen sensing mechanism that is essential for survival.

  On March 29, 2022, we received a complete response letter, or CRL, from the U.S. Food and Drug Administration, or FDA. The CRL provided that the FDA had completed its review of our new drug application, or NDA, for vadadustat for the treatment of anemia due to CKD in adult patients, and determined that it could not approve the NDA in its present form. We held an end of review conference with the FDA and are in the process of determining next steps for a potential U.S. approval for vadadustat as a treatment of anemia due to CKD in patients on dialysis. Also, on April 1, 2022, we were notified by the FDA that the FDA had placed a partial clinical hold on our clinical trials of vadadustat in pediatric patients with anemia due to CKD in the United States. In addition, in May 2022, the Paediatric Committee of the European Medicines Agency, or the EMA, recommended that we not initiate such clinical trials in the European Union until the safety issues identified by the FDA were addressed. As a result of the partial clinical hold and EMA's recommendations, all activities in the United States and Europe for and related to our clinical trials of vadadustat in pediatric patients were suspended.

  Our former collaboration partner, Otsuka Pharmaceutical Co. Ltd., or Otsuka, submitted a Marketing Authorization Application, or MAA, for vadadustat for the treatment of anemia due to CKD in both DD-CKD and NDD-CKD adult patients to the European Medicines Agency, or EMA, in October 2021. On June 30, 2022, we and Otsuka entered into a Termination and Settlement Agreement, or the Termination Agreement, and pursuant to the Termination Agreement, we and Otsuka agreed to a schedule by which the parties will work to transfer the MAA held by Otsuka for vadadustat to us. As vadadustat did not meet the PRO_2TECT program's primary safety endpoint, we are remaining cautious in our outlook for potential approval of vadadustat in NDD-CKD adult patients in Europe.

  In June of 2020, we announced the first regulatory approval of vadadustat for the treatment of anemia due to CKD in DD-CKD and NDD-CKD adult patients in Japan. Our collaboration partner in Japan, Mitsubishi Tanabe Pharma Corporation, or MTPC, commenced commercial sales of vadadustat in Japan under the trade name, Vafseo™, in August 2020. In addition, MTPC filed new drug applications for vadadustat for the treatment of anemia due to CKD in adult patients in Taiwan in January of 2022 and in Korea in March 2022.

In August of 2022, we announced initial findings from an investigator-sponsored clinical study by The University of Texas Health Science Center at Houston, or UTHealth, in Houston, Texas, evaluating the use of vadadustat as a potential therapy to prevent and treat acute respiratory distress syndrome, or ARDS, in patients with COVID-19 and hypoxemia, or the VSTAT Study. The VSTAT Study was a phase 2, randomized, double-blind, placebo-controlled study conducted by UTHealth and partially funded by Akebia. UTHealth was awarded $5.1 million in funding from the U.S. Department of Defense for the study. The VSTAT Study enrolled 449 adult patients at 5 hospitals who were randomized 1:1 to vadadustat 900mg or placebo once per day orally for up to 14 days while hospitalized. The VSTAT Study measured the proportion of patients with either 6 (non-invasive ventilation or high flow oxygen devices), 7 (invasive mechanical ventilation or extracorporeal membrane oxygenation), or 8 (death) on the National Institute of Allergy and Infectious Disease Ordinal Scale, or NIAID-OS, at Day 14 (primary) and Day 7. While a smaller proportion of patients in the vadadustat group had a score of 6, 7, or 8 on the NIAID-OS than in the placebo group at Day 14, the trial failed to meet its primary superiority threshold of >95% probability. Those receiving vadadustat, however, did demonstrate 94% probability of conferring benefit on the NIAID-OS at Day 14. While the VSTAT Study missed the primary endpoint, we are encouraged by the data and, subject to regulatory discussions, believe the data support further development of vadadustat as a potential treatment for ARDS due to COVID-19 or other causes.

If we are successful in addressing the deficiencies noted in the CRL and in the event we receive FDA approval of vadadustat in the United States, we plan to commercialize vadadustat in the United States with our well-established, nephrology-focused commercial organization, which we may expand if vadadustat is approved. We granted MTPC exclusive rights to commercialize vadadustat in Japan, where MTPC commenced commercial sales of vadadustat under the trade name, Vafseo™, in August 2020, and in certain other countries in Asia, subject to marketing approvals. In addition, in February 2022, we entered into a Second Amended and Restated License Agreement, or the Vifor Second Amended Agreement, with Vifor (International) Ltd., or Vifor Pharma, which amended and restated the Amended and Restated License Agreement, dated April 8, 2019, or the Vifor First Amended Agreement. Pursuant to the Vifor Second Amended Agreement, we granted Vifor Pharma an exclusive license to sell vadadustat to Fresenius Medical Care North America and its affiliates, including Fresenius Kidney Care Group LLC, to certain third-party dialysis organizations approved by us, to independent dialysis organizations that are members of group purchase organizations, and to certain non-retail specialty pharmacies in the United States, or the Territory. We refer to Fresenius Medical Care North America and its affiliates, these organizations and specialty pharmacies collectively as the "Supply Group". We currently retain rights to commercialize vadadustat for use in the non-dialysis dependent CKD market and to sell to dialysis organizations outside of the Supply Group. During the term of the Vifor Second Amended Agreement, Vifor Pharma is not permitted to sell any HIF product that competes with vadadustat in the Territory to the Supply Group.

In addition, we continue to explore additional development opportunities to expand our pipeline and portfolio of novel therapeutics through both internal research and external innovation. Our development pipeline includes several earlier stage opportunities, including praliciguat, an investigational oral soluble guanylate cyclase, or sGC, stimulator, that we licensed from Cyclerion Therapeutics, Inc., or Cyclerion, in June 2021. We are planning to develop praliciguat for the treatment of focal segmental glomerulosclerosis, which is highly complementary of our strategy to identify and develop novel therapeutics for people impacted by kidney diseases.

Operating Overview

We have incurred net losses in each year since inception. Our net income was $29.3 million for the three months ended June 30, 2022 and our net loss was $83.0 million for the three months ended June 30, 2021. Our net losses were $33.1 million and $152.6 million for the six months ended June 30, 2022 and 2021, respectively. Substantially all of our net losses resulted from costs incurred in connection with the continued commercialization of Auryxia and development efforts relating to vadadustat, including conducting clinical trials of, and seeking regulatory approval for, vadadustat, providing general and administrative support for these operations and protecting our intellectual property.

Our ability to achieve profitability depends in part on our ability to manage our expenses. Following receipt of the CRL, in April 2022, we implemented a reduction of our workforce by approximately 42% across all areas of our company (47% inclusive of the closing of the majority of open positions). On May 5, 2022, we implemented a further reduction in workforce consisting of several members of management. These actions reflect our determination to refocus our strategic priorities around our commercial product, Auryxia®, and our development portfolio, and are steps in a cost savings plan to significantly reduce our expense profile in line with being a single commercial product company. The workforce reduction is expected to include net charges totaling approximately $14.8 million, including costs for one-time termination benefits and contractual termination benefits for severance, healthcare, and related benefits of $11.2 million and non-cash stock-based compensation expense of $3.3 million. During the three months ended June 30, 2022, we recognized $14.5 million of restructuring charges in the condensed

consolidated statement of operations and comprehensive income (loss). Refer to Note 5 in this Quarterly Report on Form 10-Q for further details.

Even in light of the reduction in workforce, we expect to continue to incur significant expenses and operating losses for the foreseeable future. In addition to any additional costs not currently contemplated due to the events associated with or resulting from the workforce reduction noted above, our ability to achieve profitability and our financial position will depend, in part, on the rate of our future expenditures, on our product revenue from Auryxia, collaboration revenue, our ability to successfully implement cost avoidance measures and reduce overhead costs and our ability to obtain additional funding. We expect to continue to incur significant expenses if and as we:

- continue our commercialization activities for Auryxia and vadadustat, if we are able to obtain marketing approval for vadadustat following receipt of the CRL from the FDA in March 2022, and any other product or product candidate, including those that may be in-licensed or acquired;
- address the issues identified in the CRL for vadadustat that we received from the FDA, including conducting any additional clinical trials that may be required;
- conduct and enroll patients in any clinical trials, including post-marketing studies or any other clinical trials for Auryxia, vadadustat or any other product or product candidate, including those that may be in-licensed or acquired;
- seek marketing approvals for vadadustat and any other product candidate, including those that may be in-licensed or acquired;
- maintain marketing approvals for Auryxia and vadadustat, if we are able to obtain marketing approval for vadadustat following receipt of the CRL from the FDA in March 2022, and any other product, including those that may be in-licensed or acquired;
- manufacture Auryxia, vadadustat and any other product or product candidate, including those that may be in-licensed or acquired, for commercial sale and clinical trials;
- conduct discovery and development activities for additional product candidates or platforms that may lead to the discovery of additional product candidates;
- engage in transactions, including strategic, merger, collaboration, acquisition and licensing transactions, pursuant to which we would market and develop commercial products, or develop and commercialize other product candidates and technologies;
- continue to repay, and pay any associated pre-payment penalties, if applicable, the senior secured term loans in an aggregate principal amount of $100.0 million, or the Term Loans, that were made available to us pursuant to the loan agreement that we entered into with funds managed by Pharmakon Advisors LP, in November 2019, which was amended in February 2022, and further amended in July 2022, or as amended, the Loan Agreement;
- make royalty, milestone or other payments under our license agreements and any future license agreements;
- maintain, protect and expand our intellectual property portfolio;
- make decisions with respect to our personnel, including the retention of key employees;
- make decisions with respect to our infrastructure, including to support our operations as a fully integrated publicly traded biopharmaceutical company; and
- experience any additional delays or encounter issues with any of the above.

We have not generated, and may not generate, enough product revenue to realize net profits from product sales. We have no manufacturing facilities, and all of our manufacturing activities are contracted out to third parties. Additionally, we currently utilize contract research organizations, or CROs, to carry out our clinical development activities. If we obtain marketing approval for vadadustat, and as we continue to commercialize Auryxia, we expect to incur significant commercialization expenses related to product sales, marketing, manufacturing and distribution. We expect to finance future cash needs through product revenue, public or private equity or debt transactions, royalty transactions, strategic transactions, or a combination of these approaches. If we are unable to raise additional capital in sufficient amounts when needed or on attractive terms, we may not be able to pursue development and commercial activities related to Auryxia and vadadustat, if approved, or any additional products and product candidates, including those that may be in-licensed or acquired. Any of these events could significantly harm our business, financial condition and prospects.

From inception through June 30, 2022, we raised approximately $793.5 million of net proceeds from the sale of equity, including $519.8 million from various underwritten public offerings, $223.7 million from at-the-market offerings, or ATM offerings, pursuant to prior sales agreements with Cantor Fitzgerald & Co., and $70.0 million from the sale of 7,571,429 shares of common stock to Vifor Pharma. As of June 30, 2022, through our collaboration agreements with Otsuka and MTPC we received approximately $837.1 million in cost-share funding, and are not entitled to receive any additional cost-share funding. On June 30, 2022, we entered into the Termination Agreement with Otsuka, pursuant to which we received a nonrefundable and non-creditable payment of $55.0 million in consideration for the covenants and agreements set forth in the Termination Agreement. On November 11, 2019, we entered into the Loan Agreement with funds managed by Pharmakon, pursuant to which term loans in an aggregate principal amount of $100.0 million were made available to us in two tranches, subject to certain terms and conditions, or the Term Loans.

As of June 30, 2022, we had drawn down the full $100.0 million made available to us under the Loan Agreement. On July 15, 2022, or the Effective Date, we entered into the Second Amendment and Waiver with BioPharma Credit PLC, or the Collateral Agent, BPCR Limited Partnership, as a Lender, and BioPharma Credit Investments V (Master) LP, as a Lender, or the Second Amendment and Waiver, which amends and waives certain provisions of the Loan Agreement as amended by the First Amendment and Waiver between the Collateral Agent, the Lenders and us, dated February 18, 2022, or the First Amendment and Waiver. The Collateral Agent and the Lenders are collectively referred to as Pharmakon (see Note 11 to our condensed consolidated financial statements). Pursuant to Second Amendment and Waiver, we made prepayments totaling $25.0 million together with a prepayment premium of $0.5 million plus all accrued and unpaid interest on such prepayments of principal to the Effective Date, and Pharmakon agreed to waive or modify certain covenants in the Loan Agreement (see Note 11 to our condensed consolidated financial statements). In addition, on February 25, 2021, we received an upfront payment of $44.8 million (net of certain transaction expenses) in connection with our sale to HealthCare Royalty Partners IV, L.P., or HCR, of the right to receive all royalties and sales milestones payable to us under our collaboration agreement with MTPC, or the MTPC Agreement, subject to certain caps and other terms and conditions described elsewhere in this Quarterly Report on Form 10-Q. Finally, on February 18, 2022, we entered into a Second Amended and Restated License Agreement, or the Vifor Second Amended Agreement, with Vifor Pharma. Pursuant to the Vifor Second Amended Agreement, Vifor Pharma made an upfront payment to us of $25.0 million in lieu of the previously disclosed milestone payment of $25.0 million that Vifor Pharma was to pay to us following approval of vadadustat by the FDA. Also pursuant to the Vifor Second Amended Agreement, Vifor contributed $40 million to a working capital fund established to partially fund our costs of purchasing vadadustat from our contract manufacturers, or the Working Capital Fund, which amount of funding will fluctuate, and which funding we will repay to Vifor Pharma over time.

Impacts of COVID-19 Pandemic

The COVID-19 pandemic has presented a substantial public health and economic challenge around the world and continues to affect our employees, patients, healthcare providers with whom we interact, customers, collaboration partners, CROs, contract manufacturing organizations, or CMOs, vendors, communities and business operations. The full extent to which the COVID-19 pandemic will directly or indirectly impact our business, results of operations and financial condition continues to depend on future developments that are highly uncertain and cannot be accurately predicted, including new information that may emerge concerning the COVID-19 pandemic, any resurgences or mutations of COVID-19, the actions taken to contain it or treat its impact and the economic impact on local, regional, national and international markets where the healthcare providers with whom we interact, our partners, our CROs, our CMOs, and our other vendors operate.

We believe our revenue growth was negatively impacted in the first half of 2022 primarily as the kidney patient population that we serve continue to experience both high hospitalization and mortality rates due to COVID-19. While we are unable to quantify the impact of the COVID-19 pandemic on future revenues and revenue growth, COVID-19 continues to adversely and disproportionately impact our patient population; therefore, we expect COVID-19 to continue to have a negative impact on our revenue growth for the foreseeable future.

As a result of the COVID-19 pandemic we adopted a flexible workplace policy allowing employees to work from home on a full or part-time basis, which may make it difficult for us to maintain our corporate culture or retain employees. Moreover, our future success substantially depends on the management skills of our executives and certain other key employees. The unanticipated loss or unavailability of key employees due to the pandemic could harm our ability to operate our business or execute our business strategy and we may not be successful in finding and integrating suitable successors in the event any of our key employees leave or are unavailable.

In addition, several healthcare facilities have previously restricted access for non-patients, including the members of our sales force. For example, DaVita, Inc., or DaVita, and Fresenius Medical Care, or Fresenius, which account for a vast majority of the dialysis population in the United States, have restricted access to their clinics. As a result, we continue to engage with some healthcare providers and other customers virtually, where possible. The restrictions on our customer-facing employees' in-person interactions with healthcare providers could negatively impact our access to healthcare providers and, ultimately, our sales. Recently, such precautionary measures have been relaxed at certain healthcare facilities and, as a result, members of our

sales force have resumed in person interactions with certain customers. Nevertheless, some restrictions remain, and more restrictions may be put in place again due to a resurgence in COVID-19 cases, including those involving new variants of COVID-19 which may be more contagious and more severe than prior strains of the virus. Given this uncertain environment and the disproportionate impact of the COVID-19 pandemic on CKD patients, we are actively monitoring the demand for Auryxia, including the potential for further declines or changes in prescription trends and customer orders.

In addition, the direct and indirect impacts of the pandemic or the response efforts to the pandemic, including among others, competition for labor and resources and increases in labor, sourcing, manufacturing and shipping costs, may cause disruptions to, closures of, or other impacts on our CMOs and other vendors in our supply chain on which we rely for the supply of our products and product candidates. For example, areas of China have implemented lockdowns for COVID-19, which could impact the global supply chain. At this time, our third party contract manufacturers continue to operate at or near normal levels. However, it is possible that the COVID-19 pandemic and response efforts may have an impact in the future on our contract manufacturers' ability to manufacture and deliver Auryxia and vadadustat (which is currently marketed under the trade name Vafseo™ by MTPC in Japan), which may result in delays in, increased costs or disruptions to manufacturing and supply of our products and product candidates.

COVID-19 pandemic precautions have caused moderate delays in enrolling new clinical trials and may cause delays in enrolling other new clinical trials. We are using remote monitoring and central monitoring, where possible.

This uncertain COVID-19 pandemic environment has presented new risks to our business. While we are working aggressively to mitigate the impacts on our business, we are mindful that many of these risks and the impact to the larger healthcare market are outside of our control.

For additional information on the various risks posed by the COVID-19 pandemic, please refer to Part II, Item 1A. Risk Factors below.

Financial Overview

Revenue

To date, our revenues have been derived from product revenue from commercial sales of Auryxia, collaboration revenues, which include license and milestone payments, royalty and cost-sharing revenue generated through collaboration and license agreements with partners for the development and commercialization of vadadustat, a nonrefundable, non-creditable termination fee pursuant to the terms of the Termination Agreement with Otsuka, and royalty revenue from sales of Riona in Japan. Cost-sharing revenue represents amounts reimbursed by our collaboration partners for expenses incurred by us for research and development activities and, potentially, co-promotion activities, under our collaboration agreements.

We expect our revenue to continue to be generated primarily from our commercial sales of Auryxia our collaboration with MTPC and any other collaborations into which we may enter, and royalty revenue from Japan Tobacco, Inc., and its subsidiary, Torii Pharmaceutical Co., Ltd., collectively JT and Torii, based on net sales of Riona in Japan. We will not recognize any future revenue pursuant to our collaboration with Otsuka.

Cost of Goods Sold

Cost of goods sold includes direct costs to manufacture commercial drug substance and drug product for Auryxia, as well as indirect costs including costs for packaging, shipping, insurance and quality assurance, idle capacity charges, write-offs for inventory that fails to meet specifications or is otherwise no longer suitable for commercial sale, changes in our excess purchase commitment liability, and royalties due to the licensor of Auryxia related to the U.S. product sales recognized during the period. Cost of goods sold also includes costs to manufacture drug product provided to MTPC for commercial sale of Vafseo in Japan.

As a result of the merger with Keryx Biopharmaceuticals, Inc., or Keryx, or the Merger, and the application of purchase accounting, costs of goods sold also includes both amortization expense and, if applicable, impairment charges associated with the fair value of the developed product rights for Auryxia as well as expense associated with the fair value inventory step-up. The fair value of the developed product rights for Auryxia is being amortized over its estimated useful life, which as of June 30, 2022 is estimated to be six years. The fair value inventory step-up as a result of the Merger was fully amortized as of the first quarter of 2021.

Research and Development Expenses

Research and development expenses consist primarily of costs incurred for the development of vadadustat, which include:

- personnel-related expenses, including salaries, benefits, recruiting fees, travel and stock-based compensation expense of our research and development personnel;

- expenses incurred under agreements with CROs and investigative sites that conduct our clinical studies;
- the cost of acquiring, developing and manufacturing clinical study materials through CMOs;
- facilities, depreciation and other expenses, which include direct and allocated expenses for rent and maintenance of facilities, insurance and other supplies;
- costs associated with preclinical, clinical and regulatory activities; and
- costs associated with pre-launch inventory build for vadadustat in the United States and Europe, for which we received a CRL from the FDA in the United States in March 2022.

Research and development costs are expensed as incurred. Costs for certain development activities are recognized based on an evaluation of the progress to completion of specific tasks using information and data provided to us by our vendors and our clinical sites.

We cannot determine with certainty the duration and completion costs of current or future clinical studies of Auryxia and vadadustat or if, when, or to what extent we will receive marketing approval for vadadustat or generate revenue from the commercialization and sale of vadadustat, if approved. We may never succeed in achieving marketing approval for vadadustat.

The duration, costs and timing of clinical studies and development of Auryxia and vadadustat will depend on a variety of factors including, but not limited to, those described in Part II, Item 1A. Risk Factors. A change in the outcome of any of these variables with respect to the development of Auryxia and vadadustat could mean a significant change in the costs and timing associated with that development. For example, if the FDA, the EMA, or other regulatory authorities were to require us to conduct clinical studies in addition to or different from those that we currently anticipate, or if we experience delays in any of our clinical studies, we could be required to expend significant additional financial resources and time on the completion of clinical development.

From inception through June 30, 2022, we have incurred $1.5 billion in research and development expenses. We expect to incur significant research and development expenditures for the foreseeable future as we continue the development of Auryxia, vadadustat and any other product or product candidate, including those that may be in-licensed or acquired.

Our direct research and development expenses consist principally of external costs, such as fees paid to clinical trial sites, consultants, central laboratories and CROs in connection with our clinical studies, and drug substance and drug product manufacturing for clinical studies.

In 2020, we completed our global Phase 3 clinical program for vadadustat to which the majority of our research and development costs have been attributable. A significant portion of our research and development costs have been external costs, which we track on a program-by-program basis. These external costs include fees paid to investigators, consultants, central laboratories and CROs in connection with our clinical trials, and costs related to acquiring and manufacturing clinical trial materials. Our internal research and development costs are primarily personnel-related costs, depreciation and other indirect costs. We do not track our internal research and development expenses on a program-by-program basis as they are deployed across multiple projects under development.

The following table summarizes our external research and development expenses by program, as well as expenses not allocated to programs, for the three and six months ended June 30, 2022 and 2021:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2022	2021	2022	2021
	(in thousands)		*(in thousands)*	
Vadadustat external costs	$ 11,760	$ 12,917	$ 28,913	$ 29,720
External costs for other programs	5,103	5,122	11,456	11,564
Total external research and development expenses	16,863	18,039	40,369	41,284
Headcount, consulting, facilities and other	9,164	19,175	29,491	36,541
Total research and development expenses	$ 26,027	$ 37,214	$ 69,860	$ 77,825

Selling, General and Administrative Expenses

Selling, general and administrative expenses consist primarily of salaries and related costs for personnel, including stock-based compensation and travel expenses for our commercial personnel, including our field sales force and other commercial support personnel, as well as personnel in executive and other administrative or non-research and development functions. Other selling, general and administrative expenses include facility-related costs, fees for directors, accounting and legal services fees, recruiting fees and expenses associated with obtaining and maintaining patents.

Results of Operations

Comparison of the Three Months Ended June 30, 2022 and 2021

	Three Months Ended		Increase
	June 30, 2022	June 30, 2021	(Decrease)
	(in thousands)		
Revenues:			
Product revenue, net	$ 43,703	$ 32,959	$ 10,744
License, collaboration and other revenue	83,056	19,954	63,102
Total revenues	126,759	52,913	73,846
Cost of goods sold:			
Product	9,589	43,484	(33,895)
Amortization of intangibles	9,011	9,011	—
Total cost of goods sold	18,600	52,495	(33,895)
Operating expenses:			
Research and development	26,027	37,214	(11,187)
Selling, general and administrative	32,807	41,651	(8,844)
License expense	892	894	(2)
Restructuring	14,531	—	14,531
Total operating expenses	74,257	79,759	(5,502)
Operating income (loss)	33,902	(79,341)	113,243
Other expense, net	(4,626)	(3,697)	(929)
Net income (loss)	$ 29,276	$ (83,038)	$ 112,314

Product Revenue, Net. Net product revenue is derived from sales of our only commercial product in the United States, Auryxia. We distribute our product principally through a limited number of wholesale distributors as well as certain specialty pharmacy providers. Net product revenue was $43.7 million for the three months ended June 30, 2022, compared to $33.0 million for the three months ended June 30, 2021. The increase was primarily due to pricing and improved payer mix.

License, Collaboration and Other Revenue. License, collaboration and other revenue was $83.1 million for the three months ended June 30, 2022 compared to $20.0 million for the three months ended June 30, 2021. On June 30, 2022, we and Otsuka entered into the Termination Agreement, which, among other things, terminated the cost sharing arrangement under the Otsuka collaboration agreement for the United States, or the Otsuka U.S. Agreement, and the Otsuka collaboration agreement for certain territories outside the United States, or the Otsuka International Agreement. During the three months ended June 30, 2022, we recognized $55.0 million in collaboration revenue related to a payment to be received pursuant to the terms of the Termination Agreement with Otsuka, $15.5 million related to previously deferred revenue as of the date of termination and $9.6 million of non-cash consideration related to Otsuka's obligations to complete certain agreed upon clinical activities related to the Phase 3b clinical trial of vadadustat Otsuka is conducting, or the MODIFY Study, in accordance with the current study protocol, at its own cost and expense. Refer to Note 4 in this Quarterly Report on Form 10-Q for further details. We will not recognize any future revenue under the Otsuka U.S. Agreement or the Otsuka International Agreement. We recognized $18.5 million in collaboration revenue for the three months ended June 30, 2021 from our cost sharing arrangement under the Otsuka U.S. Agreement and the Otsuka International Agreement, as well as royalty revenue under our collaboration agreement with MTPC.

Cost of Goods Sold - Product. Cost of goods sold of $9.6 million for the three months ended June 30, 2022 consisted of costs associated with the manufacturing of Auryxia and supply of Vafseo to MTPC for commercial sale in Japan, and $2.1 million related to excess and obsolescence reserves associated with inventory.

Cost of goods sold of $43.5 million for the three months ended June 30, 2021 consisted of costs associated with the manufacturing of Auryxia and a $30.3 million non-cash charge related to an increase to the liability for excess purchase commitments. Refer to Note 13 to our condensed consolidated financial statements for further details on the excess purchase commitments liability.

Cost of Goods Sold - Amortization of Intangibles. Amortization of intangibles relates to the acquired developed product rights for Auryxia, which is being amortized using a straight-line method over its estimated useful life of approximately six years. Amortization of intangibles during each of the three months ended June 30, 2022 and 2021 was $9.0 million.

Research and Development Expenses. Research and development expenses were $26.0 million for the three months ended June 30, 2022, compared to $37.2 million for the three months ended June 30, 2021, a decrease of $11.2 million. The decrease was primarily due to the following:

	(in millions)
Vadadustat development expenses	$ (1.2)
Headcount, consulting, facilities and other	(10.0)
Total net decrease	$ (11.2)

The decrease in research and development expense was primarily due to decreased headcount related costs as a result of the reduction in force and decreased consulting costs. Also during the three months ended June 30, 2021, we made an upfront payment of $3.0 million to Cyclerion Therapeutics, Inc. for an exclusive global license to develop and commercialize praliciguat, an investigational oral sGC, stimulator, which was recorded to research and development expense and did not reoccur during the three months ended June 30, 2022. Although we expect our research and development expenses to continue to decrease in the near term, we will continue to incur significant research and development expenses in future periods in support of ongoing or planned studies with respect to Auryxia and vadadustat and development of other potential product candidates.

Selling, General and Administrative Expenses. Selling, general and administrative expenses were $32.8 million for the three months ended June 30, 2022, compared to $41.7 million for the three months ended June 30, 2021. The decrease of $8.8 million was primarily due to decreased headcount related costs as a result of the reduction in force and lower marketing expenses. For the remainder of 2022, we expect our selling, general and administrative expenses to continue to decrease from 2021 as we continue to reduce our expense profile in line with being a single commercial product company.

License Expenses. License expense related to royalties due to Panion relating to sales of Riona in Japan were $0.9 million for each of the three months ended June 30, 2022 and 2021.

Restructuring. Restructuring expenses were $14.5 million for the three months ended June 30, 2022 due to one-time termination benefits and contractual termination benefits for severance, healthcare, and non-cash stock-based compensation related to the reduction in force. There were no restructuring expenses for the three months ended June 30, 2021.

Other Expense, Net. Other expense, net, was $4.6 million for the three months ended June 30, 2022 compared to $3.7 million for the three months ended June 30, 2021. The increase of $0.9 million was primarily due to non-cash interest expense related to a refund liability to a customer and a non-recurring decrease in the fair value of our derivative liability related to the Loan Agreement with Pharmakon that occurred during the quarter ended June 30, 2021.

Comparison of the Six Months Ended June 30, 2022 and 2021

	Six Months Ended		Increase
	June 30, 2022	June 30, 2021	(Decrease)
	(In Thousands)		
Revenues:			
Product revenue, net	$ 85,151	$ 63,367	$ 21,784
License, collaboration and other revenue	103,307	$ 41,850	61,457
Total revenues	188,458	105,217	83,241
Cost of goods sold:			
Product	31,923	$ 69,079	(37,156)
Amortization of intangibles	18,021	18,021	—
Total cost of goods sold	49,944	87,100	(37,156)
Operating expenses:			
Research and development	69,860	77,825	(7,965)
Selling, general and administrative	77,134	82,979	(5,845)
License expense	1,580	1,590	(10)
Restructuring	14,531	—	14,531
Total operating expenses	163,105	162,394	711
Operating loss	(24,591)	(144,277)	119,686
Other expense, net	(8,554)	(8,341)	(213)
Net loss	(33,145)	(152,618)	119,473

Product Revenue, Net. Net product revenue is derived from sales of our only commercial product in the United States, Auryxia. We distribute our product principally through a limited number of wholesale distributors as well as certain specialty pharmacy providers. Net product revenue was $85.2 million for the six months ended June 30, 2022, compared to net product revenue of $63.4 million for the six months ended June 30, 2021. The increase was primarily due to pricing and improved payor mix.

License, Collaboration and Other Revenue. License, collaboration and other revenue was $103.3 million for the six months ended June 30, 2022 compared to $41.9 million for the six months ended June 30, 2021. On June 30, 2022, we and Otsuka entered into the Termination Agreement, which, among other things, terminated the cost sharing arrangement under the Otsuka U.S. Agreement, and the Otsuka International Agreement. During the six months ended June 30, 2022, we recognized $55.0 million in collaboration revenue related to a payment to be received pursuant to the terms of the Termination Agreement with Otsuka, $15.5 million related to previously deferred revenue as of the date of termination and $9.6 million of non-cash consideration related to Otsuka's obligations to complete certain agreed upon clinical activities related to the MODIFY Study, in accordance with the current study protocol, at its own cost and expense. We also recognized $19.1 million in collaboration revenue for the six months ended June 30, 2022 from the Otsuka U.S. Agreement and the Otsuka International Agreement prior to the termination, as well as royalty revenue under the MTPC Agreement. We recognized $39.1 million in collaboration revenue for the six months ended June 30, 2021 from the Otsuka U.S. Agreement, the Otsuka International Agreement, and royalty revenue under our collaboration agreement with MTPC.

Cost of Goods Sold - Product. Cost of goods sold of $31.9 million for the six months ended June 30, 2022 consisted of costs associated with the manufacturing of Auryxia and supply of Vafseo to MTPC for commercial sale in Japan, and $7.4 million related to excess and obsolescence reserves associated with inventory partially offset by a $0.8 million reduction to the liability for excess purchase commitments. Refer to Note 13 to our condensed consolidated financial statements for further details on the excess purchase commitments liability.

Cost of goods sold of $69.1 million for the six months ended June 30, 2021 consisted primarily of costs associated with the manufacturing of Auryxia, $21.3 million in non-cash charges related to an increase to the liability for excess purchase commitments, $21.6 million in non-cash charges related to the fair-value inventory step-up from the application of purchase accounting, and $5.4 million related to inventory reserves associated with a previously disclosed manufacturing quality issue related to Auryxia.

Cost of Goods Sold - Amortization of Intangibles. Amortization of intangibles relates to the acquired developed product rights for Auryxia, which is being amortized using a straight-line method over its estimated useful life of approximately six years. Amortization of intangibles during each of the six months ended June 30, 2022 and 2021 was $18.0 million.

Research and Development Expenses. Research and development expenses were $69.9 million for the six months ended June 30, 2022, compared to $77.8 million for the six months ended June 30, 2021, a decrease of $8.0 million. The decrease was primarily due to the following:

	(in millions)
Vadadustat development expenses	$ (1.0)
Headcount, consulting, facilities and other	(7.0)
Total net decrease	(8.0)

The decrease in research and development expense was primarily due to decreased headcount related costs as a result of the reduction in force and decreased consulting costs. Also during the six months ended June 30, 2021, we made an upfront payment of $3.0 million to Cyclerion Therapeutics, Inc. for an exclusive global license to develop and commercialize praliciguat, an investigational oral sGC, stimulator, which was recorded to research and development expense which did not reoccur during the six months ended June 30, 2022. Although we expect our research and development expenses to continue to decrease in the near term, we will continue to incur significant research and development expenses in future periods in support of ongoing or planned studies with respect to Auryxia and vadadustat and development of other potential product candidates.

Selling, General and Administrative Expenses. Selling, general and administrative expenses were $77.1 million for the six months ended June 30, 2022, compared to $83.0 million for the six months ended June 30, 2021. The decrease of $5.8 million was primarily due to decreased headcount related costs as a result of the reduction in force and lower marketing expense following receipt of the CRL for vadadustat. For the remainder of 2022, we expect our selling, general and administrative expenses to continue to decrease from 2021 as we significantly reduce our expense profile in line with being a single commercial product company.

License Expenses. License expense related to royalties due to Panion relating to sales of Riona in Japan was $1.6 million for each of the six months ended June 30, 2022 and 2021.

Restructuring. Restructuring expenses were $14.5 million for the three months ended June 30, 2022 due to one-time termination benefits and contractual termination benefits for severance, healthcare, and non-cash stock-based compensation related to the reduction in force. There were no restructuring expenses for the three months ended June 30, 2021.

Other Expense, Net. Other expense, net, was $8.6 million for the six months ended June 30, 2022 compared to $8.3 million for the six months ended June 30, 2021. The increase in other expense compared to June 30, 2021 was primarily related to non-cash interest related to a refund liability to a customer.

Liquidity and Capital Resources

We have funded our operations principally through sales of our common stock, payments received from our collaboration partners, product sales, debt, a royalty transaction, and a refund liability to a customer. As of June 30, 2022, we had cash and cash equivalents of approximately $143.9 million. Cash in excess of immediate requirements is invested in accordance with our investment policy, primarily with a view to liquidity and capital preservation. On April 7, 2022, we entered into an Open Market Sale Agreement℠, or the Sales Agreement, with Jefferies LLC, or Jefferies, as agent, for the offer and sale of common stock at current market prices in amounts to be determined from time to time. Also, on April 7, 2022, we filed a prospectus supplement relating to the Sales Agreement, pursuant to which we are able to offer and sell under the Sales Agreement up to $26.0 million of our common stock at current market prices from time to time. From the date of filing of the prospectus supplement through the date of the filing of this Quarterly Report on Form 10-Q, we have not sold any shares of our common stock under this program. As of June 30, 2022, through our collaboration agreements with Otsuka and MTPC we received approximately $837.1 million in cost-share funding, and are not entitled to receive any additional cost-share funding.

Cash Flows

The following table sets forth the primary sources and uses of cash for each of the periods set forth below:

	Six Months Ended	
	June 30, 2022	June 30, 2021
	(in thousands)	
Net cash provided by (used in):		
Operating activities	$ (52,280)	$ (133,887)
Investing activities	(114)	39,941
Financing activities	47,536	111,846
Net (decrease) increase in cash, cash equivalents, and restricted cash	$ (4,858)	$ 17,900

Operating Activities. Net cash used in operating activities of $52.3 million for the six months ended June 30, 2022 was driven by the net operating loss for the period and changes in working capital at period end.

Net cash used in operating activities of $133.9 million for the six months ended June 30, 2021 was largely driven by the net operating loss for the period and changes in working capital at period end.

Investing Activities. Net cash used in investing activities for the six months ended June 30, 2022 was $0.1 million and was comprised of purchases of equipment.

Net cash provided by investing activities for the six months ended June 30, 2021 was $39.9 million and was comprised of proceeds from the sale of available for sale securities of $40.0 million, partially offset by immaterial purchases of equipment.

Financing Activities. Net cash provided by financing activities for the six months ended June 30, 2022 was $47.5 million and consisted of net proceeds from refund liabilities to customers of $40.0 million, net proceeds from the issuance of common stock of $7.1 million, and proceeds from the sale of stock under our employee stock purchase plan.

Net cash provided by financing activities for the six months ended June 30, 2021 was $111.8 million and consisted of net proceeds from the sale of future royalties of $44.8 million, net proceeds from the public issuance of common stock in connection with our prior at-the-market sales agreement with Cantor Fitzgerald & Co. of $66.7 million, and proceeds from the sale of stock under our employee stock purchase plan.

Operating Capital Requirements

We have one product, Auryxia, approved for commercial sale in the United States, but have not generated, and may not generate, enough product revenue from the sale of Auryxia to realize net profits from product sales. We have incurred losses and cumulative negative cash flows from operations in each year since our inception in February 2007, and as of June 30, 2022, we had an accumulated deficit of $1.5 billion. We anticipate that we will continue to incur losses for the foreseeable future, and we expect to continue to incur additional research and development expenses related to vadadustat and our development pipeline, and research and development and selling, general and administrative expenses for our ongoing development and commercialization of Auryxia.

We expect our cash resources will be sufficient to fund our current operating plan through at least the next twelve months from the date of this filing. However, our operating plan includes assumptions pertaining to cost avoidance measures and the reduction of overhead costs that would result from the planned amendment of certain contractual arrangements, including with certain supply and collaboration partners and reduction of certain infrastructure costs. The outcome of certain of these measures are outside of our control, such as the planned amendment of certain contractual arrangements with supply partners. Since the end of the first quarter of 2022, we have made progress implementing some of the cost avoidance measures in order to continue to reduce our expense profile in line with being a single commercial product company and we have additional cost avoidance measures we plan to implement. During the second quarter of 2022, we implemented a reduction of our workforce by approximately 42% across all areas of our company following receipt of the CRL. This action reflects our determination to refocus our strategic priorities around our commercial product, Auryxia®, and our development portfolio, and is a step in a cost savings plan to significantly reduce our expense profile in line with being a single commercial product company (see Note 5 to our condensed consolidated financial statements). However, because certain other cost avoidance initiatives and certain other elements of our operating plan are outside of our control, there is uncertainty as to whether our cash resources will be adequate to support our operations for a period through at least the next twelve months from the date of issuance of these financial statements.

In addition, pursuant to the Second Amendment and Waiver, on the Effective Date, we made prepayments totaling $25.0 million together with a prepayment premium of $0.5 million plus all accrued and unpaid interest on such prepayments of principal to the Effective Date, and Pharmakon agreed to waive or modify certain covenants in the Loan Agreement (see Note 11 to our condensed consolidated financial statements). If an event of default occurs and is continuing under the Loan Agreement, the Collateral Agent is entitled to take enforcement action, including acceleration of amounts due under the Loan Agreement, which we may not have the available cash resources to repay at such time. For example, pursuant to covenants in the Loan Agreement, our Annual Reports on Form 10-K must not be subject to any qualification as a going concern. If any of our future Annual Reports on Form 10-K is subject to any qualification related to going concern, it will result in an event of default under the Loan Agreement. Should we not be able to meet the annual covenants in the future, we would seek a waiver of this provision. However, there can be no assurances that we would be successful in obtaining such waiver.

We believe that the execution of the cost avoidance measures detailed previously, future decisions by the FDA or foreign regulatory agencies related to the potential regulatory approval of vadadustat, our ability to generate additional value from vadadustat through partnerships or other transactions could potentially further extend our cash runway for a period greater than twelve months. However, because these cost avoidance initiatives and certain other elements of our operating plan are outside of our control, they cannot be considered probable in the context of our going concern assessment. Therefore, there can be no assurance that our cash resources will fund our operating plan for the period anticipated by us. In addition, while future decisions by the FDA or foreign regulatory agencies related to the potential regulatory approval of vadadustat or our ability to generate additional value from vadadustat through partnerships or other transactions may potentially further extend our cash runway, such future decisions or transactions are not contemplated in our operating plan.

We expect to finance future cash needs through product revenue, strategic transactions, or a combination of these approaches. We plan to reduce our need for future financing through the planned amendment of certain contractual arrangements related to vadadustat supply, expense management, and savings from our previously announced workforce reduction. Assuming we are successful in those endeavors, we will require additional funding to fund our strategic growth beyond Auryxia or to pursue later stage development and commercial activities for any additional product or product candidates, including those that may be in-licensed or acquired. There can be no assurance that the current operating plan will be achieved in the time frame anticipated by us, or that our cash resources will fund our operating plan for the period anticipated by us or that additional funding will be available on terms acceptable to us, or at all.

Going Concern

Our operating plan includes assumptions pertaining to cost avoidance measures and the reduction of overhead costs that would result from the planned amendment of certain contractual arrangements with supply and collaboration partners, and reduction of certain infrastructure costs. However, because these cost avoidance initiatives and certain other elements of our operating plan are outside of our control, including the planned amendment of certain contractual arrangements and the reduction of certain infrastructure costs, there is uncertainty as to whether our cash resources will be adequate to support our operations for a period through at least the next twelve months from the date of issuance of these financial statements. The conditions above and the annual going concern covenant in our Loan Agreement raise substantial doubt regarding our ability to continue as a going concern for a period of one year after the date the financial statements are issued.

Management’s plans to alleviate the conditions that raise substantial doubt include cost avoidance measures, including amending certain contractual arrangements, and deprioritizing and cancelling of certain infrastructure activities, for us to continue as a going concern for a period of twelve months from the date the financial statements are issued. However, we have concluded that the likelihood that our plan to extend our cash runway from one or more of these approaches will be successful, while reasonably possible, is less than probable. Accordingly, we have concluded that substantial doubt exists about our ability to continue as a going concern for a period of at least twelve months from the date of issuance of these financial statements.

Our forecast of the period of time through which our financial resources will be adequate to support our operations is a forward-looking statement and involves numerous risks and uncertainties, and actual results could vary as a result of a number of factors, many of which are outside our control. We have based this estimate on assumptions that may be substantially different than actual results, and we could utilize our available capital resources sooner than we currently expect. Our future funding requirements, both near- and long-term, will depend on many factors including, but not limited to, those described under Part I, Item 1A. Risk Factors under the heading "Risks Related to our Financial Position, Need for Additional Capital and Growth Strategy."

Contractual Obligations

As of June 30, 2022, other than as disclosed in Note 13 to our condensed consolidated financial statements included in this Quarterly Report on Form 10-Q, there have been no material changes to our contractual obligations and commitments from those described under “Management’s Discussion and Analysis of Financial Condition and Results of Operations” included in our 2021 Annual Report on Form 10-K.

Term Loans

On November 11, 2019, Akebia, with Keryx as guarantor, entered into a loan agreement, or the Loan Agreement, with BioPharma Credit PLC as collateral agent and a lender, or the Collateral Agent, and BioPharma Credit Investments V (Master) LP as a lender, pursuant to which term loans in an aggregate principal amount of $100.0 million were made available to us in two tranches, subject to certain terms and conditions, or the Term Loans. BioPharma Credit PLC subsequently transferred its interest in the Term Loans, solely in its capacity as a lender, to its affiliate, BPCR Limited Partnership. The Collateral Agent and the lenders are collectively referred to as Pharmakon. The first tranche of $80.0 million, or Tranche A, was drawn on November 25, 2019, or the Tranche A Funding Date, and the second tranche of $20.0 million, or Tranche B, was drawn on December 10, 2020, or the Tranche B Funding Date. On July 15, 2022, pursuant to the Loan Agreement, as amended, we made prepayments totaling $25.0 million together with a prepayment premium of $0.5 million plus all accrued and unpaid interest on such prepayments of principal to the Effective Date, and Pharmakon agreed to waive or modify certain covenants in the Loan Agreement. A more detailed description of the term loans can be found in Note 11 to our condensed consolidated financial statements included in this Quarterly Report on Form 10-Q.

Liability Related to Sale of Future Royalties

On February 25, 2021, we entered into a royalty interest acquisition agreement, or the Royalty Agreement, with HCR, pursuant to which we sold to HCR our right to receive royalties and sales milestones for vadadustat in the MTPC Territory, such payments collectively the Royalty Interest Payments, in each case, payable to us under the MTPC Agreement, subject to an annual maximum "cap" of $13.0 million, or the Annual Cap, and an aggregate maximum "cap" of $150.0 million, or the Aggregate Cap. After HCR receives Royalty Interest Payments equal to the Annual Cap in a given calendar year, we will receive 85% of the Royalty Interest Payments for the remainder of that year. After HCR receives Royalty Interest Payments equal to the Aggregate Cap, or we pay the Aggregate Cap to HCR (net of the Royalty Interest Payments already received by HCR), the Royalty Interest Payments will revert back to us, and HCR would have no further right to any Royalty Interest Payments. We received $44.8 million from HCR (net of certain transaction expenses) under the Royalty Agreement, and we are eligible to receive an additional $5.0 million in each year from 2021 through 2023 under the Royalty Agreement if specified annual sales milestones are achieved for vadadustat in the MTPC Territory, subject to the satisfaction of certain customary conditions. We retain the right to receive all potential future regulatory milestones for vadadustat under the MTPC Agreement. A more detailed description of the liability related to the sale of future royalties can be found in Note 6 to our condensed consolidated financial statements included in this Quarterly Report on Form 10-Q.

Refund Liability to Customer

On February 18, 2022, pursuant to the Vifor Second Amended Agreement, Vifor Pharma contributed $40 million to the Working Capital Fund, established to partially fund our costs of purchasing vadadustat from its contract manufacturers, which amount of funding will fluctuate, and which funding we will repay to Vifor over time. The $40 million initial contribution to the Working Capital Fund represents 50% of the amount of purchase orders that the Company has placed with its contract manufacturers for the supply of vadadustat for the United States, or the Territory, already delivered as of the effective date of the Vifor Second Amended Agreement, and to be delivered through the end of 2022.

We have recorded the Working Capital Fund as a refund liability under ASC 606. We accounted for the refund liability as a debt arrangement with zero coupon interest. We imputed interest on the refund liability to the customer at a rate of 15.0% per annum and recorded an initial discount on the refund liability to the customer and a related deferred gain as of the date the funds were received from Vifor Pharma, which was March 18, 2022. The discount on the note payable is being amortized to interest expense using the effective interest method over the expected term of the refund liability. The deferred gain is being amortized to interest income on a straight-line basis over the expected term of the refund liability. A more detailed description of the refund liability can be found in Note 4 to our condensed consolidated financial statements included in this Quarterly Report on Form 10-Q.

Critical Accounting Estimates and Significant Judgments

Our management's discussion and analysis of our financial condition and results of operations are based on our unaudited condensed consolidated financial statements, which have been prepared in accordance with U.S. generally accepted accounting principles. The preparation of these unaudited condensed consolidated financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, and expenses and the disclosure of contingent assets and liabilities in our unaudited condensed consolidated financial statements. On an ongoing basis, we evaluate our estimates and judgments, including those related to revenue, inventory, our excess purchase commitment liability, liabilities related to sale of future royalties, refund liabilities to customers, impairment of intangible assets and income taxes. We base our estimates on historical experience, known trends and events, and various other factors that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions. In making estimates and judgments, management employs critical accounting policies.

