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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 March 31, 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: 001-34620

IRONWOOD PHARMACEUTICALS, INC.

(Exact name of registrant as specified in its charter)

Delaware	**04-3404176**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification Number)
100 Summer Street, Suite 2300 **Boston, Massachusetts**	**02110**
(Address of Principal Executive Offices)	(Zip Code)

(617) 621-7722
(Registrant's telephone number, including area code)

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Class A common stock, $0.001 par value	IRWD	Nasdaq Global Select 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 the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). ☐ Yes ☒ No

As of April 30, 2022, there were 153,837,866 shares of Class A common stock outstanding.

NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Quarterly Report on Form 10-Q contains forward-looking statements that involve risks, uncertainties, and assumptions. All statements contained in this Quarterly Report on Form 10-Q other than statements of historical fact are forward-looking statements. Forward-looking statements include statements regarding our future financial position, business strategy, budgets, projected costs, plans and objectives of management for future operations. The words "may," "continue," "estimate," "intend," "plan," "will," "believe," "project," "expect," "seek," "anticipate," "could," "should," "target," "goal," "potential" and similar expressions may identify forward-looking statements, but the absence of these words does not necessarily mean that a statement is not forward-looking. These forward-looking statements include, among other things, statements about the demand for our products in the countries where they are approved for marketing, as well as the revenues therefrom; the timing, investment and associated activities involved in commercializing LINZESS® by us and AbbVie Inc. in the U.S.; the commercialization of CONSTELLA® in Europe and LINZESS in Japan and China, as well as our expectations regarding revenue generated from our partners; the timing, investment and associated activities involved in developing, obtaining regulatory approval for, launching, and commercializing our products and product candidates by us and our partners worldwide; our ability and the ability of our partners to secure and maintain adequate reimbursement for our products; our expectations regarding U.S. and foreign regulatory requirements for our products and our product candidates, including our post-approval development and regulatory requirements; the ability of our product candidates to meet existing or future regulatory standards; the safety profile and related adverse events of our products and our product candidates; the therapeutic benefits and effectiveness of our products and our product candidates and the potential indications and market opportunities therefor; our ability and the ability of our partners to perform our respective obligations under our collaboration, license and other agreements, and our ability to achieve milestone and other payments under such agreements; our plans with respect to the development, manufacture or sale of our product candidates and the associated timing thereof, including the design and results of pre-clinical and clinical studies; the in-licensing or acquisition of externally discovered businesses, products or technologies, including our option to acquire an exclusive license from COUR Pharmaceutical Development Company, Inc., to research, develop, manufacture, and commercialize in the U.S. products containing CNP-104 for the treatment of primary biliary cholangitis, as well as partnering arrangements, including expectations relating to the completion of, or the realization of the expected benefits from, such transactions; the timing of the data readout for CNP-104; our ability to meet our cash obligations and our expectations as to future financial performance, revenues, expense levels, payments, cash flows, profitability, tax obligations and benefits, capital raising and liquidity sources, and real estate needs, as well as the timing and drivers thereof, and internal control over financial reporting; our authorized share repurchase plan and the timing and amount of any repurchases; and our ability to repay our outstanding indebtedness when due, or redeem or repurchase all or a portion of such debt, as well as the potential benefits of the note hedge transactions and capped call transactions described herein.

Any or all of our forward-looking statements in this Quarterly Report on Form 10-Q may turn out to be inaccurate. These forward-looking statements may be affected by inaccurate assumptions or by known or unknown risks and uncertainties, including those related to the effectiveness of development and commercialization efforts by us and our partners; preclinical and clinical development, manufacturing and formulation development of linaclotide, CNP-104 and our product candidates; the risk that clinical programs and studies may not progress or develop as anticipated, including that studies are delayed or discontinued for any reason, such as safety, tolerability, enrollment, manufacturing, economic or other reasons; the risk that findings from our completed nonclinical and clinical studies may not be replicated in later studies; the risk that we or our partners are unable to obtain, maintain or manufacture sufficient LINZESS or our product candidates, or otherwise experience difficulties with respect to supply or manufacturing; the efficacy, safety and tolerability of linaclotide and our product candidates; the risk that the therapeutic opportunities for LINZESS or our product candidates are not as we expect; decisions by regulatory and judicial authorities; the risk we may never get additional patent protection for linaclotide and other product candidates, that patents for linaclotide or other products may not provide adequate protection from competition, or that we are not able to successfully protect such patents; the risk that we are unable to manage our expenses or cash use, or are unable to commercialize our products as expected; the risk that we may elect to not exercise our option to acquire the exclusive license for CNP-104; the risk that the development of either CNP-104 and/or IW-3300 is not successful or that any of our product candidates is not successfully commercialized; outcomes in legal proceedings to protect or enforce the patents relating to our products and product candidates, including abbreviated new drug application litigation; the risk that financial and operating results may differ from our projections; developments in the intellectual property landscape; challenges from and rights of competitors or potential competitors; the risk that our planned investments do not have the anticipated effect on our company revenues; developments in accounting guidance or practice; Ironwood's or AbbVie's accounting practices, including reporting and settlement practices as between Ironwood and AbbVie; the risk that we are unable to

manage our expenses or cash use, or are unable to commercialize our products as expected; the impact of the COVID-19 pandemic; and the additional risks identified under the heading "Part I, Item 1A—Risk Factors" in our Annual Report on Form 10-K for the year ended December 31, 2021, which was filed with the U.S. Securities and Exchange Commission, or the SEC, on February 18, 2022. In light of these risks, uncertainties and assumptions, the forward-looking events and circumstances discussed in this Quarterly Report on Form 10-Q may not occur as contemplated, and actual results could differ materially from those anticipated or implied by the forward-looking statements.

You should not unduly rely on these forward-looking statements, which speak only as of the date of this Quarterly Report on Form 10-Q. Unless required by law, we undertake no obligation to publicly update or revise any forward-looking statements to reflect new information or future events or otherwise. You should, however, review the factors and risks we describe in the reports we will file from time to time with the SEC after the date of this Quarterly Report on Form 10-Q.

NOTE REGARDING TRADEMARKS

LINZESS® and CONSTELLA® are trademarks of Ironwood Pharmaceuticals, Inc. Any other trademarks referred to in this Quarterly Report on Form 10-Q are the property of their respective owners. All rights reserved.

IRONWOOD PHARMACEUTICALS, INC.
QUARTERLY REPORT ON FORM 10-Q
FOR THE QUARTER ENDED MARCH 31, 2022
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PART I — FINANCIAL INFORMATION

Item 1. ***Financial Statements***

Ironwood Pharmaceuticals, Inc.
Condensed Consolidated Balance Sheets
(In thousands, except share and per share amounts)
(unaudited)

	March 31, 2022	December 31, 2021
ASSETS		
Current assets:		
Cash and cash equivalents	$ 593,371	$ 620,129
Accounts receivable, net	105,515	114,042
Prepaid expenses and other current assets	8,537	8,689
Restricted cash	1,250	1,250
Convertible note hedges	1,428	1,115
Total current assets	710,101	745,225
Restricted cash, net of current portion	485	485
Accounts receivable, net of current portion	14,143	23,998
Property and equipment, net	7,229	7,575
Operating lease right-of-use assets	15,028	15,350
Deferred tax assets	335,440	333,294
Other assets	955	1,000
Total assets	$ 1,083,381	$ 1,126,927
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 532	$ 935
Accrued research and development costs	5,442	15,896
Accrued expenses and other current liabilities	16,852	23,566
Current portion of operating lease liabilities	3,097	3,127
Current portion of convertible senior notes	120,581	116,858
Note hedge warrants	899	1,316
Total current liabilities	147,403	161,698
Convertible senior notes, net of current portion	395,053	337,333
Operating lease obligations, net of current portion	18,031	18,484
Other liabilities	5,111	3,501
Commitments and contingencies		
Stockholders' equity:		
Preferred stock, $0.001 par value, 75,000,000 shares authorized, no shares issued and outstanding	—	—
Class A Common Stock, $0.001 par value, 500,000,000 shares authorized and 155,115,155 shares issued and outstanding at March 31, 2022 and 500,000,000 shares authorized and 162,036,461 shares issued and outstanding at December 31, 2021	155	162
Additional paid-in capital	1,350,268	1,543,357
Accumulated deficit	(832,640)	(937,608)
Total stockholders' equity	517,783	605,911
Total liabilities and stockholders' equity	$ 1,083,381	$ 1,126,927

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

Ironwood Pharmaceuticals, Inc.
Condensed Consolidated Statements of Income and Comprehensive Income
(In thousands, except per share amounts)
(unaudited)

	Three Months Ended March 31,	
	2022	**2021**
Revenues:		
Collaborative arrangements revenue	$ 97,529	$ 88,665
Sale of active pharmaceutical ingredient	—	180
Total revenues	97,529	88,845
Operating expenses:		
Research and development	10,822	15,484
Selling, general and administrative	28,861	27,652
Restructuring expenses	—	311
Total operating expenses	39,683	43,447
Income from operations	57,846	45,398
Other (expense) income:		
Interest expense	(2,341)	(7,626)
Interest and investment income	230	196
Gain on derivatives	730	2,390
Other expense, net	(1,381)	(5,040)
Income before income taxes	56,465	40,358
Income tax expense	(17,664)	(432)
Net income and comprehensive income	$ 38,801	$ 39,926
Net income per share—basic	$ 0.25	$ 0.25
Net income per share—diluted	$ 0.21	$ 0.25
Weighted average shares used in computing net income per share—basic:	157,821	160,967
Weighted average shares used in computing net income per share—diluted:	189,540	162,347

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

Ironwood Pharmaceuticals, Inc.
Condensed Consolidated Statements of Stockholders' Equity
(In thousands, except share amounts)
(unaudited)

	Class A Common Stock		Additional paid-in capital	Accumulated deficit	Total Stockholders' equity
	Shares	Amount			
Balance at December 31, 2021	162,036,461	$ 162	$ 1,543,357	$ (937,608)	$ 605,911
Cumulative-effect adjustment upon adoption of ASU 2020-06, net of tax	—	—	(110,217)	66,167	(44,050)
Issuance of common stock related to share-based awards and employee stock purchase plan	1,087,966	1	1,520	—	1,521
Share-based compensation expense related to share-based awards and employee stock purchase plan	—	—	6,089	—	6,089
Repurchases of common stock	(8,009,272)	(8)	(90,481)	—	(90,489)
Net income	—	—	—	38,801	38,801
Balance at March 31, 2022	155,115,155	$ 155	$ 1,350,268	$ (832,640)	$ 517,783

	Class A Common Stock		Additional paid-in capital	Accumulated deficit	Total Stockholders' equity
	Shares	Amount			
Balance at December 31, 2020	160,616,675	$ 161	$ 1,528,535	$ (1,466,056)	$ 62,640
Issuance of common stock related to share-based awards and employee stock purchase plan	1,314,337	1	2,229	—	2,230
Share-based compensation expense related to share-based awards and employee stock purchase plan	—	—	5,396	—	5,396
Net income	—	—	—	39,926	39,926
Balance at March 31, 2021	161,931,012	$ 162	$ 1,536,160	$ (1,426,130)	$ 110,192

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

Ironwood Pharmaceuticals, Inc.
Condensed Consolidated Statements of Cash Flows
(In thousands)
(unaudited)

	Three Months Ended March 31,	
	2022	**2021**
Cash flows from operating activities:		
Net income	$ 38,801	$ 39,926
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization	355	410
Loss on disposal of property and equipment	—	17
Share-based compensation expense	6,089	5,396
Change in fair value of note hedge warrants	(417)	(4,109)
Change in fair value of convertible note hedges	(313)	1,719
Non-cash interest expense	537	5,822
Deferred income taxes	14,708	—
Changes in assets and liabilities:		
Accounts receivable, net	18,382	35,037
Prepaid expenses and other current assets	53	(1,681)
Operating lease right-of-use assets	322	297
Other assets	45	19
Accounts payable and accrued expenses	(7,117)	(7,942)
Accrued research and development costs	(10,454)	(644)
Operating lease liabilities	(483)	(440)
Other liabilities	3,616	(133)
Net cash provided by operating activities	64,124	73,694
Cash flows from investing activities:		
Purchases of property and equipment	(9)	—
Net cash used in investing activities	(9)	—
Cash flows from financing activities:		
Proceeds from exercise of stock options and employee stock purchase plan	1,622	2,211
Repurchases of common stock	(92,495)	—
Net cash provided by (used in) financing activities	(90,873)	2,211
Net increase (decrease) in cash, cash equivalents and restricted cash	(26,758)	75,905
Cash, cash equivalents and restricted cash, beginning of period	621,864	364,784
Cash, cash equivalents and restricted cash, end of period	$ 595,106	$ 440,689
Reconciliation of cash, cash equivalents, and restricted cash to the condensed consolidated balance sheets		
Cash and cash equivalents	$ 593,371	$ 438,469
Restricted cash	1,735	2,220
Total cash, cash equivalents, and restricted cash	$ 595,106	$ 440,689

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

Ironwood Pharmaceuticals, Inc.
Notes to Condensed Consolidated Financial Statements
(unaudited)

1. Nature of Business

Ironwood Pharmaceuticals, Inc. ("Ironwood" or the "Company") is a gastrointestinal ("GI") healthcare company dedicated to advancing the treatment of GI diseases and redefining the standard of care for GI patients. The Company is focused on the development and commercialization of innovative GI product opportunities in areas of significant unmet need, leveraging its demonstrated expertise and capabilities in GI diseases.