During the six months ended June 30, 2022, we had the following material change to our critical accounting estimates as reported in our 2021 Annual Report on Form 10-K:

Refund Liability to Customer

We treat the refund liability to customer as a zero-coupon debt financing, which is recorded at net present value. We recorded an initial discount on the refund liability to the customer and a corresponding deferred gain to the refund liability to customer on the condensed consolidated balance sheet as of the date the funds were received from Vifor Pharma, which was March 18, 2022. The discount on the note payable is being amortized to interest expense using the effective interest method over the expected term of the refund liability. The deferred gain is being amortized to interest income on a straight-line basis over the expected term of the refund liability.

Recent Accounting Pronouncements

For additional discussion of recent accounting pronouncements, please refer to *New Accounting Pronouncements – Not Yet Adopted* included within Note 2 to our condensed consolidated financial statements in Part I, Item 1. Financial Statements (unaudited) included in this Quarterly Report on Form 10-Q.

Item 3. Quantitative and Qualitative Disclosures about Market Risk.

We are exposed to market risk related to changes in interest rates. As of June 30, 2022 and December 31, 2021, we had cash and cash equivalents of $143.9 million and $149.8 million, respectively, consisting primarily of money market mutual funds consisting of certificates of deposit and corporate debt securities. Interest rate sensitivity is affected by changes in the general level of U.S. interest rates, particularly because our investments are in short-term securities. Our investments 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, an immediate 100 basis point change in interest rates would not have a material effect on the fair market value of our portfolio.

In addition, we are exposed to market risk related to exchange rates. A portion of our revenues for the six months ended June 30, 2022 was received in royalty payments converted to U.S. dollars based on the net sales of Riona and Vafseo™ in Japanese yen. Our exchange rate risk arises from such foreign currency net sales. As a result, we are exposed to movements in the exchange rates of the Japanese yen against the U.S. dollar.

For the royalty payments we received based on net sales of Riona and Vafseo in Japan for the six months ended June 30, 2022 a 5.0% appreciation or depreciation of the Japanese yen against the U.S. dollar would have increased or decreased, respectively, our revenues in the six months ended June 30, 2022 by approximately $0.1 million.

We have generally accepted the exposure to exchange rate movements without using derivative financial instruments to manage this foreign currency risk.

Item 4. Controls and Procedures.

Management's Evaluation of our Disclosure Controls and Procedures

We maintain disclosure controls and procedures that are designed to ensure that information required to be disclosed in the reports that we file or submit under the Securities Exchange Act of 1934, as amended, or the Exchange Act, is (1) recorded, processed, summarized, and reported within the time periods specified in the SEC's rules and forms and (2) accumulated and communicated to our management, including our principal executive officer and principal financial officer, to allow timely decisions regarding required disclosure.

As of June 30, 2022, our management, with the participation of our principal executive officer and principal financial officer, evaluated the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act). Our management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives, and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Based on our evaluation, our management concluded that, as of June 30, 2022, our disclosure controls and procedures were not effective because our internal control over financial reporting was not adequate due to the material weakness described below.

As reported in our 2021 Annual Report on Form 10-K, our internal control over financial reporting as of December 31, 2021 was not effective due to the following material weakness: the Company did not design and maintain effective controls over the completeness, accuracy, existence and presentation and disclosure of inventory. A material weakness is a deficiency, or combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material

misstatement of a company's annual or interim consolidated financial statements will not be prevented or detected on a timely basis. Specifically, we did not maintain effective controls related to (i) the review of inventory reconciliations, (ii) the validation of the inventory costing, (iii) the periodic assessment of excess and obsolete inventory related reserves and (iv) verification that the existence of all inventories subject to physical inventory counts were correctly counted as of December 31, 2021. Management has taken and will continue to take actions to remediate the deficiencies in its internal control over financial reporting and implemented additional processes and controls designed to address the underlying causes associated with the material weakness. Management is committed to finalizing the remediation of the material weakness during 2022.

As management continues to evaluate and work to improve its internal control over financial reporting, management may determine it is necessary to take additional measures to address the material weakness. Until the controls have been operating for a sufficient period of time and management has concluded, through testing, that these controls are operating effectively, the material weakness described above will continue to exist. As such, management has concluded that the material weakness cannot be considered remediated as of June 30, 2022.

Changes in Internal Control over Financial Reporting

During the six months ended June 30, 2022, we implemented certain internal controls in connection with our remediation efforts described above. There have been no other changes in our internal control over financial reporting, as such term is defined in Rules 13a-15(f) and 15d-15(f) promulgated under the Exchange Act, during our most recently completed fiscal quarter that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II—OTHER INFORMATION

Item 1. Legal Proceedings.

Legal Proceedings Relating to Vadadustat

Opposition Proceedings Against Akebia

In September 2018, Dr. Reddy's Laboratories Limited filed an opposition to our issued Indian Patent No. 287720 in the Indian Patent Office.

Proceedings Filed by Akebia Against FibroGen, Inc.

Europe

We filed an opposition in the European Patent Office, or the EPO, against FibroGen, Inc.'s, or FibroGen's, European Patent No. 1463823, or the '823 EP Patent on December 5, 2013, and an oral proceeding took place March 8 and 9, 2016. Following the oral proceeding, the Opposition Division of EPO ruled that the patent as granted did not meet the requirements for patentability under the European Patent Convention and, therefore, revoked the patent in its entirety. FibroGen has appealed that decision. Oral hearing for the appeal is scheduled for February 28 – March 1, 2023.

On May 13, 2015, May 20, 2015 and July 6, 2015, we filed oppositions to FibroGen's European Patent Nos. 2322155, or the '155 EP Patent, 1633333, or the '333 EP Patent, and 2322153, or the '153 EP Patent in the EPO, respectively, requesting the patents be revoked in their entirety. These method of use patents do not prevent persons from using the compound for other uses, including any previously known use of the compound. In particular, these patents do not claim methods of using any of our product candidates for purposes of inhibiting HIF-PH for the treatment of anemia due to chronic kidney disease, or CKD. While we do not believe these patents will prevent us from commercializing vadadustat for the treatment of anemia due to CKD, we filed these oppositions to provide us with maximum flexibility for developing vadadustat and our pipeline of investigational oral hypoxia-inducible factor prolyl hydroxylase, or HIF-PH, inhibitor compounds.

With regard to the opposition that we filed in Europe against the '333 EP Patent, an oral proceeding took place on December 8 and 9, 2016. Following the oral proceeding, the Opposition Division of the EPO ruled that the patent as granted did not meet the requirements for patentability under the European Patent Convention and, therefore, revoked the patent in its entirety. On December 9, 2016, FibroGen filed a notice to appeal the decision to revoke the '333 EP Patent. The Board of Appeal held an oral proceeding on this appeal on February 24 and 25, 2022, during which proceeding the '333 EP Patent was maintained in restricted form. The '333 EP patent was originally granted with four independent claims, one of which was found obvious on appeal. The remaining claims are directed to: treatment of anemia of chronic disease in subjects having a percent transferrin saturation of less than 20% (claim 1), treatment of anemia that is refractory to treatment with exogenously administered erythropoietin (claim 6), and treatment of iron deficiency (claim 15).

In oral proceedings held on May 29, 2017, regarding the '155 EP Patent, the European Opposition Division ruled that the '155 EP Patent as granted did not meet the requirements for patentability under the European Patent Convention and, therefore, revoked the patent in its entirety. FibroGen filed a notice to appeal the decision to revoke the '155 EP Patent on May 29, 2017. An oral proceeding for the appeal was held on February 22, 2022, during which proceeding the Board of Appeal maintained the revocation of the '155 EP Patent in its entirety.

In related oral proceedings held on May 31, 2017 and June 1, 2017 for the '153 EP Patent, the Opposition Division of the EPO maintained the patent after FibroGen significantly narrowed the claims to an indication for which vadadustat is not intended to be developed. We and Glaxo separately filed notices to appeal the decision to maintain the '153 EP Patent on November 9, 2017. Bayer filed a notice to appeal the decision on November 14, 2017. Glaxo withdrew its appeal on March 2, 2020 and Bayer withdrew its appeal on June 30, 2021. An oral proceeding for the appeal was held on February 21, 2022, during which proceeding the Board of Appeal revoked the '153 patent in its entirety.

On April 3, 2019, we filed oppositions to FibroGen's European Patent Nos. 2289531, or the '531 EP Patent, and 2298301, or the '301 EP Patent in the EPO, respectively, requesting the patents be revoked in their entirety. Oral proceedings for oppositions to the two patents were held on September 7-8 and 10, 2021. Following oral proceedings, the Opposition Division of the EPO maintained certain claims in amended form in the two patents. On January 26, 2022, we filed notice to appeal the Opposition Division's decision for '531 EP Patent. On July 8, 2022, FibroGen filed notice to appeal the Opposition Division's decision for the '301 EP Patent. These two patents will expire in December 2022, and we do not expect the Opposition Division's decision on the two patents to have any effect on our commercialization of vadadustat in Europe.

Japan

On June 2, 2014, we filed an invalidity proceeding before the Japan Patent Office, or JPO, against certain claims of FibroGen's Japanese Patent No. 4804131, or the '131 JP Patent, which is the Japanese counterpart to the '823 EP Patent, and the JPO issued a preliminary decision finding all of the challenged claims to be invalid. FibroGen subsequently amended the claims and the JPO accepted the amendments. The resulting '131 JP Patent does not cover vadadustat or any pyridine carboxamide compounds.

In 2018, we and our collaboration partner in Japan, Mitsubishi Tanabe Pharma Corporation, or MTPC, jointly filed a Request for Trial before the JPO to challenge the validity of certain of FibroGen's HIF-related patents in Japan: JP4845728, JP5474872 and JP5474741. On September 26, 2019, the JPO conducted an invalidation trial for JP5474872 and JP4845728. On November 11, 2019, the JPO conducted an invalidation trial for JP5474741. On April 1, 2022, the JPO issued a final decision for JP4845728, which invalidated all claims except claims directed to the medical use to treat anemia that does not respond to erythropoiesis. On May 18, 2022, the JPO issued a final decision for JP5474741 and JP5474872, which maintained the claims in amended form. In May 2022, MTPC filed revocation lawsuits for the three patents in the Intellectual Property High Court requesting cancellation of the JPO's decisions. In July 2022, we filed a revocation lawsuit for JP4845728 in the Intellectual Property High court requesting cancellation of the JPO's decision. We do not believe the JPO's decisions will prevent our collaboration partner MTPC from continuing to commercialize vadadustat for the treatment of anemia due to CKD in Japan.

United Kingdom

On December 13, 2018, we filed Particulars of Claim in the Patents Court of the United Kingdom to challenge the validity of FibroGen's six HIF-related patents in the UK: the '823 EP Patent (UK), the '333 EP Patent (UK), the '153 EP Patent (UK), the '155 EP Patent (UK), European Patent (UK) No. 2,289,531, or the '531 EP Patent (UK), and European Patent (UK) No. 2,298,301, or the '301 EP Patent (UK). In May 2019, Astellas Pharma Inc., or Astellas, the exclusive licensee of FibroGen's HIF-related patents, sued Akebia for patent infringement in the Patents Court of the UK. In September 2019, we filed an Amended Particulars of Claim to include FibroGen's European Patent No. 1487472, or the '472 EP Patent (UK). On February 28, 2020, the parties agreed to dismiss the '472 EP Patent (UK) from the trial.

A trial was conducted in March 2020. On April 20, 2020, the Patents Court of the UK issued a judgment in favor of Akebia, which invalidated all the claims at issue in each of the '823 EP Patent (UK), the '333 EP Patent (UK), the '153 EP Patent (UK), the '155 EP Patent (UK) and the '301 EP Patent (UK). The '531 EP Patent (UK) was amended to a single claim to recite one specific compound; this claim was held to be valid but not infringed by vadadustat. On June 11, 2020, FibroGen and Astellas appealed the Patents Court's judgment on the invalidity of the '823 EP Patent (UK), the '301 EP Patent (UK), the '333 EP Patent (UK), the '153 EP Patent (UK), and the '155 EP Patent (UK) in the Court of Appeal (Civil Division). On June 8, 2021 - June 10, 2021, the United Kingdom Court of Appeal held a three-day hearing for the appeal. On August 24, 2021, the Court of Appeal issued a judgment, which reversed the Patents Court's judgment on the invalidity of the '823 EP Patent (UK) and maintained certain claims of the '823 EP Patent (UK) and the '301 EP Patent (UK) in amended form, and which affirmed the Patents Court's judgment on the invalidity of the '333 EP Patent (UK), the '155 EP Patent (UK), and the '153 EP Patent (UK). Akebia and Otsuka are seeking permission to appeal to the UK Supreme Court. We do not expect the UK Court of Appeal's judgment to have any effect on our commercialization of vadadustat in the UK.

United States

On March 29, 2021, we filed a lawsuit against FibroGen and AstraZeneca AB in the United States District Court for the District of Delaware to seek a declaratory judgment of non-infringement and invalidity of FibroGen's twelve HIF-related patents in the United States: U.S. Patent Nos. 8,318,703, 8,466,172, 8,614,204, 9,920,011, 8,629,131, 8,604,012, 8,609,646, 8,604,013, 10,626,090, 10,894,774, 10,882,827, and 10,927,081. On April 5, 2022, we voluntarily dismissed, without prejudice, our declaratory judgment complaint against FibroGen and AstraZeneca under Rule 41(a)(1)(A)(i) of the Federal Rules of Civil Procedure.

Legal Proceedings Relating to Auryxia

ANDA Litigation

In 2018 and 2019, Keryx Biopharmaceuticals, Inc., or Keryx, received Paragraph IV certification notice letters regarding Abbreviated New Drug Applications, or ANDAs, submitted to the U.S. Food and Drug Administration, or FDA, by third parties requesting approval for generic versions of Auryxia tablets (210 mg ferric iron per tablet). In response to such ANDA filings, Keryx and its licensors, Panion & BF Biotech, Inc., or Panion, and, as applicable, Chen Hsing Hsu, M.D., filed complaints for patent infringement against such third parties. Keryx, Panion and, as applicable, Dr. Hsu have now entered into settlement and

license agreements resolving all patent litigation proceedings brought by Keryx, Panion and, as applicable, Dr. Hsu, in response to ANDAs filed by third parties seeking approval to market generic versions of Auryxia® (ferric citrate) tablets prior to the expiration of the applicable patents. Each settlement agreement granted the defendants a license to market a generic version of Auryxia in the United States beginning on March 20, 2025 (subject to FDA approval), or earlier under certain circumstances customary for settlement agreements of this nature.

Stockholder Litigation Relating to the Merger

On June 28, 2018, we entered into an Agreement and Plan of Merger with Keryx and Alpha Therapeutics Merger Sub, Inc., or the Merger Sub, pursuant to which the Merger Sub would merge with and into Keryx, with Keryx becoming a wholly owned subsidiary of ours, or the Merger. On December 12, 2018, we completed the Merger. In October and November 2018, four purported shareholders of Keryx filed four separate putative class actions, or the Merger Securities Actions, against Keryx, a former officer and director of Keryx (Jodie P. Morrison), former directors of Keryx (Kevin J. Cameron, Mark J. Enyedy, Steven C. Gilman, Michael T. Heffernan, Daniel P. Regan and Michael Rogers, some of whom are current members of our Board of Directors), and, with respect to the Rosenblatt action discussed below, the Merger Sub and Akebia, challenging the disclosures made in connection with the Merger.

Three of the Merger Securities Actions were filed in the Delaware District Court: Corwin v. Keryx Biopharmaceuticals, Inc., et al. (filed October 16, 2018); Van Hulst v. Keryx Biopharmaceuticals, Inc., et al. (filed October 24, 2018); and Andreula v. Keryx Biopharmaceuticals, Inc., et al. (filed November 1, 2018). The fourth Merger Securities Action was filed in the Massachusetts District Court: Rosenblatt v. Keryx Biopharmaceuticals, Inc., et al. (filed October 23, 2018). On February 19, 2019, the plaintiff in the Rosenblatt action filed a notice of voluntary dismissal of the action without prejudice. On March 27, 2019, the plaintiff in the Van Hulst action filed a notice of voluntary dismissal of the action without prejudice.

On April 2, 2019, the Delaware District Court granted Abraham Kiswani, a member of the putative class in both the Andreula and Corwin actions, and plaintiff John Andreula's motion to consolidate the remaining two Merger Securities Actions pending in the Delaware District Court and consolidated the Corwin and Andreula cases under the caption In re Keryx Biopharmaceuticals, Inc., or the Consolidated Federal Action. The Delaware District Court also appointed Kiswani and plaintiff Andreula as lead plaintiffs for the Consolidated Federal Action. On June 3, 2019, the lead plaintiffs filed a consolidated amended complaint in the Consolidated Federal Action, or the Consolidated Complaint. The Consolidated Complaint generally alleged that the registration statement filed in connection with the Merger contained allegedly false and misleading statements or failed to disclose certain allegedly material information in violation of Section 14(a) and 20(a) of the Exchange Act and Rule 14a-9 promulgated thereunder. The alleged misstatements or omissions related to (i) certain financial projections for Keryx and Akebia and certain financial analyses performed by our advisors and (ii) any alleged negotiations that may have taken place regarding the conversion of certain convertible notes of Keryx in connection with the Merger. The Consolidated Complaint sought compensatory and/or rescissory damages, a declaration that the defendants violated Sections 14(a) and 20(a) of the Exchange Act and Rule 14a-9 thereunder, and an award of lead plaintiffs' costs, including reasonable allowance for attorneys' fees and experts' fees. The defendants in the Consolidated Federal Action moved to dismiss the Consolidated Complaint in its entirety and with prejudice on August 2, 2019. On April 15, 2020, the Delaware District Court granted the defendants' motion and dismissed the Consolidated Complaint in its entirety. On July 2, 2020, lead plaintiffs filed a second consolidated amended complaint, or the Second Consolidated Complaint. The Second Consolidated Complaint (i) asserted the same claims under the Exchange Act as the Consolidated Complaint, (ii) named the same defendants as the Consolidated Complaint, (iii) sought the same relief as the Consolidated Complaint and (iv) as with the Consolidated Complaint, challenged as false or misleading alleged misstatements or omissions related to certain financial projections for Keryx and Akebia and certain financial analyses performed by our advisors. The defendants in the Consolidated Federal Action moved to dismiss the Second Consolidated Complaint in its entirety with prejudice on August 10, 2020. Briefing on defendants' motion to dismiss was completed on September 28, 2020, and on April 1, 2021, the District Court granted Defendants' motion in its entirety and dismissed the Second Consolidated Complaint with prejudice. The lead plaintiffs appealed, and briefing on the appeal was completed on October 7, 2021. The Third Circuit submitted the case on the briefs without oral argument on February 10, 2022. On July 21, 2022, the Third Circuit affirmed the District Court's order of dismissal.

On July 15, 2021, a purported former Keryx stockholder filed a putative class action in the Supreme Court of the State of New York against Akebia, a current officer of Akebia (John P. Butler), a former officer of Akebia (Jason A. Amello), former directors of Akebia (Muneer A. Satter, Scott A. Canute, Michael D. Clayman, Maxine Gowen, Duane Nash, Ronald C. Renaud, Jr., and Michael S. Wyzga), a current director of Akebia (Cynthia Smith), a former director and officer of Keryx (Jodie P. Morrison), a former officer of Keryx (Scott A. Holmes) and former directors of Keryx (Michael Rogers, Kevin J. Cameron, Steven C. Gilman, Daniel P. Regan, Mark J. Enyedy, and Michael T. Heffernan, some of whom are current members of our Board of Directors). The action is captioned Loper v. Akebia Therapeutics, Inc., et al., or the *Loper* Action. The complaint in the *Loper* Action alleges that the registration statement filed in connection with the Merger contained allegedly false and misleading statements or failed to disclose certain allegedly material information in violation of Section 11, 12(a)(2), and 15 of the Securities Act of 1933, as amended. It alleges, among other things, that Akebia failed to disclose heightened safety risks

that allegedly threatened the prospects of the Phase 3 PRO2TECT clinical trial and the commercial viability of vadadustat. The complaint in the *Loper* Action seeks damages including interest thereon, an award of plaintiffs' and the class's costs and expenses, including counsel fees and expert fees, and rescission, disgorgement, or such other equitable or injunctive relief that the Court deems appropriate.

On August 16, 2021, another purported former Keryx stockholder filed a putative class action making substantially similar allegations and asserting the same claims as the *Loper* Action, also in the Supreme Court of the State of New York against Akebia and many of the same individual defendants named in the *Loper* Action. The action is captioned Panicho v. Akebia Therapeutics, Inc., et al., or the *Panicho* Action.

On September 13, 2021, the parties in the *Loper* Action and *Panicho* Action entered into a joint stipulation and proposed order, which provided for the consolidation of the two actions under the caption In re Akebia Therapeutics, Inc. Securities Litigation, or the Consolidated State Action. On October 27, 2021, plaintiffs filed a consolidated complaint in the Consolidated State Action. On January 10, 2022, defendants moved to dismiss the consolidated complaint in its entirety. Briefing on defendants' motion to dismiss was completed on April 22, 2022. Oral argument is currently anticipated to be held before the end of 2022.

On March 14, 2022, a purported stockholder of Akebia filed a putative federal securities class action against Akebia as well as three present and former officers of Akebia in the U.S. District Court for the Eastern District of New York. The action is captioned Deputy v. Akebia Therapeutics, Inc., et al., No. 1:22-cv-01411, or the *EDNY* Action. The complaint in the *EDNY* Action alleges that defendants made materially false and misleading statements in violation of Sections 10(b) and 20(a) of the Securities Exchange Act of 1934. The alleged misstatements or omissions relate to heightened safety risks that allegedly threatened the prospects of the Phase 3 PRO2TECT clinical trial and the commercial viability of vadadustat. The complaint in the *EDNY* Action seeks damages including interest thereon, an award of plaintiffs' and the class's costs and expenses, including counsel fees and expert fees, or such other and further relief that the Court deems appropriate.

We deny any allegations of wrongdoing and intend to continue vigorously defending against the stockholder lawsuits described in this Legal Proceedings section. There is no assurance, however, that we will be successful in the defense of these lawsuits, or any associated appeals, or that insurance will be available or adequate to fund any settlement or judgment or the litigation costs of these actions. Moreover, we are unable to predict the outcome or reasonably estimate a range of possible losses at this time. A resolution of these lawsuits in a manner adverse to us, however, could have a material effect on our financial position and results of operations in the period in which a particular lawsuit is resolved.

Item 1A. Risk Factors.

We face a variety of risks and uncertainties in our business. Additional risks and uncertainties not presently known to us or that we currently believe to be immaterial may also become important factors that affect our business. If any of the following risks occurs, our business, financial condition, financial statements, results of operations and future growth prospects could be materially and adversely affected.

Risks Related to our Financial Position, Need for Additional Capital and Growth Strategy

We have incurred significant losses since our inception, and anticipate that we will continue to incur significant losses and cannot guarantee when, if ever, we will become profitable or attain positive cash flows.

Investment in pharmaceutical product development and commercialization is highly speculative because it requires upfront capital expenditures and there is significant risk that a product candidate will fail to gain marketing approval or that an approved product will not be commercially viable. Since our inception, we have devoted most of our resources to research and development, including our preclinical and clinical development activities and, following the merger, or the Merger, whereby Keryx Biopharmaceuticals, Inc., or Keryx, became a wholly owned subsidiary of ours, commercialization. We have financed our operations primarily through sales of equity securities, our strategic collaborations and, following the Merger, product revenues, a royalty monetization transaction and debt. Prior to the Merger, we had no products approved for commercial sale and had not generated any revenue from the sale of products. We were profitable for the three months ended June 30, 2022, with net income of $29.3 million, however, we were not profitable for the six months ended June 30, 2022 and we have incurred net losses each year since our inception. As of June 30, 2022, we had an accumulated deficit of $1.5 billion. We cannot guarantee when, if ever, we will become profitable.

In March 2022, we received a CRL from the FDA regarding our NDA for vadadustat, our lead investigational product candidate, for the treatment of anemia associated with CKD. The FDA concluded that the data in the NDA do not support a favorable benefit-risk assessment of vadadustat for dialysis and non-dialysis patients. We held an end of review conference with

the FDA and are in the process of determining next steps. However, there can be no assurances that such conference or any future communications with the FDA will result in a clear path to approval of our NDA that is achievable in terms of clinical endpoints, time and cost. If we determine to pursue an additional clinical trial, there can be no assurances that the results of the trial will support a positive benefit-risk assessment. If we decide to appeal the issuance of the CRL, there can be no assurances that our request for appeal will be granted, or that, if granted, we will be successful in our appeal. As a result, the regulatory approval process for our NDA is highly uncertain. We may not obtain approval at all, and if we are able to obtain approval, the expense and time to do so could adversely impact our ability to successfully commercialize vadadustat or conduct our other business operations, and our financial condition could be materially harmed.

Our ability to generate product revenue and achieve profitability depends on the overall success of Auryxia(R), vadadustat, if approved, and any current or future product candidates, including those that may be in-licensed or acquired, which depends on several factors, including:

- obtaining adequate or favorable pricing and reimbursement from private and governmental payors for Auryxia, vadadustat, if approved, and any other product or product candidate, including those that may be in-licensed or acquired;
- obtaining and maintaining market acceptance of Auryxia, vadadustat, if approved, and any other product candidate, including those that may be in-licensed or acquired;
- the size of any market in which Auryxia, vadadustat and any other product or product candidate, including those that may be in-licensed or acquired, receives approval and obtaining adequate market share in those markets;
- addressing the issues identified in the CRL for vadadustat that we received from the FDA, including the results of the end of review conference and any future communications with the FDA;
- the timing and scope of marketing approvals for vadadustat, if approved, and any other product candidate, if approved, including those that may be in-licensed or acquired; maintaining marketing approvals for Auryxia, vadadustat, if approved, and any other product, including those that may be in-licensed or acquired;
- actual or perceived advantages or disadvantages of our products or product candidates as compared to alternative treatments, including their respective safety, tolerability and efficacy profiles, the potential convenience and ease of administration and cost;
- maintaining an acceptable safety and tolerability profile of our approved products, including the frequency and severity of any side effects;
- the willingness of the target patient population to try new therapies and of physicians to prescribe these therapies, based, in part, on their perception of our clinical trial data and/or the actual or perceived safety, tolerability and efficacy profile;
- establishing and maintaining supply and manufacturing relationships with third parties that can provide adequate supplies of products that are compliant with good manufacturing practices, or GMPs, to support the clinical development and the market demand for Auryxia, vadadustat, if approved, and any other product and product candidate, including those that may be in-licensed or acquired;
- current and future restrictions or limitations on our approved or future indications and patient populations or other adverse regulatory actions or in the event that the FDA requires Risk Evaluation and Mitigation Strategies, or REMS, or risk management plans that use restrictive risk minimization strategies;
- the effectiveness of our sales, marketing, manufacturing and distribution strategies and operations;
- competing effectively with any products for the same or similar indications as our products;
- maintaining, protecting and expanding our portfolio of intellectual property rights, including patents and trade secrets; and
- the impact of the COVID-19 pandemic on the above factors, including the limitation of our sales professionals to meet in person with healthcare professionals as the result of travel restrictions or limitations on access for non-patients.

Our ability to achieve profitability also depends on our ability to manage our expenses. Following receipt of the CRL, in April and May 2022, we implemented a reduction of our workforce, by approximately 42% across all areas of the Company (47% inclusive of the closing of the majority of open positions), including several members of management. We recorded a restructuring charge of $14.5 million in the aggregate primarily related to contractual termination benefits including severance, non-cash stock-based compensation expense, healthcare and related benefits primarily in the quarter ended June 30, 2022. However, we may incur additional costs not currently contemplated due to events associated with or resulting from the workforce reduction. Additionally, the reduction in workforce could impact our operations, including our commercialization of Auryxia, which could affect our ability to generate revenue.

Even in light of the reduction in workforce, we expect to continue to incur significant expenses and operating losses for the foreseeable future. In addition to any additional costs not currently contemplated due to events associated with or resulting from the workforce reduction noted above, our ability to achieve profitability and our financial position will depend, in part, on the

rate of our future expenditures, on product revenue, collaboration revenue, and our ability to obtain additional funding. On June 30, 2022, we entered into a Termination and Settlement Agreement, or the Termination Agreement, with Otsuka Pharmaceutical Co. Ltd., or Otsuka, pursuant to which we agreed to the immediate termination of the December 18, 2016 collaboration and license agreement with Otsuka, or the Otsuka U.S. Agreement and the April 25, 2017 collaboration and license agreement with Otsuka, or the Otsuka International Agreement, in exchange for the payment of $55.0 million to us and the agreement between the parties with respect to the conduct of certain activities. Unless and until we are able to find a new partner for vadadustat in Europe and other countries previously licensed to Otsuka, we will incur additional expenses in connection with the development of vadadustat and will receive less collaboration and, if approved, product revenue than originally anticipated. In addition, we expect to continue to incur significant expenses if and as we:

- continue our commercialization activities for Auryxia and vadadustat, if we are able to obtain marketing approval for vadadustat following receipt of the CRL from the FDA in March 2022, and any other product or product candidate, including those that may be in-licensed or acquired;
- address the issues identified in the CRL for vadadustat that we received from the FDA, including conducting any additional clinical trials that may be required;
- conduct and enroll patients in any clinical trials, including post-marketing studies or any other clinical trials for Auryxia, vadadustat or any other product or product candidate, including those that may be in-licensed or acquired;
- seek marketing approvals for vadadustat and any other product candidate, including those that may be in-licensed or acquired;
- maintain marketing approvals for Auryxia and vadadustat, if we are able to obtain marketing approval for vadadustat following receipt of the CRL from the FDA in March 2022, and any other product, including those that may be in-licensed or acquired;
- manufacture Auryxia, vadadustat and any other product or product candidate, including those that may be in-licensed or acquired, for commercial sale and clinical trials;
- conduct discovery and development activities for additional product candidates or platforms that may lead to the discovery of additional product candidates;
- engage in transactions, including strategic, merger, collaboration, acquisition and licensing transactions, pursuant to which we would market and develop commercial products, or develop and commercialize other product candidates and technologies;
- continue to repay, and pay any associated pre-payment penalties, if applicable, the senior secured term loans in an aggregate principal amount of $100.0 million, or the Term Loans, that were made available to us pursuant to the Loan Agreement;
- make royalty, milestone or other payments under our license agreements and any future license agreements;
- maintain, protect and expand our intellectual property portfolio;
- make decisions with respect to our personnel, including the retention of key employees;
- make decisions with respect to our infrastructure, including to support our operations as a fully integrated, publicly traded biopharmaceutical company; and
- experience any additional delays or encounter issues with any of the above.

We have and will continue to expend significant resources in our legal proceedings, as described above under Part II, Item I. Legal Proceedings, or any other legal proceedings brought by or against us in the future.

Because of the numerous risks and uncertainties associated with pharmaceutical product development and commercialization, we are unable to accurately predict the timing or amount of increased expenses. The net losses we incur may fluctuate significantly from quarter to quarter and year to year, such that a period-to-period comparison of our results of operations may not be a good indication of our future performance. In any particular quarter, the progress of our clinical development and our operating results could be below the expectations of securities analysts or investors, which could cause our stock price to decline.

We will continue to incur substantial expenditures relating to continued commercialization and post-marketing requirements for Auryxia and vadadustat, if we are able to obtain marketing approval for vadadustat following receipt of the CRL from the FDA in March 2022, and any other products, including those that may be in-licensed or acquired, as well as costs relating to the research and development of any other product candidate, including those that may be in-licensed or acquired. Our prior losses and expected future losses have had and will continue to have an adverse effect on our stockholders' equity and working capital.

Our expenses could increase beyond expectations if we are required by the FDA, the European Medicines Agency, or the EMA, or other regulatory authorities, or if we otherwise believe it is necessary, to change our manufacturing processes or assays, to

amend or replace our study protocols, to conduct any additional clinical trials, whether in order to obtain approval or as a post-approval study, including any additional clinical trial that we decide to conduct for vadadustat, to perform studies in addition to, different from or larger than those currently planned, if there are any delays in completing our clinical trials or if there are further delays in or issues with obtaining marketing approval for vadadustat in the United States, the European Union, or EU, or other jurisdictions. In addition, our ability to generate revenue would be negatively affected if the size of our addressable patient population is not as significant as we estimate, the indication approved by regulatory authorities is narrower than we sought or the patient population for treatment is narrowed by competition, physician choice, coverage or reimbursement, or payor or treatment guidelines. Even though we generate product revenue from Auryxia and royalties from Riona™ and Vafseo™ in Japan and may generate revenue and royalties from the sale of any products that may be approved in the future, including those that may be in-licensed or acquired, we may never generate revenue and royalties that are significant enough for us to become and remain profitable, and we will need to obtain additional funding to continue to fund our operating plan and achieve strategic growth.

We will require substantial additional financing to achieve our goals. A failure to obtain this necessary capital when needed, or on acceptable terms, could force us to delay, limit, reduce or terminate our product development or commercialization efforts.

As of June 30, 2022, our cash and cash equivalents were $143.9 million. We expect to continue to expend substantial amounts of cash for the foreseeable future as we continue to commercialize Auryxia; engage with the FDA regarding our NDA for vadadustat in the U.S.; support the regulatory process with respect to vadadustat with the EMA and ACCESS Consortium; and develop and commercialize any other product or product candidate, including those that may be in-licensed or acquired. These expenditures will include costs associated with research and development, manufacturing, potentially obtaining marketing approvals and marketing products approved for sale. In addition, other unanticipated costs may arise. Because the outcomes of our current and anticipated clinical trials are highly uncertain, we cannot reasonably estimate the actual amount of funding necessary to successfully complete clinical development for any current or future product candidates, including vadadustat depending on what is required to address the issues identified in the CRL for vadadustat and if additional clinical trials are required in order to obtain marketing approval, or to complete post-marketing studies for Auryxia and vadadustat, if approved. Our future capital requirements depend on many factors, including:

- the scope, progress, results and costs of conducting clinical trials or any post-marketing requirements or any other clinical trials for Auryxia, vadadustat and any other product or product candidate, including those that may be in-licensed or acquired;
- the cost and timing of commercialization activities, including product manufacturing, marketing, sales and distribution costs, for Auryxia, vadadustat, if approved, and any other product or product candidate, including those that may be in-licensed or acquired;
- the results of our meetings with the FDA, the EMA and other regulatory authorities and any consequential effects, including on timing of and ability to obtain and maintain marketing approval, study design, study size and resulting operating costs;
- any difficulties or delays in conducting our clinical trials, or enrolling patients in our clinical trials, for Auryxia, vadadustat or any other product candidates;
- the outcome of our efforts to obtain marketing approval for vadadustat in the United States, Europe and in other jurisdictions and any other product candidates, including those that may be in-licensed or acquired, including any additional clinical trials or post-approval commitments imposed by regulatory authorities;
- the timing of, and the costs involved in obtaining, marketing approvals for vadadustat, including in the United States, Europe, China and certain other markets, and any other product candidate, including those that may be in-licensed or acquired, including to fund the preparation, filing and prosecution of regulatory submissions;
- the costs of maintaining marketing approvals for Auryxia or any other product, including those that may be in-licensed or acquired;
- the cost of securing and validating commercial manufacturing for any of our product candidates, including those that may be in-licensed or acquired, and maintaining our manufacturing arrangements for Auryxia and vadadustat or any other product, including those that may be in-licensed or acquired, or securing and validating additional arrangements;
- the costs involved in preparing, filing and prosecuting patent applications and maintaining, defending and enforcing our intellectual property rights, including litigation costs, and the outcome of such litigation;
- the costs involved in any legal proceedings to which we are a party;
- our status as a publicly traded company on the Nasdaq Global Market;
- our decisions with respect to personnel;
- our decisions with respect to infrastructure; and
- the extent to which we engage in transactions, including strategic, merger, collaboration, acquisition and licensing transactions, pursuant to which we could develop and market commercial products, or develop other product candidates and technologies.

Furthermore, we expect to continue to incur costs associated with operating as a fully integrated, publicly traded biopharmaceutical company. Accordingly, we will need to obtain substantial additional funding to fund our operating plan

beyond Auryxia and achieve strategic growth. If we are unable to raise capital when needed or on attractive terms, we could be forced to delay, reduce or eliminate our research and development programs or any future commercialization efforts.

We expect our cash resources to fund our current operating plan through at least the next twelve months from the filing of this Quarterly Report on Form 10-Q. However, our operating plan includes assumptions pertaining to cost avoidance measures and the reduction of overhead costs that would result from the planned amendment of certain contractual arrangements, including with certain supply and collaboration partners, and the reduction of certain infrastructure costs. Because these cost avoidance initiatives and certain other elements of our operating plan are outside of our control, such as the planned amendment of certain contractual arrangements with certain supply and collaboration partners, and the reduction of certain infrastructure costs, there is uncertainty as to whether our cash resources will be adequate to support our operations for a period through at least the next twelve months from the date of issuance of these financial statements. In addition, if we fail to satisfy any of the covenants under our Loan Agreement with Pharmakon, including the covenant that our Annual Report on Form 10-K for the fiscal year ending December 31, 2022 not be qualified as to going concern, and the loan is accelerated, we may not have sufficient resources to fund our operating plan through the next twelve months. There can be no assurance that the current operating plan will be achieved in the time frame anticipated by us, or that our cash resources will fund our operating plan for the period anticipated by us or that additional funding will be available on terms acceptable to us, or at all.

Any additional fundraising efforts may divert our management's attention away from their day-to-day activities, which may adversely affect our ability to develop and commercialize Auryxia and any other products or product candidates, including those that may be in-licensed or acquired, or to continue to seek regulatory approval for vadadustat. Also, additional funds may not be available to us in sufficient amounts or on acceptable terms or at all. If we are unable to raise additional capital in sufficient amounts when needed or on terms acceptable to us, we may have to significantly delay, scale back or discontinue the development and/or commercialization of Auryxia and any other products or product candidates, including those that may be in-licensed or acquired, or to take any actions with respect to vadadustat depending on future decisions with respect to vadadustat in the U.S. Any of these events could significantly harm our business, financial condition and prospects.

Our independent registered public accounting firm included an explanatory paragraph relating to our ability to continue as a going concern in its report on our audited financial statements included in our Annual Report on Form 10-K and any future concerns relating to our ability to continue as a going concern would materially adversely affect us.

We believe that our cash resources will be sufficient to fund our current operating plan through at least the next twelve months from the filing of this Quarterly Report on Form 10-Q. However, there were conditions or events, considered in the aggregate, that raised substantial doubt about our ability to continue as a going concern within twelve months after the date the financial statements for December 31, 2021 were issued and certain elements of our operating plan were outside of our control at that time and continue to be outside of our control. In addition, as of the date of the financial statements included in this Quarterly Report on Form 10-Q, our operating plan includes assumptions pertaining to cost avoidance measures and the reduction of overhead costs that would result from the planned amendment of certain contractual arrangements, including with certain supply and collaboration partners, and the reduction of certain infrastructure costs. Because these cost avoidance initiatives and certain other elements of our operating plan are outside of our control, there is uncertainty as to whether our cash resources will be adequate to support our operations for a period through at least the next twelve months from the date of issuance of the financial statements included in this Quarterly Report on Form 10-Q. These conditions raise substantial doubt regarding our ability to continue as a going concern for a period of one year after the date these financial statements are issued. In the event we are not able to continue as a going concern, our business would be materially impacted. See Note 1 to our consolidated financial statements appearing elsewhere in our 2021 Annual Report on Form 10-K and Note 1 to this Quarterly Report on Form 10-Q, as applicable, for additional information on our assessments. Future concerns relating to our ability to continue as a going concern, could have a material adverse affect on us.

If we are unable to manage our spending, generate sufficient product revenue from sales of Auryxia, or otherwise obtain sufficient funding, our business, prospects, financial condition and results of operations will be materially and adversely affected and we may be unable to continue as a going concern. If we are unable to continue as a going concern, we may have to liquidate our assets and may receive less than the value at which those assets are carried on our audited financial statements, and it is likely that investors will lose all or a part of their investment. If we seek additional financing to fund our business activities in the future and there remains substantial doubt about our ability to continue as a going concern, investors or other financing sources may be unwilling to provide additional funding to us on commercially reasonable terms or at all. There can be no assurance that the current operating plan will be achieved in the time frame anticipated by us, or that our cash resources will fund our operating plan for the period we anticipate or that additional funding will be available on terms acceptable to us, or at all.

Pursuant to covenants in the Loan Agreement, as amended by the First Amendment and Waiver and the Second Amendment and Waiver, our Annual Reports on Form 10-K, must not be subject to any qualification as to going concern. If we do not satisfy the covenant as to going concern in any of the required filings, we will be in default under the Loan Agreement. If an event of default occurs and is continuing under the Loan Agreement, the Collateral Agent is entitled to take enforcement action, including acceleration of amounts due under the Loan Agreement, and we may not have the available cash resources to repay at

such time. If we are required to repay additional amounts due under the Loan Agreement earlier than anticipated, it would have a material adverse effect on our business, results of operations and financial condition.

Raising additional capital may cause dilution to our existing stockholders, restrict our operations or require us to relinquish rights to our product and product candidates on unfavorable terms to us.

We expect to finance future cash needs through product revenue, royalty transactions, strategic transactions, public or private equity or debt transactions, or a combination of these approaches. To the extent that we raise additional capital through the sale of equity or convertible debt securities, the ownership interests of our common stockholders will be diluted, our fixed payment obligations may increase, any such securities may have rights senior to those of our common stock, and the terms may include liquidation or other preferences and anti-dilution protections that adversely affect the rights of our common stockholders. Additional debt financing, if available, may involve agreements that would restrict our operations and potentially impair our competitiveness, such as limitations on our ability to incur additional debt, make capital expenditures, declare dividends, acquire, sell or license intellectual property rights, and other operating restrictions that could adversely impact our ability to conduct our business. If we raise additional funds through royalty transactions, we may have to relinquish valuable rights to our portfolio and future revenue streams, and enter into agreements that would restrict our operations and strategic flexibility. If we raise additional funds through strategic transactions with third parties, we may have to do so at an earlier stage than otherwise would be desirable. In connection with any such strategic transactions, we may be required to relinquish valuable rights to our product and product candidates, future revenue streams or research programs or grant licenses on terms that are not favorable to us. If we are unable to raise additional funds when needed, we may not be able to pursue planned development and commercialization activities and we may need to grant rights to develop and market product candidates that we would otherwise prefer to develop and market ourselves.

If we fail to regain compliance with the continued listing requirements of Nasdaq, our common stock may be delisted and the price of our common stock and our ability to access the capital markets could be negatively impacted.

On May 12, 2022, we received a deficiency letter from the Listing Qualifications Department of the Nasdaq Stock Market, or Nasdaq, notifying us that, for the last 30 consecutive business days, the bid price for our common stock had closed below the minimum $1.00 per share requirement for continued inclusion on the Nasdaq Global Market, referred to as the minimum bid price rule. In accordance with Nasdaq Listing Rules, we have an initial period of 180 calendar days, or until November 8, 2022, to regain compliance with the minimum bid price rule. If at any time before November 8, 2022 the bid price for our common stock closes at $1.00 or more per share for a minimum of 10 consecutive business days, the Nasdaq Listing Qualifications Department staff will provide written notification to us that we are in compliance with the minimum bid price rule, unless the staff exercises its discretion to extend this 10-day period pursuant to the Nasdaq Listing Rules.

If we do not regain compliance with the minimum bid price rule by November 8, 2022, we may be eligible for an additional 180 calendar day compliance period. To qualify, we would need to transfer the listing of our common stock to the Nasdaq Capital Market, provided that we meet the continued listing requirement for the market value of publicly held shares and all other initial listing standards, with the exception of the minimum bid price rule. To effect such a transfer, we would also need to pay an application fee to Nasdaq and would need to provide written notice to the Nasdaq Listing Qualifications Department staff of our intention to cure the deficiency during the additional compliance period.

If we do not regain compliance with the minimum bid price rule by the required date and we are not eligible for any additional compliance period at that time, the Nasdaq Listing Qualifications Department staff will provide us written notification that our common stock may be delisted. At that time, we may appeal the staff's delisting determination to a Nasdaq Listing Qualifications Panel. We expect that our common stock would remain listed pending the panel's decision. However, there can be no assurance that, even if we appeal the staff's delisting determination to the Nasdaq Listing Qualifications Panel, such appeal would be successful.

We intend to monitor the closing bid price of our common stock and may, if appropriate, consider available options to regain compliance with the minimum bid price rule, which could include seeking to effect a reverse stock split. However, there can be no assurance that we will be able to regain compliance with the minimum bid price rule.

There are many factors that may adversely affect our minimum bid price, including those described throughout this section titled "Risk Factors." Many of these factors are outside of our control. As a result, we may not be able to sustain compliance with the minimum bid price rule in the long term. Any potential delisting of our common stock from the Nasdaq Global Market would likely result in decreased liquidity and increased volatility for our common stock and would adversely affect our ability to raise additional capital or to enter into strategic transactions. Any potential delisting of our common stock from the Nasdaq Global Market would also make it more difficult for our stockholders to sell our common stock in the public market.

We may not be successful in our efforts to identify, acquire, in-license, discover, develop and commercialize additional products or product candidates or our decisions to prioritize the development of certain product candidates over others may not be successful, which could impair our ability to grow.

Although we continue to focus a substantial amount of our efforts on the commercialization of Auryxia and plan to continue discussions with the FDA regarding regulatory approval for vadadustat, a key element of our long-term growth strategy is to develop additional product candidates and acquire, in-license, develop and/or market additional products and product candidates.

Research programs to identify product candidates require substantial technical, financial and human resources, regardless of whether product candidates are ultimately identified. Our research and development programs may initially show promise, yet fail to yield product candidates for clinical development or commercialization for many reasons, including the following:

- the research methodology used may not be successful in identifying potential indications and/or product candidates;
- we may not be able or willing to assemble sufficient resources to acquire or discover additional product candidates;
- a product candidate may be shown to have harmful side effects, a lack of efficacy or other characteristics that indicate that they are unlikely to be drugs that will receive marketing approval and/or achieve market acceptance;
- a product candidate we develop and seek regulatory approval for, including vadadustat, may not be approved by the FDA on a timely basis, or at all;
- product candidates we develop may nevertheless be covered by third party patents or other exclusive rights;
- the market for a product candidate may change during our program so that the continued development of that product candidate is no longer commercially reasonable;
- a product candidate may not be capable of being produced in commercial quantities at an acceptable cost, or at all; or
- a product candidate may not be accepted as safe and effective by patients, the medical community, or third party payors, if applicable.

If any of these events occur, we may be forced to abandon our research and development efforts for one or more of our programs, or we may not be able to identify, discover, develop or commercialize additional product candidates, which may have a material adverse effect on our business.

Because we have limited financial and managerial resources, especially as a result of the CRL for vadadustat that we received in March 2022 and the reduction in workforce that we implemented in April and May 2022, we focus on products, research programs and product candidates for specific indications. As a result, we may forgo or delay pursuit of opportunities with other product candidates or for other indications, or out license rights to product candidates, that later prove to have greater commercial potential. For example, as a result of receipt of the CRL and implementation of the reduction in workforce, we delayed certain research activities. Our resource allocation decisions may cause us to fail to capitalize on viable commercial products or profitable market opportunities. Our spending on current and future research and development programs and product candidates for specific indications may not yield any commercially viable products.

Because our internal research capabilities are limited, we may be dependent upon other pharmaceutical and biotechnology companies, academic scientists, and other researchers to sell or license product candidates, products or technology to us. The success of this strategy depends partly upon our ability to identify, select, and acquire promising product candidates and products. The process of identifying, selecting, negotiating and implementing a license or acquisition of a product candidate or an approved product is lengthy and complex. Other companies, including some with substantially greater financial, marketing and sales resources, may compete with us for the license or acquisition of a product candidate or an approved product. We have limited resources to identify and execute the acquisition or in-licensing of third party products, businesses, and technologies and integrate them into our current infrastructure.

Moreover, we may devote resources to potential acquisitions or in-licensing opportunities that are never completed, or we may fail to realize the anticipated benefits of such efforts. Any product candidate that we acquire may require additional development efforts prior to commercial sale, including extensive clinical testing and approval by the FDA, the EMA, the Japanese Pharmaceuticals and Medical Devices Agency, or PMDA, or other regulatory authorities, or post-approval testing or other requirements if approved. All product candidates are prone to risks of failure typical of pharmaceutical product development, including the possibility that a product candidate will not be shown to be sufficiently safe and effective for approval by regulatory authorities. In addition, we cannot provide assurance that any of our products will be manufactured profitably, achieve market acceptance or not require substantial post-marketing clinical trials.

Accordingly, there can be no assurance that we will ever be able to identify, acquire, in-license or develop suitable additional products or product candidates, which could materially adversely affect our future growth and prospects. We may focus our efforts and resources on potential products, product candidates or other programs that ultimately prove to be unsuccessful.

We may engage in strategic transactions to acquire assets, businesses, or rights to products, product candidates or technologies or form collaborations or make investments in other companies or technologies that could harm our operating results, dilute our stockholders' ownership, increase our debt, or cause us to incur significant expense.

As part of our business strategy, we may engage in additional strategic transactions to expand and diversify our portfolio, including through the merger, acquisition or in-license of assets, businesses, or rights to products, product candidates or technologies or through strategic alliances or collaborations, similar to the Merger and our existing and prior collaboration and license arrangements. We may not identify suitable strategic transactions, or complete such transactions in a timely manner, on favorable terms, on a cost-effective basis, or at all. Moreover, we may devote resources to potential opportunities that are never completed or we may incorrectly judge the value or worth of such opportunities. Even if we successfully execute a strategic transaction, we may not be able to realize the anticipated benefits of such transaction and may experience losses related to our investments in such transactions. Integration of an acquired company or assets into our existing business may not be successful and may disrupt ongoing operations, require the hiring of additional personnel and the implementation and integration of additional internal systems and infrastructure, and require management resources that would otherwise focus on developing our existing business. Even if we are able to achieve the long-term benefits of a strategic transaction, our expenses and short-term costs may increase materially and adversely affect our liquidity. Any of the foregoing could have a detrimental effect on our business, results of operations and financial condition. For example, on June 4, 2021, we entered into a license agreement, the Cyclerion Agreement, with Cyclerion Therapeutics Inc., or Cyclerion, pursuant to which Cyclerion granted us an exclusive global license under certain intellectual property rights to research, develop and commercialize praliciguat, an investigational oral soluble guanylate cyclase, or sGC, stimulator. Although we have progressed pre-clinical studies for praliciguat, we may be unsuccessful in developing praliciguat. If any of the assumptions that we made in valuing the transaction, including the costs or timing of development of, or the potential benefits of, praliciguat, were incorrect, we may not recognize the anticipated benefits of the transaction and our business could be harmed.

In addition, future transactions may entail numerous operational, financial and legal risks, including:

- incurring substantial debt, dilutive issuances of securities or depletion of cash to pay for acquisitions;
- exposure to known and unknown liabilities, including contingent liabilities, possible intellectual property infringement claims, violations of laws, tax liabilities and commercial disputes;
- higher than expected acquisition and integration costs;
- difficulty in integrating operations, processes, systems and personnel of any acquired business;
- increased amortization expenses or, in the case of a write-down of the value of acquired assets, impairment losses, such as the Auryxia intangible asset impairment in the second quarter of 2020 and corresponding adjustments to the estimated useful life of the developed product rights for Auryxia;
- impairment of relationships with key suppliers or customers of any acquired business due to changes in management and ownership;
- inability to retain personnel, customers, distributors, vendors and other business partners integral to an in-licensed or acquired product, product candidate or technology;
- potential failure of the due diligence processes to identify significant problems, liabilities or other shortcomings or challenges;
- entry into indications or markets in which we have no or limited development or commercial experience and where competitors in such markets have stronger market positions; and
- other challenges associated with managing an increasingly diversified business.

If we are unable to successfully manage any transaction in which we may engage, our ability to develop new products and continue to expand and diversify our portfolio may be limited.

Our business has been and may continue to be, directly or indirectly, adversely affected by the COVID-19 pandemic.

The ongoing COVID-19 pandemic has presented a substantial public health and economic challenge around the world and continues to affect our employees, patients, healthcare providers with whom we interact, customers, collaboration partners, contract research organizations, or CROs, our contract manufacturing organizations, or CMOs, vendors, communities and business operations. The full extent to which the COVID-19 pandemic will directly or indirectly impact our business, results of operations and financial condition continues to depend on future developments that are highly uncertain and cannot be accurately predicted, including new information that may emerge concerning COVID-19, any resurgences or variants of COVID-19, the actions taken to contain it or treat its impact and the economic impact on local, regional, national and international markets where the healthcare providers with whom we interact, our partners, our CROs, our CMOs, and our other vendors operate.

We believe our revenue growth was negatively impacted by the COVID-19 pandemic in 2021 and the first two quarters of 2022 primarily as the CKD patient populations that we serve continue to experience both high hospitalization and mortality rates due to COVID-19. While we are unable to quantify the impact of the COVID-19 pandemic on future revenues and revenue growth, COVID-19 continues to adversely and disproportionately impact CKD patients; therefore, we expect COVID-19 to continue to have a negative impact on our revenue growth for the foreseeable future.

As a result of the COVID-19 pandemic, we adopted a flexible workplace policy allowing employees to work from home on a full or part-time basis, which may make it difficult for us to maintain our corporate culture and retain employees.

Moreover, our future success and profitability substantially depends on the management skills of our executives and certain other key employees and the additional unanticipated loss or unavailability of key employees due to the pandemic could harm our ability to operate our business or execute our business strategy and we may not be successful in finding and integrating suitable successors in the event of key employee loss or unavailability. For example, as of January 1, 2022, we have required all of our employees be fully vaccinated, subject to limited medical and religions exemptions in accordance with applicable laws. At this time, it is not possible to predict with certainty the exact impact that our vaccine requirement will continue to have on us or on our workforce. This could have an adverse effect on our business, results of operations and cash flows.

In addition, several healthcare facilities have previously restricted access for non-patients, including the members of our sales force. For example, DaVita, Inc., or DaVita, and Fresenius Medical Care, or Fresenius, which account for a vast majority of the dialysis population in the United States, have previously restricted access to their clinics. As a result, we continue to engage with some healthcare providers and other customers virtually, where possible. The restrictions on our customer-facing employees' in-person interactions with healthcare providers have, and could continue to, negatively impact our access to healthcare providers and, ultimately, our sales, including with respect to vadadustat, if approved. Recently, such precautionary measures have been relaxed at certain healthcare facilities and, as a result, members of our sales force have resumed in person interactions with certain customers. Nevertheless, some restrictions remain, and more restrictions may be put in place again due to a resurgence in COVID-19 cases, including those involving new variants of COVID-19, which may be more contagious and more severe than prior strains of the virus. Given this uncertain environment and the disproportionate impact of the COVID-19 pandemic on CKD patients, we are actively monitoring the demand in the United States for Auryxia and will be for vadadustat, if approved, including the potential for further declines or changes in prescription trends and customer orders, which could have a material adverse effect on our business, results of operations, and financial condition.

In addition, the direct and indirect impacts of the pandemic or the response efforts to the pandemic, including, among others, competition for labor and resources and increases in labor, sourcing, manufacturing and shipping costs, may cause disruptions to, closures of or other impacts on our CMOs and other vendors in our supply chain on which we rely for the supply of our products and product candidates. For example, areas of China have recently implemented lockdowns for COVID-19, which could impact the global supply chain. At this time, our CMOs continue to operate at or near normal levels. However, it is possible that the COVID-19 pandemic and response efforts may have an impact in the future on our contract manufacturers' ability to manufacture and deliver Auryxia and vadadustat (if approved in the United States or EMA and which is currently marketed under the trade name Vafseo™ by MTPC in Japan), which may result in increased costs and delays, or disruptions to the manufacturing and supply of our products. These impacts could have a negative effect on our inventory reserves, which could result in an increase in inventory write-offs due to expiry.

Outside of the impacts to our clinical trials as a result of the CRL, the pandemic has resulted in closures of and may continue to impact clinical trial sites on which we rely and will rely on in the future for the completion of certain clinical trials. COVID-19 pandemic precautions have caused moderate delays in enrolling new clinical trials and may cause delays in enrolling future clinical trials. Further, the pandemic has impacted and is likely to continue to impact the business of the FDA, the EMA and other government authorities, which potentially could result in delays in meetings, reviews, inspections and approvals relating to our product and product candidates. Any decision by the FDA, EMA or other governmental authorities to delay meeting with us or our collaboration partners or delay scheduling inspections in light of COVID-19 could have a material adverse effect on clinical trials of our product candidates or on our efforts to obtain marketing approvals for vadadustat, which could increase our operating expenses and have a material adverse effect on our financial results, including the timing and amount of future regulatory milestones we could receive from our collaboration partners.

If we or any of the third parties with whom we engage, including our collaboration partners, were to experience further shutdowns, delays or other business disruptions, our ability to conduct our business in the manner and on the timelines presently planned could be materially and negatively impacted, which could have a material adverse effect on our business and our financial results.

The COVID-19 pandemic may continue to significantly impact economies and financial markets worldwide, which could result in adverse effects on our business and operations, impact our ability to raise additional funds and impact the volatility of our

stock price and trading in our stock. Even after the COVID-19 pandemic has been contained or mitigated, we may continue to experience adverse impacts to our business as a result of any economic recession or depression that has occurred or may occur in the future.

The global impact of COVID-19 continues to rapidly evolve, and we will continue to monitor the situation closely. In particular, areas we are monitoring include possible COVID-related changes in our commercial revenue payor mix, overall product sales, and reserves and allowances, as well as negative trends that could potentially have a further significant impact on product demand and, ultimately, product revenue, or could cause goodwill, intangible assets, and other assets to be impaired. This uncertain pandemic environment has presented new risks to our business. While we are working to mitigate the impacts on our business, we are mindful that many of these risks and the impact to the larger healthcare market are outside of our control. The extent to which COVID-19 impacts our business will depend on future developments, which are highly uncertain and the magnitude of which cannot be predicted, including new information that may emerge concerning the severity of COVID-19 and the actions to contain COVID-19, and the effectiveness of vaccines against virus variants.

Risks Related to our Financial Arrangements

Our obligations in connection with the loan agreement with Pharmakon and requirements and restrictions in the loan agreement could adversely affect our financial condition and restrict our operations.

We entered into the Loan Agreement with Pharmakon, pursuant to which the Term Loans were made available to us in two tranches. The first tranche of $80.0 million closed on November 25, 2019, and the second tranche of $20.0 million closed on December 10, 2020. See Note 11 to our condensed consolidated financial statements in Part I, Item 1. Financial Statements of this Quarterly Report on Form 10-Q for additional information regarding our obligations under the Loan Agreement.

The Loan Agreement contains affirmative and negative covenants applicable to us and our subsidiaries, including maintaining, on an annual basis, a minimum liquidity threshold, which started in 2021, and on a quarterly basis, a minimum net sales threshold for Auryxia, which started in the fourth quarter of 2020. In addition, the Loan Agreement contains covenants that our Annual Reports on Form 10-K, must not be subject to any qualification as to going concern. Failure to maintain compliance with these or other covenants would result in an event of default under the Loan Agreement, which could result in enforcement action, including acceleration of amounts due under the Loan Agreement. Additionally, the liabilities under the Loan Agreement will be accelerated, subject to certain exceptions, if we are required to repay to Vifor Pharma all or a part of the working capital facility established in connection with the Second Amended and Restated License Agreement that we entered into with Vifor Pharma, in February 2022, or the Vifor Second Amended Agreement, as a result of certain terminations of the Vifor Second Amended Agreement or due to a reduction in the balance of the working capital facility by more than a prespecified amount.

Our obligation to repay the remaining principal on the Term Loans under the Loan Agreement become due and payable beginning in September 2022, and we do not believe that we will be entitled to extend the timing for repayment under the terms of the Loan Agreement. In the event there is an acceleration of our and certain of our subsidiaries' liabilities under the Loan Agreement as a result of an event of default or otherwise, we may not have sufficient funds or may be unable to arrange for additional financing to repay the liabilities or to make any accelerated payments, and Pharmakon could seek to enforce security interests in the collateral securing the Loan Agreement and our guarantee of the Term Loans, which would have a material adverse effect on our business, financial condition and results of operations.

The Loan Agreement permits voluntary prepayment at any time in whole or in part, subject to prepayment premiums and make-whole premiums prior to certain dates. We made a voluntary prepayment of $25.0 million, including $0.5 million of prepayment penalties on July 15, 2022, pursuant to the Second Amendment and Waiver. This represented the repayment of $5.0 million of the first tranche and the full $20.0 million of the second tranche. Upon a change of control, mandatory prepayment provisions require us to prepay the principal amount outstanding, the applicable prepayment premium and make-whole premium and accrued and unpaid interest. In addition, our obligations in connection with the Loan Agreement could have additional significant adverse consequences, including, among other things:

- restricting our activities, including limitations on transferring certain of our assets, engaging in certain transactions, terminating certain agreements, including the Vifor Second Amended Agreement, incurring certain additional indebtedness, creating certain liens, paying dividends or making certain other distributions and investments;
- limiting our flexibility in planning for, or reacting to, changes in our business and our industry;
- placing us at a possible competitive disadvantage compared to our competitors who have a smaller amount of debt or competitors with comparable debt at more favorable interest rates; and
- limiting our ability to borrow additional amounts for working capital, capital expenditures, research and development efforts, acquisitions, debt service requirements, execution of our business strategy and other purposes.

Any of these factors could materially and adversely affect our business, financial condition and results of operations.

Our Royalty Interest Acquisition Agreement with HealthCare Royalty Partners IV, L.P. contains various covenants and other provisions, which, if violated, could materially adversely affect our financial condition.

On February 25, 2021, we entered into a royalty interest acquisition agreement, or the Royalty Agreement, with HealthCare Royalty Partners IV, L.P., or HCR, pursuant to which we sold to HCR our right to the to receive royalties and sales milestones for vadadustat, collectively the Royalty Interest Payments, in each case, payable to us under our Collaboration Agreement dated December 11, 2015, or the MTPC Agreement, with Mitsubishi Tanabe Pharma Corporation, or MTPC, subject to an annual maximum "cap" of $13.0 million, or the Annual Cap, and an aggregate maximum "cap" of $150.0 million, or the Aggregate Cap. Under the Royalty Agreement, we are required to comply with various covenants, including obligations to take certain actions, such as actions with respect to the Royalty Interest Payments, the MTPC Agreement, our agreement with MTPC for the commercial supply of vadadustat drug product, and our intellectual property. In addition, the Royalty Agreement includes customary events of default upon the occurrence of enumerated events, including failure to perform certain covenants and the occurrence of insolvency events. In the event we violate certain covenants and other provisions, we may not receive sales milestones from HCR even if the applicable sales thresholds are met. Upon the occurrence of an event of default, HCR would have the ability to exercise all available remedies in law and equity, which could have a material adverse effect on our financial condition.

Risks Related to Commercialization

Our business is substantially dependent on the commercial success of Auryxia. If we are unable to continue to successfully commercialize Auryxia, our results or operations and financial condition will be materially harmed.

Our business and our ability to generate product revenue largely depend on our, and our collaborators', ability to successfully commercial Auryxia. Market acceptance is critical to our ability to generate significant product revenue. Any product may achieve only limited market acceptance or none at all. If Auryxia, or any of our product candidates that is approved, is not accepted by the market to the extent that we expect or market acceptance decreases, we may not be able to generate significant product revenue and our business would be materially harmed. Market acceptance of Auryxia or any other approved product depends on a number of factors, including:

- the availability of adequate coverage and reimbursement by and the availability of discounts, rebates and price concessions from third party payors, pharmacy benefit managers, or PBMs, and governmental authorities;
- the safety and efficacy of the product, as demonstrated in clinical trials and in the post-marketing setting;
- the prevalence and complications of the disease treated by the product;
- the clinical indications for which the product is approved and the product label approved by regulatory authorities, including any warnings or limitations that may be required on the label as a consequence of potential safety risks associated with the product;
- the countries in which marketing approvals are obtained;
- the claims we and our collaborators are able to make regarding the safety and efficacy of the product;
- the success of our physician and patient communications and education programs;
- acceptance by physicians and patients of the product as a safe and effective treatment and the willingness of the target patient population to try new therapies and of physicians to prescribe new therapies;
- the cost, safety and efficacy of the product in relation to alternative treatments;
- the timing of receipt of marketing approvals and product launch relative to competing products and potential generic entrants;
- relative convenience and ease of administration;
- the frequency and severity of adverse side effects;
- favorable or adverse publicity about our products or favorable or adverse publicity about competing products;
- the effectiveness of our and our collaborators' sales, marketing and distribution efforts; and
- the restrictions on the use of the product together with other medications, if any.

If we are unable to maintain or expand, or, if vadadustat is approved, initiate, sales and marketing capabilities or enter into additional agreements with third parties, we may not be successful in commercializing Auryxia, vadadustat, if approved, or any other product candidates that may be approved.

In order to market Auryxia and any other approved product, we intend to continue to invest in sales and marketing, which will require substantial effort and significant management and financial resources. We have built a commercial infrastructure and sales force in the United States for Auryxia, our first commercial product. However, following receipt of the CRL, in April and May 2022, we implemented a reduction of our workforce by approximately 42% across all areas of the Company (47% inclusive of the closing of the majority of open positions), including several members of management. If the remaining sales and marketing team cannot successfully commercialize Auryxia, or if additional sales and marketing employees decide to leave as a result of the reduction in workforce or otherwise, it could have a material adverse effect on Auryxia revenue and our financial condition.

If we obtain regulatory approval to market vadadustat in the U.S., we believe that we can leverage the current commercial foundation for vadadustat in the U.S., but if we are unable to do so successfully this would materially harm our business. Additionally, training a sales force to successfully sell and market a new commercial product is expensive and time-consuming and could delay any commercial launch of such product candidate. We may underestimate the size of the sales force required for a successful product launch and we may need to expand our sales force earlier and at a higher cost than we anticipated. In 2021 and early 2022, we incurred commercialization expenses for vadadustat that were premature or unnecessary as a result of the receipt of the CRL for vadadustat, and may in the future incur additional commercialization expenses prematurely or unnecessarily if we do not receive marketing approval in the timeframe we expect, or at all, we may have prematurely or unnecessarily incurred commercialization expenses.

We devote significant effort, in particular, to recruiting individuals with experience in the sales and marketing of pharmaceutical products. Competition for personnel with these skills is significant and retaining qualified personnel with experience in our industry is difficult. Further, the continuing or recurring restrictions placed on recruiting, training and retention by the ongoing COVID-19 pandemic and our recent reduction in workforce may further exacerbate these conditions and interfere with our ability to find and retain qualified personnel. As a result, we may not be able to retain our existing employees or hire new employees quickly enough to meet our needs. At the same time, we may face high turnover, requiring us to expend time and resources to source, train and integrate new employees.

There are risks involved with maintaining our own sales and marketing capabilities, including the following:

- potential inability to recruit, train and retain adequate numbers of effective sales and marketing personnel;
- potential inability of sales personnel to obtain access to physicians, including because of restrictions due to COVID-19;
- potential lack of complementary products to be offered by sales personnel, which may put us at a competitive disadvantage relative to companies with more extensive product lines, especially as a result of the receipt of the CRL for vadadustat; and
- costs and expenses associated with maintaining our own sales and marketing organization.

If we are unable to maintain our own sales and marketing capabilities, we will not be successful in commercializing Auryxia, vadadustat, if approved, and any other product candidate that may be approved.

Furthermore, if we are unable to maintain our arrangements with third parties with respect to sales and marketing, if we are unsuccessful in entering into additional arrangements with third parties to sell and market our products or we are unable to do so on terms that are favorable to us, or if such third parties are unable to carry out their obligations under such arrangements, it will be difficult to successfully commercialize our product and product candidates, including vadadustat, if approved. For example, if in connection with the Vifor Second Amended Agreement, we experience difficulties with Vifor Pharma, or if Vifor Pharma experiences difficulties with other parties to whom it expects to sell vadadustat, if approved, our ability to commercialize vadadustat, if approved, will be severely hindered and our business operations will be materially harmed.

Our, or our partners', failure to obtain or maintain adequate coverage, pricing and reimbursement for Auryxia, vadadustat, if approved, or any other future approved products, could have a material adverse effect on our or our collaboration partners' ability to sell such approved products profitably and otherwise have a material adverse impact on our business.

Market acceptance and sales of any approved products, including Auryxia and, if approved, vadadustat, depends significantly on the availability of adequate coverage and reimbursement from third party payors and may be affected by existing and future healthcare reform measures. Governmental authorities, third party payors, and PBMs decide which drugs they will cover, as well as establish formularies or implement other mechanisms to manage utilization of products and determine reimbursement levels. We cannot be sure that coverage or adequate reimbursement will be available for Auryxia, vadadustat, if approved, or any of our potential future products. Even if we obtain coverage for an approved product, third party payors may not establish adequate reimbursement amounts, which may reduce the demand for our product and prompt us to have to reduce pricing for the product. If reimbursement is not available or is limited, we may not be able to commercialize certain of our products.

Coverage and reimbursement by a governmental authority, third-party payor or PBM may depend upon a number of factors, including the determination that use of a product is:

- a covered benefit under the health plan;
- safe, effective and medically necessary;
- appropriate for the specific patient; and
- cost effective.

Obtaining coverage and reimbursement approval for a product from a governmental authority, PBM or a third-party payor 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 the payor. In the United States, there are multiple governmental authorities, PBMs and third-party payors with varying coverage and reimbursement levels for pharmaceutical products, and the timing of commencement of reimbursement by a governmental payor is dependent on the assignment of codes via the Healthcare Common Procedural Coding System, which codes are assigned on a quarterly basis. Within Medicare, for oral drugs dispensed by pharmacies and also administered in facilities, coverage and reimbursement may vary depending on the setting. CMS, local Medicare administrative contractors, Medicare Part D plans and/or PBMs operating on behalf of Medicare Part D plans, may have some responsibility for determining the medical necessity of such drugs, and therefore coverage, for different patients. Different reimbursement methodologies may apply, and CMS may have some discretion in interpreting their application in certain settings.

As an oral drug, Auryxia is covered by Medicare only under Part D. However, in September 2018, CMS decided that Auryxia would no longer be covered by Medicare for the treatment of iron deficiency anemia, or IDA, in adult patients with NDD-CKD, or the IDA Indication, or the CMS Decision. While this decision does not impact CMS coverage of the control of serum phosphorus levels in adult patients with DD-CKD, or the Hyperphosphatemia Indication, it requires Part D plan sponsors to impose prior authorization or other steps to ensure that Auryxia is used only for the Hyperphosphatemia Indication. While we believe that the vast majority of the Medicare prescriptions written for Auryxia today are for the Hyperphosphatemia Indication and therefore will continue to be covered by Medicare with prior authorization, the CMS Decision has had and will continue to have an adverse impact on the sales and future growth of Auryxia for the Hyperphosphatemia Indication and the IDA Indication. For example, in the second quarter of 2020, we reduced our short-term and long-term Auryxia revenue forecast, primarily driven by the compounding impact of the CMS Decision. As a result, we recorded an impairment charge of $115.5 million to the Auryxia intangible asset associated with the developed product rights for Auryxia during the three months ended June 30, 2020.

Medicaid reimbursement of drugs varies by state. Private third-party payor reimbursement policies also vary and may or may not be consistent with Medicare reimbursement methodologies. Manufacturers of outpatient prescription drugs may be required to provide discounts or rebates under government healthcare programs or to certain third-party payors in order to obtain coverage of such products.

Additionally, we may be required to enter into contracts with third party payors and/or PBMs offering rebates or discounts on our products in order to obtain favorable formulary status and we may not be able to agree upon commercially reasonable terms with such third party payors or PBMs, or provide data sufficient to obtain favorable coverage and reimbursement for many reasons, including that we may be at a competitive disadvantage relative to companies with more extensive product lines. In addition, third party payors, PBMs and other entities that purchase our products may impose restrictions on our ability to raise prices for our products over time without incurring additional costs. Four distributors, Fresenius Medical Care Rx, McKesson Corporation, Cardinal Health, Inc. and Amerisource Bergen Drug Corporation, in the aggregate, accounted for a significant percentage of our gross accounts receivable as of June 30, 2022. If we are not able to maintain our arrangements with these key distributors on favorable terms, on a timely basis or at all, or if there is any adverse change in one or more of these distributors' business practices or financial condition, it would adversely impact the market opportunity for Auryxia, our product revenues and operating results.

Furthermore, vadadustat was approved in Japan for the treatment of adult patients with anemia due to CKD and is being marketed by MTPC in Japan under the trade name Vafseo™. Pricing and reimbursement strategy is a key component of MTPC's commercialization plans for Vafseo in Japan. If coverage and reimbursement terms change, MTPC may not be able to, or may decide not to, continue commercialization of Vafseo in Japan.

Although we currently believe it is likely that vadadustat, if approved, will be reimbursed using the Transitional Drug Add-on Payment Adjustment, or TDAPA, followed by reimbursement via the bundled reimbursement model, if vadadustat is neither reimbursed under the TDAPA nor the bundled reimbursement model, then patients would access vadadustat through contracts we negotiate with third party payors for reimbursement of vadadustat, which would be subject to the risks and uncertainties described above. Additionally, applying for and obtaining reimbursement under the TDAPA is expected to take several months

following approval, which will affect adoption, uptake and product revenue for vadadustat during that time, and if there are updates to the TDAPA rule that decrease the basis for reimbursement or eligibility criteria during the transition period or if the TDAPA is eliminated, then our profitability may be adversely affected. For example, the Medicare Payment Advisory Commission, or MedPAC, an independent legislative branch advisory body to Congress on issues related to the Medicare program, has recommended that TDAPA not be provided to newly approved drug products considered to fall within "functional categories" for which costs are already accounted for in the bundled reimbursement model, such as for anemia management drugs.

Further, if vadadustat is approved in the United States and included in the fixed reimbursement model for a bundle of dialysis services, or the bundle, we would be required to enter into contracts to supply vadadustat to specific dialysis providers, instead of through distributors, which we believe could be challenging. The dialysis market is unique and is dominated by two providers: DaVita and Fresenius, which account for a vast majority of the dialysis population in the United States. Under the Vifor Second Amended Agreement, we granted Vifor Pharma an exclusive license to sell vadadustat to Fresenius Medical Care North America and its affiliates, including Fresenius Kidney Care Group LLC, to certain third-party dialysis organizations approved by us, to independent dialysis organizations that are members of group purchase organizations, and to certain non-retail specialty pharmacies in the United States, or the Territory. We refer to Fresenius Medical Care North America and its affiliates, these organizations and specialty pharmacies collectively as the "Supply Group". See Note 4 to our consolidated financial statements in Part I, Item 1. Financial Statements of this Quarterly Report on Form 10-Q for additional information regarding the Vifor Second Amended Agreement. If vadadustat is approved and we are not able to maintain the Vifor Second Amended Agreement or enter into a supply agreement with DaVita or other dialysis clinics, our business may be materially harmed.

Similar to how payor coverage may affect the sales of a product, formulary status within dialysis organizations may affect what products are prescribed within that specific organization. Therefore, if a product is not on a formulary, the prescribers within that organization may be less likely to prescribe that product or may have a difficult time prescribing that product, resulting in less sales. Further, one dialysis organization's determination to add a product to their formulary does not assure that other dialysis organizations will also add the product to theirs. There is always a risk a dialysis organization will not contract with a drug manufacturer for a specific product, resulting in that product not being on that organization's formulary. If any dialysis organization does not add vadadustat, if approved, to the formulary, our business may be materially harmed.

In addition, we may be unable to sell Auryxia or vadadustat, if approved, to dialysis providers on a profitable basis if CMS significantly reduces the level of reimbursement for dialysis services and providers choose to use alternative therapies or look to re-negotiate their contracts with us. Our profitability may also be affected if our costs of production increase faster than increases in reimbursement levels. Adequate coverage and reimbursement of our products by government and private insurance plans are central to patient and provider acceptance of any products for which we receive marketing approval.

Further, in many countries outside the United States, a drug must be approved for reimbursement before it can be marketed or sold in that country. In some cases, the prices that we intend to charge for our products are also subject to approval. Approval by the FDA does not ensure approval by reimbursement authorities outside the United States, and approval by one reimbursement authority outside the United States does not ensure approval by any other reimbursement authorities. However, the failure to obtain reimbursement in one jurisdiction may negatively impact our ability to obtain reimbursement in another jurisdiction. We may not be able to obtain such reimbursement approvals on a timely basis, if at all, and favorable pricing in certain countries depends on a number of factors, some of which are outside of our control.

We face substantial competition, which may result in others discovering, developing or commercializing products before, or more successfully than, we do.

The development and commercialization of new drugs is highly competitive and subject to rapid and significant technological change. Our future success depends on our ability to demonstrate and maintain a competitive advantage with respect to the development and commercialization of Auryxia, vadadustat, if approved, and any other product or product candidate, including those that may be in-licensed or acquired. Our objective is to continue to commercialize Auryxia and develop and commercialize new products with clinically proven efficacy, convenience, tolerability and/or safety. In many cases, any approved products that we commercialize will compete with existing, market-leading products.

Auryxia is competing in the hyperphosphatemia market in the United States with other FDA-approved phosphate binders such as Renagel® (sevelamer hydrochloride) and Renvela® (sevelamer carbonate), both marketed by Sanofi, PhosLo® and Phoslyra® (calcium acetate), marketed by Fresenius Medical Care North America, Fosrenol® (lanthanum carbonate), marketed by Shire Pharmaceuticals Group plc, and Velphoro® (sucroferric oxyhydroxide), marketed by Fresenius Medical Care North America, as well as over-the-counter calcium carbonate products such as TUMS® and metal-based options such as aluminum, lanthanum and magnesium. Most of the phosphate binders listed above are now also available in generic forms. In addition, other agents are in development, including OPKO Health Inc.'s Alpharen™ Tablets (fermagate tablets) or could otherwise enter the market, including Ardelyx, Inc.'s tenapanor (which is approved in the United States for the treatment of adults with irritable

bowel syndrome with constipation, but for which the FDA issued a complete response letter for with respect to the control of serum phosphorus in adult patients with CKD on dialysis), that may impact the market for Auryxia.

Auryxia is competing in the IDA market in the United States with over-the-counter oral iron, ferrous sulfate, other prescription oral iron formulations, including ferrous gluconate, ferrous fumerate, and polysaccharide iron complex, and intravenous iron formulations, including Feraheme® (ferumoxytol injection), Venofer® (iron sucrose injection), Ferrlicit® (sodium ferric gluconate complex in sucrose injection), Injectafer® (ferric carboxymaltose injection), and Triferic® (ferric pyrophosphate citrate). In addition, other new therapies for the treatment of IDA may impact the market for Auryxia, such as Shield Therapeutics plc's Feraccru® (ferric maltol), which is available in Europe for the treatment of IDA and Accrufer® (ferric maltol), which was launched in the United States for the treatment of IDA in July 2021.

Furthermore, Auryxia's commercial opportunities may be reduced or eliminated if our competitors develop and market products that are less expensive, more effective, safer or offer greater patient convenience than Auryxia. Other companies have product candidates in various stages of preclinical or clinical development to treat diseases and complications of the diseases for which we are marketing Auryxia. In addition, we and Keryx's licensors, Panion & BF Biotech, Inc., or Panion, and, as applicable, Dr. Hsu, entered into settlement agreements with each of the third parties who submitted Paragraph IV certification notice letters regarding Abbreviated New Drug Applications, or ANDAs, submitted to the FDA, pursuant to which we granted licenses to market a generic version of Auryxia in the United States beginning in March 2025 (subject to FDA approval), or earlier under certain circumstances customary for settlement agreements of this nature, which may impact our business and results of operation.

Drugs that may compete with vadadustat include Epogen® (epoetin alfa) and Aranesp® (darbepoetin alfa), both commercialized by Amgen, Procrit® (epoetin alfa) and Eprex® (epoetin alfa), commercialized by Johnson & Johnson in the United States and Europe, respectively, and Mircera® (methoxy PEG-epoetin beta), commercialized by Vifor Pharma in the United States and Roche Holding Ltd. outside of the United States.

We and our partners may also face competition from potential new anemia therapies. There are several other HIF-PH inhibitor product candidates in various stages of development for anemia indications that may be in direct competition with vadadustat if and when they are approved and launched commercially. These candidates are being developed by companies such as FibroGen Inc., or FibroGen, together with its collaboration partners, Astellas Pharma Inc. and AstraZeneca PLC, Japan Tobacco International, or JT, GlaxoSmithKline plc, or GSK, and Bayer HealthCare AG, or Bayer.

Furthermore, certain companies are developing potential new therapies for renal-related diseases that could potentially reduce injectable erythropoiesis stimulating agent, or ESA, utilization and thus limit the market potential for vadadustat if they are approved and launched commercially. Other new therapies are in development for the treatment of conditions inclusive of renal anemia that may impact the market for anemia-targeted treatment.

In addition, in the United States, FibroGen filed an NDA for its product candidate, roxadustat, with the FDA, but the FDA issued a complete response letter indicating the FDA will not approve the NDA in its present form and requested that an additional clinical trial for roxadustat be conducted prior to resubmission of the NDA or additional response to the FDA's complete response letter. In Europe however, roxadustat is approved for the treatment of anemia in patients with CKD. Further, GSK filed an NDA for daprodustat, its product candidate for the treatment of anemia due to CKD, with the FDA in April 2022. If we obtain approval for vadadustat in the U.S., and roxadustat or daprodustat are also approved by the FDA, they will compete with vadadustat.

In Japan, Vafseo, which is approved for both the DD and NDD indications, competes with roxadustat, daprodustat and enarodustat. Roxadustat is approved for the treatment of anemia due to CKD in patients on dialysis, or DD-CKD, and patients not on dialysis, or NDD-CKD. In addition, daprodustat, GSK's product candidate, and enarodustat, JT's product candidate, are approved in Japan for the treatment of anemia due to CKD. In addition. Bayer HealthCare AG has submitted an NDA for its product candidate for the treatment of renal anemia in Japan. In China, roxadustat has launched for the treatment of anemia of DD-CKD and for the treatment of anemia due to CKD in NDD-CKD patients.

A biosimilar is a biologic product that is approved based on demonstrating that it is highly similar to an existing, FDA-approved branded biologic product. The patents for the existing, branded biologic product must expire in a given market before biosimilars may enter that market without risk of being sued for patent infringement. In addition, an application for a biosimilar product cannot be approved by the FDA until 12 years after the existing, branded product was approved under a Biologics License Application, or BLA. The patents for epoetin alfa, an injectable ESA, expired in 2004 in the EU, and the remaining patents expired between 2012 and 2016 in the United States. Because injectable ESAs are biologic products, the introduction of biosimilars into the injectable ESA market in the United States will constitute additional competition for vadadustat if we are able to obtain approval for and commercially launch vadadustat. In the United States, Pfizer's biosimilar version of injectable

ESAs, Retacrit® (epoetin alfa-epbx), was approved by the FDA in May 2018 and launched in November 2018 and several biosimilar versions of injectable ESAs are available for sale in the EU.

Many of our potential competitors have significantly greater financial, manufacturing, marketing, drug development, technical and human resources than we do. Large pharmaceutical companies, in particular, have extensive experience in clinical testing, obtaining marketing approvals, recruiting patients and manufacturing pharmaceutical products. Large and established companies such as Amgen and Roche, among others, compete in the market for drug products to treat kidney disease. In particular, these companies have greater experience and expertise in conducting preclinical testing and clinical trials, obtaining marketing approvals, manufacturing such products on a broad scale and marketing approved products. These companies also have significantly greater research and marketing capabilities than we do and may also have products that have been approved or are in late stages of development and have collaborative arrangements in our target markets with leading companies and research institutions. Established pharmaceutical companies may also invest heavily to accelerate discovery and development of novel compounds or to in-license novel compounds that could make the product candidates that we are developing obsolete. Smaller and other early-stage companies may also prove to be significant competitors. As a result of all of these factors, our competitors may succeed in obtaining patent protection and/or marketing approval, or discovering, developing and commercializing competitive products, before, or more effectively than, we do. If we are not able to compete effectively against potential competitors, our business will not grow and our financial condition and operations will suffer.

The commercialization of Riona™ and Vafseo™ in Japan and our current and potential future efforts with respect to the development and commercialization of our products and product candidates outside of the United States subject us to a variety of risks associated with international operations, which could materially adversely affect our business.

Our Japanese sublicensee, JT, and its subsidiary, Torii Pharmaceutical Co., Ltd., or Torii, commercialize Riona, the trade name for ferric citrate hydrate in Japan, as an oral treatment for the improvement of hyperphosphatemia in patients with CKD, including DD-CKD and NDD-CKD, and for the treatment of adult patients with IDA in Japan. In Japan and certain other countries in Asia, we granted MTPC exclusive rights to commercialize vadadustat, which has been approved and is being marketed by MTPC in Japan under the trade name Vafseo™.

Pursuant to the terms of the Termination Agreement with Otsuka, Otsuka has agreed to transfer to us the MAA for vadadustat in the EMA and ACCESS Consortium. In addition, we have conducted and in the future plan to conduct clinical trials outside of the United States for Auryxia, vadadustat and any other product or product candidate that may be in-licensed or acquired. As a result of these and other activities, we are or may become subject to additional risks in developing and commercializing Auryxia and vadadustat outside the United States, including, among others:

- political, regulatory, compliance and economic developments, weakness or instability that could restrict our ability to manufacture, market and sell our products;
- changes in international medical reimbursement policies and programs;
- changes in healthcare policies of foreign jurisdictions;
- trade protection measures, including import or export licensing requirements and tariffs and our compliance therewith;
- our ability to develop or manage relationships with qualified local distributors and trading companies;
- diminished protection of intellectual property in some countries outside of the United States;
- differing labor regulations and business practices;
- compliance with laws, including the U.S. Foreign Corrupt Practices Act, or FCPA, the UK Bribery Act or similar local regulation, the EU General Data Protection Regulation, or GDPR, and similar data protection laws, and tax, employment, immigration and labor laws;
- economic weakness, including inflation, or political instability in particular foreign economies and markets;
- foreign currency fluctuations, which could result in increased operating expenses and reduced revenues, and other obligations incident to doing business in another country;
- production shortages resulting from any events affecting raw material supply or manufacturing capabilities abroad, including as a result of COVID-19; and
- business interruptions resulting from geopolitical actions, including war and terrorism, global pandemics, or natural disasters including earthquakes, typhoons, floods and fires.

In addition, we receive revenues from royalty payments converted to U.S. dollars based on net sales of Riona and Vafseo™ in Japanese yen. The exchange rates between the Japanese yen on the one hand, and the U.S. dollar, on the other hand, have changed substantially in recent years and may fluctuate substantially in the future. Our results of operations could be adversely affected over time by certain movements in exchange rates, particularly if the Japanese yen depreciates against the U.S. dollar.

Any of these factors may, individually or as a group, have a material adverse effect on our business and results of operations. As and if we continue to expand our commercialization efforts, we may encounter new risks.

Risks Related to Product Development

Clinical drug development involves a lengthy and expensive process with an uncertain outcome, and we will incur additional costs in connection with, and may experience delays in completing, or ultimately be unable to complete, the development and, if approved, commercialization of vadadustat and any other product candidates.

The risk of failure in drug development is high. Before obtaining marketing approval from regulatory authorities for the sale of any product candidate, we must complete preclinical development and conduct extensive clinical trials to demonstrate the safety and efficacy of our product candidates in humans. Preclinical studies and clinical trials are expensive, difficult to design and implement, can take several years to complete, and their outcomes are inherently uncertain. Failure can occur at any time during the process. For example, we are currently conducting a clinical trial to evaluate three times per week oral dosing of vadadustat for dialysis dependent patients with anemia due to chronic kidney disease. If we experience delays in the conduct of this clinical trial or the results are not positive, it could affect the market potential of vadadustat, if approved.

We may be unable to successfully obtain approval of vadadustat or other product candidates, or to successfully complete clinical trials of Auryxia, vadadustat and other product candidates if the results of those trials and studies are not positive or are only modestly positive, or if there are concerns with the profile due to efficacy or safety. Further, the results of preclinical studies and early clinical trials of our product candidates may not be predictive of the results of later-stage clinical trials, interim results of a clinical trial do not necessarily predict final results, and results of Phase 3 clinical trials for one indication may not be predictive of results of Phase 3 clinical trials for another indication. For example, we announced positive top-line results from $INNO_2VATE$ and vadadustat achieved the primary and key secondary efficacy endpoint in each of the two PRO_2TECT studies, but the PRO_2TECT program did not meet the primary major adverse cardiovascular event, or MACE, safety endpoint. Many companies in the biopharmaceutical industry have suffered significant setbacks in late-stage clinical trials after achieving positive results in early-stage development, and we may face similar setbacks. Moreover, preclinical and clinical data are often susceptible to varying interpretations and analyses, and many companies that have believed their product candidates performed satisfactorily in preclinical studies and clinical trials have nonetheless failed to obtain marketing approval of their product candidates. In addition, in March 2022, we received a CRL for vadadustat indicating that the FDA had determined that it could not approve the NDA in its present form, thus delaying any potential approval of vadadustat. We held an end of review conference with the FDA and we are in the process of determining next steps. However, it is impossible to predict when or if vadadustat or any of our other product candidates will prove effective or safe in humans or will receive marketing approval or on what terms.

We may experience numerous unforeseen events during, or as a result of, preclinical development or clinical trials that could delay, prevent or make more challenging our ability to receive or maintain marketing approval or commercialize our product candidates. We may be required to complete additional clinical trials for Auryxia, vadadustat and any other product or product candidate, including those that may be in-licensed or acquired, in order to obtain or maintain required regulatory approvals. Our preclinical studies and clinical trials may take longer to complete than currently anticipated, or may be delayed, suspended, required to be repeated, prematurely terminated or may not successfully demonstrate safety and/or efficacy needed to obtain or maintain regulatory approval for a variety of other reasons, such as:

- the costs may be greater than we anticipate;
- the number of patients required for clinical trials may be larger than we anticipate;
- enrollment in our clinical trials may be slower than we anticipate, or participants may drop out of these clinical trials at a higher rate than we anticipate;
- our third party contractors, such as our CROs, may fail to comply with regulatory requirements, perform effectively, or meet their contractual obligations to us in a timely manner, or at all, or we may fail to communicate effectively or provide the appropriate level of oversight of such third party contractors;
- the supply or quality of our starting materials, drug substance and drug product necessary to conduct clinical trials of our product candidates may be insufficient or inadequate;
- regulators, independent data monitoring committees, or IDMCs, institutional review boards, or IRBs, safety committees, or ethics committees, may require that we suspend or terminate our clinical trials for various reasons, including noncompliance with regulatory requirements, unforeseen safety issues or adverse side effects, failure to demonstrate a benefit from using our product candidate, or a finding that the participants are being exposed to unacceptable health risks;
- clinical trials of our product candidates may produce negative or inconclusive results or results that may be interpreted in a manner different than we interpret them, and we may decide, or regulators may require us, to conduct additional clinical trials, repeat a clinical trial or abandon product development programs;

- lack of adequate funding to continue a clinical trial, including unforeseen costs due to enrollment delays, requirements to conduct additional clinical trials or repeat a clinical trial and increased expenses associated with the services of our CROs and other third parties;
- we may fail to initiate, delay of or failure to complete a clinical trial as a result of an Investigational New Drug application, or IND, being placed on clinical hold by the FDA, the EMA, the PMDA, or other regulatory authorities, or for other reasons, such as failure to recruit or enroll suitable patients or patients' failure to return for post-treatment follow up;
- we may determine to change or expand a clinical trial, including after it has begun;
- clinical trial sites and investigators deviating from the clinical protocol, failing to conduct the trial in accordance with regulatory requirements, or dropping out of a trial, or failure by us or our CROs to communicate effectively or provide the appropriate level of oversight of such clinical sites and investigators;
- there may be an inability, delay, or failure in identifying and maintaining a sufficient number of clinical trial sites, many of which may already be engaged in other clinical programs;
- there may be a delay or failure in reaching agreement with the FDA, the EMA, the PMDA or other regulatory authorities on a clinical trial design upon which we are able to execute;
- there may be a delay or failure in obtaining authorization to commence a clinical trial or inability to comply with conditions imposed by a regulatory authority regarding the scope or design of a clinical trial;
- there may be delays in reaching, or failure to reach, agreement on acceptable terms with prospective clinical trial sites and prospective CROs, the terms of which can be subject to extensive negotiation and may vary significantly among different CROs and clinical trial sites;
- the FDA, the EMA, the PMDA or other regulatory authorities may require us to submit additional data or impose further requirements before permitting us to initiate a clinical trial or during an ongoing clinical trial;
- the FDA, the EMA, the PMDA or other regulatory authorities may disagree with our clinical trial design and our interpretation of data from clinical trials, or may change the requirements for approval even after it has reviewed and commented on the design for our clinical trials;
- third parties with which we work may fail to comply with good practice quality guidelines and regulations, or GXP, including good laboratory practice, good clinical practice, or GCP, and current good manufacturing practice, or cGMP; or
- there may be changes in governmental regulations or administrative actions.

If any of the foregoing occurs, the following may occur:

- regulators may require that we conduct additional clinical trials, repeat clinical trials or conduct other studies beyond those that we currently contemplate;
- we may be delayed in obtaining marketing approval for vadadustat or other product candidates;
- we may not obtain marketing approval for vadadustat or other product candidates at all;
- we may obtain approval for indications or patient populations that are not as broad as intended or desired;
- we may obtain approval with labeling that includes significant use or distribution restrictions or safety warnings that would reduce the potential market for any approved product or inhibit our ability to successfully commercialize any approved product;
- a REMS or FDA-imposed risk management plan that use risk minimization strategies to ensure that the benefits of certain prescription drugs outweigh their risks, may be required;
- we may be subject to additional post-marketing restrictions and/or requirements; or
- the product may be removed from the market after obtaining marketing approval.