LINZESS® (linaclotide), the Company's commercial product, is the first product approved by the United States Food and Drug Administration (the "U.S. FDA") in a class of GI medicines called guanylate cyclase type C agonists ("GC-C agonists") and is indicated for adult men and women suffering from irritable bowel syndrome with constipation ("IBS-C") or chronic idiopathic constipation ("CIC"). LINZESS is available to adult men and women suffering from IBS-C or CIC in the United States (the "U.S.") and Mexico and to adult men and women suffering from IBS-C in Japan and China. Linaclotide is available under the trademarked name CONSTELLA® to adult men and women suffering from IBS-C or CIC in Canada, and to adult men and women suffering from IBS-C in certain European countries.

The Company has strategic partnerships with leading pharmaceutical companies to support the development and commercialization of linaclotide throughout the world.

The Company and its partner, AbbVie Inc. (together with its affiliates, "AbbVie"), began commercializing LINZESS in the U.S. in December 2012. Under the Company's collaboration for North America with AbbVie, total net sales of LINZESS in the U.S., as recorded by AbbVie, are reduced by commercial costs incurred by each party, and the resulting amount is shared equally between the Company and AbbVie. Additionally, development costs are shared equally between the Company and AbbVie. The Company and AbbVie are exploring ways to enhance the clinical profile of LINZESS by studying linaclotide in additional indications, populations and formulations to assess its potential to treat various conditions.

Outside of the U.S., the Company earns royalties as a percentage of net sales of products containing linaclotide as an active ingredient by the Company's collaboration partners. AbbVie has an exclusive license from the Company to develop and commercialize linaclotide in all countries other than China (including Hong Kong and Macau), Japan and the countries and territories of North America (the "AbbVie License Territory"). In addition, AbbVie has exclusive rights to commercialize linaclotide in Canada as CONSTELLA and in Mexico as LINZESS. Astellas Pharma Inc. ("Astellas"), the Company's partner in Japan, has an exclusive license to develop, manufacture, and commercialize linaclotide in Japan. AstraZeneca AB (together with its affiliates) ("AstraZeneca"), the Company's partner in China, has the exclusive right to develop, manufacture, and commercialize products containing linaclotide in China (including Hong Kong and Macau) (the "AstraZeneca License Territory").

The Company has a collaboration and license option agreement (the "COUR Collaboration Agreement") with COUR Pharmaceutical Development Company, Inc. ("COUR"), a biotechnology company developing novel immune-modifying nanoparticles to treat autoimmune diseases. The COUR Collaboration Agreement grants the Company an option to acquire an exclusive license to research, develop, manufacture and commercialize, in the U.S., products containing CNP-104, a potential treatment for primary biliary cholangitis, a rare autoimmune disease targeting the liver.

The Company is also advancing IW-3300, GC-C agonist, for the potential treatment of visceral pain conditions, including interstitial cystitis/bladder pain syndrome (IC/BPS) and endometriosis.

The Company was incorporated in Delaware on January 5, 1998 as Microbia, Inc. On April 7, 2008, the Company changed its name to Ironwood Pharmaceuticals, Inc. To date, the Company has dedicated a majority of its activities to the research, development and commercialization of linaclotide, as well as to the research and development of its other product candidates.

2. Summary of Significant Accounting Policies

Basis of Presentation

The accompanying condensed consolidated financial statements and the related disclosures are unaudited and have been prepared in accordance with accounting principles generally accepted in the U.S. Additionally, certain information and footnote disclosures normally included in the Company's annual financial statements have been condensed or omitted. Accordingly, these interim condensed consolidated financial statements should be read in conjunction with the consolidated financial statements and notes thereto contained in the Company's Annual Report on Form 10-K for the year ended December 31, 2021, which was filed with the Securities and Exchange Commission on February 18, 2022 (the "2021 Annual Report on Form 10-K").

The unaudited interim condensed consolidated financial statements have been prepared on the same basis as the audited consolidated financial statements and, in the opinion of management, reflect all normal recurring adjustments considered necessary for a fair statement of the Company's financial position as of March 31, 2022, and the results of its operations for the three months ended March 31, 2022 and 2021, its statements of stockholders' equity for the three months ended March 31, 2022 and 2021, and its cash flows for the three months ended March 31, 2022 and 2021. The results of operations for the three months ended March 31, 2022 and 2021 are not necessarily indicative of the results that may be expected for the full year or any other subsequent interim period.

Principles of Consolidation

The accompanying condensed consolidated financial statements include the accounts of Ironwood and its wholly-owned subsidiaries as of March 31, 2022, Ironwood Pharmaceuticals Securities Corporation and Ironwood Pharmaceuticals GmbH. All intercompany transactions and balances are eliminated in consolidation.

Use of Estimates

The preparation of condensed consolidated financial statements in accordance with U.S. generally accepted accounting principles requires the Company's management to make estimates and judgments that may affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the condensed consolidated financial statements, and the amounts of revenues and expenses during the reported periods. On an ongoing basis, the Company's management evaluates its estimates, judgments and methodologies. Significant estimates and assumptions in the condensed consolidated financial statements include those related to revenue recognition; accounts receivable; useful lives of long-lived assets, impairment of long-lived assets, including goodwill; valuation procedures for right-of-use assets and operating lease liabilities; valuation procedures for the issuance and repurchase of convertible notes; balance sheet classification of convertible notes; fair value of derivatives; income taxes, including the valuation allowance for deferred tax assets; research and development expenses; contingencies and share-based compensation. The Company bases its estimates on historical experience and on various other assumptions that are believed to be reasonable, the results of which form the basis for making judgments about the carrying values of assets and liabilities. Actual results may differ materially from these estimates under different assumptions or conditions. Changes in estimates are reflected in reported results in the period in which they become known.

Reclassifications

Certain prior period amounts have been reclassified to conform to current period presentation.

Summary of Significant Accounting Policies

The Company's significant accounting policies are described in Note 2, *Summary of Significant Accounting Policies*, in the 2021 Annual Report on Form 10-K. During the three months ended March 31, 2022, the Company did not adopt any additional significant accounting policies, except as outlined below.

New Accounting Pronouncements

From time to time, new accounting pronouncements are issued by the Financial Accounting Standards Board (the "FASB") or other standard setting bodies that are adopted by the Company as of the specified effective date. Except

as set forth below, the Company did not adopt any new accounting pronouncements during the three months ended March 31, 2022 that had a material effect on its condensed consolidated financial statements.

In August 2020, the FASB issued ASU No. 2020-06, *Debt—Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging— Contracts in Entity's Own Equity (Subtopic 815-40): Accounting for Convertible Instruments and Contracts in an Entity's Own Equity* ("ASU 2020-06"). The amendments in ASU 2020-06 simplify the accounting for certain financial instruments with characteristics of liabilities and equity, including convertible instruments and contracts on an entity's own equity. Under ASU 2020-06, embedded conversion features are no longer separately reported in equity and convertible debt instruments are now accounted for as a single liability measured at amortized cost, as long as no other features require bifurcation and recognition as derivatives. These changes will reduce reported interest expense and increase reported net income for entities with convertible instruments that were bifurcated between liabilities and equity under previously existing guidance. Additionally, temporary differences between the book and tax bases resulting from the bifurcation of the embedded conversion feature under previously existing guidance have been eliminated and deferred tax assets and liabilities arising from such temporary differences will no longer be reported. The new guidance also requires the if-converted method to be used in diluted earnings per share computations for all convertible instruments and revised the if-converted method to preclude the addback of interest expense to the numerator if the principal portions of the convertible instruments are required to be settled in cash. The standard is effective for public companies for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2021. Upon adoption, entities may apply the new standard on a modified retrospective or full retrospective basis.

The Company adopted ASU 2020-06 on January 1, 2022 using the modified retrospective approach, which resulted in a cumulative-effect adjustment recorded on the date of adoption as follows (in thousands):

Consolidated Balance Sheet	December 31, 2021 As Reported	Effect of the Adoption of ASU 2020-06	January 1, 2022 As Adjusted
Deferred tax assets	$ 333,294	$ 16,855	$ 350,149
Current portion of convertible senior notes	116,858	3,581	120,439
Long-term portion of convertible senior notes	337,333	57,324	394,657
Additional paid-in-capital	1,543,357	(110,217)	1,433,140
Retained earnings	(937,608)	66,167	(871,441)

Interest expense recognized in future periods is expected to be reduced as a result of accounting for convertible debt instruments as a single liability measured at amortized cost, with an expected decrease of $22.1 million of non-cash interest expense during the year ended December 31, 2022 compared to the year ended December 31, 2021 related to convertible debt instruments outstanding on the adoption date.

The adoption of ASU 2020-06 does not impact the Company's liquidity or cash flows.

In May 2021, the FASB issued ASU No. 2021-04, *Earnings Per Share (Topic 260), Debt—Modifications and Extinguishments (Subtopic 470-50), Compensation—Stock Compensation (Topic 718), and Derivatives and Hedging—Contracts in Entity's Own Equity (Subtopic 815-40): Issuer's Accounting for Certain Modifications or Exchanges of Freestanding Equity-Classified Written Call Options* ("ASU 2021-04"). The guidance in ASU 2021-04 clarifies and reduces diversity in an issuer's accounting for modifications or exchanges of freestanding equity-classified written call options that remain equity classified after modification or exchange. The standard is effective for public companies for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2021. The Company adopted ASU 2021-04 as of January 1, 2022. The adoption of ASU 2021-04 did not have a material impact on the Company's financial position and results of operations.

Other recent accounting pronouncements issued, but not yet effective, are not expected to be applicable to the Company or have a material effect on the condensed consolidated financial statements upon future adoption.

3. Net Income Per Share

The following table sets forth the computation of basic and diluted net income per common share (in thousands, except per share amounts):

	Three Months Ended March 31,	
	2022	2021
Numerator:		
Net income	$ 38,801	$ 39,926
Add back interest expense, net of tax benefit, on assumed conversion of 2024 Convertible Notes	444	—
Add back interest expense, net of tax benefit, on assumed conversion of 2026 Convertible Notes	666	—
Numerator used in computing net income per share — diluted	39,911	39,926
Denominator:		
Weighted average number of common shares outstanding used in computing net income per share — basic	157,821	160,967
Effect of dilutive securities:		
Stock options	324	268
Time-based restricted stock units	1,132	957
Performance-based restricted stock units	222	13
Restricted stock	166	136
Shares subject to issuance under Employee Stock Purchase Plan	7	6
2024 Convertible Notes assumed conversion	14,934	—
2026 Convertible Notes assumed conversion	14,934	—
Dilutive potential common shares		
Weighted average number of common shares outstanding used in computing net income per share — diluted	189,540	162,347
Net income per share — basic	$ 0.25	$ 0.25
Net income per share — diluted	$ 0.21	$ 0.25

The outstanding securities have been excluded from the computation of diluted weighted average shares outstanding, as applicable, as their effect would be anti-dilutive (in thousands):

	Three Months Ended March 31,	
	2022	2021
Stock options	6,890	10,566
Restricted stock awards	—	25
Time-based restricted stock units	114	407
Performance-based restricted stock units	858	20
Note Hedge Warrants	8,318	8,318
2022 Convertible Notes	—	8,318
2024 Convertible Notes	—	14,934
2026 Convertible Notes	—	14,934
Total	16,180	57,522

Prior to the adoption of ASU 2020-06, the potentially dilutive impact of the 2022 Convertible Notes, 2024 Convertible Notes and 2026 Convertible notes (together, the "Convertible Senior Notes") (Note 8) was determined using the treasury stock method. Under this method, no numerator or denominator adjustments arose from the principal and interest components of the Convertible Senior Notes because the Company had the intent and ability to settle the Convertible Senior Notes' principal and interest in cash. Instead, the Company was required to increase the diluted net income per share denominator by the variable number of shares that would be issued upon conversion if it settled the conversion spread obligation with shares. For diluted net income per share purposes, the conversion spread obligation was calculated based on whether the average market price of the Company's Class A Common Stock during the reporting period was in excess of the conversion price of the Convertible Senior Notes. There was no calculated spread added to the denominator for the three months ended March 31, 2021.

Following the adoption of ASU 2020-06 on January 1, 2022, the dilutive impact of the Convertible Senior Notes is determined using the if-converted method. Under the if-converted method, the Convertible Senior Notes are assumed to be converted into common stock at the beginning of the period (or at the time of issuance, if later). Interest charges are deducted from the numerator, unless the principal amount of the convertible instruments is required to be paid in cash.

There was no dilutive impact of the 2022 Convertible Notes for the three months ended March 31, 2022 because the Company had elected prior to the beginning of the period to settle the conversion of 2022 Convertible Notes, if any, with a combination settlement of a cash payment equal to the principal value of converted notes and shares of Class A Common Stock equal to the conversion value in excess of the principal value, if any (Note 8). Accordingly, interest expense was not removed from the numerator and there was no calculated spread added to the denominator because the average market price of the Company's Class A common stock during the period was not in excess of the conversion price.

4. Collaboration, License and Other Agreements

For the three months ended March 31, 2022, the Company had linaclotide collaboration agreements with AbbVie for North America and AstraZeneca for China (including Hong Kong and Macau), as well as linaclotide license agreements with Astellas for Japan and with AbbVie for the AbbVie License Territory. The Company also had an agreement with Alnylam Pharmaceuticals, Inc. ("Alnylam") to perform disease awareness activities for acute hepatic porphyria ("AHP") and sales detailing activities for GIVLAARI® (givosiran). The following table provides amounts included in the Company's condensed consolidated statements of income as collaborative arrangements revenue and sale of active pharmaceutical ingredient ("API") primarily attributable to transactions from these arrangements (in thousands):

	Three Months Ended March 31,	
Collaborative Arrangements Revenue	**2022**	**2021**
Linaclotide Collaboration and License Agreements:		
AbbVie (North America)	$ 94,901	$ 86,499
AbbVie (Europe and other)	610	600
AstraZeneca (China, including Hong Kong and Macau)	192	210
Astellas (Japan)	523	496
Co-Promotion and Other Agreements:		
Alnylam (GIVLAARI)	823	456
Other	480	404
Total collaborative arrangements revenue	$ 97,529	$ 88,665
Sale of API		
Linaclotide Agreements:		
AstraZeneca (China, including Hong Kong and Macau)	$ —	$ 21
Other	—	159
Total sale of API	$ —	$ 180

Accounts receivable, net, included $119.7 million and $138.0 million primarily related to collaborative arrangements revenue and sale of API, collectively, as of March 31, 2022 and December 31, 2021, respectively. Accounts receivable, net, included $93.6 million and $112.2 million due from the Company's partner, AbbVie, net of $3.6 million and $5.0 million of accounts payable, as of March 31, 2022 and December 31, 2021, respectively.

The Company routinely assesses the creditworthiness of its license and collaboration partners. The Company has not experienced any material losses related to receivables from its license or collaboration partners during the three months ended March 31, 2022 and 2021.

Linaclotide Agreements

Collaboration Agreement for North America with AbbVie

In September 2007, the Company entered into a collaboration agreement with AbbVie to develop and commercialize linaclotide for the treatment of IBS-C, CIC, and other GI conditions in North America. Under the terms of this collaboration agreement, the Company received a non-refundable, upfront licensing fee and shares equally with AbbVie all development costs as well as net profits or losses from the development and sale of linaclotide in the U.S. The Company receives royalties in the mid-teens percent based on net sales in Canada and Mexico. AbbVie is solely responsible for the further development, regulatory approval and commercialization of linaclotide in those countries and funding any costs. The collaboration agreement for North America also includes contingent milestone payments, as well

as a contingent equity investment, based on the achievement of specific development and commercial milestones. As of March 31, 2022, $205.0 million in license fees and all six development milestone payments had been received by the Company, as well as a $25.0 million equity investment in the Company's capital stock. The Company can also achieve up to $80.0 million in a sales-related milestone if certain conditions are met, which will be recognized when the related sales occur.

During the three months ended March 31, 2022 and 2021, the Company incurred $1.7 million and $1.8 million, respectively, in total research and development expenses under the linaclotide collaboration for North America. As a result of the research and development cost-sharing provisions of the linaclotide collaboration for North America, the Company incurred $2.4 million and $2.9 million, in incremental research and development costs during the three months ended March 31, 2022 and 2021, respectively, to reflect the obligations of each party under the collaboration to bear 50% of the development costs incurred.

The Company and AbbVie began commercializing LINZESS in the U.S. in December 2012. The Company receives 50% of the net profits and bears 50% of the net losses from the commercial sale of LINZESS in the U.S. Net profits or net losses consist of net sales of LINZESS to third-party customers and sublicense income in the U.S. less the cost of goods sold as well as selling, general and administrative expenses. LINZESS net sales are calculated and recorded by AbbVie and may include gross sales net of discounts, rebates, allowances, sales taxes, freight and insurance charges, and other applicable deductions.

The Company evaluated its collaboration arrangement for North America with AbbVie and concluded that all development-period performance obligations had been satisfied as of September 2012. However, the Company has determined that there are three remaining commercial-period performance obligations, which include the sales detailing of LINZESS, participation in the joint commercialization committee, and approved additional trials. The consideration remaining includes cost reimbursements in the U.S., as well as commercial sales-based milestones and net profit and loss sharing payments based on net sales in the U.S. Additionally, the Company receives royalties in the mid-teens percent based on net sales in Canada and Mexico. Royalties, commercial sales-based milestones, and net profit and loss sharing payments will be recorded as collaborative arrangements revenue or expense in the period earned, as these payments relate predominately to the license granted to AbbVie. The Company records royalty revenue in the period earned based on royalty reports from its partner, if available, or based on the projected sales and historical trends. The cost reimbursements received from AbbVie during the commercialization period will be recognized as earned in accordance with the right-to-invoice practical expedient, as the Company's right to consideration corresponds directly with the value of the services transferred during the commercialization period.

Under the Company's collaboration agreement with AbbVie for North America, LINZESS net sales are calculated and recorded by AbbVie and include gross sales net of discounts, rebates, allowances, sales taxes, freight and insurance charges, and other applicable deductions, as noted above. These amounts include the use of estimates and judgments, which could be adjusted based on actual results in the future. The Company records its share of the net profits or net losses from the sales of LINZESS in the U.S. less commercial expenses on a net basis, and presents the settlement payments to and from AbbVie as collaboration expense or collaborative arrangements revenue, as applicable. This treatment is in accordance with the Company's revenue recognition policy, given that the Company is not the primary obligor and does not have the inventory risks in the collaboration agreement with AbbVie for North America. The Company relies on AbbVie to provide accurate and complete information related to net sales of LINZESS in accordance with U.S. generally accepted accounting principles in order to calculate its settlement payments to and from AbbVie and record collaboration expense or collaborative arrangements revenue, as applicable.

The Company recognized collaborative arrangements revenue from the AbbVie collaboration agreement for North America during the three months ended March 31, 2022 and 2021 as follows (in thousands):

	Three Months Ended March 31,	
	2022	2021
Collaborative arrangements revenue related to sales of LINZESS in the U.S.	$ 94,319	$ 85,949
Royalty revenue	582	550
Total collaborative arrangements revenue	$ 94,901	$ 86,499

The Company incurred $8.7 million and $7.1 million in total selling, general and administrative costs related to the sale of LINZESS in the U.S. in accordance with the cost-sharing arrangement with AbbVie, which included an

insignificant amount in patent prosecution and patent litigation costs for each of the three months ended March 31, 2022 and 2021.

In May 2014, CONSTELLA® became commercially available in Canada and, in June 2014, LINZESS became commercially available in Mexico. The Company records royalties on sales of CONSTELLA in Canada and LINZESS in Mexico in the period earned. The Company recognized $0.6 million of combined royalty revenues from Canada and Mexico during each of the three months ended March 31, 2022 and 2021.

License Agreement with AbbVie (All countries other than the countries and territories of North America, China (including Hong Kong and Macau), and Japan)

The Company has a license agreement with AbbVie to develop, manufacture and commercialize linaclotide in (i) Europe, and (ii) all countries other than China (including Hong Kong and Macau), Japan, and the countries and territories of North America, or collectively the "Expanded Territory," for the treatment of IBS-C, CIC and other GI conditions.

Under the license agreement, as amended, AbbVie is obligated to pay the Company, (i) royalties based on sales volume in Europe in the upper-teens percent, and (ii) on a country-by-country and product-by-product basis in the Expanded Territory, a royalty as a percentage of net sales of products containing linaclotide as an active ingredient in the upper-single digits for five years following the first commercial sale of a linaclotide product in a country, and in the low-double digits thereafter. The royalty rate for products in Europe and the Expanded Territory will decrease, on a country-by-country basis, to the lower-single digits, or cease entirely, following the occurrence of certain events. The license agreement also contains certain sales-based milestones and commercial launch milestones, which could total up to $42.5 million. The Company recognized $0.6 million of royalty revenue during each of the three months ended March 31, 2022 and 2021.

License Agreement for Japan with Astellas

The Company has a license agreement with Astellas to develop, manufacture, and commercialize linaclotide for the treatment of IBS-C, CIC and other GI conditions in Japan.

Under the license agreement, as amended, Astellas is required to pay royalties to the Company at rates beginning in the mid-single digit percent and escalating to low-double-digit percent, based on aggregate annual net sales in Japan of products containing linaclotide as an active ingredient. These royalty payments are subject to reduction following the expiration of certain licensed patents and the occurrence of generic competition in Japan.

The Company recognized $0.5 million of royalty revenue during each of the three months ended March 31, 2022 and 2021.

Collaboration Agreement for China (including Hong Kong and Macau) with AstraZeneca

The Company has a collaboration agreement with AstraZeneca under which AstraZeneca has the exclusive right to develop, manufacture and commercialize products containing linaclotide in the AstraZeneca License Territory.

Under the collaboration agreement, AstraZeneca is required to pay tiered royalties to the Company at rates beginning in the mid-single-digit percent and increasing up to twenty percent based on the aggregate annual net sales of products containing linaclotide in the AstraZeneca License Territory. The Company recognized $0.2 million and $0.1 million of royalty revenue during the three months ended March 31, 2022 and 2021, respectively.

The Company is entitled to receive non-contingent payments totaling $35.0 million in three installments through 2024, of which $25.0 million remained outstanding at March 31, 2022. In addition, AstraZeneca may be required to make milestone payments totaling up to $90.0 million contingent on the achievement of certain sales targets. The significant financing component of the transaction was $2.6 million and is recognized as interest income through 2024 using the effective interest method. At March 31, 2022, the current portion and non-current portion of the non-contingent receivable due from AstraZeneca was $10.0 million and $14.1 million, respectively. At December 31, 2021, the non-contingent receivable due from AstraZeneca was $24.0 million and was classified as non-current.

Other Collaboration and License Agreements

Collaboration and License Option Agreement with COUR

In November 2021, the Company entered into the COUR Collaboration Agreement, pursuant to which the Company has been granted an option (the "Option") to acquire an exclusive license to research, develop, manufacture and commercialize, in the U.S., products containing CNP-104, a tolerizing immune modifying nanoparticle ("CNP-104") for the treatment of primary biliary cholangitis. COUR has initiated a clinical study for CNP-104, to evaluate the safety, tolerability, and pharmacodynamic effects and efficacy of CNP-104, with a data readout estimated in 2023.

Pursuant to the terms of the COUR Collaboration Agreement, the Company made an upfront, non-refundable payment to COUR of $6.0 million and agreed to pay a non-contingent payment and milestone payments to COUR totaling $13.5 million in connection with certain development activities and regulatory milestones. After reviewing the data from the clinical study for CNP-104, if the Company exercises the Option, the Company will pay COUR $35.0 million in exchange for the license. Upon commercialization, COUR will be eligible to receive commercial milestone payments of up to $440.0 million over the term of the agreement and royalties in the high single digits to low double digits percentage of the aggregated annual net sales in the U.S. of products containing CNP-104.

During the year ended December 31, 2021, the Company recognized research and development expense totaling $19.5 million related to the up-front payment, non-contingent payment, and milestone payments for which payment is probable to occur. At March 31, 2022 and December 31, 2021, payment obligations of $3.8 million and $13.5 million, respectively, were included in accrued research and development costs.

Other Agreements

Disease Education and Promotional Agreement with Alnylam

In August 2019, the Company and Alnylam entered into a disease education and promotional agreement (the "Alnylam Agreement") for Alnylam's GIVLAARI for the treatment of AHP. The Alnylam Agreement, as amended, was terminated in June 2021 with an effective termination date of September 30, 2021. Under the terms of the Alnylam Agreement, the Company's sales force performed disease awareness activities and sales detailing activities for GIVLAARI to gastroenterologists and health care practitioners to whom they detail LINZESS in the first position over the term of the agreement. The Company remains eligible to receive royalties based on a percentage of net sales of GIVLAARI that are directly attributable to the Company's promotional efforts until September 30, 2022, which is one year following the termination of the agreement. During the three months ended March 31, 2022 and 2021, the Company recognized $0.8 million and $0.5 million, respectively, in royalty revenue.

5. Fair Value of Financial Instruments

The tables below present information about the Company's assets that are measured at fair value on a recurring basis as of March 31, 2022 and December 31, 2021 and indicate the fair value hierarchy of the valuation techniques the Company utilized to determine such fair value. In general, fair values determined by Level 1 inputs utilize observable inputs such as quoted prices in active markets for identical assets or liabilities. Fair values determined by Level 2 inputs utilize data points that are either directly or indirectly observable, such as quoted prices for similar instruments in active markets, interest rates and yield curves. Fair values determined by Level 3 inputs utilize unobservable data points in which there is little or no market data, which require the Company to develop its own assumptions for the asset or liability.