The COVID-19 pandemic has resulted in closures of and may continue to impact clinical trial sites on which we rely and will rely for the completion of certain clinical trials and may delay enrollment of certain planned and ongoing clinical trials. In response to the COVID-19 pandemic, the FDA issued guidance on March 18, 2020, and has thereafter updated it, to address and facilitate the conduct of clinical trials during the pandemic. The guidance sets out a number of considerations for sponsors of clinical trials impacted by the pandemic, including the requirement to include in the clinical study report (or as a separate document) contingency measures implemented to manage the study, and any disruption of the study as a result of the pandemic.

Our product development costs may also increase if we experience development delays or delays in receiving the requisite marketing approvals. Our preclinical studies or clinical trials may need to be restructured or may not be completed on schedule, or at all. Significant preclinical or clinical trial delays also could shorten any periods during which we may have the exclusive right to commercialize vadadustat, if approved, or any other product candidate, including those that may be in-licensed or acquired, or allow our competitors to bring products to market before we do. This could impair our ability to successfully commercialize our product candidates and may harm our business and results of operations.

We may find it difficult to enroll patients in our clinical trials, which could delay or prevent clinical trials of Auryxia, vadadustat or any other product or product candidate, including those that may be in-licensed or acquired.

Identifying and qualifying patients to participate in clinical trials is critical to our success. The timing of our clinical trials depends, in part, on the speed at which we can recruit patients to participate in our clinical trials. Patients may be unwilling to participate in our clinical trials because of concerns about adverse events observed with the product candidate under study, the current standard of care, competitor products and/or other investigational agents, in each case for the same indications and/or similar patient populations. In addition, in the case of clinical trials of any product candidate, patients currently receiving treatment with the current standard of care or a competitor product may be reluctant to participate in a clinical trial with an investigational drug. Furthermore, COVID-19 resulted in closures of, and may continue to impact, clinical trial sites on which we rely for the conduct of certain clinical trials and COVID-19 pandemic precautions have caused moderate delays in enrolling new clinical trials and may cause delays in enrolling other new clinical trials.

In addition, following receipt of the CRL, in April 2022, we were notified by the FDA that the FDA had placed a partial clinical hold on our clinical trials of vadadustat in pediatric patients with anemia due to chronic kidney disease in the United States. In addition, in May 2022, the Paediatric Committee of the European Medicines Agency recommended that we not initiate such clinical trials in the European Union until the safety issues identified by the FDA were addressed. As a result of the partial clinical hold and EMA's recommendations, all activities in the United States and Europe for and related to our clinical trials of vadadustat in pediatric patients were suspended. Furthermore, we and our former collaboration partner, Otsuka, are currently conducting clinical trials to evaluate three times per week oral dosing of vadadustat for dialysis dependent patients with anemia due to chronic kidney disease. If foreign regulatory authorities, investigators or patients are worried about the safety of vadadustat as a result of the CRL or partial clinical hold or otherwise decide not to participate or continue in those trials, we may not be able to complete those studies in a timely basis, or at all.

Finally, competition for clinical study sites may limit our access to patients appropriate for our clinical trials. As a result, the timeline for recruiting patients and conducting studies may be delayed. These delays could result in increased costs, delays in advancing our development of any product or product candidate, or termination of the clinical trial altogether.

We may not be able to identify, recruit and enroll a sufficient number of patients, or those with required or desired characteristics, to complete our clinical trials in a timely manner. Patient enrollment is affected by many factors, including:

- severity of the disease under investigation;
- design of the study protocol;
- size and nature of the patient population;
- eligibility criteria for, and design of, the study in question;
- perceived risks and benefits of the product or product candidate under study, including as a result of adverse effects observed in similar or competing therapies;
- proximity and availability of clinical study sites for prospective patients;
- availability of competing therapies and clinical trials and clinicians' and patients' perceptions as to the potential advantages of the product or product candidate being studied in relation to available therapies or other product candidates in development;
- efforts to facilitate timely enrollment in clinical trials;
- clinical trial sites and investigators failing to perform effectively; and
- patient referral practices of physicians.

We may not be able to initiate or complete clinical trials in a timely manner, or at all, if we cannot enroll a sufficient number of eligible patients to participate in the clinical trials required by regulatory agencies. If we have difficulty enrolling a sufficient number of patients to conduct our clinical trials as planned, we may need to delay, limit or terminate ongoing or planned clinical trials, any of which may delay approval, or result in failure to obtain approval, of our product candidates, which would have a material adverse effect on our business.

Conducting clinical trials outside of the United States makes us subject to additional risks and complexities and we may not complete such trials successfully, in a timely manner, or at all, which could affect our ability to obtain regulatory approvals.

Our ability to successfully initiate, enroll and complete a clinical study in any country outside of the United States is subject to numerous additional risks unique to conducting business in jurisdictions outside the United States, including:

- difficulty in establishing or managing relationships with qualified CROs, physicians and clinical trial sites;

- difficulty in complying with different local standards for the conduct of clinical trials;
- difficulty in complying with various and complex import laws and regulations when shipping drug to certain countries; and
- the potential burden of complying with a variety of laws, medical standards and regulatory requirements, including the regulation of pharmaceutical and biotechnology products and treatments.

Data obtained from studies conducted in the United States may not be accepted by the EMA, the PMDA and other regulatory authorities outside of the United States. Also, certain jurisdictions require data from studies conducted in their country in order to obtain approval in that country.

If we or our collaboration partners have difficulty conducting our clinical trials in jurisdictions outside the United States as planned, we may need to delay, limit or terminate ongoing or planned clinical trials, any of which could have an adverse effect on our business.

Auryxia, vadadustat or any other product or product candidate, including those that may be in-licensed or acquired, may cause undesirable side effects or have other properties that may delay or prevent marketing approval or limit their commercial potential.

Undesirable effects caused by, or other undesirable properties of, Auryxia, vadadustat or any other product or product candidate, including those that may be in-licensed or acquired, or competing commercial products or product candidates in development that utilize a common mechanism of action could cause us or regulatory authorities to interrupt, delay or halt clinical trials, could result in a more restrictive label or the delay, denial or withdrawal of marketing approval by the FDA or other regulatory authorities, and could lead to potential product liability claims. In addition, results of our clinical trials could reveal a high frequency of undesirable effects or unexpected characteristics. For example, in March 2022, we received the CRL from the FDA for our NDA for vadadustat in which the FDA concluded that the data in the NDA do not support a favorable benefit-risk assessment of vadadustat for dialysis and non-dialysis patients. The FDA expressed safety concerns noting failure to meet non-inferiority in MACE in the non-dialysis patient population, the increased risk of thromboembolic events, driven by vascular access thrombosis in dialysis patients, and the risk of drug-induced liver injury. If we are unable to overcome these concerns, vadadustat may not be approved by the FDA, and our financial condition could be materially harmed.

If we or others identify undesirable effects caused by, or other undesirable properties of, Auryxia, vadadustat, or any other product or product candidate, including those that may be in-licensed or acquired, or if known undesirable effects are more frequent or severe than in the past, or if any of the foregoing are perceived to have occurred, either before or after receipt of marketing approval, a number of potentially significant negative consequences could result, including:

- our product candidates may not be approved by regulatory authorities;
- our clinical trials may be put on hold;
- patient recruitment could be slowed, and enrolled patients may not want to complete the clinical trial;
- regulatory authorities may require warnings on the label, such as the warning on Auryxia's label regarding iron overload;
- REMS or FDA-imposed risk management plans that use restrictive risk minimization strategies may be required;
- we may decide to, or be required to, send drug warnings or safety alerts to physicians, pharmacists and hospitals (or the FDA or other regulatory authorities may choose to issue such alerts), or we may decide to conduct a product recall or be requested to do so by the FDA or other regulatory authority;
- reformulation of the product, additional non-clinical or clinical trials, restrictive changes in labeling or changes to or re-approvals of manufacturing facilities may be required;
- we may be precluded from pursuing additional development opportunities to enhance the clinical profile of a product within its indicated populations, or studying the product or product candidate in additional indications and populations or in new formulations; and
- we could be investigated by the government or sued and held liable for harm caused to patients, including in class action lawsuits; and
- our reputation may suffer.

Any of these events could prevent us from achieving or maintaining, whether on a restricted basis or at all, marketing approval and, ultimately, market acceptance or penetration of Auryxia, vadadustat or any other product or product candidate, including those that may be in-licensed or acquired. In addition, any of these events could substantially increase our costs, and could

significantly impact our ability to successfully commercialize Auryxia, vadadustat or any other product and product candidate, including those that may be in-licensed or acquired, and generate product revenue.

The patient populations treated with Auryxia and potential patient populations for vadadustat, if approved, have CKD, a serious disease that increases the risk of cardiovascular disease including heart attacks and stroke and, in its most severe form, results in, kidney failure and the need for dialysis or kidney transplant. Many patients with CKD are elderly with comorbidities making them susceptible to significant health risks. Therefore, the likelihood of these patients having adverse events, including serious adverse events is high.

With respect to the global INNO$_2$VATE Phase 3 program, the incidence of treatment emergent adverse events during the *Correction and Conversion* study in vadadustat treated patients was 83.8% and 85.5% in darbepoetin alfa treated patients. During the study, the most common treatment emergent adverse events reported in vadadustat/darbepoetin alfa treated patients were hypertension (16.2%/ 12.9%) and diarrhea (10.1%/ 9.7%). Serious treatment emergent adverse events were lower in vadadustat treated patients at 49.7% compared to 56.5% for darbepoetin alfa treated patients. The incidence of treatment emergent adverse events during the prevalent dialysis patient study (*Conversion*) in the vadadustat treated patients was 88.3%, and 89.3% in darbepoetin alfa treated patients. During the study, the most common treatment emergent adverse events reported in vadadustat/darbepoetin alfa treated patients were diarrhea (13.0%/ 10.1%), pneumonia (11.0%/ 9.7%), hypertension (10.6%/ 13.8%), and hyperkalemia (9.0%/ 10.8%). Serious treatment emergent adverse events were slightly lower for vadadustat treated patients at 55.0% and 58.3% for darbepoetin alfa-treated patients. Patients with DD-CKD experienced an increased risk of thromboembolic events compared to darbepoetin alfa with a time to first event HR of 1.20 (95% CI 0.96 - 1.50) driven by thrombosis of vascular access.

With respect to the global PRO$_2$TECT Phase 3 program, the incidence of treatment emergent adverse events during the ESA untreated patients study (*Correction*) in the vadadustat-treated patients was 90.9%, and 91.6% in darbepoetin alfa-treated patients. During the study, the most common treatment emergent adverse events reported in vadadustat/darbepoetin alfa-treated patients were end-stage renal disease (34.7%/ 35.2%), hypertension (17.7%/ 22.1.%), hyperkalemia (12.3.%/ 15.6%), urinary tract infection (12.9%/ 12.0%), diarrhea (13.9%/ 10.0%), peripheral oedema (12.5%/ 10.5%), fall (9.6%/ 10%) and nausea (10%/ 8.2%). Serious treatment emergent adverse events were 65.3% for vadadustat-treated patients and 64.5% for darbepoetin alfa-treated patients. The incidence of treatment emergent adverse events during the ESA-treated patients study (*Conversion*) in vadadustat treated patients was 89.1% and 87.7% in darbepoetin alfa-treated patients. During the study, the most common treatment emergent adverse events reported in vadadustat/darbepoetin alfa-treated patients were end-stage renal disease (27.5%/ 28.4%), hypertension (14.4%/ 14.8%), urinary tract infection (12.2%/ 14.5%), diarrhea (13.8.%/ 8.8.%), peripheral oedema (9.9%/ 10.1%) and pneumonia (10.0%/ 9.7%). Serious treatment emergent adverse events were 58.5% for vadadustat-treated patients and 56.6% for darbepoetin alfa-treated patients.

For example, following the completion of our global Phase 3 clinical program for vadadustat, there was a review of hepatic safety across the vadadustat clinical program, which included eight completed Phase 2 and 3 studies in NDD-CKD patients, 10 completed Phase 1, 2, and 3 studies, and two then-ongoing Phase 3b studies in DD-CKD patients, and 18 completed studies in healthy subjects (17 Phase 1 and one Phase 3). This review included a blinded assessment of all hepatic events in the studies by a panel of hepatic experts and analysis by an independent hepatic expert and our team. While hepatocellular injury attributed to vadadustat was reported in less than 1% of patients, there was one case of severe hepatocellular injury with jaundice, and we cannot guarantee that similar events will not happen in the future. Additionally, the FDA expressed safety concerns related to the risk of drug-induced liver injury in the CRL that it issued in March 2022.

Serious adverse events considered related to vadadustat, including those noted in the CRL, and any other product candidates could have material adverse consequences on the development and potential approval of such product candidates and our business as a whole. Our understanding of adverse events in prior clinical trials of our product candidates may change as we gather more information, the FDA may not agree with our assessment of adverse events and additional unexpected adverse events may be observed in future clinical trials or in the market.

Any of the above safety data or other occurrences could delay or prevent us from achieving or maintaining marketing approval, harm or prevent sales of Auryxia or, if approved, vadadustat or any other product or product candidate, including those that may be in-licensed or acquired, increase our expenses and impair or prevent our ability to successfully commercialize Auryxia, vadadustat or any other products or product candidates.

In addition, any post-marketing clinical trials conducted, if successful, may expand the patient populations treated with Auryxia, vadadustat or any other product we acquire or for which we receive marketing approval, within or outside of their current indications or patient populations, which could result in the identification of previously unknown undesirable effects, increased frequency or severity of known undesirable effects, or result in the identification of unexpected safety signals. In addition, as Auryxia, vadadustat, if approved, and any other products are commercialized, they will be used in significantly larger patient populations, in less rigorously controlled environments and, in some cases, by less experienced and less expert treating practitioners, than in clinical trials, which could result in increased or more serious adverse effects being reported. As a

result, regulatory authorities, healthcare practitioners, third party payors or patients may perceive or conclude that the use of Auryxia, vadadustat, if approved, or any other products are associated with serious adverse effects, undermining our commercialization efforts.

Risks Related to Regulatory Approval

We may not be able to obtain marketing approval for, or successfully commercialize, vadadustat or any other product candidate, or we may experience significant delays in doing so, any of which would materially harm our business.

Clinical trials, manufacturing and marketing of any product or product candidate are subject to extensive and rigorous review and regulation by numerous governmental authorities in the United States and other jurisdictions. Before obtaining marketing approval for the commercial sale of any product candidate, we must demonstrate through extensive preclinical testing and clinical trials that the product candidate is safe and effective for use in each target indication. This process can take many years and marketing approval may never be achieved. Of the large number of drugs in development in the United States and in other jurisdictions, only a small percentage successfully complete the FDA's and other jurisdictions' marketing approval processes and are commercialized. Accordingly, even if we are able to obtain the requisite capital to continue to fund our development and commercialization efforts, we may be unable to successfully obtain regulatory approval for or commercialize vadadustat or any other product or product candidate, including those that may be in-licensed or acquired.

Pursuant to the Termination Agreement with Otsuka, subject to certain conditions, we have agreed with Otsuka to a schedule by which to transfer the marketing authorization application, or MAA, for vadadustat with the EMA from Otsuka to us. If such MAA transfer request is disapproved or not approved by the EMA within a specified timeframe, then Otsuka will have the right to withdraw such MAA. Upon receipt of approval from the EMA for the transfer of the MAA, Otsuka will assign and transfer to us such MAA, together with all other related regulatory submissions that are in the possession or control of Otsuka or any of its affiliates. Similarly, we have agreed with Otsuka to discuss a schedule by which the parties will work to transfer the MAA for vadadustat in each of the United Kingdom, Switzerland, and Australia. If we cannot agree with Otsuka on such schedule for work related to the transfer of such MAAs or if such MAA transfer requests are not approved by the relevant regulatory authorities within specified timeframes, then Otsuka will have the right to withdraw such MAAs. Upon approval by the relevant regulatory authority, Otsuka will assign and transfer to us each such MAA, together with all other related regulatory submissions that are in the possession or control of Otsuka or any of its affiliates submitted to or received from the relevant regulatory authorities in such jurisdiction.

We are not permitted to market vadadustat in the United States until we receive approval from the FDA, in the EU until we receive approval from the EMA, or in any other jurisdiction until the requisite approval from regulatory authorities in such jurisdiction is received. As a condition to receiving marketing approval for vadadustat, we may be required by the FDA, the EMA or other regulatory authorities to conduct additional preclinical studies or clinical trials.

In March 2022, we received a CRL from the FDA regarding our NDA for vadadustat for the treatment of anemia due to CKD. The FDA concluded that the data in the NDA do not support a favorable benefit-risk assessment of vadadustat for dialysis and non-dialysis patients. We held an end of review conference with the FDA, and we are in the process of determining next steps. However, there can be no assurances that the conference will result in a clear path to approval of our NDA that is achievable in terms of clinical endpoints, time and cost. If we determine to pursue an additional clinical trial, there can be no assurances that the results of the trial will support a positive benefit-risk assessment. If we decide to appeal the issuance of the CRL, there can be no assurances that our appeal will be successful, or that, if successful, we will obtain approval for vadadustat on favorable terms, or at all. As a result, the regulatory approval process for our NDA is highly uncertain. We may not obtain approval at all, and if we are able to obtain approval, it may only be for patients with DD-CKD and, in any event, the expense and time to do so could adversely impact our ability to successfully commercialize vadadustat, and our financial condition could be materially harmed.

Further, vadadustat and any other product candidate may not receive marketing approval in the United States or the EU even if it is approved in other countries. For example, although vadadustat is approved in Japan for the treatment of anemia due to CKD in DD-CKD and NDD-CKD adult patients, such approval does not guarantee approval in the United States by the FDA or in the EU by the EMA for these indications or at all. In addition, while each regulatory authority makes their own assessment as to the safety and efficacy of a drug, FDA's concern about the safety or efficacy of vadadustat or any other product candidate could impact the regulatory authority's decision in another country.

Obtaining marketing approval in the United States and other jurisdictions for any product candidate depends upon numerous factors, many of which are subject to the substantial discretion of the regulatory authorities, including that regulatory agencies may not complete their review processes in a timely manner and, following completion of the review process, may not grant marketing approval or such marketing approval may be limited. Furthermore, approval of a drug does not ensure successful commercialization. For example, on September 23, 2015, the European Commission, or EC, approved Fexeric for the control of hyperphosphatemia in adult patients with CKD. Pursuant to the sunset clause under EU law, the EC's approval of Fexeric in the

EU was contingent on, among other things, our commencing marketing of Fexeric within three years; although we successfully negotiated an extension to December 23, 2019, we did not commence marketing Fexeric by such date and therefore the Fexeric approval in the EU has ceased to be valid.

We could face heightened risks with respect to seeking marketing approval in the United Kingdom, or UK, as a result of the recent withdrawal of the UK from the EU, commonly referred to as Brexit. Pursuant to the formal withdrawal arrangements agreed between the UK and the EU, the UK withdrew from the EU, effective December 31, 2020. On December 24, 2020, the UK and the EU entered into a Trade and Cooperation Agreement. The agreement sets out certain procedures for approval and recognition of medical products in each jurisdiction. Any delay in obtaining, or an inability to obtain, any marketing approvals, as a result of the Trade and Cooperation Agreement would prevent us from commercializing vadadustat or any other product candidate, including those that may be in-licensed or acquired, in the UK and/or the EU and restrict our ability to generate revenue and achieve and sustain profitability. If any of these outcomes occur, we may be forced to restrict or delay efforts to seek regulatory approval in the UK and/or the EU for vadadustat or any other product candidate, which could significantly and materially harm our business. As of January 1, 2021, the Medicines and Healthcare Products Regulatory Agency, or the MHRA, became responsible for supervising medicines and medical devices in Great Britain, comprising England, Scotland and Wales under domestic law, whereas Northern Ireland will continue to be subject to European Union rules under the Northern Ireland Protocol. The MHRA will rely on the Human Medicines Regulations 2012 (SI 2012/1916) (as amended) as the basis for regulating medicines.

In addition, the safety concerns associated with the current standard of care for the indications for which we are seeking marketing approval for vadadustat may affect the FDA's, the EMA's or other regulatory authorities' review of the safety results of vadadustat. Additionally, these regulatory authorities may not agree with our assessment of adverse events. Further, the policies or regulations, or the type and amount of clinical data necessary to gain approval, may change during the course of a product candidate's clinical development and may vary among jurisdictions. It is possible that vadadustat will never obtain marketing approval in the United States or certain other jurisdictions or for some or all of the indications for which we seek approval. The FDA, the EMA or other regulatory authorities may delay, limit or deny approval of vadadustat for many reasons including, among others:

- we may not be able to demonstrate that vadadustat is safe and effective in treating adult patients with anemia due to CKD to the satisfaction of the relevant regulatory authority;
- the results of our clinical trials may only be modestly positive, or there may be concerns with the profile due to efficacy or safety;
- the results of our clinical trials may not meet the level of statistical or clinical significance required by the relevant regulatory authority for review and/or marketing approval;
- the relevant regulatory authority may disagree with our interpretation of data from our preclinical studies and clinical trials;
- the relevant regulatory authority may disagree with the number, design, size, conduct or implementation of our clinical trials;
- the relevant regulatory authority may not approve the formulation, labeling or specifications we request for vadadustat;
- the relevant regulatory authority may approve vadadustat or any other product candidate for use only in a small patient population or for fewer or more limited indications than we request;
- the relevant regulatory authority may require that we conduct additional clinical trials or repeat one or more clinical trials;
- the FDA or other relevant regulatory authority may require development of a REMS as a condition of approval or post-approval;
- the relevant regulatory authority may grant approval contingent on the performance of costly post-marketing clinical trials;
- the relevant regulatory authority's onsite inspections may be delayed due to the COVID-19 pandemic;
- we, or our CROs or other vendors, may fail to comply with GXP or fail to pass any regulatory inspections or audits;
- we or our third party manufacturers may fail to perform in accordance with the FDA's or other relevant regulatory authority's cGMP requirements and guidance;
- the FDA may disagree with inclusion of data obtained from certain regions outside the United States to support the NDA for potential reasons such as differences in clinical practice from United States standards;
- the relevant regulatory authority could deem that our financial relationships with certain principal investigators constitute a conflict of interest, such that the data from those principal investigators may not be used to support our applications;
- as part of any future regulatory process, the FDA may ask an Advisory Committee to review portions of the NDA, the FDA may have difficulty scheduling an Advisory Committee meeting in a timely manner or, if convened, an FDA

Advisory Committee could recommend non-approval, conditions of approval or restrictions on approval, and the FDA may ultimately agree with the recommendations;

- the relevant regulatory authority's review process and decision-making regarding vadadustat and any other product candidate may be impacted by the results of our and our competitors' clinical trials and safety concerns of marketed products used to treat the same indications as the indications for which vadadustat and any other product candidate are being developed;
- the relevant regulatory authority may not approve the manufacturing processes or facilities of third party manufacturers with whom we contract; or
- the policies or regulations of the relevant regulatory authority may significantly change in a manner that renders our clinical data insufficient for approval or requires us to amend or submit new clinical protocols.

If we experience further delays in obtaining approval, or if we fail to obtain approval of vadadustat for some or all of the indications for which we have sought approval, the commercial prospects for vadadustat may be harmed and our ability to generate revenues will be materially impaired, which could have a material adverse effect on our business. For example, at the end of the review conference for vadadustat with the FDA, we focused solely on approval of vadadustat in adult dialysis patients with CKD.

Products approved for marketing are subject to extensive post-marketing regulatory requirements and could be subject to post-marketing restrictions or withdrawal from the market, and we may be subject to penalties, including withdrawal of marketing approval, if we fail to comply with regulatory requirements or if we experience unanticipated problems with our products, or product candidates, when and if any of them is approved.

Marketing approvals may be subject to limitations on the approved indicated uses for which the product may be marketed or other conditions of approval, or contain requirements or commitments for potentially costly post-marketing studies and surveillance to monitor the safety and efficacy of the product, including REMS, or registries or observational studies. For example, in connection with the FDA approvals of Auryxia, we initially committed to the FDA to conduct certain post-approval pediatric studies of Auryxia under the Pediatric Research Equity Act of 2003, or PREA. With regard to the Hyperphosphatemia Indication for Auryxia, we committed to completing the post-approval pediatric study and submitting a final report to the FDA by December 31, 2019. With regard to our IDA Indication, we initially committed to completing the post-approval pediatric study and submitting a final report to the FDA by January 2023.With regard to the Hyperphosphatemia Indication, we did not complete and submit the post-marketing requirement pediatric clinical study report by December 31, 2019, and we received a notification of noncompliance with PREA. Our request to extend this deadline was denied, and the study is considered delayed. With regard to the IDA Indication, we did not meet a milestone relating to the post-approval pediatric study of Auryxia in a timely manner and received a notification from the FDA. Subsequently, the FDA agreed to extend the pediatric clinical study timelines for the IDA Indication. We subsequently communicated to the FDA that we would be delaying the start of the clinical trial to produce smaller size tablets. In response, the FDA issued a clinical hold until we manufacture the smaller tablets and provide the FDA with relevant information regarding the smaller sized product for review. The FDA lifted the clinical hold in June 2022, however, we are still in the process of manufacturing the smaller size tablets. If we are unable to complete these studies successfully, or have further delays in completing these studies, we will need to inform the FDA, have further discussions and, if the FDA finds that we failed to comply with pediatric study requirements, it could initiate proceedings to seize or enjoin the sale of Auryxia, which would have a material adverse impact on our ability to commercialize Auryxia and our ability to generate revenues from Auryxia.

In addition, the manufacturing processes, labeling, packaging, distribution, adverse event reporting, storage, advertising, promotion and recordkeeping for Auryxia, vadadustat, if approved, and any other product for which we receive regulatory approval will be subject to extensive and ongoing regulatory requirements and guidance. These requirements and guidance include manufacturing processes and procedures (including record keeping), the implementation and operation of quality systems to control and assure the quality of the product, submissions of safety and other post-marketing information and reports, as well as continued compliance with cGMPs and GCPs for any clinical trials that we conduct post-approval. If we, our CMOs or other third parties we engage fail to adhere to such regulatory requirements and guidance, we could suffer significant consequences, including product seizures or recalls, loss of product approval, fines and sanctions, reputational damage, loss of customer confidence, shipment delays, inventory shortages, inventory write-offs and other product-related charges and increased manufacturing costs, and our development or commercialization efforts may be materially harmed.

Moreover, the FDA and other regulatory authorities closely regulate the post-approval marketing and promotion of drugs to ensure drugs are marketed only for the approved indications and in accordance with the provisions of the approved labeling. The FDA and other regulatory authorities impose stringent restrictions on companies' communications regarding use of their products, and if we promote any approved product beyond its approved indications or inconsistent with the approved label, we may be subject to enforcement actions or prosecution arising from such activities. Violations of the U.S. Federal Food, Drug, and Cosmetic Act, or the FDCA, relating to the promotion of prescription drugs may lead to investigations alleging violations

of federal and state healthcare fraud and abuse and other laws, as well as state consumer protection laws, insurance fraud laws, third party payor actions, stockholder actions and other lawsuits.

Post-approval discovery of previously unknown problems with an approved product, including adverse events of unanticipated severity or frequency or relating to manufacturing operations or processes, or failure to comply with regulatory requirements, may result in, among other things:

- restrictions on the marketing, distribution, use or manufacturing of the product;
- withdrawal of the product from the market, or product recalls;
- restrictions on the labeling or marketing of a product;
- fines, restitution or disgorgement of profits or revenues;
- warning or untitled letters or clinical holds;
- refusal by the FDA or other regulatory authorities to approve pending applications or supplements to approved applications filed by us, or suspension or revocation of product approvals;
- product seizure or detention, or refusal to permit the import or export of products;
- REMS; and
- injunctions or the imposition of civil or criminal penalties.

For example, we previously had three limited, voluntary recalls of Auryxia. These and any other recalls or any supply, quality or manufacturing issues in the future could result in significant negative consequences, including reputational harm, loss of customer confidence, and a negative impact on our financials, any of which could have a material adverse effect on our business and results of operations, and may impact our ability to supply Auryxia, Vafseo™, in Japan or vadadustat for commercial and clinical use.

Non-compliance with the FDA, the EMA, the PMDA and other regulatory authorities' requirements regarding safety monitoring or pharmacovigilance can also result in significant financial penalties.

The FDA's policies and those of other regulatory authorities may change, and additional government regulations may be enacted. We cannot predict the likelihood, nature or extent of government regulations that may arise from future legislation or administrative action, either in the United States or in other jurisdictions. If we are slow or unable to adapt to changes in existing requirements or the adoption of new requirements or policies, or are not able to maintain regulatory compliance, we may lose any marketing approval that we may have obtained and we may not achieve or sustain profitability, which would materially adversely affect our business.

Risks Related to Governmental Regulation and Compliance

We are subject to a complex regulatory scheme that requires significant resources to ensure compliance and our failure to comply with applicable laws could subject us to government scrutiny or enforcement, potentially resulting in costly investigations, fines, penalties or sanctions, contractual damages, reputational harm, administrative burdens and diminished profits and future earnings.

In general, a variety of laws apply to us or may otherwise restrict our activities, including the following:

- laws and regulations governing the conduct of preclinical studies and clinical trials in the United States and other countries in which we are conducting such studies;
- anti-corruption and anti-bribery laws, including the FCPA, the UK Bribery Act and various other anti-corruption laws in countries outside of the United States;
- data privacy laws existing in the United States, the EU, the UK and other countries in which we operate, including the U.S. Health Insurance Portability and Accountability Act of 1996, or HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act, or HITECH, state privacy and data protection laws, such as the California Consumer Privacy Act, or CCPA, and the California Privacy Rights Act of 2020, or CPRA, as well as state consumer protection laws, GDPR, any additional applicable EU member state data protection laws in force from time to time, the retained EU law version of the General Data Protection Regulation as saved into United Kingdom law by virtue of section 3 of the United Kingdom's European Union (Withdrawal) Act 2018, or the EU GDPR;
- federal and state laws requiring the submission of accurate product prices and notifications of price increases;
- federal and state securities laws;
- environmental, health and safety laws and regulations; and

- international trade laws, which are laws that regulate the sale, purchase, import, export, re-export, transfer and shipment of goods, products, materials, services and technology.

In addition, our relationships with healthcare providers, physicians and third party payors expose us to broadly applicable fraud and abuse laws that may constrain the business or financial arrangements and relationships through which we market, sell and distribute Auryxia and vadadustat, if approved, and any other products for which we may obtain marketing approval. As such, these arrangements are subject to applicable anti-kickback, fraud and abuse, false claims, transparency, health information privacy and security, and other healthcare laws and regulations at federal, state and international levels. These restrictions include, but are not limited to, the following:

- the FDCA which among other things, strictly regulates drug product marketing and promotion and prohibits manufacturers from marketing such products for off-label use;
- federal laws that require pharmaceutical manufacturers to report certain calculated product prices to the government or provide certain discounts or rebates to government authorities or private entities, often as a condition of reimbursement under government healthcare programs, and laws requiring notification of price increases;
- the federal Anti-Kickback Statute, which prohibits, among other things, persons from knowingly and willfully soliciting, offering, receiving or providing remuneration, directly or indirectly, in cash or in kind, to induce or reward, or in return for, either the referral of an individual for, or the purchase, order or recommendation or arranging of, any good or service, for which payment may be made under a federal healthcare program such as Medicare and Medicaid;
- the federal False Claims Act, which imposes criminal and civil penalties, including through civil whistleblower or qui tam actions, against individuals or entities for, among other things, knowingly presenting, or causing to be presented, false or fraudulent claims for payment by a federal healthcare program or making a false statement or record material to payment of a false claim or avoiding, decreasing or concealing an obligation to pay money to the federal government, with potential liability including mandatory treble damages and significant per-claim penalties, and violations of the FDCA, the federal government pricing laws, and the federal Anti-Kickback Statute trigger liability under the federal False Claims Act;
- HIPAA, which imposes criminal and civil liability for executing a scheme to defraud any healthcare benefit program or making false statements relating to healthcare matters;
- HIPAA, as amended by the HITECH, and their respective implementing regulations, also imposes obligations, including mandatory contractual terms, with respect to safeguarding the privacy, security and transmission of individually identifiable health information;
- the federal Physician Payments Sunshine Act (renamed the Open Payments Act) requires applicable manufacturers of covered drugs to report payments and other transfers of value to physicians, other healthcare providers and teaching hospitals, as well as ownership and investment interests held by physicians and their immediate family members;
- analogous state and foreign laws and regulations, such as state anti-kickback and false claims laws and gift ban and transparency statutes, which may apply to sales or marketing arrangements and claims involving healthcare items or services reimbursed by state Medicaid or other programs, or non-governmental third party payors, including private insurers, and which are not preempted by federal laws and often differ from state to state, thus complicating compliance efforts; and
- U.S. state laws restricting interactions with healthcare providers and other members of the healthcare community or requiring pharmaceutical manufacturers to implement certain compliance standards, which vary from state to state.

Because of the breadth of these U.S. laws, and their non-U.S. equivalents, and the narrowness of the statutory exceptions and safe harbors available, it is possible that some of our business activities could be subject to challenge under one or more of such laws. In addition, recent healthcare reforms have strengthened these laws. For example, the Health Care Reform Act, among other things, amended the intent requirement of the federal Anti-Kickback Statute. A person or entity no longer needs to have actual knowledge of the statute or specific intent to violate the law. The Health Care Reform Act also amended the False Claims Act, such that violations of the Anti-Kickback Statute are now deemed violations of the False Claims Act.

Some state laws require pharmaceutical companies to comply with the pharmaceutical industry's voluntary compliance guidelines, such as the Pharmaceutical Research and Manufacturers of America Code on Interactions with Health Care Professionals, known as the PhRMA Code. Additionally, some state and local laws require the registration of pharmaceutical sales representatives in the jurisdiction. State and foreign laws also govern the privacy and security of health information in some circumstances, many of which differ from each other in significant ways and often are not preempted by HIPAA.

Efforts to ensure that our business complies with applicable healthcare laws and regulations involves substantial costs and requires us to expend significant resources. One of the potential areas for governmental scrutiny involves federal and state requirements for pharmaceutical manufacturers to submit accurate price reports to the government. Because our processes for calculating applicable government prices and the judgments involved in making these calculations involve subjective decisions and complex methodologies, these calculations are subject to risk of errors and differing interpretations. In addition, they are

subject to review and challenge by the applicable governmental agencies, or potential qui tam complaints, and it is possible that such reviews could result in changes, recalculations, or defense costs that may have adverse legal or financial consequences. It is possible that governmental authorities will conclude that our business practices may not comply with current or future statutes, regulations or case law involving applicable fraud and abuse or other healthcare laws and regulations. If our operations are found to be in violation of any of these laws or any other governmental regulations that may apply to us, we may be subject to significant civil, criminal and administrative penalties, damages, fines, imprisonment, exclusion of products from government funded healthcare programs, such as Medicare and Medicaid, and the curtailment or restructuring of our operations, any of which could materially adversely affect our business and would result in increased costs and diversion of management attention and could negatively impact the development, regulatory approval and commercialization of Auryxia or vadadustat, any of which could have a material adverse effect on our business. Further, if any of the physicians or other healthcare providers or entities with whom we expect to do business is found to be not in compliance with applicable laws, they may be subject to criminal, civil or administrative sanctions, including exclusions from participation in government funded healthcare programs.

We will incur significant liability if it is determined that we are promoting any "off-label" use of Auryxia or any other product we may develop, in-license or acquire or if it is determined that any of our activities violates the federal Anti-Kickback Statute.

Physicians are permitted to prescribe drug products for uses that differ from those approved by the FDA or other applicable regulatory agencies. Although the FDA and other regulatory agencies do not regulate a physician's choice of treatments, the FDA and other regulatory agencies do restrict manufacturer communications regarding unapproved uses of an approved drug. Companies are not permitted to promote drugs for unapproved uses or in a manner that is inconsistent with the FDA-approved labeling. There are also restrictions about making comparative or superiority claims based on safety or efficacy that are not supported by substantial evidence. Accordingly, we may not promote Auryxia in the United States for use in any indications other than the Hyperphosphatemia Indication and the IDA Indication, and all promotional claims must be consistent with the FDA-approved labeling for Auryxia.

Promoting a drug off-label is a violation of the FDCA and can give rise to liability under the federal False Claims Act, as well as under additional federal and state laws and insurance statutes. The FDA, the Department of Justice and other regulatory and enforcement authorities enforce laws and regulations prohibiting promotion of off-label uses and the promotion of products for which marketing approval has not been obtained, as well as the false advertising or misleading promotion of drugs. In September 2021, the FDA published final regulations which describe the types of evidence that the agency will consider in determining the intended use of a drug product. In addition, laws and regulations govern the distribution and tracing of prescription drugs and prescription drug samples, including the Prescription Drug Marketing Act of 1976 and the Drug Supply Chain Security Act, which regulate the distribution and tracing of prescription drugs and prescription drug samples at the federal level and set minimum standards for the regulation of drug distributors by the states. A company that is found to have improperly promoted off-label uses or to have otherwise engaged in false or misleading promotion or improper distribution of drugs will be subject to significant liability, potentially including civil and administrative remedies as well as criminal sanctions. It may also be subject to exclusion and debarment from federal healthcare reimbursement programs.

Notwithstanding the regulatory restrictions on off-label promotion, the FDA and other regulatory authorities allow companies to engage in truthful, non-misleading, and non-promotional scientific communications concerning their products in certain circumstances. In addition, under some relatively recent guidance from the FDA, companies may also promote information that is consistent with the prescribing information and proactively speak to formulary committee members of payors regarding data for an unapproved drug or unapproved uses of an approved drug. We intend to engage in these discussions and communicate with healthcare providers, payors and other constituencies in compliance with all applicable laws, regulatory guidance and industry best practices. Although we believe we have put in place a robust compliance program and processes designed to ensure that all such activities are performed in a legal and compliant manner, such program and processes may not be sufficient to deter or detect all violations.

In addition, if a company's activities are determined to have violated the federal Anti-Kickback Statute, this can also give rise to liability under the federal False Claims Act and such violations can result in significant fines, criminal and civil remedies, and exclusion from Medicare and Medicaid. There is increased government focus on relationships between the pharmaceutical industry and physicians, pharmacies (especially specialty pharmacies), and other sources of referrals. Common industry activities, such as speaker programs, insurance assistance and support, relationships with foundations providing copayment assistance, and relationships with patient organizations and patients are receiving increased governmental attention. If any of our relationships or activities is determined to violate applicable federal and state anti-kickback laws, false claims laws, or other laws or regulations, the company and/or company executives, employees, and other representatives could be subject to significant fines and criminal sanctions, imprisonment, and potential exclusion from Medicare and Medicaid, and could harm our reputation or result in significant legal expenses and distraction of management.

Disruptions in the FDA, regulatory authorities outside the U.S. and other government agencies caused by global health concerns or funding shortages could prevent new products and services from being developed or commercialized in a timely manner, which could negatively impact our business.

The ability of the FDA and regulatory authorities outside the U.S. to review and approve new products can be affected by a variety of factors, including global health concerns, government budget and funding levels, staffing shortages, statutory, regulatory, and policy changes and other events that may otherwise affect the FDA's or other regulatory authorities' ability to perform routine functions. Average review times at the FDA have fluctuated in recent years as a result of certain of these factors. In addition, government funding of other government agencies 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 increase the time necessary for new drugs to be reviewed or approved by necessary government agencies, which would adversely affect our business. If a prolonged government shutdown occurs, it could significantly impact the ability of the FDA or other regulatory authorities to timely review and process our, or our collaboration partners', regulatory submissions, which could have a material adverse effect on our business.

In response to the COVID-19 pandemic, a number of companies in 2020 and 2021 announced receipt of complete response letters due to the FDA's inability to complete required inspections for their applications. Following a period of false starts, and temporary suspensions due to the omicron variant, the FDA announced on February 2, 2022 that it would resume domestic inspections beginning on February 7, 2022, and indicated that it would conduct foreign inspections beginning in April 2022 on a prioritized basis. However, the FDA may not be able to continue its current pace and review timelines could be extended, including where a pre-approval inspection or an inspection of clinical sites is required and due to the ongoing COVID-19 pandemic and travel restrictions, the FDA is unable to complete such required inspections during the review period. Regulatory authorities outside the United States may also impose similar restrictions or other policy measures in response to the COVID-19 pandemic. If a prolonged government shutdown occurs, or if global health concerns continue to prevent the FDA or other regulatory authorities from conducting their regular inspections, reviews, or other regulatory activities, it could significantly impact the ability of the FDA or other regulatory authorities to timely review and process our regulatory submissions, which could have a material adverse effect on our business.

Compliance with privacy and data security requirements could result in additional costs and liabilities to us or inhibit our ability to collect and process data globally, and the failure to comply with such requirements could subject us to significant fines and penalties, which may have a material adverse effect on our business, financial condition or results of operations.

The regulatory framework for the collection, use, safeguarding, sharing, transfer and other processing of information worldwide is rapidly evolving and is likely to remain uncertain for the foreseeable future. Globally, virtually every jurisdiction in which we operate has established its own data security and privacy frameworks with which we must comply. For example, the collection, use, disclosure, transfer, or other processing of personal data regarding individuals in the EU, including personal health data, is subject to the GDPR, which took effect across all member states of the European Economic Area, or EEA, in May 2018. Following the withdrawal of the U.K. from the EU, the U.K. Data Protection Act 2018 applies to the processing of personal data that takes place in the U.K. and includes parallel obligations to those set forth by GDPR. The GDPR is wide-ranging in scope and imposes numerous requirements on companies that process personal data when required, including requirements relating to processing health and other sensitive data, obtaining consent of the individuals to whom the personal data relates, when required, providing information to individuals regarding data processing activities, implementing safeguards to protect the security and confidentiality of personal data, providing notification of data breaches, and taking certain measures when engaging third party processors. The GDPR increases our obligations as a sponsor in clinical trials in the EEA by expanding the definition of personal data to include coded data and requiring changes to informed consent practices and more detailed notices for clinical trial patients and investigators. In addition, the GDPR also imposes strict rules on the transfer of personal data to countries outside the EU, including the United States and, as a result, increases the scrutiny that we should apply to transfers of personal data from such sites to countries that are considered to lack an adequate level of data protection, such as the United States. The GDPR also permits data protection authorities to require destruction of improperly gathered or used personal information and/or impose substantial fines for violations of the GDPR, which can be up to four percent of global revenues or 20 million Euros, whichever is greater, and it also confers a private right of action on data subjects and consumer associations to lodge complaints with supervisory authorities, seek judicial remedies, and obtain compensation for damages resulting from violations of the GDPR. In addition, the GDPR provides that EU member states may make their own further laws and regulations limiting the processing of personal data, including genetic, biometric or health data and permits EU member states to adopt further penalties for violations that are not subject to the administrative fines outlined in the GDPR.

Given the breadth and depth of changes in data protection obligations, complying with the GDPR's requirements is rigorous and time intensive and requires significant resources and a review of our technologies, systems and practices, as well as those of any third party collaborators, service providers, contractors or consultants that process or transfer personal data collected in the EU. The GDPR and other changes in laws or regulations associated with the enhanced protection of certain types of sensitive data, such as healthcare data or other personal information from our clinical trials, could require us to change our business practices and put in place additional compliance mechanisms, may interrupt or delay our development, regulatory and

commercialization activities and increase our cost of doing business, and could lead to government enforcement actions, private litigation and significant fines and penalties against us and could have a material adverse effect on our business, financial condition or results of operations.

Similar privacy and data security requirements are either in place or underway in the United States. There are a broad variety of data protection laws that may be applicable to our activities, and a range of enforcement agencies at both the state and federal levels that can review companies for privacy and data security concerns. The Federal Trade Commission and state Attorneys General all are aggressive in reviewing privacy and data security protections for consumers. New laws also are being considered at both the state and federal levels. For example, the CCPA, which went into effect on January 1, 2020, and the CPRA, which amends CCPA by expanding the scope and applicability, while also introducing new privacy protections, is creating similar risks and obligations as those created by GDPR. Because of this, we may need to engage in additional activities (e.g., data mapping) to identify the personal information we are collecting and the purposes for which such information is collected. In addition, we will need to ensure that our policies recognize the rights granted to consumers (as that phrase is broadly defined in the CCPA and can include business contact information). Many other states are considering similar legislation. A broad range of legislative measures also have been introduced at the federal level. Accordingly, failure to comply with current and any future federal and state laws regarding privacy and security of personal information could expose us to fines and penalties. We also face a threat of potential consumer class actions related to these laws and the overall protection of personal data. Even if we are not determined to have violated these laws, investigations into these issues typically require the expenditure of significant resources and generate negative publicity, which could harm our reputation and our business.

Legislative and regulatory healthcare reform may increase the difficulty and cost for us to obtain marketing approval of and commercialize our product candidates and affect the prices we may obtain for any products that are approved in the United States or foreign jurisdictions.

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 of vadadustat, or any other product candidate, restrict or regulate post-approval activities and affect our ability to profitably sell Auryxia and vadadustat, if approved. The pharmaceutical industry has been a particular focus of these efforts and has been significantly affected by legislative initiatives. Current laws, as well as other healthcare reform measures that 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 FDA approved product, such as Auryxia or vadadustat, if approved, or any reimbursement that physicians receive for administering any approved product.

In the United States, the Medicare Prescription Drug, Improvement, and Modernization Act of 2003, or the MMA, changed the way Medicare covers and pays for pharmaceutical products. The legislation expanded Medicare coverage for drug purchases by the elderly and introduced a new reimbursement methodology based on average sales prices for physician-administered drugs. In addition, this legislation provided authority for limiting the number of drugs that will be covered in any therapeutic class. Cost reduction initiatives and other provisions of this legislation could decrease the coverage and price that we receive for Auryxia and any other approved products. While the MMA applies only to drug benefits for Medicare beneficiaries, private payors often follow Medicare coverage policy and payment limitations in setting their own reimbursement rates. Therefore, any reduction in reimbursement that results from the MMA may result in a similar reduction in payments from private payors.

In March 2010, President Obama signed into law the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act of 2010, or, collectively, the ACA. Among the provisions of the ACA of potential importance to our business including, without limitation, our ability to commercialize and the prices we obtain for Auryxia and may obtain for any of our product candidates that are approved for sale, are the following:

- an annual, non-deductible fee on any entity that manufactures or imports specified branded prescription drugs and biologic agents;
- an increase in the statutory minimum rebates a manufacturer must pay under the Medicaid Drug Rebate Program;
- expansion of healthcare fraud and abuse laws, including the civil False Claims Act and the federal anti-kickback statute, new government investigative powers and enhanced penalties for noncompliance;
- a new Medicare Part D coverage gap discount program, in which manufacturers must agree to offer 70% point-of-sale discounts off negotiated prices;
- extension of manufacturers' Medicaid rebate liability;
- expansion of eligibility criteria for Medicaid programs;
- expansion of the entities eligible for discounts under the Public Health Service pharmaceutical pricing program;
- new requirements to report certain financial arrangements with physicians and teaching hospitals;
- a new requirement to annually report drug samples that manufacturers and distributors provide to physicians; and
- a new Patient-Centered Outcomes Research Institute to oversee, identify priorities in, and conduct comparative clinical effectiveness research, along with funding for such research.