The Company's investment portfolio may include fixed income securities that do not always trade on a daily basis. As a result, the pricing services used by the Company apply other available information as applicable through processes such as benchmark yields, benchmarking of like securities, sector groupings and matrix pricing to prepare valuations. In addition, model processes are used to assess interest rate impact and develop prepayment scenarios. These models take into consideration relevant credit information, perceived market movements, sector news and economic events. The inputs into these models may include benchmark yields, reported trades, broker-dealer quotes, issuer spreads and other relevant data. The Company validates the prices provided by its third-party pricing services by obtaining market values from other pricing sources and analyzing pricing data in certain instances. The Company periodically invests in certain reverse repurchase agreements, which are collateralized by government securities and obligations for

an amount not less than 102% of their principal amount. The Company does not record an asset or liability for the collateral as the Company is not permitted to sell or re-pledge the collateral. The collateral has at least the prevailing credit rating of U.S. Government Treasuries and Agencies. The Company utilizes a third-party custodian to manage the exchange of funds and ensure the collateral received is maintained at 102% of the reverse repurchase agreements principal amount on a daily basis.

The following tables present the assets and liabilities the Company has measured at fair value on a recurring basis (in thousands):

		Fair Value Measurements at Reporting Date Using		
	March 31, 2022	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Assets:				
Cash and cash equivalents:				
Money market funds	$ 278,970	$ 278,970	$ —	$ —
Repurchase agreements	277,001	277,001	—	—
Restricted cash:				
Money market funds	1,735	1,735	—	—
Convertible note hedges	1,428	—	—	1,428
Total assets measured at fair value	$ 559,134	$ 557,706	$ —	$ 1,428
Liabilities:				
Note hedge warrants	$ 899	$ —	$ —	$ 899
Total liabilities measured at fair value	$ 899	$ —	$ —	$ 899

		Fair Value Measurements at Reporting Date Using		
	December 31, 2021	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Assets:				
Cash and cash equivalents:				
Money market funds	$ 595,233	$ 595,233	$ —	$ —
Restricted cash:				
Money market funds	1,735	1,735	—	—
Convertible note hedges	1,115	—	—	1,115
Total assets measured at fair value	$ 598,083	$ 596,968	$ —	$ 1,115
Liabilities:				
Note hedge warrants	$ 1,316	$ —	$ —	$ 1,316
Total liabilities measured at fair value	$ 1,316	$ —	$ —	$ 1,316

There were no transfers between fair value measurement levels during each of the three months ended March 31, 2022 or 2021.

Cash equivalents, accounts receivable, prepaid expenses and other current assets, accounts payable, accrued research and development costs, accrued expenses and other current liabilities and current portion of operating lease obligations at March 31, 2022 and December 31, 2021 are carried at amounts that approximate fair value due to their short-term maturities.

Convertible Note Hedges and Note Hedge Warrants with Respect to 2022 Convertible Notes

The Company's Convertible Note Hedges and the Note Hedge Warrants are recorded as derivative assets and liabilities, respectively, and are classified as Level 3 measurements under the fair value hierarchy. These derivatives are not actively traded and are valued using the Black-Scholes option-pricing model, which requires the use of subjective assumptions.

The following inputs were used in the fair market valuation of the Convertible Note Hedges and Note Hedge Warrants as of March 31, 2022 and December 31, 2021:

	March 31, 2022		December 31, 2021	
	Convertible Note Hedges	Note Hedge Warrants	Convertible Note Hedges	Note Hedge Warrants
Risk-free interest rate [1]	0.4 %	1.4 %	0.2 %	0.4 %
Expected term	0.2	0.8	0.5	1.0
Stock price [2]	$ 12.58	$ 12.58	$ 11.66	$ 11.66
Strike price [3]	$ 14.51	$ 18.82	$ 14.51	$ 18.82
Common stock volatility [4]	31.9 %	28.9 %	27.0 %	32.2 %
Dividend yield [5]	— %	— %	— %	— %

(1) Based on U.S. Treasury yield curve, with terms commensurate with the expected terms of the Convertible Note Hedges and the Note Hedge Warrants.
(2) The closing price of the Company's Class A Common Stock on the last trading days of the quarters ended March 31, 2022 and December 31, 2021, respectively.
(3) As per the respective agreements for the Convertible Note Hedges and Note Hedge Warrants.
(4) Expected volatility based on historical volatility of the Company's Class A Common Stock.
(5) The Company has not paid and does not anticipate paying cash dividends on its shares of common stock in the foreseeable future; therefore, the expected dividend yield is assumed to be zero.

The Convertible Note Hedges and the Note Hedge Warrants are recorded at fair value at each reporting date and changes in fair value are recorded in other (expense) income, net within the Company's condensed consolidated statements of income.

The following table reflects the change in the Company's Level 3 Convertible Note Hedges and Note Hedge Warrants from December 31, 2021 through March 31, 2022 (in thousands):

	Convertible Note Hedges	Note Hedge Warrants
Balance at December 31, 2021	$ 1,115	$ (1,316)
Change in fair value, recorded as a component of gain on derivatives	313	417
Balance at March 31, 2022	$ 1,428	$ (899)

Convertible Senior Notes

In June 2015, the Company issued $335.7 million aggregate principal amount of its 2022 Convertible Notes. In August 2019, the Company issued $200.0 million aggregate principal amount of its 2024 Convertible Notes and $200.0 million aggregate principal amount of its 2026 Convertible Notes, and used a portion of the proceeds from such issuances to repurchase $215.0 million aggregate principal amount of its 2022 Convertible Notes. Prior to the adoption of ASU 2020-06, the Company separately accounted for the liability and equity components of each of the 2022 Convertible Notes, 2024 Convertible Notes, and 2026 Convertible Notes, by allocating the proceeds between the liability component and equity component (Note 8). Following the adoption of ASU 2020-06 on January 1, 2022, the equity component was eliminated and each of the 2022 Convertible Notes, 2024 Convertible Notes, and 2026 Convertible Notes are measured as a single liability. The fair value of the respective convertible senior notes, which differs from their carrying value, is influenced by interest rates, the price of the Company's Class A Common Stock and the volatility thereof, and the prices for the respective convertible senior notes observed in market trading, which are Level 2 inputs.

The estimated fair value of the 2022 Convertible Notes was $125.2 million as of March 31, 2022 and December 31, 2021. The estimated fair value of the 2024 Convertible Notes was $227.8 million and $221.9 million as of March 31, 2022 and December 31, 2021, respectively. The estimated fair value of the 2026 Convertible Notes was $236.5 million and $227.2 million as of March 31, 2022 and December 31, 2021, respectively.

Capped Calls with Respect to 2024 Convertible Notes and 2026 Convertible Notes

In connection with the issuance of the 2024 Convertible Notes and the 2026 Convertible Notes, the Company entered into the Capped Calls with certain financial institutions. The Capped Calls cover 29,867,480 shares of Class A Common Stock (subject to anti-dilution and certain other adjustments), which is the same number of shares of Class A Common Stock that initially underlie the 2024 Convertible Notes and the 2026 Convertible Notes. The Capped Calls have an initial strike price of approximately $13.39 per share, which corresponds to the initial conversion price of the 2024 Convertible Notes and the 2026 Convertible Notes, and have a cap price of approximately $17.05 per share (Note 8). The strike price and cap price are subject to anti-dilution adjustments generally similar to those applicable to the 2024 Convertible Notes and the 2026 Convertible Notes. These instruments meet the conditions outlined in ASC Topic 815, *Derivatives and Hedging* ("ASC 815"), to be classified in stockholders' equity and are not subsequently remeasured as long as the conditions for equity classification continue to be met (Note 8).

6. Accrued Expenses and Other Current Liabilities

Accrued expenses and other current liabilities consisted of the following (in thousands):

	March 31, 2022	December 31, 2021
Accrued compensation and benefits	$ 10,086	$ 17,115
Accrued interest	2,105	301
Stock repurchase	1,002	3,009
Other	3,659	3,141
Total accrued expenses and other current liabilities	$ 16,852	$ 23,566

As of March 31, 2022, other accrued expenses of $3.7 million included $3.2 million of uninvoiced vendor liabilities and $0.3 million of state income taxes payable. As of December 31, 2021, other accrued expenses of $3.1 million included $2.7 million of uninvoiced vendor liabilities and $0.2 million of state income taxes payable.

7. Leases

The Company's lease portfolio for the three months ended March 31, 2022 includes: an office lease for its current headquarters location, a data center colocation lease, vehicle leases for its salesforce representatives, and leases for computer and office equipment.

The Company's office lease and vehicle lease require letters of credit to secure the Company's obligations under the lease agreements totaling $1.7 million and are collateralized by money market accounts recorded as restricted cash on the Company's condensed consolidated balance sheets as of March 31, 2022 and December 31, 2021.

Lease cost is recognized on a straight-line basis over the lease term. The components of lease cost for the three months ended March 31, 2022 and 2021 are as follows (in thousands):

	Three Months Ended March 31,	
	2022	2021
Operating lease cost	$ 628	$ 631
Short-term lease cost	260	214
Total lease cost	$ 888	$ 845

Supplemental information related to leases for the periods reported is as follows:

	Three Months Ended March 31,	
	2022	2021
Cash paid for amounts included in the measurement of lease liabilities (in thousands)	$ 789	$ 773
Weighted-average remaining lease term of operating leases (in years)	8.1	9.0
Weighted-average discount rate of operating leases	5.8 %	5.8 %

Future minimum lease payments under non-cancelable operating leases as of March 31, 2022 are as follows (in thousands):

2022[(1)]	$	2,340
2023		3,065
2024		3,126
2025		3,189
2026		3,252
2027 and thereafter		11,603
Total future minimum lease payments		26,575
Less: present value adjustment		(5,447)
Operating lease liabilities		21,128
Less: current portion of operating lease liabilities		(3,097)
Operating lease liabilities, net of current portion	$	18,031

(1) For the nine months ending December 31, 2022.

Summer Street Lease

In June 2019, the Company entered into a non-cancelable operating lease (the "Summer Street Lease") for approximately 39,000 square feet of office space on the 23rd floor of 100 Summer Street, Boston, Massachusetts, which began serving as the Company's headquarters in October 2019, replacing its prior headquarters at 301 Binney Street in Cambridge, Massachusetts. The Summer Street Lease terminates on June 11, 2030 and includes a 2% annual rent escalation, free rent periods, a tenant improvement allowance, and an option to extend the term of the lease for an additional five years at a market base rental rate. The rent expense, inclusive of the escalating rent payments and lease incentives, is recognized on a straight-line basis over the lease term.

At lease inception, the Company recorded a right-of-use asset and a lease liability using an incremental borrowing rate of 5.8%. At March 31, 2022, the balances of the right-of-use asset and operating lease liability were $15.0 million and $21.1 million, respectively. At December 31, 2021, the balances of the right-of-use asset and operating lease liability were $15.3 million and $21.5 million, respectively.

Lease costs recorded during each of the three months ended March 31, 2022 and 2021 were $0.6 million.

8. Notes Payable

2.25% Convertible Senior Notes due 2022

In June 2015, the Company issued $335.7 million aggregate principal amount of the 2022 Convertible Notes. The Company received net proceeds of $324.0 million from the sale of the 2022 Convertible Notes, after deducting fees and expenses of $11.7 million. The Company used $21.1 million of the net proceeds from the sale of the 2022 Convertible Notes to pay the net cost of the Convertible Note Hedges (after such cost was partially offset by the proceeds to the Company from the sale of the Note Hedge Warrants), as described below.

The 2022 Convertible Notes are governed by an indenture (the "2022 Indenture") between the Company and U.S. Bank National Association, as trustee (the "Trustee"). The 2022 Convertible Notes are senior unsecured obligations and bear cash interest at the annual rate of 2.25%, payable on June 15 and December 15 of each year. The 2022 Convertible Notes will mature on June 15, 2022, unless earlier converted or repurchased. The Company held the option, through December 15, 2021, to determine settlement method through payment or delivery, as the case may be, of cash, shares of the Company's Class A Common Stock or a combination of cash and shares of Class A Common Stock (subject to, and in accordance with, the settlement provisions of the 2022 Indenture). The Company has elected to settle conversions of the 2022 Convertible Notes, if any, with a combination settlement of a cash payment equal to the principal value of converted notes and shares of Class A Common Stock equal to the conversion value in excess of the principal value, if any. The initial conversion rate for the 2022 Convertible Notes was 60.3209 shares of Class A Common Stock (subject to adjustment as provided for in the 2022 Indenture) per $1,000 principal amount of the 2022

Convertible Notes, which was equal to an initial conversion price of approximately $16.58 per share and 20,249,665 shares.

On April 1, 2019, Ironwood completed the separation (the "Separation") of its soluble guanylate cyclase business, and certain other assets and liabilities, into a separate, independent publicly traded company, Cyclerion Therapeutics, Inc. ("Cyclerion"). The Separation was effected by means of a distribution of all the outstanding shares of common stock, with no par value, of Cyclerion, through a dividend of Cyclerion's common stock to the Company's stockholders of record as of the close of business on March 19, 2019. In connection with the Separation, the conversion rate under the 2022 Indenture was adjusted to equal 68.9172 shares of Class A Common Stock per $1,000 principal amount of the 2022 Convertible Notes, which is equal to an adjusted conversion price of approximately $14.51 per share and 23,135,435 shares.