In addition, other legislative changes and regulatory have been proposed and adopted since the ACA was enacted. These changes include the Budget Control Act of 2011, which, among other things, led to aggregate reductions to Medicare payments to providers of up to 2% per fiscal year, which will remain in effect through 2031. However, pursuant to the Coronavirus Aid, Relief, and Economic Security Act, or the CARES Act, and subsequent legislation, these Medicare sequester reductions were suspended and reduced through the end of June 2022 but with the full 2% cut resuming as of July 1, 2022. The American Taxpayer Relief Act of 2012, which, among other things, reduced Medicare payments to several types of providers and increased the statute of limitations period for the government to recover overpayments to providers from three to five years. In addition, other legislative and regulatory changes have been proposed, but not yet adopted. For example, in July 2019, HHS proposed regulatory changes in kidney health policy and reimbursement. Any new legislative or regulatory changes may result in additional reductions in Medicare and other healthcare funding and otherwise affect the prices we may obtain for Auryxia or vadadustat, if approved, or the frequency with which Auryxia and vadadustat, if approved, is prescribed or used.

The costs and prices of prescription pharmaceuticals have also been the subject of considerable discussion in the United States. To date, there have been several recent U.S. congressional inquiries and proposed and enacted state and federal legislation designed to, among other things, bring more transparency to drug pricing, review the relationship between pricing and manufacturer patient programs, reduce the costs of drugs under Medicare and reform government program reimbursement methodologies for drug products. At the federal level, Congress and the current administration have each indicated that it will continue to seek new legislative and/or administrative measures to control drug costs.

For example, the former administration issued several executive orders intended to lower the costs of prescription products and certain provisions in these orders have been incorporated into regulations. These regulations include an interim final rule implementing a most favored nation model for prices that would tie Medicare Part B payments for certain physician-administered pharmaceuticals to the lowest price paid in other economically advanced countries, effective January 1, 2021. That rule, however, has been subject to a nationwide preliminary injunction and, on December 29, 2021, CMS issued a final rule to rescind it. With issuance of this rule, CMS stated that it will explore all options to incorporate value into payments for Medicare Part B pharmaceuticals and improve beneficiaries' access to evidence-based care.

At the same time, the administration may seek to limit Medicare Part D and public option drug prices through a tax penalty on manufacturers for increases in the cost of drugs and biologics above the general inflation rate. The American Rescue Plan Act of 2021, comprehensive COVID-19 relief legislation recently enacted under the current administration, includes a number of healthcare-related provisions, such as support to rural health care providers, increased tax subsidies for health insurance purchased through insurance exchange marketplaces, financial incentives to states to expand Medicaid programs and elimination of the Medicaid drug rebate cap effective in 2024. Congress continues to consider various legislative measures to limit the costs of prescription drugs, including authorizing Medicare to negotiate the prices of certain pharmaceuticals with manufacturers each year, capping beneficiary out-of-pocket Part D drug costs at $2,000 a year, and penalizing drug manufacturers for price hikes that outpace inflation.

Further, on July 9, 2021, the current administration signed Executive Order 14063, which focuses on, among other things, the price of pharmaceuticals. The Order directs HHS to create a plan within 45 days to combat “excessive pricing of prescription pharmaceuticals and enhance domestic pharmaceutical supply chains, to reduce the prices paid by the federal government for such pharmaceuticals, and to address the recurrent problem of price gouging.” On September 9, 2021, HHS released its plan to reduce pharmaceutical prices. The key features of that plan are to: (a) make pharmaceutical prices more affordable and equitable for all consumers and throughout the health care system by supporting pharmaceutical price negotiations with manufacturers; (b) improve and promote competition throughout the prescription pharmaceutical industry by supporting market changes that strengthen supply chains, promote biosimilars and generic drugs, and increase transparency; and (c) foster scientific innovation to promote better healthcare and improve health by supporting public and private research and making sure that market incentives promote discovery of valuable and accessible new treatments.

At the state level, individual states are increasingly aggressive in 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, marketing cost disclosure and transparency measures, and, in some cases, designed to encourage importation from other countries and bulk purchasing. A number of states, for example, require drug manufacturers and other entities in the drug supply chain, including health carriers, pharmacy benefit managers, wholesale distributors, to disclose information about pricing of pharmaceuticals. In addition, regional healthcare authorities and individual hospitals are increasingly using bidding procedures to determine what pharmaceutical products and which suppliers will be included in their prescription drug and other healthcare programs. These measures could reduce the ultimate demand for our products or put pressure on our product pricing.

It is likely that federal and state legislatures within the United States and foreign governments will continue to consider changes to existing healthcare legislation. We expect that additional state and federal healthcare reform measures will be adopted in the future, any of which could limit the amounts that federal and state governments will pay for healthcare products and services, which could result in reduced demand for Auryxia and any product candidates for which we receive marketing approval or

additional pricing pressures. We cannot predict the reform initiatives that may be adopted in the future or whether initiatives that have been adopted will be repealed or modified. The continuing efforts of the government, insurance companies, managed care organizations and other payors of healthcare services to contain or reduce costs of healthcare may adversely affect:

- the demand for Auryxia and any products candidates for which we receive marketing approval;
- our ability to set a price that we believe is fair for our products;
- our ability to obtain and maintain coverage and reimbursement approval for Auryxia or any other approved product;
- our ability to generate revenues and achieve or maintain profitability; and
- the level of taxes that we are required to pay.

In addition, in some countries, including member states of the EU the pricing of prescription pharmaceuticals is subject to governmental control. In these countries, pricing negotiations with governmental authorities can take a significant amount of time after receipt of marketing approval for a product. In addition, there can be considerable pressure by governments and other stakeholders on prices and reimbursement levels, including as part of cost containment measures. Political, economic and regulatory developments may further complicate pricing negotiations, and pricing negotiations may continue after reimbursement has been obtained. Reference pricing used by various EU member states and parallel distribution, or arbitrage between low-priced and high-priced member states, can further reduce prices, and in certain instances render commercialization in certain markets infeasible or disadvantageous from a financial perspective. In some countries, we or our collaborators may be required to conduct a clinical trial or other studies that compare the cost-effectiveness of our product and/or our product candidates to other available products in order to obtain or maintain reimbursement or pricing approval. Publication of discounts by third party payors or government authorities may lead to further pressure on the prices or reimbursement levels. If reimbursement of our products is unavailable or limited in scope or amount, or if pricing is set at unsatisfactory levels, the commercial launch of our product and/or product candidates could be delayed, possibly for lengthy periods of time, we or our collaborators may not launch at all in a particular country, we may not be able to recoup our investment in one or more product candidates, and there could be a material adverse effect on our business.

If we fail to comply with environmental, health and safety laws and regulations, we could become subject to fines or penalties or incur costs that could harm our business.

We are subject to numerous environmental, health and safety laws and regulations, including those governing laboratory procedures and the handling, use, storage, treatment and disposal of hazardous materials and wastes. Our operations involve the use of hazardous and flammable materials, including chemicals and biological materials. Our operations also produce hazardous waste products. We generally contract with third parties for the use and disposal of these materials and wastes. We cannot eliminate the risk of contamination or injury from these materials. In the event of contamination or injury resulting from the use of hazardous materials by our employees, contractors or consultants, we could be held liable for any resulting damages, and any liability could exceed our resources. We also could incur significant costs associated with civil or criminal fines and penalties for failure to comply with such laws and regulations.

Although we maintain workers' compensation insurance to cover us for costs and expenses, we may incur due to injuries to our employees resulting from the use of hazardous materials, this insurance may not provide adequate coverage against potential liabilities. We do not maintain insurance for environmental liability or toxic tort claims that may be asserted against us in connection with our storage or disposal of biological, hazardous or radioactive materials.

In addition, we may incur substantial costs in order to comply with current or future environmental, health and safety laws and regulations. These current or future laws and regulations may impair our research, development or production efforts. Our failure to comply with these laws and regulations also may result in substantial fines, penalties or other sanctions.

Risks Related to our Reliance on Third Parties

We depend on collaborations with third parties for the development and commercialization of Auryxia, Riona, Vafseo and vadadustat and if these collaborations are not successful or if our collaborators terminate their agreements with us, we may not be able to capitalize on the market potential of Auryxia, Riona, Vafseo and vadadustat, and our business could be materially harmed.

We sublicensed the rights to commercialize Riona to JT and Torii in Japan. We entered into a collaboration agreement with MTPC to develop and commercialize vadadustat in Japan and certain other Asian countries. In addition, we entered into the Vifor Second Amended Agreement pursuant to which we granted Vifor Pharma an exclusive license to sell vadadustat to the Supply Group in the Territory. We may form or seek other strategic alliances, joint ventures, or collaborations, or enter into additional licensing arrangements with third parties that we believe will complement or augment our and our partners' commercialization efforts with respect to Auryxia, Riona, Vafseo and our and our partners' development and, if approved, commercialization efforts with respect to vadadustat and any other product candidates.

We may not be able to maintain our collaborations for development and commercialization. For example, on May 13, 2022, Otsuka elected to terminate our collaboration agreements with them, and we subsequently negotiated the Termination Agreement with Otsuka. This termination by Otsuka may make it difficult for us to attract a new collaborator or adversely affect how we are perceived in scientific and financial communities. We plan to pursue a new partner to develop and commercialize vadadustat in the EMA and other territories previously licensed to Otsuka. If we are unsuccessful in entering into a new agreement in a timely manner, or at all, this termination may result in a need for additional capital and expansion of our internal capabilities to pursue further development or commercialization of the applicable products and product candidates, particularly the development and commercialization of vadadustat in the United States, Europe, China and certain other territories. Our current and any future collaborations may not be successful due to a number of important factors, including the following:

- collaborators may have significant discretion in determining the efforts and resources that they will apply to these collaborations;
- collaborations may be terminated in accordance with the terms of the collaboration agreements and, if terminated, may make it difficult for us to attract new collaborators or adversely affect how we are perceived in scientific and financial communities, and may result in a need for additional capital and expansion of our internal capabilities to pursue further development or commercialization of the applicable products and product candidates;
- if permitted by the terms of the collaboration agreements, collaborators may elect not to continue or renew development or commercialization programs based on clinical trial results, changes in their strategic focus, availability of funding or other external factors such as a business combination that diverts resources or creates competing priorities;
- if permitted by the terms of the collaboration agreements, collaborators may delay clinical trials, provide insufficient funding for a clinical trial program, stop a clinical trial, abandon a product candidate, repeat or conduct new clinical trials or require a new formulation of a product candidate for clinical testing;
- a collaborator with marketing and distribution rights to our products may not commit sufficient resources to their marketing and distribution;
- if permitted by the terms of the collaboration agreements, we and our collaborator may have a difference of opinion regarding the development or commercialization strategy for a particular product or product candidate, and our collaborator may have ultimate decision making authority;
- disputes may arise between a collaborator and us that cause the delay or termination of activities related to research, development, supply or commercialization of Auryxia, Riona, Vafseo or vadadustat and any other product candidate, or that result in costly litigation or arbitration that diverts management attention and resources;
- collaborations may not lead to development or commercialization of products and product candidates, if approved, in the most efficient manner or at all;
- a significant change in the senior management team, a change in the financial condition or a change in the business operations, including a change in control or internal corporate restructuring, of any of our collaborators, could result in delayed timelines, re-prioritization of our programs, decreasing resources or funding allocated to support our programs, or termination of the collaborations; and
- collaborators may not comply with all applicable regulatory and legal requirements.

If any of these events occurs, the market potential of Auryxia, Riona, Vafseo and vadadustat, if and where approved, and any other products or product candidates, could be reduced, and our business could be materially harmed. Collaborations may also divert resources, including the attention of management and other employees, from other parts of our business, which could have an adverse effect on other parts of our business, and we cannot be certain that the benefits of the collaboration will outweigh the potential risks.

We may seek to establish additional collaborations and, if we are not able to establish them on commercially reasonable terms, or at all, we may have to alter our development and commercialization plans.

We will require substantial additional cash to fund the continued commercialization of Auryxia and the development and potential commercialization of any of our product candidates, including vadadustat, if approved, especially following the termination of our collaboration agreements with Otsuka. We may decide to enter into additional collaborations for the development and commercialization of vadadustat or Auryxia, both within and outside of the United States. Any of these relationships may require us to incur non-recurring and other charges, increase our near and long-term expenditures, issue securities that dilute our existing stockholders, divert management’s attention, or disrupt our business.

We may not be successful in entering into additional collaborations as a result of many factors, including the following:

- competition in seeking appropriate collaborators;
- a reduced number of potential collaborators due to recent business combinations in the pharmaceutical industry;
- an inability to negotiate collaborations on acceptable terms, on a timely basis or at all;

- any international rules, regulations, guidance, laws, risks or uncertainties with respect to potential partners outside of the United States;
- a potential collaborator's evaluation of Auryxia, vadadustat or any other product or product candidate may differ substantially from ours;
- a potential collaborator's evaluation of our financial stability and resources;
- a potential collaborator's resources and expertise; and
- restrictions due to an existing collaboration agreement.

If we are unable to enter into additional collaborations, we may have to delay or curtail the commercialization of Auryxia or vadadustat, if and where approved, reduce or delay its development program or other of our other development programs, or increase our expenditures and undertake additional development or commercialization activities at our own expense. If we elect to increase our expenditures to fund development or commercialization activities on our own, we may need to obtain additional capital, which may not be available to us on acceptable terms or at all. If we do not have sufficient funds, we may not be able to further develop or commercialize Auryxia or vadadustat, in the case of commercialization, if approved.

Even if we enter into additional collaboration agreements and strategic partnerships or license our intellectual property, we may not be able to maintain them or they may be unsuccessful, which could delay our timelines or otherwise adversely affect our business.

Royalties from commercial sales of vadadustat under our MTPC Agreement will likely fluctuate and will impact our rights to receive future payments under our Royalty Agreement with HCR.

Pursuant to the Royalty Agreement with HCR, we sold to HCR our right to receive the Royalty Interest Payments payable to us under the MTPC Agreement, subject to the Annual Cap and the Aggregate Cap. After HCR receives Royalty Interest Payments equal to the Annual Cap in a given calendar year, we will receive 85% of the Royalty Interest Payments for the remainder of that year. After HCR receives Royalty Interest Payments equal to the Aggregate Cap, or we pay the Aggregate Cap to HCR (net of the Royalty Interest Payments already received by HCR), the Royalty Interest Payments will revert back to us, and HCR would have no further right to any Royalty Interest Payments. We received $44.8 million from HCR (net of certain transaction expenses) under the Royalty Agreement, and we are eligible to receive up to an additional $15.0 million under the Royalty Agreement if specified sales milestones are achieved for vadadustat in the territory covered by the MTPC Agreement, subject to the satisfaction of certain customary conditions.

The royalty revenues under the MTPC Agreement may fluctuate considerably because they depend upon, among other things, the rate of growth of sales of vadadustat in the territory covered by the MTPC Agreement. Negative fluctuations in these royalty revenues could delay, diminish or eliminate our right to receive up to the additional $15.0 million under the Royalty Agreement upon achievement of the specified sales milestones, our ability to receive 85% of the Royalty Interest Payments after the Annual Cap is achieved in a given calendar year, or our ability to receive 100% of the Royalty Interest Payments after the Aggregate Cap is achieved.

We rely upon third parties to conduct all aspects of our product manufacturing and the loss of these manufacturers, their failure to supply us on a timely basis, or at all, or their failure to successfully carry out their contractual duties or comply with regulatory requirements, cGMP requirements, or guidance could cause delays in or disruptions to our supply chain and substantially harm our business.

We do not have any manufacturing facilities and do not expect to independently manufacture any product or product candidates. We currently rely, and expect to continue to rely, on third party manufacturers to produce all of our commercial, clinical and preclinical supply, including the vadadustat drug product that we supply to our collaboration partner, MTPC, for the Japanese market. Our reliance on third party manufacturers, who have control over the manufacturing process, increases the risk that we will not have or be able to maintain sufficient quantities of Auryxia and vadadustat or the ability to obtain such quantities at an acceptable cost or quality, which could delay, prevent or impair our and our partners' development or commercialization efforts.

We currently have two suppliers of Auryxia drug substance, Siegfried Evionnaz SA (two approved sites) and BioVectra Inc. (one approved site), and one supplier of Auryxia drug product, Patheon Inc., or Patheon (three approved sites). However, our supply agreement with Siegfried Evionnaz SA expires on December 31, 2022, at which time we will only have one supplier for Auryxia drug substance. We have entered into supply agreements with Esteve Química, S.A. and STA Pharmaceutical Hong Kong Limited, a subsidiary of Wuxi AppTec, or STA, for the commercial manufacture of vadadustat drug substance and Patheon Inc. and STA for the commercial manufacture of vadadustat drug product. If any of the following occurs, we may not have sufficient quantities of Auryxia and/or vadadustat to support our clinical trials, development, commercialization, or

obtaining and maintaining marketing approvals, which could materially and adversely impact our business and results of operations:

- we are unsuccessful in maintaining our current supply arrangements for commercial quantities of Auryxia and vadadustat;
- our commercial supply arrangements for Auryxia or vadadustat are terminated;
- any of our third party manufacturers is unable to fulfill the terms of their agreements with us, including with respect to quality and quantity, or is unable or unwilling to continue to manufacture on the manufacturing lines included in our regulatory filings; or
- any of our third party manufacturers breaches our supply agreements, does not comply with quality or regulatory requirements and guidance, including cGMP or is subject to regulatory review or ceases its operations for any reason.

If any of our third party manufacturers cannot or do not perform as agreed or expected, including as a result of COVID-19, if they misappropriate our proprietary information, if they terminate their engagements with us, if we terminate our engagements with them, or if there is a significant disagreement, we may be forced to manufacture the materials ourselves, for which we currently do not have the capabilities or resources, or enter into agreements with other third party manufacturers, which we may not be able to do in a timely manner or on favorable or reasonable terms, if at all. In some cases, there may be a limited number of qualified replacement manufacturers, or the technical skills or equipment required to manufacture a product or product candidate may be unique or proprietary to the original manufacturer and we may have difficulty transferring such skills or technology to another third party, or a feasible alternative may not exist. These factors would increase our reliance on our current manufacturers or require us to obtain necessary regulatory approvals and licenses in order to have another third party manufacture Auryxia or vadadustat. If we are required to change manufacturers for any reason, we will be required to verify that the new manufacturer maintains facilities and procedures that comply with quality standards and with all applicable regulations and guidelines. The delays associated with the qualification of a new manufacturer and validation of manufacturing processes would negatively affect our ability to supply clinical trials, obtain and maintain marketing approval, or commercialize or satisfy patient demand for Auryxia and vadadustat, where approved, in a timely manner within budget or at all.

In addition, the cost of obtaining Auryxia and vadadustat is subject to adjustment based on our third party manufacturers' costs of obtaining raw materials and producing the product. We have limited control over the production of Auryxia and vadadustat, including the costs of raw materials, and any significant increase in the cost of obtaining our products could materially adversely affect our revenue for Auryxia and vadadustat, if approved.

Moreover, issues that may arise in any scale-up and technology transfer and continued commercial scale manufacture of our products may lead to significant delays in our development, marketing approval and commercial timelines and negatively impact our financial performance. For example, a production-related issue resulted in an interruption in the supply of Auryxia in the third and fourth quarters of 2016. This supply interruption negatively impacted Keryx's revenues in 2016. Although this supply interruption was resolved and we have taken and continue to take actions designed to prevent future interruptions in the supply of Auryxia, any future supply interruptions, whether quality or quantity based, for Auryxia and vadadustat, if and where approved, would negatively and materially impact our reputation and financial condition.

There are a limited number of manufacturers that are capable of manufacturing Auryxia and vadadustat for us and complying with cGMP regulations and guidance and other stringent regulatory requirements and guidance enforced by the FDA, EMA, PMDA and other regulatory authorities. These requirements include, among other things, quality control, quality assurance and the maintenance of records and documentation, which occur in addition to our own quality assurance releases. The facilities and processes used by our third party manufacturers to manufacture Auryxia may be inspected by the FDA and other regulatory authorities at any time, and the facilities and processes used by our third party manufacturers to manufacture vadadustat will be inspected by the FDA, the EMA and other regulatory authorities prior to or after we submit our marketing applications. Although we have general visibility into the manufacturing processes of our third party manufacturers, we do not ultimately control such manufacturing processes of, and have little control over, our third party manufacturers, including, without limitation, their compliance with cGMP requirements and guidance for the manufacture of certain starting materials, drug substance and finished drug product. Similarly, although we review final production, we have little control over the ability of our third party manufacturers to maintain adequate quality control, quality assurance and qualified personnel. Our third party manufacturers may experience problems with their manufacturing and distribution operations and processes, including, for example, quality issues, such as product specification and stability failures, procedural deviations, improper equipment installation or operation, utility failures, contamination, natural disasters and public health epidemics. We may also encounter difficulties relating to our own quality processes and procedures, including regulatory compliance, lot release, quality control and quality assurance, as well as shortages of qualified personnel. If our third party manufacturers cannot successfully manufacture material that conforms to our specifications and regulatory requirements and guidance, or if we or our third party manufacturers experience manufacturing, operations and/or quality issues, including an inability or unwillingness to continue manufacturing our products at all, in accordance with agreed-upon processes or on currently validated manufacturing lines, we

may not be able to supply patient demand or maintain marketing approval for Auryxia or secure and maintain marketing approval for vadadustat.

If the FDA, the EMA or other regulatory authorities do not approve the facilities being used to manufacture vadadustat, or if they withdraw any approval of the facilities being used to manufacture Auryxia or vadadustat, we may need to find alternative manufacturing facilities, which would significantly impact our ability to continue commercializing Auryxia or Vafseo in Japan, or develop, obtain marketing approval for or market vadadustat or our other product candidates, if approved.

Moreover, our failure or the failure of our third party manufacturers to comply with applicable regulations or guidance, or our failure to oversee or facilitate such compliance, could result in sanctions being imposed on us or our third party manufacturers, including, where applicable, clinical holds, fines, injunctions, civil penalties, delays in, suspension of or withdrawal of approvals, license revocation, seizures or recalls of Auryxia or Vafseo in Japan, operating restrictions, receipt of a Form 483 or warning letter, or criminal prosecutions, any of which could significantly and adversely affect the supply of Auryxia or vadadustat. For example, we previously conducted three limited, voluntary recalls of Auryxia. These and any other recalls or any supply, quality or manufacturing issues in the future and any related write-downs of inventory or other consequences could result in significant negative consequences, including reputational harm, loss of customer confidence, and a negative impact on our financials, any of which could have a material adverse effect on our business and results of operations, and may impact our ability to supply Auryxia, Vafseo in Japan or vadadustat for clinical and commercial use. Also, if our starting materials, drug substance or drug product are damaged or lost while in our or our third party manufacturers' control, it may adversely impact our ability to supply Auryxia or vadadustat, and we may incur significant financial harm.

In addition, Auryxia and vadadustat may compete with other products and product candidates for access to third party manufacturing facilities. A third party manufacturer may also encounter delays or operational issues brought on by sudden internal resource constraints, labor disputes, shifting priorities or shifting regulatory protocols including, in each case, relating to the COVID-19 pandemic. Certain of these third party manufacturing facilities may be contractually prohibited from manufacturing Auryxia or vadadustat due to exclusivity provisions in agreements with our competitors. Any of the foregoing could negatively impact our third party manufacturers' ability to meet our demand, which could adversely impact our ability to supply Auryxia or vadadustat, and we may incur significant financial harm.

Our current and anticipated future dependence on third parties for the manufacture of Auryxia and vadadustat may adversely affect our and our partners' ability to commercialize Auryxia and vadadustat, where approved, on a timely and competitive basis and may reduce any future profit margins.

We rely upon third parties to conduct our clinical trials and certain of our preclinical studies. If they do not successfully carry out their contractual duties, comply with regulatory requirements or meet expected deadlines, we may not be able to obtain or maintain marketing approval for Auryxia, vadadustat or any of our product candidates, and our business could be substantially harmed.

We do not have the ability to independently conduct certain preclinical studies and clinical trials. We are currently relying, and expect to continue to rely, upon third parties, such as CROs, clinical data management organizations, medical institutions and clinical investigators, to conduct our current and future preclinical studies and clinical trials. The third parties upon whom we rely may fail to perform effectively, or terminate their engagement with us, for a number of reasons, including the following:

- if they experience staffing difficulties;
- if we fail to communicate effectively or provide the appropriate level of oversight;
- if they undergo changes in priorities or corporate structure including as a result of a merger or acquisition or other transaction, or become financially distressed; or
- if they form relationships with other entities, some of which may be our competitors.

If the third parties upon whom we rely to conduct our trials fail to adhere to clinical trial protocols or to regulatory requirements, the quantity, quality or accuracy of the data obtained by the third parties may be compromised. We are exposed to risk of fraud or other misconduct by such third parties.

Any of these events could cause our preclinical studies and clinical trials, including post-approval clinical trials, to be extended, delayed, suspended, required to be repeated or terminated, or we may receive untitled warning letters or be the subject of an enforcement action, which could result in our failing to obtain and maintain marketing approval of vadadustat or any other product candidates on a timely basis, or at all, or fail to maintain marketing approval of Auryxia, or any other products, any of which would adversely affect our business operations. In addition, if the third parties upon whom we rely fail to perform effectively or terminate their engagement with us, we may need to enter into alternative arrangements, which could delay, perhaps significantly, the development and commercialization of vadadustat, if approved, or any other product candidates.

Even though we do not directly control the third parties upon whom we rely to conduct our preclinical studies and clinical trials and therefore cannot guarantee the satisfactory and timely performance of their obligations to us, we are nevertheless responsible for ensuring that each of our clinical trials and preclinical studies is conducted in accordance with the applicable protocol, legal and regulatory requirements, including GXP requirements, and scientific standards, and our reliance on these third parties, including CROs, will not relieve us of our regulatory responsibilities. If we or any of our CROs, their subcontractors, or clinical or preclinical trial sites fail to comply with applicable GXP requirements, the clinical data generated in our trials may be deemed unreliable or insufficient, our clinical trials could be put on hold, and/or the FDA, the EMA or other regulatory authorities may require us to perform additional clinical trials before approving our marketing applications. In addition, our clinical and preclinical trials must be conducted with drug product that meets certain specifications and is manufactured under applicable cGMP regulations. These requirements include, among other things, quality control, quality assurance, and the satisfactory maintenance of records and documentation.

We also rely upon third parties to store and distribute drug product for our clinical trials. For example, we use third parties to store product at various sites in the United States to distribute to our clinical trial sites. Any performance failure on the part of our storage or distributor partners could delay clinical development, marketing approval or commercialization, resulting in additional costs and depriving us of potential product revenue.

If the licensor of certain intellectual property relating to Auryxia terminates, modifies or threatens to terminate existing contracts or relationships with us, our business may be materially harmed.

We do not own all of the rights to our product, Auryxia. We have licensed and sublicensed certain rights, patent and otherwise, to Auryxia from a third party, Panion & BF Biotech, Inc., or Panion, who in turn licenses certain rights to Auryxia from one of the inventors of Auryxia. The license agreement with Panion, or the Panion License Agreement, requires us to meet development milestones and imposes development and commercialization due diligence requirements on us. In addition, under the Panion License Agreement, we must pay royalties based on a mid-single digit percentage of net sales of product resulting from the licensed technologies, including Auryxia, and pay the patent filing, prosecution and maintenance costs related to the license. If we do not meet our obligations in a timely manner, or if we otherwise breach the terms of the Panion License Agreement, Panion could terminate the agreement, and we would lose the rights to Auryxia. For example, following announcement of the Merger, Panion notified Keryx in writing that Panion would terminate the Panion License Agreement on November 21, 2018 if Keryx did not cure the breach alleged by Panion, specifically, that Keryx failed to use commercially reasonable best efforts to commercialize Auryxia outside the United States. Keryx disagreed with Panion's claims, and the parties entered discussions to resolve this dispute. On October 24, 2018, prior to the consummation of the Merger, we, Keryx and Panion entered into a letter agreement, or the Panion Letter Agreement, pursuant to which Panion agreed to rescind any and all prior termination threats or notices relating to the Panion License Agreement and waived its rights to terminate the license agreement based on any breach by us of our obligation to use commercially reasonable efforts to commercialize Auryxia outside the United States until the parties executed an amendment to the Panion License Agreement in accordance with the terms of the Panion Letter Agreement, following consummation of the Merger. On April 17, 2019, we and Panion entered into an amendment and restatement of the Panion License Agreement, or the Panion Amended License Agreement, which reflects certain revisions consistent with the terms of the Panion Letter Agreement. See Note 4 to our consolidated financial statements in Part I, Item 1. Financial Statements of this Quarterly Report on Form 10-Q for additional information regarding the Panion Amended License Agreement. Even though we entered into the Panion Amended License Agreement, there are no assurances that Panion will not allege other breaches of the Panion Amended License Agreement or otherwise attempt to terminate the Panion Amended License Agreement in the future. In addition, if Panion breaches its agreement with the inventor from whom it licenses rights to Auryxia, Panion could lose its license, which could impair or delay our ability to develop and commercialize Auryxia.

From time to time, we may have disagreements with Panion, or Panion may have disagreements with the inventor from whom it licenses rights to Auryxia, regarding the terms of the agreements or ownership of proprietary rights, which could impact the commercialization of Auryxia, could require or result in litigation or arbitration, which would be time-consuming and expensive, could lead to the termination of the Panion Amended License Agreement, or force us to negotiate a revised or new license agreement on terms less favorable than the original. In addition, in the event that the owners and/or licensors of the rights we license were to enter into bankruptcy or similar proceedings, we could potentially lose our rights to Auryxia or our rights could otherwise be adversely affected, which could prevent us from continuing to commercialize Auryxia.

Risks Related to our Intellectual Property

If we are unable to adequately protect our intellectual property, third parties may be able to use our intellectual property, which could adversely affect our ability to compete in the market.

Our commercial success will depend in part on our ability, and the ability of our licensors, to obtain and maintain patent protection on our drug product and technologies, and to successfully defend these patents against third party challenges. We seek to protect our proprietary products and technology by filing patent applications in the United States and certain foreign jurisdictions. The process for obtaining patent protection is expensive and time consuming, and we may not be able to file and prosecute all necessary or desirable patent applications in a cost effective or timely manner. In addition, we may fail to identify patentable subject matter early enough to obtain patent protection. Further, license agreements with third parties may not allow us to control the preparation, filing and prosecution of patent applications, or the maintenance or enforcement of patents. Such third parties may decide not to enforce such patents or enforce such patents without our involvement. Thus, these patent applications and patents may not, under these circumstances, be prosecuted or enforced in a manner consistent with the best interests of the company.

Our pending patent applications may not issue as patents and may not issue in all countries in which we develop, manufacture or potentially sell our product or in countries where others develop, manufacture and potentially sell products using our technologies. Moreover, our pending patent applications, if issued as patents, may not provide additional protection for our product.

The patent positions of pharmaceutical and biotechnology companies can be highly uncertain and involve complex legal and factual questions. No consistent policy regarding the breadth of claims allowed in pharmaceutical and biotechnology patents has emerged to date. Changes in the patent laws or the interpretation of the patent laws in the United States and other jurisdictions may diminish the value of our patents or narrow the scope of our patent protection. Accordingly, the patents we own or license may not be sufficiently broad to prevent others from practicing our technologies or from developing competing products. Furthermore, others may independently develop similar or alternative drug products or technologies or design around our patented drug product and technologies which may have an adverse effect on our business. If our competitors prepare and file patent applications in the United States that claim technology also claimed by us, we may have to participate in interference or derivation proceedings in front of the U.S. Patent and Trademark Office, or USPTO, to determine priority of invention, which could result in substantial cost, even if the eventual outcome is favorable to us. Because of the extensive time required for development, testing and regulatory review of a potential product, it is possible that any related patent may expire prior to, or remain in existence for only a short period following, commercialization, which may significantly diminish our ability to exclude others from commercializing products that are similar or identical to ours. The patents we own or license may be challenged or invalidated or may fail to provide us with any competitive advantage. Since we have licensed or sublicensed many patents from third parties, we may not be able to enforce such licensed patents against third party infringers without the cooperation of the patent owner and the licensor, which may not be forthcoming. In addition, we may not be successful or timely in obtaining any patents for which we submit applications.

Generally, the first to file a patent application is entitled to the patent if all other requirements of patentability are met. However, prior to March 16, 2013, in the United States, the first to invent was entitled to the patent. Since publications of discoveries in the scientific literature often lag behind the actual discoveries, and patent applications in the United States and other jurisdictions are typically not published until 18 months after filing, or in some cases not at all, we cannot know with certainty whether we were the first to make the inventions claimed in our patents or pending patent applications, or that we were the first to file for patent protection of such inventions. Moreover, the laws enacted by the Leahy-Smith America Invents Act of 2011, which reformed certain patent laws in the United States, introduce procedures that permit competitors to challenge our patents in the USPTO after grant, including inter partes review and post grant review. Similar laws exist outside of the United States. The laws of the European Patent Convention, for example, provide for post-grant opposition procedures that permit competitors to challenge, or oppose, our European patents administratively at the European Patent Office.

We may become involved in addressing patentability objections based on third party submission of references, or we may become involved in defending our patent rights in oppositions, derivation proceedings, reexamination, inter partes review, post grant review, interference proceedings or other patent office proceedings or litigation, in the United States or elsewhere, challenging our patent rights or the patent rights of others. An adverse result in any such proceeding or litigation could reduce the scope of, or invalidate, our patent rights, allow third parties to commercialize our technology or products and compete directly with us, without payment to us.

The issuance of a patent is not conclusive as to its inventorship, scope, validity or enforceability, and our owned and licensed patents may be challenged on such a basis in the courts or patent offices in the United States and abroad. As a result of such challenges, we may lose exclusivity or freedom-to-operate or patent claims may be narrowed, invalidated or held unenforceable, in whole or in part, which could limit our ability to prevent third parties from using or commercializing similar or identical products, or limit the duration of the patent protection for our products.

Periodic maintenance fees on any issued patent are due to be paid to the USPTO and foreign patent agencies in several stages over the lifetime of the patent. The USPTO and governmental patent agencies in other jurisdictions also require compliance with a number of procedural, documentary, fee payment (such as annuities) and other similar provisions during the patent

application process. While an inadvertent lapse in many cases can be cured by payment of a late fee or by other means in accordance with the applicable rules, there are situations in which non-compliance can result in abandonment or lapse of the patent or patent application, resulting in partial or complete loss of patent rights in the relevant jurisdiction. Non-compliance events that could result in abandonment or lapse of a patent or patent application include, but are not limited to, failure to respond to official actions within prescribed time limits, non-payment of fees, and failure to properly legalize and submit formal documents. In such an event, our competitors might be able to enter the market sooner than we expect, which would have a material adverse effect on our business.

In addition, patents protecting our product candidate might expire before or shortly after such candidate is commercialized. Thus, our patent portfolio may not provide sufficient rights to exclude others from commercializing products similar or identical to ours.

We also rely on trade secrets and know-how to protect our intellectual property where we believe patent protection is not appropriate or obtainable. Trade secrets are difficult to protect. While we require our employees, licensees, collaborators and consultants to enter into confidentiality agreements, this may not be sufficient to adequately protect our trade secrets or other proprietary information. In addition, in some cases, we share certain ownership and publication rights to data relating to some of our products and product candidates with research collaborators, licensees and other third parties. If we cannot maintain the confidentiality of this information, our ability to receive patent protection or protect our trade secrets or other proprietary information will be at risk.

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

Filing, prosecuting and defending patents on our products and product candidates in all countries throughout the world would be prohibitively expensive. Consequently, the breadth of our intellectual property rights in some countries outside the United States may be less extensive than those in the United States. In addition, the laws of some countries do not protect intellectual property rights to the same extent as laws in the United States. As a result, we may not be able to prevent third parties from practicing our inventions in all countries outside the United States, or from selling or importing products made using our inventions in and into the United States or other countries. Competitors may use our technologies in countries where we have not obtained patent protection to develop their own products and, further, may infringe our patents in territories where we have patent protection, but where enforcement is not as strong as in the United States. These products may compete with our products and our patents or other intellectual property rights may not be effective or sufficient to prevent them from competing.

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

The intellectual property that we own or have licensed and related non-patent exclusivity relating to our current and future products is, and may be, limited, which could adversely affect our ability to compete in the market and adversely affect the value of Auryxia.

The patent rights and related non-patent exclusivity that we own or have licensed relating to Auryxia are limited in ways that may affect our ability to exclude third parties from competing against us. For example, a third party may design around our owned or licensed composition of matter patent claims or market a product for the methods of use not covered by our owned or licensed patents.

Obtaining proof of direct infringement by a competitor for a method of use patent requires us to demonstrate that the competitors make and market a product for the patented use(s). Alternatively, we can prove that our competitors induce or contribute to others in engaging in direct infringement. Proving that a competitor contributes to or induces infringement of a patented method by another has additional proof requirements. For example, proving inducement of infringement requires proof of intent by the competitor. If we are required to defend ourselves against claims or to protect our own proprietary rights against others, it could result in substantial costs to us and the distraction of our management. An adverse ruling in any litigation or administrative proceeding could prevent us from marketing and selling Auryxia, increase the risk that a generic or other similar

version of Auryxia could enter the market to compete with Auryxia, limit our development and commercialization of Auryxia, or otherwise harm our competitive position and result in additional significant costs.

Moreover, physicians may prescribe a competitive identical product for indications other than the one for which the product has been approved, or "off-label" indications, that are covered by the applicable patents. Although such off-label prescriptions may directly infringe or contribute to or induce infringement of method of use patents, such infringement is difficult to prevent.

In addition, any limitations of our patent protection described above may adversely affect the value of our drug product and may inhibit our ability to obtain a collaboration partner at terms acceptable to us, if at all.

In the United States, the FDA has the authority to grant additional regulatory exclusivity protection for approved drugs where the sponsor conducts specified testing in pediatric or adolescent populations. If granted, this pediatric exclusivity may provide an additional six months which are added to the term of any non-patent exclusivity that has been awarded as well as to the regulatory protection related to the term of a relevant patent, to the extent these protections have not already expired.

In addition to pediatric exclusivity protection, we may seek additional non-patent exclusivity for vadadustat and other product candidates under other provisions of the FDCA such as new chemical entity, or NCE, exclusivity, or exclusivity for a new use or new formulation, but there is no guarantee that vadadustat or any other product candidates will receive such exclusivity. The FDCA provides a five-year period of non-patent exclusivity within the United States to the first applicant to gain approval of an NDA for an NCE. A drug is an NCE if the FDA has not previously approved any other new drug containing the same active moiety, which consists of the molecule(s) or ion(s) responsible for the action of the drug substance (but not including those portions of the molecule that cause it to be a salt or ester or which are not bound to the molecule by covalent or similar bonds). During the exclusivity period, the FDA may not accept for review an ANDA or a 505(b)(2) NDA submitted by another company for another version of such drug where the applicant does not own or have a legal right of reference to all the data required for approval. However, an ANDA or 505(b)(2).

An ANDA that references an NDA product with NCE exclusivity may be submitted after four years if it contains a certification of patent invalidity or non-infringement. The FDCA also provides three years of exclusivity for an NDA, particularly a 505(b)(2) NDA or supplement to an existing NDA if new clinical investigations, other than bioavailability studies, that were conducted or sponsored by the applicant are deemed by the FDA to be essential to the approval of the application (for example, for new indications, dosages, or strengths of an existing drug). This three-year exclusivity covers only the conditions associated with the new clinical investigations and does not prohibit the FDA from approving ANDAs for drugs containing the original active agent. The three-year exclusivity period, unlike five-year exclusivity, does not prevent the submission of a competing ANDA or 505(b)(2) NDA. Instead, it only prevents the FDA from granting final approval to such a product until expiration of the exclusivity period. Five-year and three-year exclusivity will not delay the submission (in the case of five-year exclusivity) or the approval (in the case of three-year exclusivity) of a full NDA submitted under section 505(b)(1) of the FDCA; however, an applicant submitting a full NDA would be required to conduct all of its own studies needed to independently support a finding of safety and effectiveness for the proposed product, or have a full right of reference to all studies not conducted by the applicant.

We received Paragraph IV certification notice letters regarding ANDAs submitted to the FDA requesting approval for generic versions of Auryxia tablets (210 mg iron per tablet), with the first received on October 31, 2018. We and Panion & BF Biotech, Inc., or Panion, and, Dr. Hsu, as applicable, filed certain complaints for patent infringement relating to such ANDAs, and have entered into settlement and license agreements with each of the ANDA filers.

In cases where NCE exclusivity has been granted to a new drug product, the 30-month stay triggered by such litigation is extended by the amount of time such that seven years and six months will elapse from the date of approval of the NDA for that product. Without NCE exclusivity, the 30-month stay on FDA final approval of an ANDA runs from the date on which the sponsor of the reference listed drug receives notice of a Paragraph IV certification from the ANDA applicant.

We cannot assure you that Auryxia, vadadustat, if approved, or any of our potential future products will obtain such pediatric exclusivity, NCE exclusivity or any other market exclusivity in the United States, EU or any other territory, or that we will be the first to receive the respective regulatory approval for such drugs so as to be eligible for any non-patent exclusivity protection. We also cannot assure you that Auryxia, vadadustat, if approved, or any of our potential future products will obtain patent term extension.

The market entry of one or more generic competitors or any third party's attempt to challenge our intellectual property rights will likely limit Auryxia sales and have an adverse impact on our business and results of operation.

Although the composition and use of Auryxia is currently claimed by 15 issued patents that are listed in the FDA's Orange Book, we cannot assure you that we will be successful in defending against third parties attempting to invalidate or design

around our patents or assert that our patents are invalid or otherwise unenforceable or not infringed, or in competing against third parties introducing generic equivalents of Auryxia or any of our potential future products. If our Orange Book-listed patents are successfully challenged by a third party and a generic version of Auryxia is approved and launched, revenue from Auryxia could decline significantly, which would have a material adverse effect on our sales, results of operations and financial condition.

We previously received Paragraph IV certification notice letters regarding ANDAs submitted to the FDA requesting approval for generic versions of Auryxia tablets (210 mg ferric iron per tablet). We filed complaints for patent infringement relating to such ANDAs, and subsequently entered into settlement and license agreements with all such ANDA filers that allow such ANDA filers to market a generic version of Auryxia in the United States beginning on March 20, 2025. It is possible that we may receive Paragraph IV certification notice letters from additional ANDA filers and may not ultimately be successful in an ANDA litigation. Generic competition for Auryxia or any of our potential future products could have a material adverse effect on our sales, results of operations and financial condition.

Litigation, including third party claims of intellectual property infringement, may be costly and time consuming and may delay or harm our drug discovery, development and commercialization efforts.

We may be forced to initiate litigation to enforce our contractual and intellectual property rights, or we may be sued by third parties asserting claims based on contract, tort or intellectual property infringement. In addition, third parties may have or may obtain patents in the future and claim that our products or other technologies infringe their patents. If we are required to defend against suits brought by third parties, or if we sue third parties to protect our rights, we may be required to pay substantial litigation costs, and our management's attention may be diverted from operating our business. In addition, any legal action against our licensor, licensees or us that seeks damages or an injunction of commercial activities relating to Auryxia, vadadustat or any other product candidates or other technologies, including those that may be in-licensed or acquired, could subject us to monetary liability, a temporary or permanent injunction preventing the development, marketing and sale of such products or such technologies, and/or require our licensor, licensees or us to obtain a license to continue to use such products or other technologies. We cannot predict whether our licensor, licensees or we would prevail in any of these types of actions or that any required license would be made available on commercially acceptable terms, if at all.

Our commercial success depends in part on our avoiding infringement of the patents and proprietary rights of third parties. The pharmaceutical and biotechnology industries are characterized by extensive litigation over patent and other intellectual property rights. We have in the past and may in the future become a party to, or be threatened with, future adversarial litigation or other proceedings regarding intellectual property rights with respect to our product and product candidates. As the pharmaceutical and biotechnology industries expand and more patents are issued, the risk increases that our drug candidates may give rise to claims of infringement of the patent rights of others.

While our product candidates are in preclinical studies and clinical trials, we believe that the use of our product candidates in these preclinical studies and clinical trials in the United States falls within the scope of the exemptions provided by 35 U.S.C. Section 271(e), which provides that it shall not be an act of infringement to make, use, offer to sell, or sell within the United States or import into the United States a patented invention solely for uses reasonably related to the development and submission of information to the FDA. There is an increased possibility of a patent infringement claim against us with respect to commercial products. Our portfolio includes one commercial product, Auryxia. We received a CRL from the FDA regarding our NDA for vadadustat in March 2022, and we subsequently held an end of review conference with the FDA, and, if in the future vadadustat is approved, vadadustat could be commercialized. We attempt to ensure that our products and product candidates and the methods we employ to manufacture them, as well as the methods for their use which we intend to promote, do not infringe other parties' patents and other proprietary rights. There can be no assurance they do not, however, and competitors or other parties may assert that we infringe their proprietary rights in any event.

FibroGen has filed patent applications in the United States and other countries directed to purportedly new methods of using previously known heterocyclic carboxamide compounds for purposes of treating or affecting specified conditions, and some of these applications have since issued as patents. To the extent any such patents issue or have been issued, we may initiate opposition or other legal proceedings with respect to such patents. We discuss the status of the opposition and/or invalidation proceedings against certain FibroGen patents in Part II, Item 1. Legal Proceedings of this Quarterly Report on Form 10-Q.

There may be patents of third parties of which we are currently unaware with claims to compounds, materials, formulations, methods of manufacture or methods for treatment related to the use or manufacture of our product candidates. Also, because patent applications can take many years to issue, there may be currently pending patent applications which may later result in issued patents that our product candidates may infringe.

Third parties, including FibroGen, may in the future claim that our product and product candidates and other technologies infringe upon their patents and may challenge our ability to commercialize Auryxia and vadadustat, if approved. Parties making

claims against us or our licensees may seek and obtain injunctive or other equitable relief, which could effectively block our or their ability to continue to commercialize Auryxia or further develop and commercialize vadadustat or any other product candidates, including those that may be in-licensed or acquired. If any third party patents were held by a court of competent jurisdiction to cover the manufacturing process of any of our products or product candidates, any molecules formed during the manufacturing process or any final product itself, the holders of any such patents may be able to block our ability to commercialize such product or product candidate unless we obtained a license under the applicable patents, or until such patents expire or they are finally determined to be held invalid or unenforceable. Similarly, if any third party patent were held by a court of competent jurisdiction to cover aspects of our formulations, processes for manufacture or our intended methods of use, the holders of any such patent may be able to block or impair our ability to develop and commercialize the applicable product candidate unless we obtained a license or until such patent expires or is finally determined to be held invalid or unenforceable. We may also elect to enter into a license in order to settle litigation or in order to resolve disputes prior to litigation. Furthermore, even in the absence of litigation, we may need to obtain licenses from third parties to advance our research or allow commercialization of our products or product candidates. Should a license to a third party patent become necessary, we cannot predict whether we would be able to obtain a license or, if a license were available, whether it would be available on commercially reasonable terms. If such a license is necessary and a license under the applicable patent is unavailable on commercially reasonable terms, or at all, our ability to commercialize our product or product candidate may be impaired or delayed, which could in turn significantly harm our business.

Further, defense of infringement claims, regardless of their merit, would involve substantial litigation expense and would be a substantial diversion of employee resources from our business. In the event of a successful claim of infringement against us, we may have to pay substantial damages, including treble damages and attorneys' fees for willful infringement, pay royalties or redesign our products, which may be impossible or require substantial time and monetary expenditure.

We are currently involved in an opposition and invalidation proceedings and may in the future be involved in additional lawsuits or administrative proceedings to challenge the patents of our competitors or to protect or enforce our patents, which could be expensive, time consuming, and unsuccessful.

Competitors may infringe our patents or misappropriate our trade secrets or confidential information. To counter infringement or unauthorized use, we may be required to file infringement or misappropriation claims, which can be expensive and time-consuming. We may not be able to prevent infringement of our patents or misappropriation of our trade secrets or confidential information, particularly in countries where the laws may not protect those rights as fully as in the United States. In addition, in an infringement proceeding, a court may decide that a patent of ours is not valid or is unenforceable, or may refuse to stop the other party from using the technology at issue on the grounds that our patents do not cover the technology in question. An adverse result in any litigation or defense proceedings could put one or more of our patents at risk of being invalidated, held unenforceable, or interpreted narrowly and held not infringed and could put our patent applications at risk of not issuing.

In addition, there may be a challenge or dispute regarding inventorship or ownership of patents or applications currently identified as being owned by or licensed to us. Defense of these claims, regardless of their merit, would involve substantial litigation expense and would be a substantial diversion of employee resources from our business. Interference proceedings provoked by third parties or brought by the USPTO may be necessary to determine the priority of inventions with respect to our patents or patent applications.

Various administrative proceedings are also available for challenging patents, including interference, reexamination, inter partes review, and post-grant review proceedings before the USPTO or oppositions and other comparable proceedings in foreign jurisdictions. An unfavorable outcome in any current or future proceeding in which we are challenging third party patents could require us to cease using the patented technology or to attempt to license rights to it from the prevailing party. Our business could be harmed if the prevailing party does not offer us a license on commercially reasonable terms or at all. Even if we are successful, participation in interference or other administrative proceedings before the USPTO or a foreign patent office may result in substantial costs and distract our management and other employees.

We are currently involved in opposition and invalidation proceedings in the European Patent Office, the Japan Patent Office, and the Patents Court of the UK. These proceedings may be ongoing for a number of years and may involve substantial expense and diversion of employee resources from our business. In addition, we may become involved in additional opposition proceedings or other legal or administrative proceedings in the future. For more information, see the other risk factors under "Risks Related to our Intellectual Property".

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

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

We have received confidential and proprietary information from potential collaborators, prospective licensees and other third parties. In addition, we employ individuals who were previously employed at other biotechnology or pharmaceutical companies. We may be subject to claims that we or our employees, consultants or independent contractors have inadvertently or otherwise used or disclosed confidential information of these third parties or our employees' former employers. We may also be subject to claims that former employees, collaborators or other third parties have an ownership interest in our patents or other intellectual property. We may be subject to ownership disputes in the future arising, for example, from conflicting obligations of consultants or others who are involved in developing our product candidates. Litigation may be necessary to defend against these claims. If we fail in defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights, such as exclusive ownership of, or right to use, valuable intellectual property. Such an outcome could have a material adverse effect on our business. Even if we are successful in defending against these claims, litigation could result in substantial cost and be a distraction to our management and employees.

Risks Related to our Business and Managing Growth

If we fail to attract, retain and motivate senior management and qualified personnel, we may be unable to successfully develop, obtain and/or maintain marketing approval of and commercialize vadadustat or commercialize Auryxia.

Recruiting and retaining qualified personnel is critical to our success. We are also highly dependent on our executives, certain members of our senior management and certain members of our commercial organization. The loss of the services of our executives, senior managers or other employees could impede the achievement of our research, development, regulatory and commercialization objectives and seriously harm our ability to successfully implement our business strategy. Specifically, following receipt of the CRL, in April and May 2022, we implemented a reduction of our workforce by approximately 42% across all areas of our company (47% inclusive of the closing of the majority of open positions), including several members of management. Losing members of management and other key personnel subjects us to a number of risks, including the failure to coordinate responsibilities and tasks, the necessity to create new management systems and processes, the impact on corporate culture, and the retention of historical knowledge.

Furthermore, replacing executives, senior managers and other key employees may be difficult and may take an extended period of time because of the limited number of individuals in our industry with the breadth of skills and experience required to successfully develop, obtain and/or maintain marketing approval of and commercialize Auryxia, vadadustat and other product candidates. Our future financial performance and our ability to develop, obtain and/or maintain marketing approval of and commercialize Auryxia and vadadustat and to compete effectively will depend, in part, on our ability to manage any future growth effectively. To that end, we must be able to hire, train, integrate, and retain additional qualified personnel with sufficient experience. We may be unable to hire, train, retain or motivate these personnel on acceptable terms given the intense competition among numerous biopharmaceutical companies for similar personnel, particularly in our geographic region.

We also experience competition for the hiring of personnel from universities and research institutions. In addition, we rely on contractors, consultants and advisors, including scientific and clinical advisors, to assist us in formulating and executing our research and development and commercialization strategy. Our contractors, consultants and advisors may become employed by companies other than ours and may have commitments with other entities that may limit their availability to us. If additional members of management or other personnel leave, or we are unable to continue to attract and retain high quality personnel, our ability to grow and pursue our business strategy will be limited.

Our cost savings plan and the associated workforce reduction implemented in April and May 2022 may not result in anticipated savings, could result in total costs and expenses that are greater than expected and could disrupt our business.

Following receipt of the CRL, in April and May 2022, we implemented a reduction in workforce by approximately 42% across all areas of our company (47% inclusive of the closing of the majority of open positions), including several members of management. The reduction in workforce reflects our determination to refocus our strategic priorities around our commercial product, Auryxia, and our development portfolio, and was the first step in a cost savings plan to significantly reduce our expense profile in line with being a single commercial product company. We may not realize, in full or in part, the anticipated benefits, savings and improvements in our cost structure from our restructuring efforts due to unforeseen difficulties, delays or unexpected costs. We recorded a restructuring charge of approximately $14.5 million in the aggregate primarily related to contractual termination benefits including severance, non-cash stock-based compensation expense, healthcare and related benefits primarily in the quarter ended June 30, 2022. If we are unable to realize the expected operational efficiencies and cost savings from the restructuring, our operating results and financial condition would be adversely affected. We also cannot guarantee that we will not have to undertake additional workforce reductions or restructuring activities in the future.

Furthermore, our cost savings plan may be disruptive to our operations, including our commercialization of Auryxia, which could affect our ability to generate product revenue. In addition, our workforce reductions could yield unanticipated consequences, such as attrition beyond planned staff reductions, or disruptions in our day-to-day operations. Our workforce reduction could also harm our ability to attract and retain qualified management, scientific, clinical, manufacturing and sales and marketing personnel who are critical to our business. Any failure to attract or retain qualified personnel could prevent us from successfully commercializing Auryxia and from successfully developing and commercializing our product candidates in the future, including vadadustat, if approved. If we are ultimately successful in obtaining approval of vadadustat in the United States, we will need to hire additional employees to support the commercialization of vadadustat in the United States, and if we are unsuccessful or delayed in doing so, the potential launch of vadadustat could be delayed.

We may encounter difficulties in managing our growth, including with respect to our employee base, and managing our operations successfully.

In our day-to-day operations, we may encounter difficulties in managing the size of our operations as well as challenges associated with managing our business. We have strategic collaborations for the commercialization of Riona and the development and commercialization of vadadustat, which is now being marketed under the trade name Vafseo™ by our collaboration partner, MTPC, in Japan. Additionally, in the United States, we have a strategic relationship with Vifor Pharma related to the commercialization of vadadustat, if approved. As our operations continue, we expect that we will need to manage our current relationships and enter into new relationships, especially in light of the termination of our collaboration agreements with Otsuka, with various strategic collaborators, consultants, vendors, suppliers and other third parties. These relationships are complex and create numerous risks as we deal with issues that arise.

Our future financial performance and our ability to commercialize Auryxia and vadadustat, if and where approved, and to compete effectively will depend, in part, on our ability to manage any future growth effectively. This future growth will impose significant added responsibilities on the business and members of management. To manage our recent and any future growth, we must continue to implement and improve our managerial, operational and financial systems, procedures and processes. We may not be able to implement these improvements in an efficient or timely manner and may discover deficiencies in existing systems, procedures and processes. Moreover, the systems, procedures and processes currently in place or to be implemented may not be adequate for any such growth. Any expansion of our operations may lead to significant costs and may divert our management and business development resources. Any inability to manage growth could delay the execution of our business plans or disrupt our operations. We may not be able to accomplish these tasks, and our failure to accomplish any of them could prevent us from successfully managing and, as applicable, growing our company.

In addition, we may need to further adjust the size of our workforce as a result of changes to our expectations for our business, which can result in management being required to divert a disproportionate amount of its attention away from our day-to-day activities and devote a substantial amount of time to managing these growth-related activities and related expenses.

We have identified a material weakness in our internal control over financial reporting relating to our inventory process. If we are not able to remediate this material weakness, or if we experience additional material weaknesses or other deficiencies in the future or otherwise fail to maintain an effective system of internal control over financial reporting, we may not be able to accurately report our financial results or prevent fraud.

Effective internal control over financial reporting is necessary for us to provide reliable financial reports and, together with adequate disclosure controls and procedures, is designed to prevent fraud. Any failure to maintain or implement required new or improved controls, or difficulties encountered in implementation could cause us to fail to meet our reporting obligations. In addition, any testing by us, as and when required, conducted in connection with Section 404 of the Sarbanes-Oxley Act, or Section 404, or any testing by our independent registered public accounting firm, which became required for us as of December 31, 2019, may reveal deficiencies in our internal control over financial reporting that are deemed to be material weaknesses or that may require prospective or retroactive changes to our financial statements or identify other areas for further attention or improvement. As of December 31, 2019, management and our independent registered public accounting firm concluded that our internal control over financial reporting relating to our inventory process was not effective because of a material weakness due to our failure to design and maintain effective controls over the completeness, accuracy and presentation and disclosure of inventory. Despite remediation efforts we undertook during fiscal 2020 and 2021 and continue to make, our management and independent registered public accounting firm concluded that, as of June 30, 2022, our internal control over financial reporting relating to our inventory process was not effective because we did not maintain effective controls related to the review of inventory reconciliations, the validation of the inventory costing, the periodic assessment of excess and obsolete inventory related reserves and verification that the existence of all inventories subject to physical inventory counts were correctly counted. Additionally, as revised and enhanced controls need to be in operation for a sufficient period of time and be tested to ensure that the controls are operating as designed, management has concluded that the material weakness cannot be considered remediated as of June 30, 2022. Although we have initiated remediation measures to address the material weakness, we cannot provide assurance that we will be able to correct this material weakness in a timely manner or that our remediation efforts will be adequate to allow us to conclude that our internal controls will be effective in the future. Even if this material weakness is

remediated in the future, our internal control over financial reporting could in the future have additional material weaknesses, deficiencies or conditions that could require correction or remediation.

We will need to continue to dedicate internal resources, engage outside consultants and maintain a detailed work plan to assess and document the adequacy of internal control over financial reporting, continue steps to remediate the material weakness relating to our inventory process described above and any future control deficiencies or material weaknesses, and improve control processes as appropriate, validate through testing that controls are functioning as documented and maintain a continuous reporting and improvement process for internal control over financial reporting. If we are not able to correct material weaknesses or deficiencies in internal controls in a timely manner or otherwise comply with the requirements of Section 404 in a timely manner, our ability to record, process, summarize and report financial information accurately and within applicable time periods may be adversely affected and we could be subject to sanctions or investigations by the SEC, the Nasdaq Stock Market or other regulatory authorities as well as stockholder litigation which would require additional financial and management resources and could adversely affect the market price of our common stock. Furthermore, if we cannot provide reliable financial reports or prevent fraud, our business and results of operations could be harmed. Inferior internal controls could also cause investors to lose confidence in our reported financial information, which could have a negative effect on the trading price of our common stock.

Security breaches and unauthorized use of our information technology systems and information, or the information technology systems or information in the possession of our collaborators and other third parties, could damage the integrity of our clinical trials, impact our regulatory filings, compromise our ability to protect our intellectual property, and subject us to regulatory actions that could result in significant fines or other penalties.

We, our collaborators, contractors and other third parties rely significantly upon information technology, and any failure, inadequacy, interruption or security lapse of that technology, including any cybersecurity incidents, could harm our ability to operate our business effectively. In addition, we and our collaborators, contractors and other third parties rely on information technology networks and systems, including the Internet, to process, transmit and store clinical trial data, patient information, and other electronic information, and manage or support a variety of business processes, including operational and financial transactions and records, personal identifying information, payroll data and workforce scheduling information. We purchase some of our information technology from vendors, on whom our systems depend. We rely on commercially available systems, software, tools and monitoring to provide security for the processing, transmission and storage of company and customer information.

In the ordinary course of our business, we and our third party contractors maintain personal and other sensitive data on our and their respective networks, including our intellectual property and proprietary or confidential business information relating to our business and that of our clinical trial patients and business partners. In particular, we rely on CROs and other third parties to store and manage information from our clinical trials. We also rely on third parties to manage patient information for Auryxia. The secure maintenance of this sensitive information is critical to our business and reputation.

Companies and other entities and individuals have been increasingly subject to a wide variety of security incidents, cyber-attacks and other attempts to gain unauthorized access to systems and information. These threats can come from a variety of sources, ranging in sophistication from individual hackers to state-sponsored attacks. Cyber threats may be broadly targeted, or they may be custom-crafted against our information systems or those of our vendors or third party service providers. A security breach, cyberattack or unauthorized access of our clinical data or other data could damage the integrity of our clinical trials, impact our regulatory filings, cause significant risk to our business, compromise our ability to protect our intellectual property, and subject us to regulatory actions, including under the GDPR and CCPA discussed elsewhere in these risk factors and the privacy or security rules under federal, state, or other local laws outside of the United States protecting confidential or personal information, that could be expensive to defend and could result in significant fines or other penalties. Cyberattacks can include malware, computer viruses, hacking or other unauthorized access or other significant compromise of our computer, communications and related systems. Although we take steps to manage and avoid these risks and to be prepared to respond to attacks, our preventive and any remedial actions may not be successful and no such measures can eliminate the possibility of the systems' improper functioning or the improper access or disclosure of confidential or personally identifiable information such as in the event of cyberattacks. Security breaches, whether through physical or electronic break-ins, computer viruses, ransomware, impersonation of authorized users, attacks by hackers or other means, can create system disruptions or shutdowns or the unauthorized disclosure of confidential information.

Although we believe our collaborators, vendors and service providers, such as our CROs, take steps to manage and avoid information security risks and respond to attacks, we may be adversely affected by attacks against our collaborators, vendors or service providers, and we may not have adequate contractual remedies against such collaborators, vendors and service providers to remedy any harm to our business caused by such event. Additionally, outside parties may attempt to fraudulently induce employees, collaborators, or other contractors to disclose sensitive information or take other actions, including making fraudulent payments or downloading malware, by using "spoofing" and "phishing" emails or other types of attacks. Our

employees may be targeted by such fraudulent activities. Outside parties may also subject us to distributed denial of services attacks or introduce viruses or other malware through “trojan horse” programs to our users’ computers in order to gain access to our systems and the data stored therein. In the recent past, cyber-attacks have become more prevalent and much harder to detect and defend against and, because the techniques used to obtain unauthorized access, disable or degrade service, or sabotage systems change frequently and continuously become more sophisticated, often are not recognized until launched against a target and may be difficult to detect for a long time, we may be unable to anticipate these techniques or to implement adequate preventive or detective measures, and we might not immediately detect such incidents and the damage caused by such incidents.

Such attacks, whether successful or unsuccessful, or other compromises with respect to our information security and the measures we implement to prevent, detect and respond to them, could:

- result in our incurring significant costs related to, for example, rebuilding internal systems, defending against litigation, responding to regulatory inquiries or actions, paying damages or fines, or taking other remedial steps with respect to third parties;
- lead to public exposure of personal information of participants in our clinical trials, Auryxia patients and others;
- damage the integrity of our studies or delay their completion, disrupt our development programs, our business operations and commercialization efforts;
- compromise our ability to protect our trade secrets and proprietary information;
- damage our reputation and deter business partners from working with us; or
- divert the attention of our management and key information technology resources.

Any failure to maintain proper functionality and security of our internal computer and information systems could result in a loss of, or damage to, our data or marketing applications or inappropriate disclosure of confidential or proprietary information, interrupt our operations, damage our reputation, subject us to liability claims or regulatory penalties, under a variety of federal, state or other applicable privacy laws, such as HIPAA, the GDPR, or state data protection laws including the CCPA, harm our competitive position and delay the further development and commercialization of our products and product candidates, or impact our relationships with customers and patients.

Our employees, independent contractors, principal investigators, CROs, CMOs, consultants and vendors may engage in misconduct or other improper activities, including non-compliance with regulatory standards and requirements and insider trading.

We are exposed to the risk that our employees, independent contractors, principal investigators, CROs, CMOs, consultants and vendors may engage in fraudulent conduct or other illegal activity. Misconduct by these parties could include intentional, reckless and/or negligent conduct or unauthorized activities that violate applicable laws, including the following:

- FDA and other healthcare authorities’ regulations, including those laws that require the reporting of true, complete and accurate information to regulatory authorities, and those prohibiting the promotion of unapproved drugs or approved drugs for an unapproved use;
- quality standards, including GXP;
- federal and state healthcare fraud and abuse laws and regulations and their non-U.S. equivalents;
- anti-bribery and anti-corruption laws, such as the FCPA and the UK Bribery Act or country-specific anti-bribery or anti-corruption laws, as well as various import and export laws and regulations;
- laws that require the reporting of true and accurate financial information and data; and
- U.S. state and federal securities laws and regulations and their non-U.S. equivalents, including those related to insider trading.

We conducted our global clinical trials for vadadustat, and may in the future conduct additional trials, in countries where corruption is prevalent, and violations of any of these laws by our personnel or by any of our vendors or agents, such as our CROs or CMOs, could have a material adverse impact on our clinical trials and our business and could result in criminal or civil fines and sanctions. We are subject to complex laws that govern our international business practices. These laws include the FCPA, which prohibits U.S. companies and their intermediaries, such as CROs or CMOs, from making improper payments to foreign government officials for the purpose of obtaining or keeping business or obtaining any kind of advantage for the company. The FCPA also requires companies to keep accurate books and records and maintain adequate accounting controls. A number of past and recent FCPA investigations by the Department of Justice and the SEC have focused on the life sciences sector.

Compliance with the FCPA is expensive and difficult, particularly in countries in which corruption is a recognized problem. Some of the countries in which we have conducted clinical trials and in which we have CMOs have a history of corruption, which increases our risks of FCPA violations. In addition, the FCPA presents unique challenges in the pharmaceutical industry because in many countries' hospitals are operated by the government, and doctors and other hospital employees are considered foreign government officials. Certain payments made by pharmaceutical companies, or on their behalf by CROs, to hospitals in connection with clinical trials and other work have been deemed to be improper payments to government officials and have led to FCPA enforcement actions.

Additionally, the UK Bribery Act applies to our global activities and prohibits bribery of private individuals as well as public officials. The UK Bribery Act prohibits both the offering and accepting of a bribe and imposes strict liability on companies for failing to prevent bribery, unless the company can show that it had "adequate procedures" in place to prevent bribery. There are also local anti-bribery and anti-corruption laws in countries where we have conducted clinical trials, and many of these also carry the risk of significant financial or criminal penalties.

We are also subject to trade control regulations and trade sanctions laws that restrict the movement of certain goods, currency, products, materials, services and technology to, and certain operations in, various countries or with certain persons. Our ability to transfer commercial and clinical product and other clinical trial supplies, and for our employees, independent contractors, principal investigators, CROs, CMOs, consultants and vendors ability to travel, between certain countries is subject to maintaining required licenses and complying with these laws and regulations.

Employee misconduct could also involve the improper use of information obtained in the course of clinical trials, which could result in regulatory sanctions and serious harm to our reputation. This could include violations of HIPAA, other U.S. federal and state laws, and requirements of non-U.S. jurisdictions, including the GDPR. We are also exposed to risks in connection with any insider trading violations by employees or others affiliated with us.

The internal controls, policies and procedures, and training and compliance programs we have implemented to deter prohibited practices may not be effective in preventing our employees, contractors, consultants, agents or other representatives from violating or circumventing such internal policies or violating applicable laws and regulations. The failure to comply with laws governing international business practices may impact any future clinical trials, result in substantial civil or criminal penalties for us and any such individuals, including imprisonment, suspension or debarment from government contracting, withdrawal of our products, if approved, from the market, or being delisted from The Nasdaq Global Market. In addition, we may incur significant costs in implementing sufficient systems, controls and processes to ensure compliance with the aforementioned laws. The laws and regulations referenced above may restrict or prohibit a wide range of pricing, discounting, marketing and promotion, sales commission, customer incentive programs and other business arrangements that could adversely affect our business.

Additionally, it is not always possible to identify and deter misconduct by employees and third parties, and the precautions we take to detect and prevent this activity may not be effective in controlling known or unknown risks or preventing losses or in protecting us from governmental investigations or other actions or lawsuits stemming from a failure to be in compliance with such laws or regulations. If any such actions are instituted against us, and we are not successful in defending ourselves or asserting our rights, or if any such action is instituted against our employees, consultants, independent contractors, CROs, CMOs, vendors or principal investigators, those actions could have a significant impact on our business, including the imposition of civil, criminal and administrative penalties, damages, monetary fines, possible exclusion from participation in Medicare, Medicaid and other federal healthcare programs, contractual damages, reputational harm, diminished profits and future earnings, curtailment of our operations, disclosure of our confidential information and imprisonment, any of which could adversely affect our ability to operate our business and our results of operations.

If any of our service providers are later legally deemed to be employees, we could be subject to employment and tax withholding liabilities and other additional costs as well as other multiple damages and attorneys' fees.

We rely on independent third parties to provide certain services to us. We structure our relationships with these outside service providers in a manner that we believe results in an independent contractor relationship, not an employee relationship. An independent contractor is generally distinguished from an employee by his or her degree of autonomy and independence in providing services. A high degree of autonomy and independence is generally indicative of an independent contractor relationship, while a high degree of control is generally indicative of an employment relationship. Tax or other regulatory authorities may challenge our characterization of services providers as independent contractors both under existing laws and regulations and under laws and regulations adopted in the future. If such regulatory authorities or state, federal or foreign courts were to determine that our service providers are employees and not independent contractors, we would, among other things, be required to withhold income taxes, to withhold and pay Social Security, Medicare and similar taxes, to pay unemployment and other related payroll taxes, and to provide certain employee benefits. We could also be liable for unpaid past taxes, interest and

other costs and subject to penalties. Likewise, our service providers themselves may later challenge their classification as independent contractors, which may result in additional damages, including back wages, penalties, interest and attorneys' fees. As a result, any legally binding determination that the service providers we characterize as independent contractors are actually our employees could have a material adverse effect on our business, financial condition and results of operations.

Our financial statements include goodwill and an intangible asset as a result of the Merger. The intangible asset has become impaired and could become further impaired in the future under certain conditions. In addition, goodwill could become impaired in the future under certain conditions. Any potential future impairment of goodwill or intangible assets may significantly impact our results of operations and financial condition.

As of June 30, 2022, we had approximately $145.2 million in the aggregate of goodwill and a definite lived intangible asset from the Merger. In accordance with generally accepted accounting principles, or GAAP, we are required annually, or more frequently upon certain indicators of impairment, to review our estimates and assumptions underlying the fair value of our goodwill and our definite lived intangible assets when indicators of impairment are present. Events giving rise to impairment of goodwill or intangible assets are an inherent risk in the pharmaceutical industry and often cannot be predicted.

Conditions that could indicate impairment and necessitate such a review include, but are not limited to, Auryxia's commercial performance, our inability to execute on our strategic initiatives, the deterioration of our market capitalization such that it is significantly below our net book value, a significant adverse change in legal factors, unexpected adverse business conditions, and an adverse action or assessment by a regulator. To the extent we conclude that goodwill and/or definite lived intangible assets have become impaired, we may be required to incur material write-offs relating to such impairment and any such write-offs could have a material impact on our future operating results and financial position. For example, in the second quarter of 2020, in connection with a routine business review, we reduced our short-term and long-term Auryxia revenue forecast. This reduction was primarily driven by the impact of the September 2018 CMS decision that Auryxia would no longer be covered by Medicare for the treatment of the IDA Indication. While this decision does not impact CMS coverage for the use of Auryxia for the control of serum phosphorus levels in adult patients with CKD on dialysis, or the Hyperphosphatemia Indication, it requires all Auryxia prescriptions for Medicare patients to undergo a prior authorization to ensure their use of Auryxia for the Hyperphosphatemia Indication. As a result, we recorded an impairment charge of $115.5 million during the three months ended June 30, 2020, which was entirely allocated to our only intangible asset, the developed product rights for Auryxia, and made a corresponding adjustment to the estimated useful life of the developed product rights for Auryxia, which we again adjusted during the three months ended December 31, 2020. The estimates, judgments and assumptions used in our impairment testing, and the results of our testing, are discussed in Note 9 to our consolidated financial statements in Part I, Item 1. Financial Statements of this Quarterly Report on Form 10-Q. If these estimates, judgments and assumptions change in the future, including if the Auryxia asset group does not meet its current forecasted projections, additional impairment charges related to goodwill or our intangible asset could be recorded in the future and additional corresponding adjustments may need to be made to the estimated useful life of the developed product rights for Auryxia, which could materially impact our financial position, certain of our material agreements, and our future operating results.

If product liability lawsuits are brought against us, we may incur substantial liabilities and may be required to limit commercialization of Auryxia or vadadustat, if approved.

We face an inherent risk of product liability as a result of the clinical and commercial use of Auryxia and vadadustat. For example, we may be sued if Auryxia or vadadustat allegedly causes injury or is found to be otherwise unsuitable during clinical trials, manufacturing, marketing or sale. Any such product liability claims may include allegations of defects in manufacturing, defects in design, a failure to warn of dangers inherent in the product or product candidate, negligence, strict liability and breach of warranties. Claims could also be asserted under state consumer protection acts. If we cannot successfully defend ourselves against product liability claims, we may incur substantial liabilities or be required to limit commercialization of Auryxia or vadadustat, if approved. Even a successful defense would require significant financial and management resources. Regardless of the merits or eventual outcome, product liability claims may result in:

- decreased demand for Auryxia or vadadustat, if approved;
- injury to our reputation and significant negative media attention;
- withdrawal of clinical trial participants;
- delay or termination of clinical trials;
- our inability to continue to develop Auryxia or vadadustat;
- significant costs to defend the related litigation;
- a diversion of management's time and our resources;
- substantial monetary awards to study subjects or patients;
- product recalls or withdrawals, or labeling, marketing or promotional restrictions;

- decreased demand for Auryxia or vadadustat, if approved;
- loss of revenue;
- the inability to commercialize Auryxia or vadadustat, if approved; and
- a decline in our stock price.

Failure to obtain and retain sufficient product liability insurance at an acceptable cost to protect against potential product liability claims could prevent or inhibit the commercialization of products we develop. We currently carry product liability insurance that we believe is appropriate for our company. Although we maintain product liability insurance, any claim that may be brought against us could result in a court judgment or settlement in an amount that is not covered, in whole or in part, by our insurance or that is in excess of the limits of our insurance coverage. Our insurance policies also have various exclusions, and we may be subject to a product liability claim for which we have insufficient or no coverage. If we have to pay any amounts awarded by a court or negotiated in a settlement that exceed our coverage limitations or that are not covered by our insurance, we may not have, or be able to obtain, sufficient capital to pay such amounts. In addition, insurance coverage is becoming increasingly expensive, and we may not be able to maintain insurance coverage at a reasonable cost. We also may not be able to obtain additional insurance coverage that will be adequate to cover additional product liability risks that may arise. Consequently, a product liability claim may result in losses that could be material to our business.

We will continue to incur increased costs as a result of operating as a public company, and our management will be required to devote substantial time to compliance initiatives and corporate governance practices.

As a public company, we operate in a demanding regulatory environment, and we have and will continue to incur significant legal, accounting and other expenses. The Sarbanes-Oxley Act of 2002, or the Sarbanes-Oxley Act, the Dodd-Frank Wall Street Reform and Consumer Protection Act, the listing requirements of The Nasdaq Global Market and other applicable securities rules and regulations impose various requirements on public companies, including establishment and maintenance of effective disclosure and financial controls and certain corporate governance practices. In particular, our compliance with Section 404 of the Sarbanes-Oxley Act has required and will continue to require that we incur substantial accounting-related expenses and expend significant management efforts. Our testing, or the testing by our independent registered public accounting firm, may reveal deficiencies in our internal controls that we would be required to remediate in a timely manner. If we are not able to comply with the requirements of the Sarbanes-Oxley Act, we could be subject to sanctions or investigations by the SEC, the Nasdaq Global Market or other regulatory authorities, which would require additional financial and management resources and could adversely affect the market price of our securities. Furthermore, if we cannot provide reliable financial reports or prevent fraud, including as a result of remote working by our employees which has increased since the beginning of the COVID-19 pandemic, our business and results of operations would likely be materially and adversely affected.

We cannot predict or estimate the amount of additional costs we may incur to continue to operate as a public company, nor can we predict the timing of such costs. These rules and regulations are often subject to varying interpretations, in many cases due to their lack of specificity and, as a result, their application in practice may evolve over time as new guidance is provided by regulatory and governing bodies, which could result in continuing uncertainty regarding compliance matters and higher costs necessitated by ongoing revisions to disclosure and governance practices.

Claims for indemnification by our directors and officers may reduce our available funds to satisfy successful third-party claims against us and may reduce the amount of money available to us.

Our Ninth Amended and Restated Certificate of Incorporation, as amended, or Charter, and our Amended and Restated By-Laws, or Bylaws, as amended to date, contain provisions that eliminate, to the maximum extent permitted by the General Corporation Law of the State of Delaware, or DGCL, the personal liability of our directors and executive officers for monetary damages for breach of their fiduciary duties as a director or officer. Our Charter and our Bylaws also provide that we will indemnify our directors and executive officers and may indemnify our employees and other agents to the fullest extent permitted by the DGCL.

In addition, as permitted by Section 145 of the DGCL our Bylaws and our indemnification agreements that we have entered into with our directors and executive officers provide that:

- We will indemnify our directors and officers, as defined in our Bylaws, for serving us in those capacities or for serving other related business enterprises at our request, to the fullest extent permitted by Delaware law. Delaware law provides that a corporation may indemnify such person if such person acted in good faith and in a manner such person reasonably believed to be in or not opposed to the best interests of Akebia and, with respect to any criminal proceeding, had no reasonable cause to believe such person’s conduct was unlawful.

- We may, in our discretion, indemnify employees and agents in those circumstances where indemnification is permitted by applicable law.
- We are required to advance expenses, as incurred, to our directors and officers in connection with defending a proceeding, except that such directors or officers shall undertake to repay such advances if it is ultimately determined that such person is not entitled to indemnification.
- The rights conferred in our Bylaws are not exclusive, and we are authorized to enter into indemnification agreements with our directors, officers, employees and agents and to obtain insurance to indemnify such persons.

Any claims for indemnification made by our directors or officers could impact our cash resources and our ability to fund the business.

Our ability to use net operating losses to offset future taxable income may be subject to certain limitations.

Under Section 382 of the Internal Revenue Code, or Section 382, a corporation that undergoes an "ownership change" is subject to limitations on its ability to utilize its pre-change net operating losses, or NOLs, to offset future taxable income. On December 12, 2018, we completed the Merger, which we believe has resulted in an ownership change under Section 382. In addition, the Tax Cuts and Jobs Act, including amendments made by the CARES Act, includes changes to U.S. federal tax rates and the rules governing net operating loss carryforwards that may significantly impact our ability to utilize our net operating losses to fully offset taxable income in the future. Future changes in our stock ownership, many of which are outside of our control, could result in an additional ownership change under Section 382. As a result, if we generate taxable income, our ability to use our pre-change NOL carryforwards to offset federal taxable income may be subject to limitations, which could potentially result in increased future tax liability to us. At the state level, state net operating losses generated in one state cannot be used to offset income generated in another state and 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.

Furthermore, our ability to utilize our NOLs is conditioned upon our attaining profitability and generating U.S. taxable income. As described above under "—Risks Related to our Financial Position, Need for Additional Capital and Growth Strategy," we have incurred significant net losses since our inception and anticipate that we will continue to incur significant losses for the foreseeable future; thus, we do not know whether or when we will generate the U.S. taxable income necessary to utilize our NOLs.

Our Charter designates the Court of Chancery of the State of Delaware as the sole and exclusive forum for certain types of actions and proceedings that may be initiated by our stockholders, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us or our directors, officers or employees.

Our Charter provides that, subject to limited exceptions, the Court of Chancery of the State of Delaware will be the sole and exclusive forum for (i) any derivative action or proceeding brought on our behalf, (ii) any action asserting a claim of breach of a fiduciary duty owed by any of our directors, officers or other employees to us or our stockholders, (iii) any action asserting a claim against us arising pursuant to any provision of the DGCL our Charter or our Bylaws, or (iv) any other action asserting a claim against us, our directors, officers or other employees that is governed by the internal affairs doctrine. Under our Charter, this exclusive forum provision will not apply to claims that are vested in the exclusive jurisdiction of a court or forum other than the Court of Chancery of the State of Delaware, or for which the Court of Chancery of the State of Delaware does not have subject matter jurisdiction. For instance, the provision would not apply to actions arising under federal securities laws, including suits brought to enforce any liability or duty created by the Exchange Act, or the rules and regulations thereunder. Any person or entity purchasing or otherwise acquiring any interest in shares of our capital stock shall be deemed to have notice of and to have consented to the provisions of our Charter described above. This choice of forum provision may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or our directors, officers or other employees, which may discourage such lawsuits against us and our directors, officers and employees. Alternatively, if a court were to find these provisions of our Charter inapplicable to, or unenforceable with respect to, one or more of the specified types of actions or proceedings, we may incur additional costs associated with resolving such matters in other jurisdictions, which could adversely affect our business and financial condition.

We are currently subject to legal proceedings that could result in substantial costs and divert management's attention, and we could be subject to additional legal proceedings.

We are currently subject to legal proceedings, including those described in Part II, Item 1 in this Quarterly Report on Form 10-Q, and additional claims may arise in the future. In addition, securities class action and derivative lawsuits and other legal proceedings are often brought against companies for any of the risks described in this Quarterly Report on Form 10-Q following a decline in the market price of their securities. There is a securities class action lawsuit filed in federal court and ongoing putative class action lawsuits in state court, each filed by purported Keryx stockholders challenging the disclosures

made in connection with the Merger, including those that relate to vadadustat's safety, approvability and commercial viability. In connection with any litigation or other legal proceedings, we could incur substantial costs, and such costs and any related settlements or judgments may not be covered by insurance. Monetary damages or any other adverse judgment would have a material adverse effect on our business and financial position. In addition, if other resolution or actions taken as a result of legal proceedings were to restrain our ability to operate or market our products and services, our consolidated financial position, results of operations or cash flows could be materially adversely affected. We could also suffer an adverse impact on our reputation, negative publicity and a diversion of management's attention and resources, which could have a material adverse effect on our business.

Risks Related to our Common Stock

Our stock price has been and may continue to be volatile, which could result in substantial losses for holders or future purchasers of our common stock and lawsuits against us and our officers and directors.

Our stock price has been and will likely continue to be volatile. The stock market in general and the market for similarly situated biopharmaceutical companies specifically have experienced extreme volatility that has often been unrelated to the operating performance of particular companies. Since our initial public offering in March 2014, the price of our common stock as reported on The Nasdaq Global Market has ranged from a low of $0.30 on May 24, 2022 to a high of $31.00 on June 20, 2014. The daily closing market price for our common stock has varied between a high price of $0.67 on April 1, 2022 and a low price of $0.32 on May 24, 2022 in the three-month period ending on June 30, 2022. During this time, the price of our common stock has ranged from an intra-day low of $0.30 per share to an intra-day high of $0.72 per share. From July 1, 2022 through the date of this Quarterly Report on Form 10-Q, the daily closing market price for our common stock has varied between a high price of $0.46 on July 8, 2022 and a low price of $0.37 on August 2, 2022. The market price of shares of our common stock could be subject to wide fluctuations in response to many risk factors listed in this section, including, among others, developments related to and results of our research or clinical trials, developments related to our regulatory submissions and meetings with regulatory authorities, in particular as it relates to vadadustat, commercialization of Auryxia, vadadustat, if and as approved in the U.S. and foreign markets including Europe, and any other product candidates, announcements by us or our competitors of significant transactions or strategic collaborations, negative publicity around Auryxia or vadadustat, regulatory or legal developments in the United States and other countries, developments or disputes concerning our intellectual property, the recruitment or departure of key personnel including as a result of our recent reduction in workforce, actual or anticipated changes in estimates as to financial results, changes in the structure of healthcare payment systems, market conditions in the biopharmaceutical sector and other factors beyond our control. As a result of this volatility, our stockholders may not be able to sell their common stock at or above the price at which they purchased it.

In addition, companies that have experienced volatility in the market price of their stock have frequently been the subject of securities class action and shareholder derivative litigation. See Part II, Item 1. Legal Proceedings of this Quarterly Report on Form 10-Q for information concerning securities class action initiated against Keryx and certain current and former directors and officers of ours and Keryx's. In addition, we could be the target of other such litigation in the future. Class action and shareholder derivative lawsuits, whether successful or not, could result in substantial costs, damage or settlement awards and a diversion of our management's resources and attention from running our business, which could materially harm our reputation, financial condition and results of operations.

The issuance of additional shares of our common stock or the sale of shares of our common stock by any of our directors, officers or significant stockholders will dilute our stockholders' ownership interest in Akebia and may cause the market price of our common stock to decline.

Most of our outstanding common stock can be traded without restriction at any time. As such, sales of a substantial number of shares of our common stock in the public market could occur at any time. These sales, or the perception in the market that the holders of a large number of shares intend to sell such shares, could reduce the market price of our common stock.

As of June 30, 2022 and based on the amounts reported in the most recent filings made under Section 13(d) and 13(g) of the Securities Exchange Act of 1934, as amended, or the Exchange Act, the Vanguard Group, or Vanguard, beneficially owned just under 10.0% of our outstanding shares of common stock, State Street Corporation, or State Street, beneficially owned approximately 6.4% of our outstanding shares of common stock and Vifor Pharma beneficially owned approximately 4.1% of our outstanding shares of common stock. By selling a large number of shares of common stock, Vanguard or State Street could cause the price of our common stock to decline. The shares beneficially owned by Vifor Pharma have not been registered pursuant to the Securities Act and were issued and sold in reliance upon the exemption from registration contained in Section 4(a)(2) of the Securities Act and Rule 506 promulgated thereunder, but if they are registered in the future, those shares would become freely tradable and, if a large portion of such shares are sold, could cause the price of our common stock to decline.

We have a significant number of shares that are subject to outstanding options and restricted stock units, and in the future we may issue additional options, restricted stock units, or other derivative securities convertible into our common stock. The exercise or vesting of any such options, restricted stock units, or other derivative securities, and the subsequent sale of the underlying common stock, could cause a further decline in our stock price. These sales also might make it difficult for us to sell equity securities in the future at a time and at a price that we deem appropriate. Such sales of our common stock could result in higher than average trading volume and may cause the market price for our common stock to decline.

In addition, we currently have on file with the SEC a shelf registration statement, which allows us to offer and sell up to $300 million in registered securities, such as common stock, preferred stock, debt securities, warrants and units, from time to time pursuant to one or more offerings at prices and terms to be determined at the time of sale, including a sales agreement prospectus that covers the offering, issuance and sale by us of up to a maximum aggregate offering price of up to $26 million of our common stock that may be issued and sold from time to time under a sales agreement with Jefferies LLC.

Sales of substantial amounts of shares of our common stock or other securities by our employees or our other stockholders or by us under our shelf registration statement, pursuant to at-the-market offerings or otherwise, could dilute our stockholders, lower the market price of our common stock and impair our ability to raise capital through the sale of equity securities.

Our executive officers, directors and principal stockholders maintain the ability to significantly influence all matters submitted to stockholders for approval.

As of June 30, 2022, our executive officers, directors and principal stockholders, in the aggregate, beneficially owned shares representing a significant percentage of our capital stock. As a result, if these stockholders were to choose to act together, they would be able to significantly influence all matters submitted to our stockholders for approval, as well as our management and affairs. For example, these persons could significantly influence the election of directors and approval of any merger, consolidation or sale of all or substantially all of our assets. This concentration of voting power could delay or prevent an acquisition of our company on terms that other stockholders may desire.

Provisions in our organizational documents and Delaware law may have anti-takeover effects that could discourage an acquisition of us by others, even if an acquisition would be beneficial to our stockholders, and may prevent attempts by our stockholders to replace or remove our current management.

Provisions in our Charter and our Bylaws contain provisions that may have the effect of discouraging, delaying or preventing a change in control of us or changes in our management. These provisions could also limit the price that investors might be willing to pay in the future for shares of our common stock, thereby depressing the market price of our common stock. In addition, because our Board of Directors is responsible for appointing certain members of our management team, these provisions may frustrate or prevent any attempts by our stockholders to replace or remove our current management by making it more difficult for stockholders to replace members of our Board of Directors. Among other things, these provisions:

- authorize “blank check” preferred stock, which could be issued by our Board of Directors without stockholder approval and may contain voting, liquidation, dividend and other rights superior to our common stock;
- create a classified Board of Directors whose members serve staggered three-year terms;
- specify that special meetings of our stockholders can be called only by our Board of Directors pursuant to a resolution adopted by a majority of the total number of directors;
- prohibit stockholder action by written consent;
- establish an advance notice procedure for stockholder approvals to be brought before an annual meeting of our stockholders, including proposed nominations of persons for election to our Board of Directors;
- provide that our directors may be removed only for cause;
- provide that vacancies on our Board of Directors may be filled only by a majority of directors then in office, even though less than a quorum;
- require a supermajority vote of 75% of the holders of our capital stock entitled to vote or the majority vote of our Board of Directors to amend our Bylaws; and
- require a supermajority vote of 85% of the holders of our capital stock entitled to vote to amend the classification of our Board of Directors and to amend certain other provisions of our Charter.

These provisions, alone or together, could delay or prevent hostile takeovers, changes in control or changes in our management.
In addition, Section 203 of the DGCL prohibits a publicly-held Delaware corporation from engaging in a business combination with an interested stockholder, generally a person which together with its affiliates owns, or within the last three years has

owned, 15% of our voting stock, for a period of three years after the date of the transaction in which the person became an interested stockholder, unless the business combination is approved in a prescribed manner.

Because we do not anticipate paying any cash dividends on our capital in the foreseeable future, capital appreciation, if any, will be our stockholders' sole source of gain.

We have never declared or paid cash dividends on our capital stock and we currently intend to retain all of our future earnings, if any, to finance the development and growth of our business. Any payment of cash dividends in the future would be at the discretion of our Board of Directors and would depend on, among other things, our earnings, financial condition, capital requirements, level of indebtedness, statutory and contractual restrictions applying to the payment of dividends and other considerations that the Board of Directors deems relevant. In addition, the terms of the Loan Agreement preclude us from paying cash dividends and future debt agreements may preclude us from paying cash dividends. As a result, capital appreciation, if any, of our common stock will be our stockholders' sole source of gain for the foreseeable future.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds.

Sales of Unregistered Securities

During the quarter ended June 30, 2022, we did not have any sales of unregistered securities.

Item 3. Defaults Upon Senior Securities.

Not applicable.

Item 4. Mine Safety Disclosures.

Not applicable.

Item 5. Other Information.

None.

Item 6. Exhibits.

Exhibits

3.1	Ninth Amended and Restated Certificate of Incorporation (incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K, filed on March 28, 2014).
3.2	Certificate of Amendment of Ninth Amended and Restated Certificate of Incorporation of Akebia Therapeutics, Inc. (incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K, filed on June 9, 2020).
3.3	Amended and Restated Bylaws (incorporated by reference to Exhibit 3.2 to the Company's Current Report on Form 8-K, filed on March 28, 2014).
10.1	Form of Officer Retention Letter Agreement (incorporated by reference to Exhibit 10.6 to the Company's Quarterly Report on Form 10-Q (001-36352), filed on May 9, 2022).
10.2#	Form of Retention and Separation Agreement for Michel Dahan and Nicole R. Hadas (incorporated by reference to Exhibit 10.7 to the Company's Quarterly Report on Form 10-Q (001-36352), filed on May 9, 2022).
10.3	Separation Agreement with Dell Faulkingham, dated May 5, 2022 (incorporated by reference to Exhibit 10.8 to the Company's Quarterly Report on Form 10-Q (001-36352), filed on May 9, 2022).
10.4	Open Market Sale Agreement℠, dated April 7, 2022, by and between Akebia Therapeutics, Inc. and Jefferies LLC (incorporated by reference to Exhibit 1.1 to the Company's Current Report on Form 8-K (001-36352), filed on April 7, 2022).
10.5*	Retention Agreement with David Spellman, dated June 22, 2022.
10.6*	Form of Officer Restricted Stock Unit Award Agreement under 2014 Incentive Plan (Retention Awards).
10.7*	Form of Officer Non-Statutory Stock Option Agreement under 2014 Incentive Plan (Retention Awards).
10.8*#	Termination and Settlement Agreement, dated June 30, 2022, by and between the Company and Otsuka Pharmaceutical Co. Ltd.
10.9*#	Second Amendment and Waiver, dated July 15, 2022, by and among the Company, Biopharma Credit plc, BCPR Limited Partnership and Biopharma Credit Investments V (Master) LP.
31.1*	Certification of Principal Executive Officer Required Under Rule 13a-14(a) of the Securities Exchange Act of 1934, as amended.
31.2*	Certification of Principal Financial Officer Required Under Rule 13a-14(a) of the Securities Exchange Act of 1934, as amended.
32.1*	Certification of Principal Executive Officer and Principal Financial Officer Required Under Rule 13a-14(b) of the Securities Exchange Act of 1934, as amended, and 18 U.S.C. 1350.
101.INS*	Inline XBRL Instance Document (the instance document does not appear in the Interactive Data File because XBRL tags are embedded within the Inline XBRL 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 Labels Linkbase Document

101.PRE*	Inline XBRL Taxonomy Extension Presentation Linkbase Document
104*	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)

* Filed, or submitted electronically, herewith
# Indicates portions of the exhibit (indicated by asterisks) have been omitted pursuant to Item 601(b)(10)(iv) of Regulation S-K

SIGNATURES

Pursuant to the requirements 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.