Holders of the 2022 Convertible Notes had the right to convert their 2022 Convertible Notes at their option at any time prior to the close of business on the business day immediately preceding December 15, 2021 upon the occurrence of certain circumstances and no such conversions occurred. On or after December 15, 2021, until the close of business on the second scheduled trading day immediately preceding June 15, 2022, holders may convert their 2022 Convertible Notes, in multiples of $1,000 principal amount, at the option of the holder.

Upon the occurrence of certain fundamental changes, as described in the 2022 Indenture, holders of the 2022 Convertible Notes may require the Company to repurchase for cash all or part of their 2022 Convertible Notes at a repurchase price equal to 100% of the principal amount of the 2022 Convertible Notes to be repurchased, plus accrued and unpaid interest. If a make-whole fundamental change, as described in the 2022 Indenture, occurs and a holder elects to convert its 2022 Convertible Notes in connection with such make-whole fundamental change, such holder may be entitled to an increase in the conversion rate as described in the 2022 Indenture.

The 2022 Indenture does not contain any financial covenants or restrict the Company's ability to repurchase the Company's securities, pay dividends or make restricted payments in the event of a transaction that substantially increases the Company's level of indebtedness. The 2022 Indenture provides for customary events of default. In the case of an event of default with respect to the 2022 Convertible Notes arising from specified events of bankruptcy or insolvency, all outstanding 2022 Convertible Notes will become due and payable immediately without further action or notice. If any other event of default with respect to the 2022 Convertible Notes under the 2022 Indenture occurs or is continuing, the Trustee or holders of at least 25% in aggregate principal amount of the then outstanding 2022 Convertible Notes may declare the principal amount of the 2022 Convertible Notes to be immediately due and payable. Notwithstanding the foregoing, the 2022 Indenture provides that, upon the Company's election, and for up to 180 days, the sole remedy for an event of default relating to certain failures by the Company to comply with certain reporting covenants in the 2022 Indenture consists exclusively of the right to receive additional interest on the 2022 Convertible Notes.

Upon issuance, the Company separately accounted for the liability and equity components of the 2022 Convertible Notes by allocating the proceeds between the liability component and the embedded conversion option, or equity component, due to the Company's ability to settle the 2022 Convertible Notes in cash, its Class A Common Stock, or a combination of cash and Class A Common Stock at the option of the Company. The carrying amount of the liability component was calculated by measuring the fair value of a similar liability that does not have an associated conversion feature. The equity component of the 2022 Convertible Notes was recognized as a debt discount and represents the difference between the gross proceeds from the issuance of the 2022 Convertible Notes and the fair value of the liability component of the 2022 Convertible Notes on the date of issuance. The debt discount has been amortized to interest expense using the effective interest method over seven years, or the expected life of the 2022 Convertible Notes. The equity component was not remeasured as long as it continued to meet the conditions for equity classification.

In connection with the issuance of the 2024 Convertible Notes and the 2026 Convertible Notes in August 2019, the Company repurchased $215.0 million aggregate principal amount of the 2022 Convertible Notes. The 2022 Convertible Notes were repurchased at a premium totaling $227.3 million. The Company recognized a loss on extinguishment of debt of $23.4 million during the year ended December 31, 2019 related to the prepayment premium and proportional write-off of the 2022 Convertible Notes unamortized debt issuance costs and unamortized debt discount. Additionally, the repurchase resulted in a reduction to additional paid-in capital of $27.0 million during the year ended December 31, 2019 related to the equity component of the 2022 Convertible Notes.

Upon the adoption of ASU 2020-06 on January 1, 2022, the equity component is no longer bifurcated from the liability component and each debt instrument is accounted for as a single liability measured at amortized cost. Accordingly, the unamortized debt discount as of the adoption date in the amount of $3.5 million was derecognized, resulting in an increase to the current portion of convertible senior notes and a decrease to stockholders' equity. Additionally, there is no longer non-cash interest expense associated with the amortization of the original issue discount. During the three months ended March 31, 2021, the Company recognized $1.8 million in non-cash interest expense related to the debt discount.

0.75% Convertible Senior Notes due 2024 and 1.50% Convertible Senior Notes due 2026

In August 2019, the Company issued $200.0 million aggregate principal amount of the 2024 Convertible Notes and $200.0 million aggregate principal amount of the 2026 Convertible Notes. The Company received net proceeds of $391.0 million from the sale of the 2024 Convertible Notes and 2026 Convertible Notes, after deducting fees and expenses of $9.0 million. The Company used $25.2 million of the net proceeds from the sale of the 2024 Convertible Notes and 2026 Convertible Notes to pay the cost of the Capped Calls, as described below. For purposes of this section, "Notes" refer to the 2024 Convertible Notes and the 2026 Convertible Notes, collectively.

The 2024 Convertible Notes and 2026 Convertible Notes were issued by the Company on August 12, 2019, pursuant to separate Indentures, each dated as of such date (each an "Indenture" and together the "Indentures"), between the Company and the Trustee. The 2024 Convertible Notes bear cash interest at the annual rate of 0.75% and the 2026 Convertible Notes bear cash interest at the annual rate of 1.50%, each payable on June 15 and December 15 of each year. The 2024 Convertible Notes will mature on June 15, 2024 and the 2026 Convertible Notes will mature on June 15, 2026, unless earlier converted or repurchased. The Company will settle conversions of the 2024 Convertible Notes and 2026 Convertible Notes through payment or delivery, as the case may be, of cash, shares of the Company's Class A Common Stock or a combination of cash and shares of Class A Common Stock, at the Company's option (subject to, and in accordance with, the settlement provisions of the applicable Indenture). The initial conversion rate for each of the 2024 Convertible Notes and the 2026 Convertible Notes is 74.6687 shares of Class A Common Stock (subject to adjustment as provided for in the applicable Indenture) per $1,000 principal amount of the 2024 Convertible Notes and 2026 Convertible Notes, which is equal to an initial conversion price of approximately $13.39 per share.

Holders of the 2024 Convertible Notes and 2026 Convertible Notes may convert their Notes at their option at any time prior to the close of business on the business day immediately preceding December 15, 2023, with respect to the 2024 Convertible Notes, and December 15, 2025, with respect to the 2026 Convertible Notes, in multiples of $1,000 principal amount, only under the following circumstances:

- during any calendar quarter commencing after the calendar quarter ending on December 31, 2019 (and only during such calendar quarter), if the last reported sale price of Class A Common Stock for at least 20 trading days (whether or not consecutive) during a period of 30 consecutive trading days ending on the last trading day of the immediately preceding calendar quarter is greater than or equal to 130% of the conversion price for the Notes on each applicable trading day;

- during the five-business day period after any five consecutive trading day period (the "measurement period") in which the "trading price" (as defined in each Indenture) per $1,000 principal amount of Notes for each trading day of the measurement period was less than 98% of the product of the last reported sale price of Class A Common Stock and the conversion rate for the Notes on each such trading day; or

- upon the occurrence of specified corporate events described in each Indenture.

On or after December 15, 2023, with respect to the 2024 Convertible Notes, and December 15, 2025, with respect to the 2026 Convertible Notes, until the close of business on the second scheduled trading day immediately preceding the applicable maturity date, the holders of the Notes may convert their Notes, in multiples of $1,000 principal amount, regardless of the foregoing conditions.

Upon the occurrence of fundamental changes, as described in the Indentures, prior to the maturity date of the respective Notes, holders of such Notes may require the Company to repurchase for cash all or a portion of their Notes at a repurchase price equal to 100% of the principal amount of the Notes to be repurchased, plus accrued and unpaid interest. If a make-whole fundamental change, as described in the Indentures, occurs and a holder elects to convert its

Notes in connection with such make-whole fundamental change, such holder may be entitled to an increase in the conversion rate as described in the Indentures.

The Indentures do not contain any financial covenants or restrict the Company's ability to repurchase the Company's securities, pay dividends or make restricted payments in the event of a transaction that substantially increases the Company's level of indebtedness. The Indentures provide for customary events of default. In the case of an event of default with respect to a series of Notes arising from specified events of bankruptcy or insolvency, all outstanding Notes of such series will become due and payable immediately without further action or notice. If any other event of default with respect to a series of Notes under the relevant Indenture occurs or is continuing, the Trustee or holders of at least 25% in aggregate principal amount of the then outstanding Notes of such series may declare the principal amount of such Notes to be immediately due and payable.

Upon issuance, the Company separately accounted for the liability and equity components of the 2024 Convertible Notes and the 2026 Convertible Notes by allocating the proceeds between the liability components and the embedded conversion options, or equity components, due to the Company's ability to settle the 2024 Convertible Notes and the 2026 Convertible Notes in cash, its Class A Common Stock, or a combination of cash and Class A Common Stock at the option of the Company. The carrying amount of the respective liability components were calculated by measuring the fair value of a similar liability that does not have an associated conversion feature. The respective equity components of the 2024 Convertible Notes and the 2026 Convertible Notes were recognized as a debt discount and represent the difference between the gross proceeds from the issuance of the 2024 Convertible Notes and 2026 Convertible Notes and the fair value of the liability of the 2024 Convertible Notes and 2026 Convertible Notes on their respective dates of issuance. The debt discount has been amortized to interest expense using the effective interest method over approximately five and seven years, or the expected life of the 2024 Convertible Notes and the 2026 Convertible Notes, respectively. The respective equity components were not remeasured as long as they continued to meet the conditions for equity classification.

Upon the adoption of ASU 2020-06 on January 1, 2022, the equity component is no longer bifurcated from the liability component and each debt instrument is accounted for as a single liability measured at amortized cost. Accordingly, the unamortized debt discount as of the adoption date in the amount of $22.3 million and $35.8 million for the 2024 Convertible Notes and 2026 Convertible Notes, respectively, was derecognized, resulting in an increase to the non-current portion of convertible senior notes and a decrease to stockholders' equity. Additionally, there is no longer non-cash interest expense associated with the amortization of the original issue discount. During the three months ended March 31, 2021, the Company recognized $2.0 million and $1.7 million in non-cash interest expense related to the debt discount for the 2024 Convertible Notes and 2026 Convertible Notes, respectively.

The Company's outstanding balances for the convertible senior notes as of March 31, 2022 and December 31, 2021 consisted of the following (in thousands):

	March 31, 2022	December 31, 2021
Liability component:		
Principal:		
2022 Convertible Notes	$ 120,699	$ 120,699
2024 Convertible Notes	200,000	200,000
2026 Convertible Notes	200,000	200,000
Less: unamortized debt discount	—	(61,641)
Less: unamortized debt issuance costs	(5,065)	(4,867)
Net carrying amount	515,634	454,191
Equity component:		
2022 Convertible Notes	—	19,807
2024 Convertible Notes	—	41,152
2026 Convertible Notes	—	51,350
Total equity component	$ —	$ 112,309

In connection with the issuance of the 2022 Convertible Notes, the Company incurred $11.7 million of debt issuance costs, which primarily consisted of initial purchasers' discounts and legal and other professional fees. The Company allocated these costs to the liability and equity components based on the allocation of the proceeds. The

portion of these costs allocated to the equity components totaling $4.0 million were recorded as a reduction to additional paid-in capital upon issuance. The portion of these costs allocated to the liability components totaling $7.7 million were recorded as a reduction in the carrying value of the debt on the consolidated balance sheet and are amortized to interest expense using the effective interest method over the expected life of the 2022 Convertible Notes. In connection with the partial repurchase of the 2022 Convertible Notes, the Company recorded a loss on extinguishment of debt of $23.4 million, of which $2.8 million related to the initial debt issuance costs, during the year ended December 31, 2019. Upon the adoption of ASU 2020-06, the costs originally allocated to the equity component are reflected within the current portion of convertible senior notes and recorded as interest expense over the life of the 2022 Convertible Notes.

The Company determined the expected life of the 2022 Convertible Notes was equal to their seven-year term. From the date of the partial repurchase of the 2022 Convertible Notes in August 2019 through March 31, 2022, the effective annual interest rate on the 2022 Convertible Notes was 2.7%. The effective annual interest rate is computed using the contractual interest and the amortization of debt issuance costs. Prior to the adoption of ASU 2020-06, the effective annual interest rate calculation also included the amortization of the original issue discount.

In connection with the issuance of the 2024 Convertible Notes and the 2026 Convertible Notes, the Company incurred $9.0 million of debt issuance costs, which primarily consisted of initial purchaser's discounts and legal and other professional fees. The Company allocated these costs to the liability and equity components based on the allocation of the proceeds. The portion of these costs allocated to the equity components totaling $2.1 million were recorded as a reduction to additional paid-in capital. The portion of these costs allocated to the liability components totaling $6.9 million were recorded as a reduction in the carrying value of the debt on the consolidated balance sheet and are amortized to interest expense using the effective interest method over the expected lives of the 2024 Convertible Notes and the 2026 Convertible Notes. Upon the adoption of ASU 2020-06 on January 1, 2022, the costs originally allocated to the equity component are reflected within the current portion of convertible senior notes and recorded as interest expense over the life of the 2024 Convertible Notes and the 2026 Convertible Notes.

The Company determined the expected life of the 2024 Convertible Notes and the 2026 Convertible Notes was equal to their approximately five and seven-year terms, respectively. The effective annual interest rates of the 2024 Convertible Notes and the 2026 Convertible Notes for the period from the date of issuance through March 31, 2022 was 1.2% and 1.9%, respectively. The effective annual interest rate is computed using the contractual interest and the amortization of debt issuance costs. Prior to the adoption of ASU 2020-06, the effective annual interest rate calculation also included the amortization of the original issue discount.

The following table sets forth total interest expense recognized related to convertible senior notes during the three months ended March 31, 2022 and 2021 (in thousands):

	Three Months Ended March 31,	
	2022	2021
Contractual interest expense	$ 1,804	$ 1,804
Amortization of debt issuance costs	537	398
Amortization of debt discount	—	5,424
Total interest expense	$ 2,341	$ 7,626

Future minimum payments under the convertible senior notes as of March 31, 2022, are as follows (in thousands):

2022[(1)]	$ 126,557
2023	4,500
2024	203,750
2025	3,000
2026	201,500
Total future minimum payments under the convertible senior notes	539,307
Less: amounts representing interest	(18,608)
Less: unamortized debt discount	—
Less: unamortized debt issuance costs	(5,065)
Convertible senior notes balance	$ 515,634

(1) For the nine months ending December 31, 2022.

As of March 31, 2022, $120.7 million in aggregate principal amount of the 2022 Convertible Notes was due within the next 12 months and is classified as current liabilities on the Company's condensed consolidated balance sheets.

Convertible Note Hedge and Note Hedge Warrant Transactions with Respect to 2022 Convertible Notes

To minimize the impact of potential dilution to the Company's Class A common stockholders upon conversion of the 2022 Convertible Notes, the Company entered into the Convertible Note Hedges covering 20,249,665 shares of the Company's Class A Common Stock in connection with the issuance of the 2022 Convertible Notes. The Convertible Note Hedges had an initial exercise price of $16.58 per share, subject to adjustment upon the occurrence of certain corporate events or transactions, and are exercisable if the 2022 Convertible Notes are converted. In connection with the adjustment to the conversion rate of the 2022 Convertible Notes related to the Separation in April 2019, the exercise price of the Convertible Note Hedges was adjusted to $14.51 per share and the number of shares underlying the Convertible Note Hedges was increased to 23,135,435 shares. If upon conversion of the 2022 Convertible Notes, the price of the Company's Class A Common Stock is above the exercise price of the Convertible Note Hedges, the counterparties are obligated to deliver shares of the Company's Class A Common Stock and/or cash with an aggregate value approximately equal to the difference between the price of the Company's Class A Common Stock at the conversion date and the exercise price, multiplied by the number of shares of the Company's Class A Common Stock related to the Convertible Note Hedge being exercised.

Concurrently with entering into the Convertible Note Hedges, the Company sold Note Hedge Warrants to the Convertible Note Hedge counterparties to acquire 20,249,665 shares of the Company's Class A Common Stock, subject to customary anti-dilution adjustments. The strike price of the Note Hedge Warrants was initially $21.50 per share, subject to adjustment, and such warrants are exercisable over the 150 trading day period beginning on September 15, 2022. In connection with the Separation in April 2019, the exercise price was adjusted to $18.82 per share and the number of shares underlying the Note Hedge Warrants was increased to 23,135,435 shares. The Note Hedge Warrants could have a dilutive effect on the Class A Common Stock to the extent that the market price per share of the Company's Class A Common Stock exceeds the applicable strike price of such warrants.

The Convertible Note Hedges and the Note Hedge Warrants are separate transactions entered into by the Company and are not part of the terms of the 2022 Convertible Notes. Holders of the Convertible Note Hedges and the Note Hedge Warrants do not have any rights with respect to the 2022 Convertible Notes. The Company paid $91.9 million for the Convertible Note Hedges and received $70.8 million for the Note Hedge Warrants, resulting in a net cost to the Company of $21.1 million.

In August 2019, concurrently with the repurchase of $215.0 million aggregate principal amount of the 2022 Convertible Notes, the Company terminated the respective portion of the Convertible Note Hedges and Note Hedge Warrants. The Company received $3.2 million of termination payments from the counterparties of the Convertible Note Hedges and Note Hedge Warrants.

The Convertible Note Hedges and Note Hedge Warrants are accounted for as derivative assets and liabilities, respectively, in accordance with ASC 815, and are remeasured to fair value at each reporting date (Note 5).

As of March 31, 2022 and December 31, 2021, the Convertible Note Hedges and Note Hedge Warrants were classified as current assets and current liabilities, respectively, on the Company's condensed consolidated balance sheets.

Capped Calls with Respect to 2024 Convertible Notes and 2026 Convertible Notes

To minimize the impact of potential dilution to the Company's Class A common stockholders upon conversion of the 2024 Convertible Notes and the 2026 Convertible Notes, the Company entered into separate Capped Calls in connection with the issuance of the 2024 Convertible Notes and the 2026 Convertible Notes. The Company paid the counterparties $25.2 million to enter into the Capped Calls.

The Capped Calls have an initial strike price of approximately $13.39 per share, which corresponds to the initial conversion price of the 2024 Convertible Notes and the 2026 Convertible Notes and is subject to anti-dilution adjustments generally similar to those applicable to the 2024 Convertible Notes and the 2026 Convertible Notes. The Capped Calls have a cap price of approximately $17.05 per share, subject to certain adjustments. The Capped Calls cover 29,867,480 shares of Class A Common Stock (subject to anti-dilution and certain other adjustments), which is the same number of shares of Class A Common Stock that initially underlie the 2024 Convertible Notes and the 2026 Convertible Notes.

The Capped Calls are expected generally to reduce the potential dilution to the Class A Common Stock upon conversion of the 2024 Convertible Notes and the 2026 Convertible Notes in the event that the market price per share of Class A Common Stock is greater than the strike price of the Capped Calls as adjusted pursuant to the anti-dilution adjustments. If, however, the market price per share of Class A Common Stock exceeds the cap price of the Capped Calls, there would nevertheless be dilution upon conversion of the 2024 Convertible Notes and the 2026 Convertible Notes to the extent that such market price exceeds the cap price of the Capped Calls.

The Capped Calls are separate transactions entered into by and between the Company and the Capped Calls counterparties and are not part of the terms of the 2024 Convertible Notes or the 2026 Convertible Notes. Holders of the 2024 Convertible Notes and the 2026 Convertible Notes do not have any rights with respect to the Capped Calls. The Company recorded a reduction to additional paid-in capital of $25.0 million during the year ended December 31, 2019 related to the premium payments for the Capped Calls. Additionally, the Company recorded a $0.2 million reduction to equity related to transaction costs incurred in connection with the Capped Calls during the year ended December 31, 2019. These instruments meet the conditions outlined in ASC 815 to be classified in stockholders' equity and are not subsequently remeasured as long as the conditions for equity classification continue to be met.

9. Employee Stock Benefit Plans

The Company has several share-based compensation plans under which stock options, restricted stock awards, restricted stock units and other share-based awards are available for grant to employees, officers, directors and consultants of the Company.

The following table summarizes share-based compensation expense (in thousands):

	Three Months Ended March 31,	
	2022	2021
Share-based compensation expense:		
Research and development	$ 1,158	$ 1,243
Selling, general and administrative	4,931	4,043
Restructuring expenses	—	110
Total share-based compensation expense included in operating expenses	6,089	5,396
Income tax expense (benefit)	(720)	—
Total share-based compensation expense, net of tax	$ 5,369	$ 5,396

10. Share Repurchase Plan

In May 2021, the Company's Board of Directors authorized a program to repurchase up to $150.0 million of the Company's Class A Common Stock. Unless it is terminated or suspended prior to its expiration, the share repurchase program will remain in effect until December 31, 2022. The timing and amount of any repurchases will be determined based on market conditions, stock price and other factors. The share repurchase program may be modified, suspended or discontinued at any time without notice. Repurchases may be made through a variety of methods, including open market purchases, privately negotiated transactions, block trades, exchange transactions, accelerated share repurchase transactions, or any combination of such methods. All share repurchases made under the share repurchase program will be retired.

During the three months ended March 31, 2022, the Company repurchased 8.0 million shares of Class A Common Stock for an aggregate $90.5 million. The Company expects to fund further repurchases through a combination of cash on hand and cash generated by operations. As of March 31, 2022, the aggregate remaining value of shares that may be repurchased under the repurchase program was $32.4 million.

11. Income Taxes

The income tax provision during interim periods is computed by applying an estimated annual effective income tax rate to year-to-date pre-tax income, plus adjustments for significant unusual or infrequently occurring items, in accordance with ASC 740-270, *Income Taxes – Interim Reporting*.

During the three months ended March 31, 2022, the Company recorded income tax expense of $17.7 million. The Company's provision for income taxes during the three months ended March 31, 2022 increased compared to historical amounts due to the release of the Company's valuation allowance on the majority of its net operating losses and other deferred tax assets during the second quarter of 2021. Due to the Company's ability to offset its pre-tax income against net operating losses, it expects the majority of its tax provision to represent a non-cash expense until its net operating losses have been fully utilized. For the three months ended March 31, 2021, the Company maintained a full valuation allowance against net deferred tax assets and recorded income tax expense of $0.4 million for certain states which had temporarily disallowed or only partially allow the use of net operating losses to offset taxable income.

The Company recognizes deferred tax assets and liabilities for the expected future tax consequences of temporary differences between the financial reporting and tax bases of assets and liabilities. These differences are measured using the enacted statutory tax rates that are expected to be in effect for the years in which differences are expected to reverse.

On a periodic basis, the Company reassesses any valuation allowances that it maintains on its deferred tax assets, weighing positive and negative evidence to assess the recoverability of the deferred tax assets. Until the second quarter of 2021, the Company recorded a full valuation allowance against net deferred tax assets. During the three months ended June 30, 2021, the Company reassessed the valuation allowance noting the shift of positive evidence outweighing negative evidence, including: continued strong prescription demand growth of LINZESS, continued profitability of a GI focused business since completing the tax-free spin-off of Cyclerion, and expectations regarding future profitability. After assessing both the positive evidence and negative evidence, the Company determined it was

more likely than not that it will realize the majority of its deferred tax assets and during the three months ended June 30, 2021, released the majority of its valuation allowance, as a discrete item, for the deferred tax assets that are expected to be utilized in future years. The Company will maintain a valuation allowance on deferred tax assets not expected to be realized, related primarily to certain tax credits that are expected to expire prior to utilization.

12. Subsequent Event

Share Repurchases

From April 1, 2022 to April 30, 2022, the Company repurchased 1.3 million shares of its common stock at a weighted-average price of $12.14 per share for a total of $15.9 million.

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

Forward-Looking Information

The following discussion of our financial condition and results of operations should be read in conjunction with our condensed consolidated financial statements and the notes to those financial statements appearing elsewhere in this Quarterly Report on Form 10-Q and the audited consolidated financial statements and notes thereto included in our Annual Report on Form 10-K for the year ended December 31, 2021, which was filed with the Securities and Exchange Commission on February 18, 2022, or the 2021 Annual Report on Form 10-K. This discussion contains forward-looking statements that involve significant risks and uncertainties. As a result of many factors, such as those set forth under "Note Regarding Forward-Looking Statements" in this Quarterly Report on Form 10-Q and under "Part I, Item 1A—Risk Factors" in our 2021 Annual Report on Form 10-K, our actual results may differ materially from those anticipated in these forward-looking statements.

Overview

We are a gastrointestinal, or GI, healthcare company dedicated to advancing the treatment of GI diseases and redefining the standard of care for GI patients. We are focused on the development and commercialization of innovative GI product opportunities in areas of significant unmet need, leveraging our demonstrated expertise and capabilities in GI diseases.

LINZESS® (linaclotide), our commercial product, is the first product approved by the United States Food and Drug Administration, or U.S. FDA, in a class of GI medicines called guanylate cyclase type C agonists, or GC-C agonists, and is indicated for adult men and women suffering from irritable bowel syndrome with constipation, or IBS-C, or chronic idiopathic constipation, or CIC. LINZESS is available to adult men and women suffering from IBS-C or CIC in the United States, or the U.S., and Mexico and to adult men and women suffering from IBS-C in Japan and China. Linaclotide is available under the trademarked name CONSTELLA® to adult men and women suffering from IBS-C or CIC in Canada, and to adult men and women suffering from IBS-C in certain European countries.

We have strategic partnerships with leading pharmaceutical companies to support the development and commercialization of linaclotide throughout the world, including with AbbVie Inc. (together with its affiliates), or AbbVie, in the U.S. and all countries worldwide other than China (including Hong Kong and Macau) and Japan, AstraZeneca AB (together with its affiliates), or AstraZeneca, in China (including Hong Kong and Macau) and Astellas Pharma Inc., or Astellas, in Japan.

We also aim to leverage our leading capabilities in GI to bring additional treatment options to GI patients; for example, in November 2021, we entered into a collaboration and license option agreement, or the COUR Collaboration Agreement, with COUR Pharmaceutical Development Company, Inc., or COUR, which grants us an option to acquire an exclusive license to research, develop, manufacture and commercialize, in the U.S., products containing CNP-104, a tolerizing immune modifying nanoparticle, for the treatment of primary biliary cholangitis, or PBC. We are also advancing IW-3300, a GC-C agonist, which is in Phase I development for the potential treatment of visceral pain conditions, such as interstitial cystitis/bladder pain syndrome, or IC/BPS, and endometriosis.