AKEBIA THERAPEUTICS, INC.

Date: August 4, 2022

By: /s/ John P. Butler
John P. Butler
President and Chief Executive Officer (Principal Executive Officer)

Date: August 4, 2022

By: /s/ David A. Spellman
David A. Spellman
Senior Vice President, Chief Financial Officer and Treasurer (Principal Financial Officer)

Date: August 4, 2022

By: /s/ Violetta Cotreau
Violetta Cotreau
Senior Vice President, Chief Accounting Officer (Principal Accounting Officer)

Exhibit 10.5

[Akebia Letterhead]

June 22, 2022

By Email

David Spellman
[Address]

Dear Dave:

I am pleased to offer you this Retention Agreement in recognition of your significant value to Akebia Therapeutics, Inc. (the "*Company*") and as an additional incentive for you to remain with the Company on the terms set forth below.

1. Retention Bonus. You will be eligible to receive a Retention Bonus pursuant to the terms and conditions set forth in ***Exhibit A***.

2. At-Will Employment. Your employment will remain at will, and thus your employment may be modified or terminated with or without cause or notice, subject to the terms of this Retention Agreement. In addition, if the Company does not provide you with a written offer to become the Company's Chief Operating Officer by February 1, 2023, you may terminate your employment with the Company for Good Reason under the terms of your Executive Severance Agreement with the Company dated June 29, 2020 if you provide a minimum of sixty (60) days' written notice of your resignation date by February 15, 2023 and you stay employed through such resignation date.

3. Confidentiality. You agree to keep confidential and not publicize or disclose the existence and terms of this Retention Agreement, other than to (a) an immediate family member, legal counsel, accountant or financial advisor, provided that any such individual to whom disclosure is made aware of these confidentiality obligations; or (b) a state or federal tax authority or government agency to which disclosure is mandated by applicable state or federal law.

4. Assignment. Except as otherwise provided herein, this Retention Agreement shall be binding upon, inure to the benefit of and be enforceable by the Company and you and their respective heirs, legal representatives, successors and assigns. If the Company shall be merged into or consolidated with another entity, the provisions of this Retention Agreement shall be binding upon and inure to the benefit of the entity surviving such merger or resulting from such consolidation.

5. Miscellaneous. This Agreement supersedes any and all prior oral and/or written agreements, and sets forth the entire agreement between the Company and you with respect to your retention with the Company. For the avoidance of doubt, any Employee Agreement or Executive Severance Agreement between you the Company shall remain in full force and effect. No variations or modifications of this Agreement shall be deemed valid unless in writing and signed by the Company and you. The provisions of this Agreement are severable, and if for any reason any part shall be found to be unenforceable, the remaining provisions shall be enforced in full. Unless otherwise prohibited by law, the validity, interpretation and performance of this Agreement, and all other matters relating to your employment and separation of employment from the Company, shall be governed by and construed in accordance with the laws of the

Commonwealth of Massachusetts, without giving effect to conflict of law principles. Unless otherwise prohibited by law, both parties agree that any action, demand, claim or counterclaim relating to (a) your employment and separation of your employment, and (b) the terms and provisions of this Agreement or its breach, shall be commenced in the Commonwealth of Massachusetts in a court of competent jurisdiction. Unless otherwise prohibited by law, you and the Company agree that any such dispute shall be tried by a judge alone, and both parties hereby waive and forever renounce the right to a trial before a civil jury in any such dispute.

We are pleased to be able to offer you this Retention Agreement and look forward to your continuing commitment and focus on fulfilling your responsibilities. Please feel free to reach out to me should you have any questions.

Very truly yours,

AKEBIA THERAPEUTICS, INC.

/s/ John P. Butler
John P. Butler
President and Chief Executive Officer

Accepted and Agreed To Under Seal:

/s/ David Spellman
DAVID SPELLMAN

Dated: June 22, 2022 (the "*Effective Date*").

Exhibit 10.6

Officer Restricted Stock Unit Award

granted under the

AKEBIA THERAPEUTICS, INC.
2014 Incentive Plan

Restricted Stock Unit Award Agreement

This agreement (the "Agreement") evidences the grant of a restricted stock unit award by Akebia Therapeutics, Inc. (the "Company") to the undersigned (the "Participant"), pursuant to and subject to the terms of the Akebia Therapeutics, Inc. 2014 Incentive Plan (as amended from time to time, the "Plan"). For purposes of this Agreement, the "Grant Date" will mean [●].

1. Restricted Stock Unit Award. The Participant is hereby awarded, pursuant to the Plan and subject to its terms, a Restricted Stock Unit award (the "Award") giving the Participant the conditional right to receive, without payment but subject to the conditions and limitations set forth in this Agreement and in the Plan, [●] shares of Stock of the Company (the "Shares").

2. Meaning of Certain Terms. Except as otherwise defined herein, all capitalized terms used herein have the same meaning as in the Plan. For purposes of this Award, the following terms have the following meanings:

(a) "Change in Control" means the occurrence of any of the following events other than in connection with the consummation of an initial public offering of the Company's securities: (i) any "person" (as such term is used in Sections 13(d) and 14(d) of the Securities Exchange Act of 1934, as amended) who is not a shareholder of the Company as of the date of this Agreement or an affiliate thereof is or becomes the "beneficial owner" (as defined in Rule 13d-3 under said Act), directly or indirectly, of securities of the Company representing 50% or more of the total voting power represented by the Company's then outstanding voting securities; (ii) a change in the composition of the Board occurring within a two-year period, as a result of which less than a majority of the directors are Incumbent Directors; (iii) the date of the consummation of a merger, scheme of arrangement or consolidation of the Company with any other corporation that has been approved by the stockholders of the Company, other than a merger, scheme of arrangement or consolidation which would result in the voting securities of the Company outstanding immediately prior thereto continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity) more than fifty percent (50%) of the total voting power represented by the voting securities of the Company or such surviving entity outstanding immediately after such merger or consolidation; or (iv) the date of the consummation of the sale or disposition by the Company of all or substantially all the Company's assets. Notwithstanding the foregoing, a transaction will not constitute a Change in Control if: (i) its sole purpose is to change the domicile of the Company's incorporation; or (ii) its sole purpose is to create a holding company that will be owned in substantially the same proportions by the persons who held the Company's securities immediately before such transaction. In all respects, the definition of Change in Control will be interpreted to comply with Section 409A of the Code, and any successor statute, regulation and guidance thereto.

(b) "Incumbent Directors" means directors who either (A) are directors of the Company as of the date hereof, or (B) are elected, or nominated for

election, to the Board with the affirmative votes of at least a majority of the remaining Incumbent Directors at the time of such election or nomination (but will not include an individual whose election or nomination is in connection with an actual or threatened proxy contest relating to the election of directors to the Company).

3. Vesting. Unless earlier terminated, forfeited, relinquished or expired, and subject to Section 6 of this Agreement and the terms of any Executive Severance Agreement, Retention Agreement or other written agreement between the Participant and the Company, the Award will become vested, subject to the Participant's continuous Employment though the applicable vesting date, as follows:

(a) 100% of the Award will become vested on May 12, 2023.

(b) Notwithstanding the foregoing Section 3(a), the Award, to the extent outstanding immediately prior to either (i) a Change in Control, or (ii) termination of your employment without Cause (as defined in any Executive Severance Agreement you may have entered into with the Company) prior to May 12, 2023, will automatically and immediately become fully vested upon such Change in Control or termination of employment, as applicable, provided, in the case of clause (ii), that you comply with the terms of and obligations set forth in Section 4 of the Executive Severance Agreement.

4. Delivery of Shares. Subject to Section 5 of this Agreement, the Company will, within thirty (30) days of the vesting date described in Section 3 with respect to any portion of the Award, effect delivery of the Shares with respect to such vested portion to the Participant (or, in the event of the Participant's death, to the person to whom the Award has passed by will or the laws of descent and distribution). No Shares will be issued pursuant to this Award unless and until all legal requirements applicable to the issuance or transfer of such Shares have been complied with to the satisfaction of the Administrator.

5. Dividends; Other Rights. The Award will not be interpreted to bestow upon the Participant any equity interest or ownership in the Company or any Affiliate prior to the date on which the Company delivers Shares to the Participant. The Participant is not entitled to vote any Shares by reason of the granting of this Award or to receive or be credited with any dividends declared and payable on any Share prior to the payment date with respect to such Share. The Participant will have the rights of a shareholder only as to those Shares, if any, that are actually delivered under this Award.

6. Treatment of Award Upon Cessation of Employment. Except as set forth in Section 3(b), if the Participant's Employment ceases, the Award, to the extent not already vested, will be immediately forfeited.

7. Certain Tax Matters.

(a) The Participant expressly acknowledges that because this Award consists of an unfunded and unsecured promise by the Company to deliver Shares in the future, subject to the terms hereof, it is not possible to make a so-called "83(b) election" with respect to the Award. In no event will the Company have any liability relating to the failure or alleged failure of any payment or benefit under this Agreement to comply with, or be exempt from, the requirements of Section 409A.

(b) Notwithstanding anything to the contrary in this Award, if at the time of the Participant's termination of Employment, the Participant is a "specified employee," as defined below, any and all amounts payable under this Award on account of such separation from service that constitute deferred compensation and would (but for this provision) be payable within six (6) months following the date of termination, will instead be paid on the next business day following the expiration of such six (6) month period or, if earlier, upon the Participant's death; except (A) to the extent of amounts that do not constitute a deferral of compensation within the meaning of Treasury Regulation Section 1.409A-1(b) or (B) other amounts or benefits that are not subject to the requirements of Section 409A.

(c) For purposes of this Award, all references to "termination of employment" and correlative phrases will be construed to require a "separation from service" (as defined in Section 1.409A-1(h) of the Treasury Regulations after giving effect to the presumptions contained therein), and the term "specified employee" means an individual determined by the Company to be a specified employee under Treasury Regulation Section 1.409A-1(i).

(d) The award, vesting or delivery of the Shares acquired hereunder may give rise to "wages" subject to withholding. The Participant expressly acknowledges and agrees that his or her rights hereunder, including the right to be delivered Shares upon vesting, are subject to the Participant promptly paying the Company in cash (or by such other means as may be acceptable to the Administrator in its discretion) all taxes required to be withheld. No Shares will be delivered pursuant to this Award unless and until the Participant will have remitted to the Company in cash or by check an amount sufficient to satisfy any federal, state or local withholding tax requirements or tax payments, or will have made other arrangements satisfactory to the Administrator with respect to such taxes. The Administrator may, in its sole discretion, hold back Shares from an award or permit the Participant to tender previously owned shares of Stock in satisfaction of tax withholding or tax payment requirements (but not in excess of the applicable minimum statutory withholding rate).

8. Forfeiture; Recovery of Compensation.

(a) The Administrator may cancel, rescind, withhold or otherwise limit or restrict the Award at any time if the Participant is not in compliance with all applicable provisions of this Agreement and the Plan, or if the Participant breaches any agreement with the Company or its subsidiaries with respect to non-competition, non-solicitation, invention assignment or confidentiality, including, but not limited to, any employment agreement or offer letter with the Company or the Company's standard Employee Agreement (Confidentiality, Non-Solicitation, Non-Competition and Developments Agreement).

(b) By accepting the Award, the Participant expressly acknowledges and agrees that his or her rights, and those of any permitted transferee of the Award, under the Award, including to any Stock delivered under the Award or proceeds from the disposition thereof, are subject to Section 6(a)(5) of the Plan (including any successor provision). Nothing in the preceding sentence will be construed as limiting the general application of Section 11 of this Agreement.

9. Transfer of Award. The Award may not be transferred except as expressly permitted under Section 6(a)(3) of the Plan.

10. Effect on Employment. Neither the grant of this Award, nor the delivery of Shares under this Award, will give the Participant any right to be retained in the employ or service of the Company or any of its Affiliates, affect the right of the Company or any of its Affiliates to discharge or discipline such Participant at any time, or affect any right of such Participant to terminate his or her Employment at any time.

11. Provisions of the Plan. This Agreement is subject in its entirety to the provisions of the Plan, which are incorporated herein by reference. A copy of the Plan as in effect on the Grant Date has been furnished to the Participant. By accepting this Award, the Participant agrees to be bound by the terms of the Plan and this Agreement. In the event of any conflict between the terms of this Agreement and the Plan, the terms of the Plan will control.

12. Provisions of Executive Severance Agreement and Retention Agreement. To the extent the Participant has entered into an Executive Severance Agreement and/or a Retention Agreement with the Company and such Executive Severance Agreement and/or such Retention Agreement remain in effect, the terms in the Executive Severance Agreement and/or the Retention Agreement that relate to the Award will control in the event of any conflict with the terms of this Agreement. For the avoidance of doubt, in the event that terms of the Executive Severance Agreement and Retention Agreement as they relate to the Award conflict, the terms of the Retention Agreement will control.

13. Acknowledgements. The Participant acknowledges and agrees that (i) this Agreement may be executed in two or more counterparts, each of which will be an original and all of which together will constitute one and the same instrument, (ii) this agreement may be executed and exchanged using facsimile, portable document format (PDF) or electronic signature, which, in each case, will constitute an original signature for all purposes hereunder and (iii) such signature by the Company will be binding against the Company and will create a legally binding agreement when this Agreement is countersigned by the Participant.

[Signature page follows.]

IN WITNESS WHEREOF, the Company has caused this Agreement to be executed by its duly authorized officer.

AKEBIA THERAPEUTICS, INC.

By:_____
Name: [●]
Title: [●]

Dated:

Acknowledged and Agreed:

By_____
[NAME]

Name:	**[●]**
Number of Shares of Stock subject to Option:	**[●]**
Exercise Price Per Share:	**$[●]**
Date of Grant:	**[●]**

Officer Stock Option Award

granted under the

AKEBIA THERAPEUTICS, INC.
2014 Incentive Plan

Non-statutory Stock Option Agreement

This agreement (the "Agreement") evidences a stock option granted by Akebia Therapeutics, Inc. (the "Company") to the undersigned (the "Optionee"), pursuant to and subject to the terms of the Akebia Therapeutics, Inc. 2014 Incentive Plan (the "Plan").

1. Grant of Stock Option. The Company grants to the Optionee on the date set forth above (the "Date of Grant") an option (the "Stock Option") to purchase, on the terms provided herein and in the Plan, the number of shares of Stock of the Company set forth above (the "Shares") with an exercise price per Share as set forth above, in each case subject to adjustment pursuant to Section 7 of the Plan in respect of transactions occurring after the date hereof.

The Stock Option evidenced by this Agreement is a non-statutory option (that is, an option that does not qualify as an incentive stock option under Section 422 of the Code) and is granted to the Optionee in connection with the Optionee's employment by or service to the Company and its qualifying subsidiaries. For purposes of the immediately preceding sentence, "qualifying subsidiary" means a subsidiary of the Company as to which the Company has a "controlling interest" as described in Treas. Regs. §1.409A-1(b)(5)(iii)(E)(1).

2. Meaning of Certain Terms. Except as otherwise defined herein, all capitalized terms used herein have the same meaning as in the Plan. The following terms have the following meanings:

(a) "Beneficiary" means, in the event of the Optionee's death, the beneficiary named in the written designation (in form acceptable to the Administrator) most recently filed with the Administrator by the Optionee prior to the Optionee's death and not subsequently revoked, or, if there is no such designated beneficiary, the executor or administrator of the Optionee's estate. An effective beneficiary designation will be treated as having been revoked only upon receipt by the Administrator, prior to the Optionee's death, of an instrument of revocation in form acceptable to the Administrator.

(b) "Change in Control" means the occurrence of any of the following events other than in connection with the consummation of an initial public offering of the Company's securities: (i) any "person" (as such term is used in Sections 13(d) and 14(d) of the Securities Exchange Act of 1934, as amended) who is not a shareholder of the Company as of the date of this Agreement or an affiliate thereof is or becomes the "beneficial

owner" (as defined in Rule 13d-3 under said Act), directly or indirectly, of securities of the Company representing 50% or more of the total voting power represented by the Company's then outstanding voting securities; (ii) a change in the composition of the Board occurring within a two-year period, as a result of which less than a majority of the directors are Incumbent Directors; (iii) the date of the consummation of a merger, scheme of arrangement or consolidation of the Company with any other corporation that has been approved by the stockholders of the Company, other than a merger, scheme of arrangement or consolidation which would result in the voting securities of the Company outstanding immediately prior thereto continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity) more than fifty percent (50%) of the total voting power represented by the voting securities of the Company or such surviving entity outstanding immediately after such merger or consolidation; or (iv) the date of the consummation of the sale or disposition by the Company of all or substantially all the Company's assets. Notwithstanding the foregoing, a transaction will not constitute a Change in Control if: (i) its sole purpose is to change the domicile of the Company's incorporation; or (ii) its sole purpose is to create a holding company that will be owned in substantially the same proportions by the persons who held the Company's securities immediately before such transaction. In all respects, the definition of Change in Control shall be interpreted to comply with Section 409A of the Code, and any successor statute, regulation and guidance thereto.

(c) "Incumbent Directors" means directors who either (A) are directors of the Company as of the date hereof, or (B) are elected, or nominated for election, to the Board with the affirmative votes of at least a majority of the remaining Incumbent Directors at the time of such election or nomination (but will not include an individual whose election or nomination is in connection with an actual or threatened proxy contest relating to the election of directors to the Company).

(d) "Option Holder" means the Optionee or, if as of the relevant time the Stock Option has passed to a Beneficiary, the Beneficiary.

3. Vesting; Method of Exercise; Treatment of the Stock Option Upon Cessation of Employment and a Change in Control.

(a) Vesting. As used herein with respect to the Stock Option or any portion thereof, the term "vest" means to become exercisable and the term "vested" as applied to any outstanding Stock Option means that the Stock Option is then exercisable, subject in each case to the terms of the Plan. Unless earlier terminated, forfeited, relinquished or expired, and subject to the immediately following sentence and the terms of any Executive Severance Agreement, Retention Agreement or other written agreement between the Optionee and the Company, the Stock Option will vest in accordance with the terms of Schedule A attached hereto. Notwithstanding the foregoing, the Stock Option, to the extent outstanding immediately prior to (i) a Change in Control, or (ii) termination of your employment without Cause (as defined in any Executive Severance Agreement you may have entered into with the Company) prior to May 12, 2023, will automatically and immediately become fully vested upon such Change in Control or termination of employment, as applicable,

provided, in the case of clause (ii), that you comply with the terms of and obligations set forth in Section 4 of the Executive Severance Agreement.

(b) Exercise of the Stock Option. No portion of the Stock Option may be exercised until such portion vests. Each election to exercise any vested portion of the Stock Option will be subject to the terms and conditions of the Plan and shall be in writing and signed by the Option Holder (or in such other form as is acceptable to the Administrator). Each such written exercise election must be received by the Company at its principal office or by such other party as the Administrator may prescribe and be accompanied by payment in full as provided in the Plan. The exercise price may be paid (i) by cash or check acceptable to the Administrator, (ii) at the election of the Optionee, by the Administrator's holding back of Shares from this Stock Option having a fair market value equal to the exercise price in payment of the exercise price of this Stock Option, (iii) to the extent permitted by the Administrator, through a broker assisted cashless exercise program acceptable to the Administrator, (iv) by such other means, if any, as may be acceptable to the Administrator or (v) by any combination of the foregoing permissible forms of payment. In the event that the Stock Option is exercised by a person other than the Optionee, the Company will be under no obligation to deliver Shares hereunder unless and until it is satisfied as to the authority of the Option Holder to exercise the Stock Option and compliance with applicable securities laws. The latest date on which the Stock Option or any portion thereof may be exercised will be the 10th anniversary of the Date of Grant (the "Final Exercise Date"). If the Stock Option is not exercised by the Final Exercise Date the Stock Option or any remaining portion thereof will thereupon immediately terminate.

(c) Treatment of the Stock Option Upon Cessation of Employment. In addition to termination without Cause as discussed above in Section 3(a), if the Optionee's Employment ceases, the Stock Option, to the extent not already vested will be immediately forfeited, and any vested portion of the Stock Option that is then outstanding will be treated as follows:

(i) Subject to clauses (ii) and (iii) below and Section 4 of this Agreement, the Stock Option to the extent vested immediately prior to the cessation of the Optionee's Employment will remain exercisable until the earlier of (A) the date that is three (3) months following the date of such cessation of Employment, or (B) the Final Exercise Date, and except to the extent previously exercised as permitted by this Section 3(c)(i) will thereupon immediately terminate.

(ii) Subject to clause (iii) below and Section 4 of this Agreement, the Stock Option, to the extent vested prior to the cessation of the Optionee's Employment due to death, will remain exercisable until the earlier of (A) the first anniversary of the Optionee's death or (B) the Final Exercise Date, and except to the extent previously exercised as permitted by this Section 3(c)(ii) will thereupon immediately terminate.

(iii) If the Optionee's Employment is terminated by the Company and its subsidiaries in connection with an act or failure

to act constituting Cause (as the Administrator, in its sole discretion, may determine), or such termination occurs in circumstances that in the determination of the Administrator would have entitled the Company and its subsidiaries to terminate the Optionee's Employment for Cause, this Stock Option (whether or not vested) will immediately terminate and be forfeited upon such termination.

Notwithstanding the foregoing, to the extent the Optionee is a party to an Executive Severance Agreement, Retention Agreement or other written agreement with the Company that provides for the Stock Option to remain outstanding and continue to vest during a specified period of time following the Optionee's cessation of Employment (such period, the "Severance Period"), the Stock Option shall remain outstanding and shall continue to vest in accordance with the terms of this Agreement during the Severance Period as if the Optionee had remained employed during such period, subject to any conditions on continued vesting as may be contained in such Executive Severance Agreement, Retention Agreement or other written agreement. Any portion of this Stock Option that vests during such Severance Period will remain exercisable until the earlier of (A) the date that is three (3) months following the date that is the last day of such Severance Period, or (B) the Final Exercise Date, and except to the extent previously exercised as permitted by this Section 3(c) will thereupon immediately terminate. For the avoidance of doubt, any portion of the Stock Option that fails to vest during the Severance Period will immediately be forfeited on the last day of such period.

(d) Extension of Exercise Period. Notwithstanding anything in Section 3(b) or 3(c) to the contrary, if, as of the Final Exercise Date or the last date during the period specified in Section 3(c)(i), as applicable, the Optionee is prohibited by applicable law or written Company policy applicable to similarly situated employees from engaging in any open-market sales of Stock, the Final Exercise Date or such period specified in Section 3(c)(i), as applicable, will be automatically extended to that date that is thirty (30) days following the date the Optionee is no longer prohibited from engaging in such open-market sales.

4. Forfeiture; Recovery of Compensation.

(a) The Administrator may cancel, rescind, withhold or otherwise limit or restrict the Stock Option at any time if the Optionee is not in compliance with all applicable provisions of this Agreement and the Plan, or if the Optionee breaches any agreement with the Company or its subsidiaries with respect to non-competition, non-solicitation, invention assignment or confidentiality, including, but not limited to, any employment agreement or offer letter with the Company or the Company's standard Employee Agreement (Confidentiality, Non-Solicitation, Non-Competition and Developments Agreement).

(b) By accepting the Stock Option, the Optionee expressly acknowledges and agrees that his or her rights, and those of any permitted transferee of the Stock Option, under the Stock Option, including to any Stock acquired under the Stock Option or proceeds from the disposition thereof, are subject to Section 6(a)(5) of the Plan (including any successor provision).

Nothing in the preceding sentence shall be construed as limiting the general application of Section 8 of this Agreement.

5. Transfer of Stock Option. The Stock Option may not be transferred except as expressly permitted under Section 6(a)(3) of the Plan.

6. Withholding. The exercise of the Stock Option will give rise to "wages" subject to withholding. The Optionee expressly acknowledges and agrees that the Optionee's rights hereunder, including the right to be issued Shares upon exercise, are subject to the Optionee promptly paying to the Company in cash (or by such other means as may be acceptable to the Administrator in its discretion) all taxes required to be withheld. No Shares will be transferred pursuant to the exercise of this Stock Option unless and until the person exercising this Stock Option has remitted to the Company an amount sufficient to satisfy any federal, state, or local withholding tax requirements, or has made other arrangements satisfactory to the Company with respect to such taxes. The Optionee authorizes the Company and its subsidiaries to withhold such amount from any amounts otherwise owed to the Optionee, but nothing in this sentence shall be construed as relieving the Optionee of any liability for satisfying his or her obligation under the preceding provisions of this Section.

7. Effect on Employment. Neither the grant of the Stock Option, nor the issuance of Shares upon exercise of the Stock Option, will give the Optionee any right to be retained in the employ or service of the Company or any of its Affiliates, affect the right of the Company or any of its Affiliates to discharge or discipline such Optionee at any time, or affect any right of such Optionee to terminate his or her Employment at any time.

8. Provisions of the Plan. This Agreement is subject in its entirety to the provisions of the Plan, which are incorporated herein by reference. A copy of the Plan as in effect on the Date of Grant has been furnished to the Optionee. By exercising all or any part of the Stock Option, the Optionee agrees to be bound by the terms of the Plan and this Agreement. In the event of any conflict between the terms of this Agreement and the Plan, the terms of the Plan shall control.

9. Provisions of Executive Severance Agreement and Retention Agreement. To the extent the Optionee has entered into an Executive Severance Agreement and/or a Retention Agreement with the Company, for so long as such Executive Severance Agreement and/or such Retention Agreement remain in effect, the terms of such Executive Severance Agreement and/or such Retention Agreement as they relate to the Stock Option shall control in the event of any conflict with the terms of this Agreement. For the avoidance of doubt, in the event that the terms of the Executive Severance Agreement and Retention Agreement as they relate to the Stock Option conflict, the terms of the Retention Agreement will control.

10. Acknowledgements. The Optionee acknowledges and agrees that (i) this Agreement may be executed in two or more counterparts, each of which shall be an original and all of which together shall constitute one and the same instrument, (ii) this agreement may be executed and exchanged using facsimile, portable document format (PDF) or electronic signature, which, in each case, shall constitute an original signature for all purposes hereunder and (iii) such signature by the Company will be binding against the Company and will create a legally binding agreement when this Agreement is countersigned by the Optionee.

[Signature page follows.]

IN WITNESS WHEREOF, the Company has caused this Agreement to be executed by its duly authorized officer.

AKEBIA THERAPEUTICS, INC.

By: _____
Name: [●]
Title: [●]

Dated:

Acknowledged and Agreed:

By_____

Schedule A
Time Vesting Schedule

The Stock Option, unless earlier terminated or forfeited, will vest, subject to Optionee's continuous Employment though the vesting date, as to 100% of the Shares subject to the Stock Option on May 12, 2023.

Exhibit 10.8

Certain identified information has been excluded from the exhibit because it is both (i) not material and (ii) is the type of information that the registrant treats as private or confidential. Double asterisks denote omissions.

TERMINATION AND SETTLEMENT AGREEMENT

This TERMINATION AND SETTLEMENT AGREEMENT (this "**Agreement**") is entered into as of June 30, 2022 (the "**Termination Effective Date**"), by and between Akebia Therapeutics, Inc., a company organized and existing under the laws of the State of Delaware, United States of America with its principal offices at 245 First Street, Cambridge, MA 02142 ("**Akebia**"), and Otsuka Pharmaceutical Co. Ltd., a company organized and existing under the laws of Japan, having a registered office located at 2-9, Kanda Tsukasa-machi, Chiyoda-ku, Tokyo 101-8535, Japan ("**Licensee**" or "**Otsuka**")). Each of Akebia and Licensee are sometimes referred to herein individually as a "**Party**" and together as the "**Parties**."

WHEREAS, the Parties entered into that certain Collaboration and License Agreement dated December 18, 2016 (the "**US Collaboration Agreement**") pursuant to which the Parties agreed to collaborate to develop, perform medical affairs and non-promotional activities with respect to, and commercialize the Licensed Compound and the Licensed Products in the U.S.;

WHEREAS, the Parties entered into that certain Collaboration and License Agreement dated April 25, 2017 (the "**EU Collaboration Agreement**," and together with the US Collaboration Agreement, the "**Collaboration Agreements**") pursuant to which the Parties agreed to collaborate to develop and commercialize the Licensed Compound and the Licensed Products in certain additional territories;

WHEREAS, the Parties entered into that certain Memorandum of Understanding dated May 22, 2020 (the "**MOU**") regarding the conduct of certain activities relating to a clinical study titled "Phase 3b, Randomized, Open-label, Active-controlled Trial Evaluating the Efficacy and Safety of Oral Vadadustat Once Daily (QD) and Three Times Weekly (TIW) for the Maintenance Treatment of Anemia in Hemodialysis Subjects Converting From Erythropoiesis-Stimulating Agents (ESAs)" (the "**MODIFY Study**") included in the Current Global Development Plan under the Collaboration Agreements;

WHEREAS, the Parties entered into (a) that certain letter agreement dated July 23, 2021 regarding the supply of Licensed Products in the U.S. under the US Collaboration Agreement, (b) that certain Pharmacovigilance Agreement dated as of October 5, 2021, as the same will be amended pursuant to Section 9(c) of this Agreement (the "**PV Agreement**"), (c) that certain Quality Agreement dated December 14, 2021, (d) that certain letter agreement dated April 25, 2017 regarding the [**], and (e) that certain letter agreement dated March 15, 2021 regarding intellectual property matters (such agreements in (a) through (e), together with the Collaboration Agreements and the MOU, the "**Transaction Agreements**");

WHEREAS, Licensee provided letters to Akebia dated May 13, 2022 providing notice of termination of each of the Collaboration Agreements (the "**May 13th Letters**") and, notwithstanding any allegation, term, or statement set forth in the May 13th Letters or any other communications or correspondence between the Parties, the Parties hereby agree that (a) the US Collaboration Agreement, the EU Collaboration Agreement, the MOU and all of the other Transaction Agreements except for the PV Agreement are terminated in their entirety effective as of the Termination Effective Date and (b) the PV Agreement is terminated in its entirety effective as of the Study Completion Date.

NOW THEREFORE, in consideration of the foregoing and the premises and conditions set forth herein, the Parties agree as follows:

1. **Defined Terms**. Capitalized terms that are used in this Agreement have the meaning set forth in the US Collaboration Agreement or the EU Collaboration, as applicable to the context in which such terms are used herein, unless otherwise defined in this Agreement.

2. **Termination**. The Parties hereby acknowledge and agree that (a) the US Collaboration Agreement is terminated in its entirety, (b) the EU Collaboration Agreement is terminated in its entirety, (c) the MOU is terminated in its entirety, and (d) each of the other Transaction Agreements other than the PV Agreement is terminated in its entirety, in each case ((a) through (d)), effective as of the Termination Effective Date, and (e) the PV Agreement is terminated in its entirety effective as of the Study Completion Date. Neither Party shall have any further rights or obligations under any of the Transaction Agreements as of or after the Termination Effective Date except (i) with respect to the PV Agreement, which will remain in full force and effect until the Study Completion Date, and (ii) those rights and obligations that survive termination as set forth in Section 7 (Survival) of this Agreement. From and after the Termination Effective Date, Licensee's only responsibilities related to the Licensed Compound and the Licensed Product are (A) those that are set forth in this Agreement and (B) with respect to the MODIFY Study, those that are set forth in the PV Agreement until the Study Completion Date.

3. **Payments**.

(a) **Settlement Payment**. In consideration for the promises, covenants and agreements set forth herein, including the settlement and release of all disputes and claims as provided herein, no later than two Business Days after the Termination Effective Date, Licensee will pay Akebia a nonrefundable and non-creditable payment of $55,000,000 by wire transfer in accordance with the following wire instructions:

Foreign Incoming Wires in USD
Bank Name: [**]
ABA #: [**]
Swift: [**]

Beneficiary:
ABA #: [**] Swift: [**]
Beneficiary: [**]
Beneficiary Address: [**]
Beneficiary Account #: [**]
FFC Account Name: [**]
FFC Account Number: [**]

(b) **MAA Filing Fees.** If, following each MAA Transfer Date (as defined in this Agreement) with respect to the EMA, the United Kingdom, Switzerland and Australia, but no later than May 13, 2023 (i) the EMA or any Regulatory Authority in the United Kingdom, Switzerland, or Australia, respectively, refunds to Licensee any amounts in respect of the filing fees paid by Licensee pursuant to the EU Collaboration Agreement for submission of the MAA for the Licensed Product to such Regulatory Authority and (ii) Akebia (or its designee) pays fees to the same such Regulatory Authority with respect to the filing or review of an MAA for the Licensed Product, then Licensee will pay to Akebia, within [**] after Licensee's receipt of documentation evidencing Akebia's payment to such Regulatory Authority, the amount of the fees that have been refunded to Licensee by such Regulatory Authority, regardless of the amount of the fees paid by Akebia to such Regulatory Authority. For clarity, Licensee's obligation to make any payment to Akebia under this Section 3(b) is contingent on transfer of each MAA, and such payment shall only be due if the MAA with respect to which Licensee receives a refund is transferred to Akebia.

(c) **HTA Fees.** If prior to May 13, 2023, (i) the HTA Process (as defined in this Agreement) for the Licensed Product is transferred to Akebia, (ii) as a result of such transfer of the HTA Process, NICE refunds to Licensee fees paid by Licensee to NICE with respect to the HTA Process pursuant to the EU Collaboration Agreement, and (iii) Akebia pays fees to NICE with respect to the same HTA Process for the Licensed Product, then Licensee will pay to Akebia, within [**] after Licensee's receipt of documentation evidencing Akebia's payment to NICE, the amount of the fees that have been refunded to Licensee by NICE, regardless of the amount of the fees paid by Akebia to NICE.

(d) **Waiver**. Notwithstanding any provisions to the contrary contained in the Transaction Agreements or in any other written agreement or other arrangement between the Parties, the Parties expressly acknowledge and agree that, as of the Termination Effective Date, (i) the amounts set forth in Section 3(a) (Settlement Payment), Section 3(b) (MAA Filing Fees), and Section 3(c) (HTA Fees) of this Agreement constitute the total amount owed by Licensee under this Agreement, (ii) no other amounts are owed by Licensee under the Transaction Agreements, this Agreement or any other written agreement or other arrangement between the Parties, (iii) Licensee is not obligated to pay, and Akebia is not entitled to receive, any further amounts under the Transaction Agreements, this Agreement or any other written agreement or other arrangement between the Parties, and (iv) the Parties expressly waive any right to receive any other or additional payment under the Transaction Agreements, this Agreement or any other written agreement or other arrangement between the Parties, including any amounts associated with milestone payments, royalties, research and development cost sharing, revenue sharing, Excess Cost Share, or intellectual property matters.

4. **Transition of Certain Ongoing or Planned Activities**. Capitalized terms used in this Section 4 (Transition of Certain Ongoing or Planned Activities) but not otherwise defined in this Agreement have the meaning set forth in the EU Collaboration Agreement. Notwithstanding Section 15.7 (Effects of Termination) of the EU Collaboration Agreement or the MOU, following the Termination Effective Date:

(a) **Completion of MODIFY Study**. Licensee will complete the activities allocated to Licensee and set forth in Exhibit A attached hereto related to the MODIFY Study (as defined in this Agreement) in accordance with the current study Protocol (as defined in the MOU), at its sole cost and expense. Akebia will be responsible, at its sole cost and expense, for conducting all activities allocated to Akebia as set forth in Exhibit A, and will lead all other activities related to the MODIFY Study other than the activities allocated to Licensee in Exhibit A. For clarity, Licensee shall have no obligations or responsibility to conduct any activities relating to the MODIFY Study other than the activities allocated to Licensee in Exhibit A. The Parties will agree on a timeline for completion of the Parties' remaining activities in Exhibit A (with respect to the activities that do not have a specified date or timeline in Exhibit A) within [**] following the Termination Effective Date. Until the Study Completion Date (as defined in Exhibit A attached hereto), Licensee will provide Akebia with all Study Data (as defined in the MOU) in the same manner as Licensee has been providing Study Data to Akebia prior to the Termination Effective Date in accordance with Section 2.1 (Study Data and Results) of the MOU, and each Party will make appropriate resources reasonably available to answer questions from the other Party as necessary to fulfill each Party's roles and responsibilities in this Section 4(a) (Completion of MODIFY Study) and as set forth in Exhibit A. Notwithstanding any provision to the contrary in the MOU or any other Transaction Agreements, Akebia shall prepare, at its sole cost and expense, the [**] for the MODIFY Study and shall provide the [**] to Licensee as set forth in Exhibit A. On

and after the Study Completion Date (as defined in Exhibit A attached hereto), Licensee will have no further rights or responsibilities with respect to the Development of the Licensed Compound or Licensed Products in the Territory except for any activities allocated to Licensee in Exhibit A that are required to be performed after the Study Completion Date. Following the Study Completion Date, Licensee will promptly: (i) assign and transfer to Akebia or its designee all of Licensee's rights, title, and interests in and to data, materials, and Know-How relating to the MODIFY Study, in each case, to the extent in Licensee's Control; and (ii) disclose to Akebia all documents that are Controlled by Licensee or that Licensee is able to obtain using reasonable efforts and that embody the foregoing; *provided* that Licensee will have the right to retain copies of any of the foregoing for purposes of performing activities allocated to Licensee in Exhibit A that are required to be performed after the Study Completion Date. The costs associated with the assignment and transfer set forth in this Section 4(a) (Completion of MODIFY Study) will be borne by [**].

(b) **Regulatory Cooperation**. Until each MAA Transfer Date (as defined in this Agreement) for each MAA held by Licensee for the Licensed Product with respect to the EU, the United Kingdom, Switzerland and Australia (or, if applicable, until withdrawal of the MAA(s) in accordance with this Agreement), Licensee will remain responsible for preparing, filing, and submitting, and will prepare, file, and submit, in the name of Licensee as the "sponsor" of such MAAs, all Regulatory Submissions related to such MAAs in such jurisdictions. The Parties' regulatory teams will collaborate with respect to, and agree on the content of, all such Regulatory Submissions in such jurisdictions and any correspondence with Regulatory Authorities with respect thereto and if the Parties fail to so agree on the content of any such Regulatory Submission or correspondence, then Akebia will have final decision-making authority with respect thereto. The Parties agree to include in such Regulatory Submission(s), (including submission of responses to the day 120 list of questions (the "**Day 120 Regulatory Submission**") or, if applicable, the Day 180 Regulatory Submission, as defined below) the following statement: "*[**],*" with the bracketed language to be tailored as applicable. Additionally, for a period of [**] after the Termination Effective Date, Licensee will make available to Akebia key Licensee employees to answer Akebia's questions related to such Regulatory Submissions made by Licensee in such jurisdictions as reasonably requested by Akebia.

(c) **Regulatory Transfers.**

(1) **EMA MAA Transfer**. With respect to the MAA for the Licensed Product filed with the EMA, the Parties are targeting filing a request to transfer such MAA to Akebia (such transfer, the "**EMA MAA Transfer**") with the Day 120 Regulatory Submission, and the Parties will cooperate with each other to enable the same. If timely requested by Akebia and permitted under Applicable Law, the Parties will submit a request for a "clock stop" no later than [**] prior to the deadline for filing the Day 120 Regulatory Submission. In the event the EMA requests or provides guidance suggesting a type of "clock stop" or extension in the deadline for filing the Day 120 Regulatory Submission, the Parties will comply with such request or guidance; provided that, if the "clock stop" or extension is to exceed [**], then the Parties will discuss whether to accept such request or guidance and, unless they mutually agree otherwise, the Parties will comply with such request or guidance. If there is a "clock stop" or extension in the deadline for filing the Day 120 Regulatory Submission, then, no later than [**] prior to such deadline, Akebia will provide to Licensee all information required to meet the EMA guidance for MAA transfer (EMA/639036/2018change-applicant-checklist-pre-submission-guidance-

human_en.xlsx (live.com)). No later than [**] after receipt of such information, Licensee will notify Akebia if Licensee identifies any information under the foregoing guidance that has not been provided by Akebia and Akebia will consider such suggestions in good faith. On or prior to the date that is [**] prior to the deadline for filing the Day 120 Regulatory Submission, Akebia will provide any additional information [**] necessary to meet the requirements of the guidance specified above, and Licensee will include the EMA MAA Transfer request with the Day 120 Regulatory Submission. If the EMA MAA Transfer request is not included with the Day 120 Regulatory Submission or if the EMA MAA Transfer request is included with the Day 120 Regulatory Submission but is not approved by the EMA prior to the date that is [**] prior to the deadline for filing responses to the day 180 list of outstanding issues (the "**Day 180 Regulatory Submission**"), then Licensee will include the EMA MAA Transfer request with the Day 180 Regulatory Submission (unless the EMA MAA Transfer is approved before the date of such submission) and the process above shall apply with respect to inclusion of the EMA MAA Transfer request with the Day 180 Regulatory Submission, provided that the above [**] period will be [**] prior to the deadline for filing the Day 180 Regulatory Submission and the above [**] period will be [**] prior to the deadline for filing the Day 180 Regulatory Submission, and provided further that, [**], then Licensee will have the right to withdraw the MAA for the Licensed Product with the EMA on or prior to [**]. If [**] (the "**Pre-Day 210 Date**"), then Licensee will have the right to withdraw the EMA MAA. For purposes of clarity, if [**], then Licensee will have no such right to withdraw the EMA MAA. If, prior to the Pre-Day 210 Date or prior to the effective date of the EMA approval of the EMA MAA Transfer (in the case of a deferred effective date), Licensee receives a request for an Oral explanation from the CHMP or any other request for responses, information or any other inquiries from the EMA, then Akebia will be solely responsible for providing responses to such request for Oral explanation and any other requested responses, information or submissions, and the Parties will inform EMA that, given the pending request to transfer (or the deferred effective date of transfer of) the EMA MAA to Akebia, all such responses, information and submissions reflect solely the opinions of Akebia. If the EMA MAA Transfer request is submitted with the Day 120 Regulatory Submission or the Day 180 Regulatory Submission, then upon receipt of approval of the EMA MAA Transfer from the EMA, Licensee will and hereby does assign and transfer to Akebia, and Akebia hereby accepts and assumes all obligations under, such MAA, together with all other Regulatory Submissions submitted to or received from the EMA that are in the possession or Control of Licensee or any of its Affiliates (the date of such transfer, the "**EMA MAA Transfer Date**"). If the EMA MAA Transfer request is submitted with the Day 120 Regulatory Submission or the Day 180 Regulatory Submission, then upon [**], Akebia may communicate directly with EMA regarding the MAA; provided that, until the EMA MAA Transfer has been approved by EMA, Akebia will copy Licensee on all such communications. If and to the extent required by Applicable Law, each Party will submit to the EMA all filings, letters, and other documentation necessary to effect such transfer and assignment and assumption as soon as practicable. Except as provided in Section 3(b) (MAA Filing Fees) of this Agreement, each Party will bear all costs and expenses incurred by or on behalf of such Party to effect the foregoing transfer and assignment and assumption.

(2) **ACCESS Regulatory Transfer**. The Parties will discuss and agree upon the date on which to submit a request to the applicable Regulatory Authorities to transfer the MAA for the Licensed Product to Akebia in each of the United Kingdom,

Switzerland, and Australia, *provided* that, if (A) [**], or (B) [**], then, in either case ((A) or (B)), Licensee will have the right to withdraw the MAA for the Licensed Product submitted to the applicable Regulatory Authorities in each of the United Kingdom, Switzerland, and Australia on or prior to the deadline for the next required Regulatory Submission. If the Parties do agree on the date on which to submit a request to transfer the MAA for the Licensed Product in each of the United Kingdom, Switzerland and Australia (and *provided* that no Regulatory Authority has given notice that the transfer will not be permitted at such time), then, no later than [**] prior to such agreed date, Akebia will provide to Licensee that information required to meet all of the requirements for the transfer of the MAAs in all such countries (including all required documentation, supporting personnel and establishment obligations). No later than [**] after receipt of such information, Licensee will notify Akebia if it identifies any information under the foregoing requirements that has not been provided by Akebia and [**]. On or before the date that is [**] prior to such agreed date, Akebia will provide any additional information [**] necessary to meet the requirements, and Licensee will submit the transfer request on such agreed date to the applicable Regulatory Authorities in the United Kingdom, Switzerland and Australia. If (i) [**], or [**], then in either case ((i) or (ii)), Licensee will have the right to withdraw the MAA for the Licensed Product submitted to the applicable Regulatory Authority in such countries. The Parties will discuss in good faith whether to request a "clock-stop" with respect to the MAA for the Licensed Product in each of the United Kingdom, Switzerland and Australia prior to submission of the response to the ACCESS day 120 list of questions (the "**ACCESS Day 120 Regulatory Submission**"). Licensee will prepare the first draft of the ACCESS Day 120 Regulatory Submission using only existing responses from the Day 120 Regulatory Submission and, if applicable, the Day 180 Regulatory Submission to EMA and, for clarity, Licensee shall have no obligation to generate new tables or conduct new analyses or create any other new data packages or responses to questions for the draft ACCESS Day 120 Regulatory Submission. For further clarity, Akebia will be responsible for preparing all drafts of the ACCESS Day 120 Regulatory Submission after the first draft. If a request to transfer each MAA for the Licensed Product to Akebia is submitted to the Regulatory Authorities in the United Kingdom, Switzerland and Australia, then upon receipt of approval of such transfer from the applicable Regulatory Authorities, Licensee will and hereby does assign and transfer to Akebia (or its designee), and Akebia (directly or indirectly on behalf of itself or its designee) hereby accepts and assumes all obligations under, each such MAA, together with all other Regulatory Submissions that are in the possession or Control of Licensee or any of its Affiliates submitted to or received from the relevant Regulatory Authorities in such jurisdiction (the date of each such transfer, the "**ACCESS MAA Transfer Date**," and collectively with the EMA MAA Transfer Date, as applicable, the "**MAA Transfer Date**"). If and to the extent required by Applicable Law, each Party will submit to the applicable Regulatory Authority all filings, letters, and other documentation necessary to effect such transfer and assignment and assumption as soon as practicable. Except as provided in Section 3(b) (MAA Filing Fees) of this Agreement, each Party will bear all costs and expenses incurred by or on behalf of such Party to effect the foregoing transfer and assignment and assumption.

(3) **Documentation**. In connection with the transfer of each Regulatory Submission provided for in this Section 4(c) (Regulatory Transfers), as soon as practicable (and in any event, within [**]) after each MAA Transfer Date, Licensee will provide to Akebia copies (in electronic format in Microsoft Word) of all Regulatory

Submissions, and communications with Regulatory Authorities, communication logs with Regulatory Authorities, if available, data and other information, in each case, possessed or Controlled by Licensee or any of its Affiliates related to Regulatory Submissions for the Licensed Compound or Licensed Products (to the extent not previously provided to Akebia).