To date, we have dedicated a majority of our activities to the research, development and commercialization of linaclotide, as well as to the research and development of our other product candidates. Prior to the year ended December 31, 2019, we incurred net losses in each year since our inception in 1998. We have generated net income in each year

thereafter. For the three months ended March 31, 2022 and 2021, we recorded net income of $38.8 million and $39.9 million, respectively. As of March 31, 2022, we had an accumulated deficit of approximately $832.6 million. We are unable to predict the extent of any future losses or guarantee that our company will be able to maintain positive cash flows.

We were incorporated in Delaware on January 5, 1998 as Microbia, Inc. On April 7, 2008, we changed our name to Ironwood Pharmaceuticals, Inc. We operate in one reportable business segment—human therapeutics.

Financial Operations Overview

Revenues. Our revenues are generated primarily through our collaborative arrangements and license agreements related to research and development and commercialization of linaclotide.

The majority of our revenues are generated from the sales of LINZESS in the U.S. We record our share of the net profits and losses from the sales of LINZESS in the U.S. less commercial expenses on a net basis and present the settlement payments to and from AbbVie as collaboration expense or collaborative arrangements revenue, as applicable. Net profits or losses consist of net sales to third-party customers and sublicense income in the U.S. less the cost of goods sold as well as selling, general and administrative expenses. Although we expect net sales to increase over time, the settlement payments between AbbVie and us, resulting in collaborative arrangements revenue or collaboration expense, are subject to fluctuation based on the ratio of selling, general and administrative expenses incurred by each party. In addition, our collaborative arrangements revenue may fluctuate as a result of the timing and amount of license fees and clinical and commercial milestones received and recognized under our current and future strategic partnerships as well as timing and amount of royalties from the sales of linaclotide in the European, Canadian, Mexican, Japanese or Chinese markets or any other markets where linaclotide receives approval and is commercialized.

Research and Development Expense. The core of our research and development strategy is to leverage our demonstrated expertise and capabilities in GI diseases to bring multiple medicines to patients. Research and development expense consists of expenses incurred in connection with the research into and development of products and product candidates. These expenses consist primarily of compensation, benefits and other employee-related expenses, research and development related facility costs, third-party contract costs relating to nonclinical study and clinical trial activities, development of manufacturing processes, regulatory registration of third-party manufacturing facilities, and licensing fees for our product candidates. Research and development expenses include amounts owed to AbbVie in connection with our collaboration agreement.

Linaclotide. Our commercial product, LINZESS, is commercially available in the U.S. for the treatment of IBS-C or CIC in adults. Linaclotide is also available to adult men and women suffering from IBS-C or CIC in certain countries of the world, including China, Japan, and in a number of E.U. countries.

We and AbbVie continue to explore ways to enhance the clinical profile of LINZESS by studying linaclotide in additional indications, populations and formulations to assess its potential to treat various conditions. In January 2017, the U.S. FDA approved a 72 mcg dose of LINZESS for adults with CIC, which became available in the U.S. in March 2017. In June 2019, we announced positive topline data from our Phase IIIb trial demonstrating the efficacy and safety of linaclotide 290 mcg on the overall abdominal symptoms of bloating, pain and discomfort in adult patients with IBS-C. In September 2020, based on the Phase IIIb data, the U.S. FDA approved our Supplemental New Drug Application to include a more comprehensive description of the effects of LINZESS in its approved label.

In connection with the U.S. FDA approval of LINZESS, we were required to conduct certain nonclinical and clinical studies including those aimed at further understanding the safety profile of linaclotide. We and AbbVie completed additional studies and determined that: (a) orally administered linaclotide was not detected in breast milk, (b) there is little or no evidence of any potential for antibodies to be developed to linaclotide, and (c) there were no signs or symptoms of an immunogenic response to linaclotide. The results observed do not alter the known safety profile for linaclotide based on the clinical studies and post-marketing experience to-date. In addition, we and AbbVie have established a nonclinical and clinical post-marketing plan with the U.S. FDA to understand the safety and efficacy of LINZESS in pediatric patients. In August 2021, the U.S. FDA approved a revised label for LINZESS based on clinical safety data that had been generated thus far in pediatric studies. The updated label modified the boxed warning for risk of serious dehydration and contraindication against use in children to those less than two years of age. The boxed warning and contraindication previously applied to all children less than 18 years of age and less than 6 years of age,

respectively. The safety and effectiveness of LINZESS in patients less than 18 years of age have not been established. Clinical pediatric programs in IBS-C and functional constipation are ongoing.

IW-3718. We were developing IW-3718, a gastric retentive formulation of a bile acid sequestrant, for the potential treatment of refractory gastroesophageal reflux disease, or refractory GERD. In September 2020, we announced that one of our two identical Phase III trials evaluating IW-3718 in refractory GERD did not meet the pre-specified criteria associated with a planned early efficacy assessment and, based on these findings, we discontinued development of IW-3718.

IW-3300. We are developing IW-3300, a GC-C agonist, for the potential treatment of visceral pain conditions, including interstitial cystitis/bladder pain syndrome and endometriosis. IC/BPS affects an estimated 4 to 12 million people in the U.S., according to the Interstitial Cystitis Association. An estimated 4 million reproductive-age women in the U.S. have been diagnosed with endometriosis, according to a study published in Gynecologic and Obstetric Investigation. Both diseases have a limited number of treatment options available. In December 2021, the U.S. FDA accepted our IND Application and the Phase I clinical program for IC/BPS commenced in the first quarter of 2022.

CNP-104. Through the COUR Collaboration Agreement, we and COUR are developing CNP-104 for the treatment of PBC, a rare autoimmune disease targeting the liver that affects an estimated 133,000 people in the U.S., according to a study published in Gastroenterology in 2000. If successful, CNP-104 has the potential to be the first approved PBC disease modifying therapy. In December 2021, COUR received U.S. Fast Track Designation. COUR has initiated a clinical study for CNP-104 to evaluate the safety, tolerability, pharmacodynamic effects and efficacy of CNP-104 in PBC patients, with a data readout estimated in 2023.

Early research and development. Our early research and development efforts have been focused on supporting our development stage GI programs, including exploring strategic options for further development of certain of our internal programs, as well as evaluating external development-stage GI programs.

The following table sets forth our research and development expenses related to our product pipeline for the three months ended March 31, 2022 and 2021, respectively. These expenses relate primarily to compensation, benefits and other employee-related expenses and external costs associated with nonclinical studies and clinical trial costs for our product candidates. We allocate costs related to facilities, depreciation, share-based compensation, research and development support services and certain other costs directly to programs.

	Three Months Ended March 31,	
	2022	2021
	(in thousands)	
Linaclotide[1]	$ 4,597	$ 5,365
IW-3718	153	5,264
IW-3300	3,450	2,340
CNP-104	135	—
Early research and development	2,487	2,515
Total research and development expenses	$ 10,822	$ 15,484

(1) Includes linaclotide in all indications, populations and formulations.

The lengthy process of securing regulatory approvals for new drugs requires the expenditure of substantial resources. Any failure by us to obtain, or any delay in obtaining, regulatory approvals would materially adversely affect our product development efforts and our business overall.

Given the inherent uncertainties that come with the development of pharmaceutical products, we cannot estimate with any degree of certainty how our programs will evolve, and therefore the amount of time or money that would be required to obtain regulatory approval to market them.

As a result of these uncertainties surrounding the timing and outcome of any approvals, we are currently unable to estimate precisely when, if ever, linaclotide's utility will be expanded within its currently approved indications; if or when linaclotide will be developed outside of its current markets, indications, populations or formulations; or when, if ever, any of our other product candidates will generate revenues and cash flows.

We invest carefully in our pipeline, and the commitment of funding for each subsequent stage of our development programs is dependent upon the receipt of clear, supportive data. In addition, we intend to access externally discovered drug candidates that fit within our core strategy. In evaluating these potential assets, we apply the same investment criteria as those used for investments in internally discovered assets.

The successful development of our product candidates is highly uncertain and subject to a number of risks including, but not limited to:

- The duration of clinical trials may vary substantially according to the type, complexity and novelty of the product candidate;
- The U.S. FDA and comparable agencies in foreign countries impose substantial and varying requirements on the introduction of therapeutic pharmaceutical products, typically requiring lengthy and detailed laboratory and clinical testing procedures, sampling activities and other costly and time-consuming procedures;
- Data obtained from nonclinical and clinical activities at any step in the testing process may be adverse and lead to discontinuation or redirection of development activity. Data obtained from these activities also are susceptible to varying interpretations, which could delay, limit or prevent regulatory approval;
- The duration and cost of early research and development, including nonclinical studies and clinical trials, may vary significantly over the life of a product candidate and are difficult to predict;
- The costs, timing and outcome of regulatory review of a product candidate may not be favorable, and, even if approved, a product may face post-approval development and regulatory requirements;
- There may be substantial costs, delays and difficulties in successfully integrating externally developed product candidates into our business operations; and
- The emergence of competing technologies and products and other adverse market developments may negatively impact us.

As a result of the factors discussed above, as well as the factors discussed under “Note Regarding Forward-Looking Statements” in this Quarterly Report on Form 10-Q and under “Part I, Item 1A – Risk Factors” in our 2021 Annual Report on Form 10-K, we are unable to determine the duration and costs to complete current or future nonclinical and clinical stages of our product candidates or when, or to what extent, we will generate revenues from the commercialization and sale of our product candidates. Development timelines, probability of success and development costs vary widely. We anticipate that we will make determinations as to which additional programs to pursue and how much funding to direct to each program on an ongoing basis in response to the data of each product candidate, the competitive landscape and ongoing assessments of such product candidate’s commercial potential.

We expect to invest in our development programs for the foreseeable future. We will continue to invest in linaclotide, including the investigation of ways to enhance the clinical profile within its currently approved indications, and the exploration of its potential utility in other indications, populations and formulations. We will continue to invest in our GI-focused product candidates as we advance them through pre-clinical and clinical trials, in addition to funding research and development activities under our external collaboration and license agreements.

Selling, General and Administrative Expense. Selling, general and administrative expense consists primarily of compensation, benefits and other employee-related expenses for personnel in our administrative, finance, legal, information technology, business development, commercial, sales, marketing, communications and human resource functions. Other costs include legal costs of pursuing patent protection of our intellectual property, general and administrative related facility costs, insurance costs and professional fees for accounting, tax, consulting, legal and other services. As we continue to invest in the commercialization of LINZESS, we expect our selling, general and administrative expenses will be substantial for the foreseeable future.

We include AbbVie's selling, general and administrative cost-sharing payments in the calculation of the net profits and net losses from the sale of LINZESS in the U.S. and present the net payment to or from AbbVie as collaboration expense or collaborative arrangements revenue, respectively.

Restructuring Expenses. Restructuring expenses pertain to a workforce reduction and restructuring initiative and are more fully described in Note 17, *Workforce Reductions and Restructuring,* to our consolidated financial statements in our 2021 Annual Report on Form 10-K.

Interest Expense. Interest expense consists primarily of cash and non-cash interest costs related to our convertible senior notes. Prior to the adoption of ASU 2020-06 on January 1, 2022, non-cash interest expense consisted of amortization of the debt discount and debt issuance costs. Following the adoption of ASU 2020-06 on January 1, 2022, non-cash interest expense consists solely of amortization of the debt issuance costs. The adoption of ASU 2020-06 is more fully described in Note 2*, Summary of Significant Accounting Policies*, to our condensed consolidated financial statements appearing elsewhere in this Quarterly Report on Form 10-Q.

Interest and Investment Income. Interest and investment income consists of interest earned on our cash and cash equivalents, as well as significant financing components of payments due from collaboration partners.

Gain (Loss) on Derivatives. In June 2015, we issued 2.25% Convertible Senior Notes due June 15, 2022, or the 2022 Convertible Notes, and in August 2019, we issued 0.75% Convertible Senior Notes due 2024, or the 2024 Convertible Notes, and 1.50% Convertible Senior Notes due 2026, or the 2026 Convertible Notes (together with the 2022 Convertible Notes and the 2024 Convertible Notes, the Convertible Senior Notes). In connection with the issuance of our 2022 Convertible Notes, we entered into convertible note hedge transactions, or the Convertible Note Hedges, and separate note hedge warrant transactions, or the Note Hedge Warrants, with certain financial institutions. Gain (loss) on derivatives consists of the change in fair value of the Convertible Note Hedges and Note Hedge Warrants, which are recorded at fair value at each reporting date and changes in fair value are recorded in our condensed consolidated statements of income. The Convertible Note Hedges and Note Hedge Warrants are more fully described in Note 8*, Notes Payable*, to our condensed consolidated financial statements appearing elsewhere in this Quarterly Report on Form 10-Q.

Income Taxes. We prepare our income tax provision based on our interpretation of the income tax accounting rules and each jurisdiction's enacted tax laws and regulations and record our income tax provision by applying our estimated annual effective tax rate to year-to-date pre-tax income, plus adjustments for significant unusual or infrequently occurring items.