(d) **Packaging Validation**. Licensee's sole responsibility with respect to Packaging will be to complete all packaging validation activities set forth in Exhibit B attached hereto, at its sole cost and expense, in accordance with the packaging validation documentation listed in Exhibit B ("**Packaging Validation Documentation**"), which will be prepared by the packaging vendor and agreed by Licensee following the Termination Effective Date. For clarity, Licensee shall have no responsibility for serialization validation, stability testing, physical testing or any other Packaging activities other than as set forth in Exhibit B. Licensee will share drafts of the Packaging Validation Documentation with Akebia and will take into consideration and incorporate (if deemed appropriate by Licensee and acceptable to the packaging vendor) reasonable comments that are timely provided by Akebia. Licensee's packaging validation activities will be considered complete upon delivery of the packaging validation report prepared by the packaging vendor (as may be updated in accordance with Akebia's comments as provided for in the prior sentence if the packaging vendor provides drafts of such report for review and comment). Following delivery of such final report, Licensee will have no further responsibilities relating to Packaging with respect to the Licensed Compound or Licensed Product and Licensee will promptly transfer to Akebia (i) the Licensed Product packaged as part of the validation activities and any retained product, and all of Licensee's rights, title, and interests therein, and (ii) all data, reports (including the final validation report completed by Licensee), certifications, and other documentation relating to such packaging validation for the Licensed Product. Following the Termination Effective Date, Licensee will inform the packaging vendor that all Packaging activities related to the Licensed Product will transfer to Akebia upon completion of Licensee's packaging validation activities. For clarity, the Licensed Product used in validation is not intended to be sold, and Akebia agrees that it will not sell or otherwise distribute such Licensed Product. Licensee will provide Akebia with regular detailed updates on the status of the validation activities, and Akebia will cooperate with Licensee in supporting such activities.

(e) **Health Technology Assessment Activities**. As of the Termination Effective Date, Licensee has not submitted any applications for pricing and reimbursement of Licensed Products in any country in the Territory (as defined in the EU Collaboration Agreement); however, Licensee has engaged in the Health Technology Assessment process relating to pricing and reimbursement for Licensed Products ("**HTA Process**") with NICE in England and Wales. Prior to the Termination Effective Date, Licensee notified NICE that responsibility for the HTA Process should be transferred to Akebia and requested a deferral of the HTA Process for a period of not less than twelve (12) months. If, notwithstanding such request, such HTA Process cannot be so deferred, then Licensee will have the right to withdraw from such HTA Process. Following the Termination Effective Date, Licensee will have the right to cease all activities with respect to Health Technology Assessments relating to Licensed Products and Licensee's only responsibilities with respect thereto will be to transfer to Akebia the existing materials set forth on Exhibit C promptly (and in any event, no later than [**] after the Termination Effective Date).

(f) The Parties anticipate that all of Licensee's activities and responsibilities under Section 4 of this Agreement and the Exhibits hereto, except for responsibilities set forth in Exhibit

A and in the PV Agreement relating to the MODIFY Study, will be completed by [**]. In any event, Licensee will have no obligations or responsibilities under Section 4 of this Agreement and the Exhibits hereto on or after [**].

5. **Certain Effects of Termination of the US Collaboration Agreement**: The effects of termination set forth in Section 15.8 (Effects of Termination) of the US Collaboration Agreement are hereby superseded by the terms of this Agreement and of no further force or effect as of the Termination Effective Date. Capitalized terms used in this Section 5 (Certain Effects of Termination of the US Collaboration Agreement) have the meaning set forth in the US Collaboration Agreement. Solely with respect to the US Collaboration Agreement, effective as of the Termination Effective Date:

   (a) **Termination of Rights**. Except as required to perform the activities set forth in Section 4 (Transition of Certain Ongoing or Planned Activities) of this Agreement or as expressly set forth in Section 7 (Survival) of this Agreement, all rights and licenses granted to Licensee under the US Collaboration Agreement are hereby terminated.

   (b) **License to Akebia**. The worldwide license granted to Akebia in Section 2.2 (Grant of License to Akebia) of the US Collaboration Agreement shall be non-exclusive and shall be freely sublicensable (through multiple tiers).

   (c) **Return of Confidential Information and Product Materials**. Licensee will cease using the Akebia Technology and will stop Developing (except as required to perform the activities set forth in Section 4 (Transition of Certain Ongoing or Planned Activities) of this Agreement), performing Medical Affairs or Non-Promotional Activities with respect to, or Commercializing the Licensed Compound and the Licensed Product in the Territory. Licensee will immediately destroy all inventory of the Licensed Compound and the Licensed Products in Licensee's possession (other than inventory to be used to complete the MODIFY Study in accordance with this Agreement), together with all copies of the Product Materials in the possession or Control of Licensee or its Affiliates, and Licensee will certify to such destruction. In addition, each Party will destroy all Confidential Information of the other Party in its possession and will provide a written confirmation of such destruction within [**] of the Termination Effective Date; *provided*, *however*, that the foregoing will not apply to any Confidential Information that is necessary (i) to allow such Party to perform its obligations or exercise any of its rights that expressly survive the termination of the US Collaboration Agreement as set forth in Section 7 (Survival) of this Agreement or (ii) for either Party to perform its obligations under Section 4 (Transition of Certain Ongoing or Planned Activities) of this Agreement.

6. **Certain Effects of Termination of the EU Collaboration Agreement**: The effects of termination set forth in Section 15.7 (Effects of Termination) of the EU Collaboration Agreement are hereby superseded by the terms of this Agreement and of no further force or effect as of the Termination Effective Date. Capitalized terms used in this Section 6 (Certain Effects of Termination of the EU Collaboration Agreement) have the meaning set forth in the EU Collaboration Agreement. Solely with respect to the EU Collaboration Agreement, effective as of the Termination Effective Date:

   (a) **Rights of Reference**. The rights granted to Licensee pursuant to Section 5.5.1 (Rights Granted to Licensee) of the EU Collaboration Agreement will continue in effect until, and terminate effective upon, the last MAA Transfer Date. The rights granted to Akebia pursuant to Section 5.5.2 (Rights Granted to Akebia) of the EU Collaboration Agreement will survive termination of the EU Collaboration Agreement and will remain in effect

following the Termination Effective Date until all Regulatory Submissions and Study Data Controlled by Licensee have been transferred by Licensee to Akebia pursuant to Section 4 (Transition of Certain Ongoing or Planned Activities) of this Agreement.

(b) **Return of Confidential Information**. Licensee will cease using the Akebia Technology and will destroy all copies of any documents containing any Akebia Know-How, except for any Akebia Technology and Akebia Know-How necessary for Licensee to perform the activities set forth in Section 4 (Transition of Certain Ongoing or Planned Activities) of this Agreement. Unless expressly instructed to the contrary in writing, each Party will destroy all Confidential Information of the other Party in its possession and will provide a written confirmation of such destruction within [**] of the Termination Effective Date; *provided*, *however*, that the foregoing will not apply to any Confidential Information that is necessary (i) to allow such Party to perform its obligations or exercise any of its rights that expressly survive the termination of the EU Collaboration Agreement as set forth in Section 7 (Survival) of this Agreement or (ii) for each Party to perform its respective obligations under Section 4 (Transition of Certain Ongoing or Planned Activities) of this Agreement.

(c) **License Grants to Akebia**. Licensee hereby grants and agrees to grant to Akebia with automatic effect from the Termination Effective Date, a non-exclusive, fully paid up, worldwide, perpetual, irrevocable right and license, with the right to grant sublicenses through multiple tiers, under (i) Licensee's interest in Joint Technology, (ii) the Retained Licensee Improvement Technology, and (iii) any Licensee Contributed Technology, in each case, to research, develop, make, have made, use, import, offer for sale, sell, and otherwise exploit the Licensed Compound and the Licensed Products inside and outside of the Territory. If Licensee is unable to sublicense any Patents or Know-How owned by Third Parties to Akebia pursuant to this Section 6(c) (License Grants to Akebia) without the consent of the Third Party, then Licensee undertakes, on request from Akebia, to use reasonable efforts to procure such licenses on behalf of Akebia in as far as it is able to do so, and Akebia will pay such fees and agree to be bound by the terms agreed between Akebia and the Third Party licensor.

(d) **Assignment and Disclosure**. Except as expressly set forth in, or as necessary for performing obligations under, Section 4 (Transition of Certain Ongoing or Planned Activities) of this Agreement, Licensee will promptly (and in any event within [**] after the Termination Effective Date): (i) assign and transfer to Akebia or its designee all of Licensee's rights, title, and interests in and to all Regulatory Submissions in the Territory (to the extent assignable and not cancelled), and Study Data (to the extent in Licensee's Control), in each case, relating to the Licensed Products and that are necessary or reasonably useful for the Development or Commercialization of the Licensed Compound and the Licensed Products, and (ii) disclose to Akebia all documents that are Controlled by Licensee or that Licensee is able to obtain using reasonable efforts, and that embody the foregoing, including all written plans supporting the Commercial launch of the Licensed Product in the Territory, including any materials prepared for meetings with, or submitted to or received from, the National Reimbursement Authority in a country in the Territory. In addition, Licensee will promptly assign and transfer to Akebia or its designee, as of the Termination Effective Date, all of Licensee's rights, title, and interests in and to all domain names associated with the Product Marks (to the extent that they are owned by Licensee or its Affiliates), and will promptly (in any event, within [**] after the Termination Effective Date) provide to Akebia all login and password information necessary to maintain such domain names.

7. **Survival**.

(a) **Provisions Surviving Termination of the US Collaboration Agreement**. Notwithstanding Section 15.9 (Survival; Accrued Rights) of the US Collaboration Agreement, the following provisions of the US Collaboration Agreement will survive termination of the US Collaboration Agreement and are incorporated herein by reference: Article 1 (Definitions); Section 2.2 (License Grant to Akebia), as modified by Section 5(b) of this Agreement; Section 10.1 (Akebia Intellectual Property); Section 10.2 (Licensee Intellectual Property); Section 12.5 (Disclaimer); Section 12.6 (Limitation of Liability); Sections 13.1, 13.2 and 13.5 (Confidentiality) (for a period of five years following the Termination Effective Date); Article 14 (Indemnification), excluding Section 14.4 (Insurance); Article 16 (Dispute Resolution; Governing Law), excluding Section 16.4 (Baseball Arbitration for Expert Reserved Matters); Section 17.12 (Agency); Section 17.13 (No Waiver); Section 17.14 (No Strict Construction); and Section 17.15 (Cumulative Remedies).

(b) **Provisions Surviving Termination of the EU Collaboration Agreement**. Notwithstanding Section 15.8 (Survival; Accrued Rights) of the EU Collaboration Agreement, the following provisions of the EU Collaboration Agreement will survive termination of the EU Collaboration Agreement and are incorporated herein by reference: Article I (Definitions); Sections 5.5.1 and 5.5.2 (to the extent provided in Section 6(a) of this Agreement); Section 10.1 (Akebia Intellectual Property); Section 10.2 (Licensee Intellectual Property); Section 12.5 (Disclaimer); Section 12.6 (Limitation of Liability); Sections 13.1, 13.2 and 13.5 (Confidentiality) (for a period of five years following the Termination Effective Date); Article XIV (Indemnification), excluding Section 14.4 (Insurance); Article XVI (Dispute Resolution; Governing Law), excluding Section 16.4 (Baseball Arbitration for Expert Reserved Matters); Section 17.13 (Agency); Section 17.14 (No Waiver); Section 17.15 (No Strict Construction); and Section 17.16 (Cumulative Remedies).

(c) **Provisions Surviving Termination of the MOU**. The following provisions of the MOU will survive its termination and are incorporated herein by reference: Section 1.3 (Regulatory Matters), Section 1.7 (Compliance with Laws); Article II (Data and Results); Article III (Books and Records) (for the applicable periods set forth therein), excluding the last sentence of Section 3.1 (Books and Records) and excluding any such books or records [**] to the extent transferred to Akebia under this Agreement; Section 4.1 (Intellectual Property); Section 5.1 (Confidentiality); Article VI (Indemnification); Article VII (Miscellaneous).

(d) **Provisions Surviving Termination of the PV Agreement**. The provisions surviving termination of the PV Agreement will be set forth in the amended and restated PV Agreement to be entered into by the Parties in accordance with Section 9(c).

8. **Mutual Release of Claims**.

(a) **Release by Licensee**. Notwithstanding any provision to the contrary set forth in any Transaction Agreement, from and after the applicable Termination Effective Date with respect to each Transaction Agreement: Licensee, on behalf of itself and each of its Affiliates and each of their respective successors and assigns (collectively, the "**Licensee Releasors**"), do hereby now and forever release, remise, hold harmless and forever discharge Akebia, its Affiliates, its sublicensees and each of its, its Affiliates', and its sublicensees' respective sublicensees, officers, directors, employees, consultants,

contractors and agents, and its and any and all of the foregoing Persons' respective successors and assigns (collectively, the "**Akebia Releasees**") of and from any and all claims, actions, causes of action, choses in action, or suits (whether in contract or tort or otherwise), litigation (whether at law or in equity, whether civil or criminal), controversies, assessments, arbitration, examinations, audits, investigations, hearings, charges, complaints, demands, or proceedings to, from, by or before any Governmental Authority (collectively, "**Actions**"), losses, liabilities, damages, judgments, rights, debts, dues, sums of money, accounts, reckonings, obligations, costs, expenses, liens, bonds, bills, specialties, covenants, contracts, controversies, agreements, promises, variances, trespasses, of every kind and nature whatsoever, whether now known or unknown, foreseen or unforeseen, matured or unmatured, suspected or unsuspected, in law, admiralty or equity (collectively, "**Liabilities**"), whether known or unknown, suspected or unsuspected and that arose at any time on or prior to the applicable Termination Effective Date for each Transaction Agreement, or that thereafter could arise based on any act, fact, transaction, matter, or cause that occurred on or prior to the applicable Termination Effective Date for each Transaction Agreement arising from, under or otherwise in connection with the Transaction Agreements, in each case, other than for a violation of Applicable Law by Akebia unless such violation is caused by the action or omission of a Licensee Releasor and except to the extent arising after the applicable Termination Effective Date for each Transaction Agreement from an Akebia Releasee's violation of its obligations under the Transaction Agreements that survive termination as expressly provided in this Agreement. The Licensee Releasors agree that they will (i) forbear from exercising any rights or remedies against any Akebia Releasee in respect of any or all Actions and Liabilities in connection with the Transaction Agreements and (ii) not commence any lawsuit or bring any legal or equitable action against any Akebia Releasee in respect of any Action or Liability in connection with the Transaction Agreements; in each case, except to the extent (A) relating to a violation of Applicable Law by Akebia unless such violation is caused by the action or omission of a Licensee Releasor or (B) arising after the applicable Termination Effective Date for each Transaction Agreement from an Akebia Releasee's violation of its obligations under the Transaction Agreements that expressly survive beyond the Termination Effective Date of the applicable Transaction Agreement as provided in this Agreement.

(b) **Release by Akebia**. Notwithstanding any provision to the contrary set forth in any Transaction Agreement, from and after the applicable Termination Effective Date with respect to each Transaction Agreement: Akebia, on behalf of itself and each of its Affiliates and each of their respective successors and assigns (collectively, the "**Akebia Releasors**"), do hereby now and forever release, remise, hold harmless and forever discharge Licensee, its Affiliates, its sublicensees and each of its, its Affiliates', and its sublicensees' respective sublicensees, officers, directors, employees, consultants, contractors and agents, and its and any and all of the foregoing Persons' respective successors and assigns (collectively, the "**Licensee Releasees**") of and from any and all Actions and Liabilities, whether known or unknown, suspected or unsuspected and that arose at any time on or prior to the applicable Termination Effective Date for each Transaction Agreement, or that thereafter could arise based on any act, fact, transaction, matter, or cause that occurred on or prior to the applicable Termination Effective Date for each Transaction Agreement arising from, under or otherwise in connection with the Transaction Agreements, in each case, other than for a violation of Applicable Law by Licensee unless such violation is caused by the action or omission of an Akebia Releasor and except to the extent arising after the applicable Termination Effective Date for each Transaction Agreement from a Licensee Releasee's violation of its obligations under the Transaction Agreements that expressly survive termination as provided in this

Agreement. The Akebia Releasors agree that they will (i) forbear from exercising any rights or remedies against any Licensee Releasee in respect of any or all Actions and Liabilities in connection with the Transaction Agreements and (ii) not commence any lawsuit or bring any legal or equitable action against any Licensee Releasee in respect of any Action or Liability in connection with the Transaction Agreements; in each case, except to the extent (A) relating to a violation of Applicable Law by Licensee unless such violation is caused by the action or omission of an Akebia Releasor or (B) arising after the applicable Termination Effective Date for each Transaction Agreement from a Licensee Releasee's violation of its obligations under the Transaction Agreements that expressly survive beyond the Termination Effective Date of the applicable Transaction Agreement as provided in this Agreement.

(c) **Third Party Beneficiaries**. Each Akebia Releasee and each Licensee Releasee will be an express beneficiary of the rights and releases granted under this Section 8 (Mutual Release of Claims) and will be entitled to rely on the same as a defense to any suit brought against such Akebia Releasee or Licensee Releasee, as applicable, in contravention of the provisions of this Section 8 (Mutual Release of Claims), without regard to the fact that such Akebia Releasee or Licensee Releasee, as applicable, may not be a party to this Agreement.

9. **Representations, Warranties, and Covenants**.

(a) **Mutual Representations and Warranties**. Each of the Parties hereby represents and warrants to the other Party as of the Termination Effective Date that: (i) it is a corporation duly organized, validly existing and in good standing under Applicable Law of the jurisdiction of its organization, and has all requisite power and authority, corporate or otherwise, to execute, deliver, and perform this Agreement; (ii) this Agreement is a legal and valid obligation binding upon such Party and enforceable in accordance with its terms, subject to the effects of bankruptcy, insolvency or other Applicable Law of general application affecting the enforcement of creditor rights, judicial principles affecting the availability of specific performance, and general principles of equity (whether enforceability is considered a proceeding at law or equity), (iii) the execution, delivery and performance of this Agreement by such Party have been duly authorized by all necessary corporate action and do not conflict with any agreement, instrument or understanding, oral or written, to which it is a party or by which it is bound, nor violate any Applicable Law or any order, writ, judgment, injunction, decree, determination or award of any court or governmental body, or administrative or other agency presently in effect applicable to such Party, (iv) it is not aware of any government authorization, consent, approval, license, exemption of or filing or registration with any court or governmental department, commission, board, bureau, agency or instrumentality, domestic or foreign, under any Applicable Law, currently in effect, necessary for, or in connection with, the transactions contemplated by this Agreement or any other agreement or instrument executed in connection herewith, or for the performance by it of its obligations under this Agreement and such other agreements, and (v) neither Party is under any obligation, contractual or otherwise, to any Person that conflicts with or is inconsistent in any material respect with the terms of this Agreement, or that would impede the diligent and complete fulfillment of its obligations hereunder.

(b) **Additional Representations**. Each Party represents and warrants to the other Party and the Akebia Releasees or Licensee Releasees, as applicable, as of the Termination Effective Date that (i) it has all requisite legal capacity to grant the rights and releases set forth in Section 8 (Mutual Release of Claims) of this Agreement on behalf of itself and its

respective Akebia Releasors or Licensee Releasors, as applicable and (ii) neither it nor any of the other Akebia Releasors or Licensee Releasors, as applicable, have assigned, transferred or granted to any Person that is not an Akebia Releasor or Licensee Releasor, as applicable, any Action or Liability intended to be covered or released pursuant to Section 8 (Mutual Release of Claims) of this Agreement.

(c) **Amendment of PV Agreement**. The Parties stipulate and agree that certain revisions to the PV Agreement are necessary to reflect (i) the revised responsibilities of the Parties as a result of the transfer of certain MAAs to Akebia pursuant to Section 4(c) (Regulatory Transfers) of this Agreement and (ii) the Parties' respective responsibilities thereunder following the Termination Effective Date and continuing until completion of the MODIFY Study ((i) and (ii), the "**PV Revisions**"). Accordingly, within [**] following the Termination Effective Date, the Parties will use good faith efforts to negotiate and enter into an amended and restated PV Agreement reflecting the PV Revisions, any appropriate revisions to the surviving provisions thereunder, and any other revisions to which the Parties may agree.

10. **Confidentiality**.

(a) **Confidential Treatment**. From and after the Termination Effective Date, (i) the existence or terms of this Agreement, (ii) the content of the Parties' discussions and negotiations regarding this Agreement, and (iii) any documents or correspondence exchanged between the Parties in connection with their discussions or negotiations regarding this Agreement, in each case ((i) through (iii)), will be considered Confidential Information (as defined in the EU Collaboration Agreement) of both Parties and will be subject to the provisions regarding confidentiality and non-disclosure set forth in the EU Collaboration Agreement for a period of five years following the Termination Effective Date.

(b) **Public Disclosures**. Neither Party will issue any public announcement, press release or other public disclosure regarding this Agreement or its subject matter without the other Party's prior written consent, such consent not to be unreasonably withheld, delayed or conditioned, except for any such disclosure that is, in the opinion of the disclosing Party's counsel, required by Applicable Law or the rules of a stock exchange on which the securities of the disclosing Party are listed (or to which an application for listing has been submitted). In the event a Party is, in the opinion of its counsel, required by Applicable Law or the rules of a stock exchange on which its securities are listed (or to which an application for listing has been submitted) to make such a public disclosure, such Party will submit the proposed disclosure in writing to the other Party with sufficient opportunity (to the extent practicable) for the other Party to review and comment on such required disclosure and request confidential treatment thereof or a protective order therefor. Neither Party will be required to seek the permission of the other Party to repeat any information regarding the terms of this Agreement or any amendment hereto that has already been publicly disclosed by such Party or by the other Party, in accordance with this Section 10(b) (Public Disclosures), *provided* that such information remains accurate as of such time.

(c) **Non-Disparagement**. Neither Party shall disparage the other Party or any of the other Party's Affiliates, or any of its or their respective directors, officers, stockholders, employees, successors or assigns, by making (or causing others to make) any oral or written statements that could reasonably be construed to be false or misleading, or any defamatory, libelous, slanderous or otherwise disparaging statements of or concerning

any of the aforementioned persons or entities. Notwithstanding the foregoing, neither Party will be prohibited from making any statement that (i) is in response to a valid order of a court or other governmental body or (ii) is otherwise requested, recommended, or required by Applicable Law or regulation or rules of a nationally recognized securities exchange.

11. **Miscellaneous**.

(a) **Severability**. If any provision of this Agreement is declared invalid by a court of last resort or by any court or other governmental body from the decision of which an appeal is not taken within the time provided by law, then and in such event, this Agreement will be deemed to have been terminated only as to the portion thereof that relates to the provision invalidated by that decision and only in the relevant jurisdiction, but this Agreement, in all other respects and all other jurisdictions, will remain in force; *provided*, *however*, that if the provision so invalidated is essential to the Agreement as a whole, then the Parties shall negotiate in good faith to amend the terms hereof as nearly as practical to carry out the original intent of the Parties, and, failing such amendment, either Party may submit the matter for resolution pursuant to Section 11(d) (Dispute Resolution) of this Agreement.

(b) **Further Assurance**. The Parties agree to reasonably cooperate with each other in connection with any actions required to be taken as part of their respective obligations under this Agreement, and will (a) furnish to each other such further information; (b) execute and deliver to each other such other documents; and (c) do such other acts and things (including working collaboratively to correct any clerical, typographical, or other similar errors in this Agreement), all as the other Party may reasonably request for the purpose of carrying out the intent of this Agreement.

(c) **Governing Law**. This Agreement and all amendments, modifications, alterations, or supplements hereto, and the rights of the Parties hereunder, will be construed under and governed by the laws of the state of New York, United States, exclusive of its conflicts of laws principles. This Agreement has been prepared in the English language and the English language will control its interpretation. All consents, notices, reports, and other written documents to be delivered or provided by a Party under this Agreement will be in the English language, and in the event of any conflict between the provisions of any document and the English language translation thereof, the terms of the English language translation will control.

(d) **Dispute Resolution**. Any dispute arising out of, or in connection with, this Agreement shall be resolved in accordance with the dispute resolution procedures set forth in Article 16 (Dispute Resolution; Governing Law) of the EU Collaboration Agreement, *provided* that there shall be no exceptions for any Akebia Reserved Disputes, Licensee Reserved Disputes, or Expert Reserved Matters.

(e) **Notices**. Any notice required to be given under this Agreement shall be in writing and shall be mailed by internationally recognized express delivery service, or sent by email and confirmed by mailing, as follows:

If to Akebia:

Akebia Therapeutics, Inc.
245 First Street

Cambridge, MA 02142
Attention: Chief Executive Officer
Facsimile: [**]
Email: [**]

With a copy to (which shall not constitute notice for purposes of this Agreement):

Akebia Therapeutics, Inc.
245 First Street
Cambridge, MA 02142
Attention: General Counsel
Facsimile: [**]
Email: [**]

and

Ropes & Gray LLP
Prudential Tower, 800 Boylston Street
Boston, MA 02199-3600
Attention: [**]
Email: [**]

If to Licensee:

Otsuka Pharmaceutical Co., Ltd.
Shinagawa Grand Central Tower,
2-16-4 Konan, Minato-ku,
Tokyo, 108-8242 Japan,
Attention: [**]
Email: [**]

With a copy to (which shall not constitute notice for purposes of this Agreement):

Otsuka Pharmaceutical Co., Ltd.
Shinagawa Grand Central Tower
2-16-4 Konan, Minato-ku
Tokyo, 108-8242 Japan
Attention: [**]
Email: [**]

and

Cooley LLP
1700 Seventh Avenue, Suite 1900
Seattle, WA 98101-1355
Attention: [**]
Email: [**]

(f) **Performance by Affiliates**. Notwithstanding any provision to the contrary set forth herein, either Party shall have the right to perform any or all of its obligations and exercise any or all of its rights under this Agreement through any Affiliate.

(g) **Assignment**. Neither Party may assign this Agreement and the licenses herein granted without the other Party's prior written consent *unless* such assignment is to (a) a Third Party successor or purchaser of all or substantially all of the assets or businesses to which this Agreement relates whether pursuant to a sale of assets, merger, or other transaction, in which case the assigning Party will provide prior written notice of such assignment to the other Party and need not obtain the other Party's consent, or (b) an Affiliate of such Party, in which case the assigning Party will provide written notice of such assignment to the other Party and need not obtain the other Party's consent; *provided that* the assigning Party remains fully liable for the performance of its obligations hereunder by such assignee. Any other assignment of this Agreement by a Party requires the prior written consent of the other Party. Any assignment in violation of this Section 11(g) (Assignment) shall be null and void. This Agreement shall be binding on and shall inure to the benefit of the permitted successors and assigns of the Parties.

(h) **Entire Agreement; Amendment**. This Agreement, together with all exhibits attached hereto, constitutes the entire agreement between the Parties with respect to the subject matter hereof. This Agreement will not be modified, or amended, except by an agreement in writing executed by the Parties.

(i) **No Strict Construction**. This Agreement has been prepared jointly by the Parties and shall not be strictly construed against either Party.

(j) **Counterparts**. This Agreement may be executed in counterparts, all of which taken together will be regarded as one and the same instrument. Each Party may execute this Agreement in Adobe™ Portable Document Format (PDF) sent by electronic mail. PDF signatures of authorized signatories of the Parties will be deemed to be original signatures, will be valid and binding upon the Parties, and, upon delivery, will constitute due execution of this Agreement.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, the Parties have caused their duly authorized representatives to sign this Agreement effective as of the Termination Effective Date.

AKEBIA THERAPEUTICS, INC.

By: /s/ John P. Butler

Name: John P. Butler

Title: President and Chief Executive Officer

OTSUKA PHARMACEUTICAL CO., LTD.

By: /s/ Keiso Yamasaki

Name: Keiso Yamasaki

Title: Senior Vice President, Associate General Manager (Pharmaceutical Division), and Pharmaceutical Planning Department and Cell Therapy Commercialization Project Leader

Exhibit 10.9

Certain identified information has been excluded from the exhibit because it is both (i) not material and (ii) is the type of information that the registrant treats as private or confidential. Double asterisks denote omissions.

SECOND AMENDMENT AND WAIVER

This SECOND AMENDMENT AND WAIVER (this "Amendment and Waiver"), dated and effective as of July 15, 2022 (the "Second Amendment Effective Date"), by and among AKEBIA THERAPEUTICS, INC., a Delaware corporation (as "Borrower"), BIOPHARMA CREDIT PLC, a public limited company incorporated under the laws of England and Wales (as the "Collateral Agent"), BPCR LIMITED PARTNERSHIP, a limited partnership established under the laws of England and Wales (as a "Lender"), and BIOPHARMA CREDIT INVESTMENTS V (MASTER) LP, a Cayman Islands exempted limited partnership (as a "Lender").

Recitals

A. Collateral Agent, Lenders, Borrower and the other Credit Parties thereunder have entered into that certain Loan Agreement, dated as of November 11, 2019 and amended as of February 18, 2022 (the "Loan Agreement").

B. On February 18, 2022, Borrower entered into the Vifor License Agreement, pursuant to which, among other things, Borrower incurred Indebtedness in the form of a working capital loan, as described in greater detail in clause (c) of the definition of Permitted Indebtedness (the "Working Capital Loan").

C. Borrower desires to make a $5,000,000 prepayment of principal of the Tranche A Loan on the Second Amendment Effective Date (the "Second Amendment Effective Date Tranche A Prepayment") and a $20,000,000 prepayment of principal of the Tranche B Loan on the Second Amendment Effective Date (the "Second Amendment Effective Date Tranche B Prepayment").

D. In the case of the Second Amendment Effective Date Tranche A Prepayment, the Tranche A Prepayment Premium is payable pursuant to Section 2.2(f)(i) of the Loan Agreement, but no Tranche A Makewhole Amount is payable pursuant to Section 2.2(e)(i) of the Loan Agreement. In the case of the Second Amendment Effective Date Tranche B Prepayment, the Tranche B Makewhole Amount is payable pursuant to Section 2.2(e)(ii) of the Loan Agreement and the Tranche B Prepayment Premium is payable pursuant to Section 2.2(f)(ii) of the Loan Agreement.

E. In connection with Borrower's obligation under Section 5.2(a)(ii) of the Loan Agreement to deliver to the Collateral Agent consolidated quarterly financial statements of Borrower and its Subsidiaries which are prepared in accordance with Applicable Accounting Standards, Section 5.2(a)(ii) of the Loan Agreement requires that such financial statements for the fiscal quarters ending June 30, 2022 and September 30, 2022 are not subject to any qualification as to "going concern" (the "Accountant Opinion Covenant").

F. In accordance with Section 11.5 of the Loan Agreement, Borrower, Collateral Agent and Lenders desire to amend the Loan Agreement to, among other things, modify certain terms and conditions relating to the Working Capital Loan, and Lenders agree to modify certain terms and conditions regarding the payment of the Tranche A Prepayment Premium and the Tranche B Prepayment Premium and to provide Borrower with a waiver of the no "going concern" qualification requirement in the Accountant Opinion Covenant and a waiver of the payment of the Tranche B Makewhole Amount in connection with the Second Amendment Effective Date Tranche B Prepayment, in each case on the terms and conditions set forth herein.

Agreement

Now, Therefore, in consideration of the foregoing recitals and other good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, and intending to be legally bound, the parties hereto agree as follows:

1. Definitions. All capitalized terms used in this Amendment and Waiver (including in the recitals hereof) and not otherwise defined herein shall have the meanings assigned to them in the Loan Agreement. The rules of interpretation set forth in the first paragraph of Section 13.1 of the Loan Agreement shall be applicable to this Amendment and Waiver and are incorporated herein by this reference.

2. **Amendment to Loan Agreement.** Subject to the payment in full by Borrower on the Second Amendment Effective Date of each of the Second Amendment Effective Date Tranche A Prepayment and the Second Amendment Effective Date Tranche B Prepayment, together with any and all accrued and unpaid interest on such prepayments of principal to the Second Amendment Effective Date and any applicable amounts payable with respect to such prepayments pursuant to Section 2.2(e) and Section 2.2(f) of the Loan Agreement (as amended by this Amendment and Waiver), the Loan Agreement shall be amended as of the Second Amendment Effective Date by deleting sub-clause (iii) to Section 2.2(c) of the Loan Agreement in its entirety and replacing it as follows:

> "(iii) Prior to any prepayment, repayment, repurchase or redemption, in whole or in part, of the Indebtedness described in clause (c) of the definition of Permitted Indebtedness, whether or not [**] (a "**Working Capital Loan Repayment**"), Borrower shall promptly, and in any event no later than [**] prior to the date on which such Indebtedness (or portion thereof) is due to be prepaid, repaid, repurchased or redeemed (the "**Working Capital Loan Repayment Date**"), notify the Collateral Agent in writing of such Working Capital Loan Repayment, which notice shall include reasonable detail as to the nature, timing and other circumstances of such prepayment, repayment, repurchase or redemption (such notice, a "**Working Capital Loan Repayment Notice**"); provided, however, that [**]. In the event of a Working Capital Loan Repayment, Borrower shall prepay in full all of the Term Loans advanced by Lenders under this Agreement no later than [**] prior to the Working Capital Loan Repayment Date in an amount equal to the sum of (A) all unpaid principal and any and all accrued and unpaid interest with respect to the Term Loans (or such remaining outstanding portion thereof), and (B) any applicable amounts payable with respect to the prepayment under this Section 2.2(c)(iii) pursuant to Section 2.2(e) or Section 2.2(f) and all other amounts payable or accrued and not yet paid under this Agreement and the other Loan Documents. The Collateral Agent will promptly notify each Lender of its receipt of the Working Capital Loan Repayment Notice, and the amount of such Lender's Applicable Percentage of such prepayment of the Term Loans."

3. Representations and Warranties; Reaffirmation.

a. Borrower hereby represents and warrants to each Lender and the Collateral Agent as follows:

i. Borrower has all requisite power and authority to enter into this Amendment and Waiver and to carry out the transactions contemplated hereby.

ii. This Amendment and Waiver has been duly executed and delivered by Borrower and is the legally valid and binding obligation of Borrower, enforceable against Borrower in accordance with its respective terms,

except as such enforceability may be limited by bankruptcy, insolvency, reorganization, moratorium or similar laws relating to or limiting creditors' rights generally or by general principles of equity.

iii. The execution, delivery and performance by Borrower of this Amendment and Waiver have been duly authorized and do not: (A) contravene the terms of any of Borrower's Operating Documents; (B) violate any Requirements of Law, except to the extent that such violation could not, individually or in the aggregate, reasonably be expected to result in a Material Adverse Change; (C) conflict or result in any breach or contravention of, or require any payment to be made under any provision of any security issued by Borrower or of any agreement, instrument or other undertaking to which Borrower is a party or affecting Borrower or the assets or properties of Borrower or any of its Subsidiaries or any order, writ, judgment, injunction, decree, determination or award of any Governmental Authority by which Borrower or any of its assets or properties are subject, except to the extent that such conflict, breach, contravention or payment could not, individually or in the aggregate, reasonably be expected to result in a Material Adverse Change; (D) require any Governmental Approval or other action by, or notice to, or filing with, any Governmental Authority (except such Governmental Approvals or other actions, notices and filings which have been duly obtained, taken, given or made on or before the Second Amendment Effective Date and are in full force and effect); (E) require any approval, consent, exemption or authorization, or other action by, or notice to, or filing with, any Person other than a Governmental Authority, including Borrower's stockholders, members or partners, (except such approvals, consents, exemptions, authorizations, actions, notices and filings which have been or will be duly obtained, taken, given or made on or before the Second Amendment Effective Date and are in full force and effect), except for those approvals, consents, exemptions, authorizations or other actions, notices or filings, the failure of which to obtain or make could not, individually or in the aggregate, reasonably be expected to result in a Material Adverse Change; or (F) constitute a material breach of or a material default under (which such default has not been cured or waived) or an event of default (or the equivalent thereof, however described) under, or could reasonably be expected to give rise to the cancellation, termination or invalidation of or the acceleration of Borrower's or any Subsidiary's obligations under, any Material Contract.

b. Borrower hereby ratifies, confirms, reaffirms, and acknowledges its obligations under the Loan Documents to which it is a party and agrees that the Loan Documents remain in full force and effect, undiminished by this Amendment and Waiver, except as expressly provided herein. By executing this Amendment and Waiver, Borrower acknowledges that it has read, consulted with its attorneys regarding, and understands, this Amendment and Waiver.

4. Waivers. Subject to the payment in full by Borrower on the Second Amendment Effective Date of each of the Second Amendment Effective Date Tranche A Prepayment and the Second Amendment Effective Date Tranche B Prepayment, together with any and all accrued and unpaid interest on such prepayments of principal to the Second Amendment Effective Date and any applicable amounts payable with respect to such prepayments pursuant to Section 2.2(e) and Section 2.2(f) of the Loan Agreement (as amended by this Amendment and Waiver), as of the Second Amendment Effective Date:

a. the requirement that the consolidated quarterly financial statements of Borrower and its Subsidiaries for the fiscal quarters ending June 30, 2022 and September 30, 2022 required to be delivered by Borrower to the Collateral Agent not be subject to any "going concern" qualification in Section 5.2(a)(ii) of the Loan Agreement is hereby waived; and

b. the requirement that the Tranche B Makewhole Amount shall be payable in connection with the payment by Borrower of the Second Amendment Effective Date Tranche B Prepayment in Section 2.2(c)(i) of the Loan Agreement is hereby waived.

5. Limitation of Waivers. The waivers set forth above shall be limited precisely as written and relate solely to the provisions of Section 5.2(a)(ii) of the Loan Agreement (as amended by this Amendment and Waiver) and Section 2.2(c)(i) of the Loan Agreement (as amended by this Amendment and Waiver), respectively, in the manner and to the extent described above and nothing in this Amendment and Waiver shall be deemed to:

a. constitute a waiver of compliance by Borrower or any other Credit Party with respect to any other term, provision or condition of the Loan Agreement or any other Loan Document, or any other instrument or agreement referred to therein; or

b. prejudice any right or remedy that the Collateral Agent or any Person that is a lender at any time under the Loan Agreement may now have or may have in the future under or in connection with the Loan Agreement or any other Loan Document, or any other instrument or agreement referred to therein.

For the avoidance of doubt, nothing in this Amendment and Waiver shall be deemed to constitute a waiver of compliance by Borrower of (x) the requirement in Section 5.2(a)(i)(x) of the Loan Agreement that the annual audit opinion required to be delivered by Borrower to the Collateral Agent not be subject to a "going concern" qualification for the fiscal year ending December 31, 2022 or (y) the requirement in Section 2.2(e)(ii) of the Loan Agreement that, if applicable, the Tranche B Makewhole Amount shall be due and payable in connection with the payment by Borrower of any prepayment of principal of the Tranche B Loan *other than* the payment of the Second Amendment Effective Date Tranche B Prepayment on the Second Amendment Effective Date.

6. Payment of the Tranche A Prepayment Premium and the Tranche B Prepayment Premium in connection with Prepayments of Principal on the Second Amendment Effective Date. On the Second Amendment Effective Date, Borrower shall pay to each Lender such Lender's Applicable Percentage of the aggregate amount of the Tranche A Prepayment Premium and the Tranche B Prepayment Premium, in each case without set-off, recoupment or counterclaim, in U.S. Dollars and in immediately available funds.

7. Amortization of Term Loans Following Prepayments of Principal on the Second Amendment Effective Date. Borrower, Collateral Agent and Lenders hereby agree that, subject to and as a result of the payment by Borrower on the Second Amendment Effective Date of the Second Amendment Effective Date Tranche A Prepayment, the final quarterly payment of principal of the Tranche A Loan due and payable on the Term Loan Maturity Date in accordance with Section 2.2(b)(i) of the Loan Agreement shall be reduced dollar-for-dollar by the amount of the Second Amendment Effective Date Tranche A Prepayment. Except as expressly provided in the immediately preceding sentence, Borrower shall continue to make equal quarterly payments of principal of the Tranche A Loan in accordance with Section 2.2(b)(i) of the Loan Agreement.

8. References to and Effect on Loan Agreement. Except as specifically set forth herein, this Amendment and Waiver shall not modify or in any way affect any of the provisions of the Loan

Agreement, which shall remain in full force and effect and is hereby ratified and confirmed in all respects. On and after the Second Amendment Effective Date, all references in the Loan Agreement to "this Agreement," "hereto," "hereof," "hereunder," or words of like import shall mean the Loan Agreement as amended by this Amendment and Waiver.

9. Successors and Assigns. This Amendment and Waiver shall inure to the benefit of and be binding upon the Borrower, Credit Parties, Lenders, Collateral Agent and the banks and other financial institutions from time to time parties to the Loan Agreement, and each of their respective successors and assigns.

10. Governing Law; Venue; Jury Trial Waiver. THIS AMENDMENT AND WAIVER SHALL BE GOVERNED BY, AND CONSTRUED AND INTERPRETED IN ACCORDANCE WITH, THE LAWS OF THE STATE OF NEW YORK, WITHOUT REGARD TO ANY PRINCIPLES OF CONFLICTS OF LAW THAT COULD REQUIRE THE APPLICATION OF THE LAW OF ANY OTHER JURISDICTION. Each of Borrower and each other Credit Party submits to the exclusive jurisdiction of the courts of the State of New York sitting in New York County, and of the United States District Court of the Southern District of New York, and any appellate court from any thereof, and agrees that all claims in respect of any such action, litigation or proceeding may be heard and determined in such New York State court or, to the fullest extent permitted by Requirements of Law, in such Federal court; provided, however, that nothing in this Amendment and Waiver shall be deemed to operate to preclude the Collateral Agent or any Lender from bringing suit or taking other legal action in any other jurisdiction to realize on the Collateral or any other security for the Obligations, or to enforce a judgment or other court order in favor of the Collateral Agent or any Lender. Each of Borrower and each other Credit Party expressly submits and consents in advance to such jurisdiction in any action or suit commenced in any such court, and each of Borrower and each other Credit Party hereby waives any objection that it may have based upon lack of personal jurisdiction, improper venue, or forum non conveniens and hereby consents to the granting of such legal or equitable relief as is deemed appropriate by such court. Each of Borrower and each other Credit Party hereby waives personal service of the summons, complaints, and other process issued in such action or suit and agrees that service of such summons, complaints, and other process may be made by registered or certified mail addressed to such party at the address set forth in (or otherwise provided in accordance with the terms of) Section 9 of the Loan Agreement as amended by this Amendment and Waiver and that service so made shall be deemed completed upon the earlier to occur of such party's actual receipt thereof or three (3) days after deposit in the U.S. mails, proper postage prepaid.

TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, EACH OF BORROWER, EACH OTHER CREDIT PARTY, LENDERS AND THE COLLATERAL AGENT WAIVES ITS RIGHT TO A JURY TRIAL OF ANY CLAIM OR CAUSE OF ACTION ARISING OUT OF OR BASED UPON THIS AMENDMENT AND WAIVER OR ANY TRANSACTION CONTEMPLATED HEREBY, INCLUDING CONTRACT, TORT, BREACH OF DUTY AND ALL OTHER CLAIMS. THE WAIVER SET FORTH IN THIS SECTION 10 IS A MATERIAL INDUCEMENT FOR ALL PARTIES HERETO TO ENTER INTO THIS AMENDMENT AND WAIVER. EACH PARTY HERETO HAS REVIEWED THIS AMENDMENT AND WAIVER WITH ITS COUNSEL.

11. Counterparts. This Amendment and Waiver may be executed in any number of counterparts, all of which shall constitute one and the same agreement, and any party hereto may execute this Amendment and Waiver by signing and delivering one or more counterparts. Delivery of an executed counterpart of this Amendment and Waiver electronically or by facsimile shall be effective as delivery of an original executed counterpart of this Amendment and Waiver.

12. Electronic Execution of Certain Other Documents. The words "execution," "execute", "signed," "signature," and words of like import in or related to any document to be signed in

connection with this Amendment and Waiver and the transactions contemplated hereby (including without limitation assignments, assumptions, amendments, waivers and consents) shall be deemed to include electronic signatures, the electronic matching of assignment terms and contract formations on electronic platforms approved by the Collateral Agent, or the keeping of records in electronic form, each of which shall be of the same legal effect, validity or enforceability as a manually executed signature or the use of a paper-based recordkeeping system, as the case may be, to the extent and as provided for in any applicable law, including the Federal Electronic Signatures in Global and National Commerce Act, the New York State Electronic Signatures and Records Act, or any other similar state laws based on the Uniform Electronic Transactions Act.

[Remainder of Page Intentionally Left Blank]

IN WITNESS WHEREOF, the undersigned hereto have caused this Amendment and Waiver to be executed as of the date first written above by each of their officers thereunto duly authorized.

BORROWER (on its own behalf and on behalf of each other Credit Party):

AKEBIA THERAPEUTICS, INC.,
a Delaware corporation

By: /s/ David Spellman
Name: David Spellman
Title: Senior Vice President, Chief Financial Officer and Treasurer

[Signature page to Second Amendment and Waiver]

BIOPHARMA CREDIT PLC,
as Collateral Agent

By: Pharmakon Advisors, LP,
its Investment Manager

By: Pharmakon Management I, LLC,
its General Partner

By /s/ Pedro Gonzalez de Cosio
Name: Pedro Gonzalez de Cosio
Title: Managing Member

BPCR LIMITED PARTNERSHIP,
as a Lender

By: Pharmakon Advisors, LP,
its Investment Manager

By: Pharmakon Management I, LLC,
its General Partner

By /s/ Pedro Gonzalez de Cosio
Name: Pedro Gonzalez de Cosio
Title: Managing Member

BIOPHARMA CREDIT INVESTMENTS V (MASTER) LP,
as Lender

By: BioPharma Credit Investments V GP LLC,
its general partner

By: Pharmakon Advisors, LP,
its Investment Manager

By /s/ Pedro Gonzalez de Cosio
Name: Pedro Gonzalez de Cosio
Title: CEO and Managing Member

Exhibit 31.1

CERTIFICATION PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, John P. Butler, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Akebia Therapeutics, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the Audit Committee of the registrant's Board of Directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 4, 2022

By: /s/ John P. Butler

John P. Butler
President, Chief Executive Officer and Director
(Principal Executive Officer)

Exhibit 31.2

CERTIFICATION PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, David A. Spellman, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Akebia Therapeutics, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the Audit Committee of the registrant's Board of Directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 4, 2022

By: /s/ David A. Spellman

David A. Spellman
Senior Vice President, Chief Financial Officer and Treasurer
(Principal Financial Officer)

Exhibit 32.1

CERTIFICATION PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002 (18 U.S.C. Section 1350)

In connection with the accompanying Quarterly Report of Akebia Therapeutics, Inc. (the "Company") on Form 10-Q for the quarter ended June 30, 2022 (the "Report"), I, John P. Butler, as Chief Executive Officer and President of the Company, and I, David A. Spellman, as Senior Vice President, Chief Financial Officer and Treasurer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to my knowledge:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: August 4, 2022

By: /s/ John P. Butler
John P. Butler
President, Chief Executive Officer and Director
(Principal Executive Officer)

Date: August 4, 2022

By: /s/ David A. Spellman
David A. Spellman
Senior Vice President, Chief Financial Officer and Treasurer
(Principal Financial Officer)