Critical Accounting Policies and Estimates

Our discussion and analysis of our financial condition and results of operations is based upon our condensed consolidated financial statements prepared in accordance with U.S. generally accepted accounting principles. The preparation of these financial statements requires us to make certain estimates and assumptions that may affect the reported amounts of assets and liabilities and disclosure of assets and liabilities at the date of the condensed consolidated financial statements, and the amounts of revenues and expenses during the reported periods. We base our estimates on our historical experience and on various other assumptions that are believed to be reasonable, the results of which form the basis for making judgments about the carrying values of assets and liabilities. Actual results may differ materially from our estimates under different assumptions or conditions. Changes in estimates are reflected in reported results in the period in which they become known.

During the three months ended March 31, 2022, there were no material changes to our critical accounting policies as reported in our 2021 Annual Report on Form 10-K.

Results of Operations

The following discussion summarizes the key factors our management believes are necessary for an understanding of our condensed consolidated financial statements.

	Three Months Ended March 31,	
	2022	2021
	(in thousands)	
Revenues:		
Collaborative arrangements revenue	$ 97,529	$ 88,665
Sale of active pharmaceutical ingredient	—	180
Total revenues	97,529	88,845
Operating expenses:		
Research and development	10,822	15,484
Selling, general and administrative	28,861	27,652
Restructuring expenses	—	311
Total operating expenses	39,683	43,447
Income from operations	57,846	45,398
Other (expense) income:		
Interest expense	(2,341)	(7,626)
Interest and investment income	230	196
Gain on derivatives	730	2,390
Other expense, net	(1,381)	(5,040)
Income before income taxes	56,465	40,358
Income tax expense	(17,664)	(432)
Net income	$ 38,801	$ 39,926

Three months ended March 31, 2022 compared to three months ended March 31, 2021

Revenues

	Three Months Ended March 31,		Change	
	2022	2021	$	%
	(dollars in thousands)			
Revenues:				
Collaborative arrangements revenue	$ 97,529	$ 88,665	$ 8,864	10.0 %
Sale of active pharmaceutical ingredient	—	180	(180)	(100.0)%
Total revenues	$ 97,529	$ 88,845	$ 8,684	9.8 %

Collaborative Arrangements Revenue. The increase in collaborative arrangements revenue of $8.9 million for the three months ended March 31, 2022 compared to the three months ended March 31, 2021 was primarily related to a $8.4 million increase in our share of net profits from the sale of LINZESS in the U.S., which was driven by increased prescription demand, partially offset by net price erosion.

Sale of Active Pharmaceutical Ingredient. The decrease in sale of active pharmaceutical ingredient of $0.2 million for the three months ended March 31, 2022 compared to the three months ended March 31, 2021 was due to certain non-recurring, insignificant sales during the three months ended March 31, 2021.

Operating Expenses

	Three Months Ended March 31,		Change	
	2022	2021	$	%
	(dollars in thousands)			
Operating expenses:				
Research and development	$ 10,822	$ 15,484	$ (4,662)	(30)%
Selling, general and administrative	28,861	27,652	1,209	4 %
Restructuring expenses	—	311	(311)	(100)%
Total operating expenses	$ 39,683	$ 43,447	$ (3,764)	(9)%

Research and Development Expense. The decrease in research and development expense of $4.7 million for the three months ended March 31, 2022 compared to the three months ended March 31, 2021 was primarily related to a decrease of $3.9 million in external development costs related to IW-3718 and a decrease of $0.9 million in linaclotide costs.

Selling, General and Administrative Expense. Selling, general and administrative expenses increased by $1.2 million for the three months ended March 31, 2022 compared to the three months ended March 31, 2021 primarily due to a $0.8 million increase in compensation, benefits, and other employee-related expenses and a $0.7 million increase in sales and marketing activities.

Restructuring Expenses. Restructuring expenses for the three months ended March 31, 2021 related to costs associated with the workforce reduction resulting from the discontinuation of IW-3718.

Other (Expense) Income, Net

	Three Months Ended March 31,		Change	
	2022	2021	$	%
	(dollars in thousands)			
Other (expense) income:				
Interest expense	$ (2,341)	$ (7,626)	$ 5,285	(69)%
Interest and investment income	230	196	34	17 %
Gain on derivatives	730	2,390	(1,660)	(69)%
Total other expense, net	$ (1,381)	$ (5,040)	$ 3,659	(73)%

Interest Expense. Interest expense decreased by $5.3 million during the three months ended March 31, 2022 compared to the three months ended March 31, 2021 due to a decrease in non-cash interest expense associated with the Senior Convertible Notes following the adoption of ASU 2020-06 on January 1, 2022.

Interest and Investment Income. Interest and investment income increased by an insignificant amount in the three months ended March 31, 2022 compared to the three months ended March 31, 2021.

Gain on Derivatives. For the three months ended March 31, 2022, we recorded a gain on derivatives of $0.7 million resulting from a $0.3 million increase in the fair value of the Convertible Note Hedges and a $0.4 million decrease in the fair value of the Note Hedge Warrants. For the three months ended March 31, 2021, we recorded a gain on derivatives of $2.4 million resulting from a $1.7 million decrease in the fair value of the Convertible Note Hedges and a $4.1 million decrease in the fair value of the Note Hedge Warrants.

Income Tax Expense. Income tax expense increased by $17.2 million during the three months ended March 31, 2022 compared to the three months ended March 31 2021, primarily due to the release of the valuation allowance on the majority of net operating losses and other deferred tax assets during the second quarter of 2021. Due to our ability to utilize our net operating losses to offset federal taxable income and taxable income in most states, the majority of our tax provision will be a non-cash expense until our net operating losses have been fully utilized.

Liquidity and Capital Resources

As of March 31, 2022, we had $593.4 million of unrestricted cash and cash equivalents. Our cash equivalents include amounts held in money market funds and repurchase agreements. We invest cash in excess of immediate requirements in accordance with our investment policy, which limits the amounts we may invest in certain types of investments and requires all investments held by us to be at least AA- rated, with a remaining final maturity when purchased of less than twenty-four months, so as to primarily achieve liquidity and capital preservation objectives.

We anticipate our cash balance and our expected net cash inflows from operations to allow us to meet our near-term and long-term cash obligations, which are reflected in our condensed consolidated balance sheets. Our most significant fixed obligations are debt obligations and lease commitments, for which annual payments are disclosed in Note 8, *Notes Payable*, and Note 7, *Leases*, respectively, to our financial statements included elsewhere in this Quarterly Report on Form 10-Q. We expect to pay $120.7 million in aggregate principal amount of our 2022 Convertible Notes within the next 12 months.

We may from time to time seek to retire, redeem or repurchase all or part of our outstanding debt through cash purchases and/or exchanges, in open market purchases, privately negotiated transactions, by tender offer or otherwise. Such repurchases, redemptions or exchanges, if any, of our debt will depend on prevailing market conditions, liquidity requirements, contractual restrictions and other factors, and the amounts involved may be material.

In May 2021, our board of directors authorized a program to repurchase up to $150.0 million of our Class A Common Stock. Unless it is terminated or suspended prior to its expiration, the stock repurchase program will remain in effect until December 31, 2022. The timing and amount of any repurchases will be determined based on market conditions, stock price and other factors. The stock repurchase program may be modified, suspended or discontinued at any time without notice. Repurchases may be made through a variety of methods, including open market purchases, privately negotiated transactions, block trades, exchange transactions, accelerated share repurchase transactions, or any combination of such methods. As of March 31, 2022, $32.4 million remained available for share repurchases under this stock repurchase program.

Sources of Liquidity

Until the year ended December 31, 2019, we had incurred losses since our inception in 1998 and we had an accumulated deficit of approximately $832.6 million as of March 31, 2022. We have financed our operations to date primarily through both the private sale of our preferred stock and the public sale of our common stock, debt financings, and cash generated from our operations. As of March 31, 2022, our debt is comprised of $520.7 million aggregate principal amount of convertible notes, due at various dates between 2022 and 2026. Refer to Note 8, *Notes Payable,* to our condensed consolidated financial statements included elsewhere in this Quarterly Report on Form 10-Q, for information related to our debt obligations.

Summary of Cash Flows

The following table summarizes cash flows from operating, investing, and financing activities for the three months ended March 31, 2022 and 2021:

	Three Months Ended March 31,	
	2022	2021
	(in thousands)	
Net cash provided by (used in):		
Operating activities	$ 64,124	$ 73,694
Investing activities	(9)	—
Financing activities	(90,873)	2,211
Net increase (decrease) in cash, cash equivalents, and restricted cash	(26,758)	75,905

Cash Flows from Operating Activities

Net cash provided by operating activities is derived by adjusting net income for non-cash items and changes in operating assets and liabilities, which reflect timing differences between the receipt and payment of cash associated with transactions and when they are recognized in the results of operations. Net cash inflows for the three months ended March 31, 2022 and 2021 were $64.1 million and $73.7 million, respectively, and are primarily from collaboration arrangements revenue related to sales of LINZESS in the U.S.

Cash Flows from Investing Activities

Cash used in investing activities for the three months ended March 31, 2022 was insignificant and pertained to the purchase of property and equipment.

Cash Flows from Financing Activities

Cash used in financing activities for the three months ended March 31, 2022 totaled $90.9 million and resulted from $92.5 million of share repurchases, partially offset by $1.6 million of proceeds from the exercise of stock options.

Cash provided by financing activities for the three months ended March 31, 2021 totaled $2.2 million and was generated from proceeds from the exercise of stock options.

Funding Requirements

We began commercializing LINZESS in the U.S. with our collaboration partner, AbbVie, in the fourth quarter of 2012, and we currently derive a significant portion of our revenue from this collaboration. In addition, we are deploying significant resources to fulfill U.S. FDA requirements for linaclotide. Our goal is to generate and maintain positive cash flows, driven by increased revenue generated through sales of LINZESS and other commercial activities and financial discipline.

Under our collaboration with AbbVie for North America, total net sales of LINZESS in the U.S., as recorded by AbbVie, are reduced by commercial costs incurred by each party, and the resulting amount is shared equally between us and AbbVie. Additionally, we receive royalties from AbbVie based on sales of linaclotide in its licensed territories outside of the U.S. We believe revenues from our LINZESS partnership for the U.S. with AbbVie will continue to constitute a significant portion of our total revenue for the foreseeable future and we cannot be certain that such revenues, as well as the revenues from our other commercial activities, will continue to enable us to generate positive cash flows, or to do so in the timeframes we expect. We also anticipate that we will continue to incur substantial expenses for the next several years as we further develop and commercialize linaclotide in the U.S., develop and commercialize other products, and invest in building our pipeline through internal or external opportunities, including potential payments associated with exercising the Option under the COUR Collaboration Agreement. We believe that our cash on hand as of March 31, 2022 will be sufficient to meet our projected operating needs at least through the next twelve months from the issuance of these financial statements.

Our forecast of the period of time through which our financial resources will be adequate to support our operations, including the underlying estimates regarding the costs to develop, obtain regulatory approval for, and commercialize linaclotide in the U.S., as well as our expectations regarding revenue from Astellas for Japan and AstraZeneca for China (including Hong Kong and Macau), and our goal to generate and maintain positive cash flows, are forward-looking statements that involve risks and uncertainties. Our actual results could vary materially and negatively from these and other forward-looking statements as a result of a number of factors, including the factors discussed under the headings “Note Regarding Forward-Looking Statements” in this Quarterly Report on Form 10-Q and under “Part I, Item 1A—Risk Factors” in our 2021 Annual Report on Form 10-K. We have based our estimates on assumptions that may prove to be wrong, and we could utilize our available capital resources sooner than we currently expect.

Due to the numerous risks and uncertainties associated with the development and commercialization of our product candidates, we are unable to estimate precisely the amounts of capital outlays and operating expenditures necessary to develop, obtain regulatory approval for, and commercialize linaclotide and our other product candidates, in

each case, for all of the markets, indications, populations and formulations for which we believe each is suited. Our funding requirements will depend on many factors, including, but not limited to, the following:

- the revenue generated by sales of LINZESS and CONSTELLA and from any other sources;
- the rate of progress and cost of our commercialization activities, including the expense we incur in marketing and selling LINZESS in the U.S. and from any other sources;
- the success of our third-party manufacturing activities;
- the time and costs involved in developing, and obtaining regulatory approvals for, our product candidates, as well as the timing and cost of any post-approval development and regulatory requirements;
- the success of our research and development efforts;
- the emergence of competing or complementary products;
- the costs of filing, prosecuting, defending and enforcing any patent claims and other intellectual property rights;
- the terms and timing of any collaborative, licensing or other arrangements that we may establish, including milestones, royalties or other payments due or payable under such agreements;
- the settlement method used for our outstanding convertible notes; and
- the acquisition of businesses, products and technologies and the impact of other strategic transactions, as well as the cost and timing of evaluating, acquiring, and, if completed, integrating into our business operations any such assets.

Financing Strategy

We may, from time to time, consider additional funding through a combination of new collaborative arrangements, strategic alliances, and additional equity and debt financings or from other sources. We will continue to manage our capital structure and to consider all financing opportunities, whenever they may occur, that could strengthen our long-term liquidity profile. Any such capital transactions may or may not be similar to transactions in which we have engaged in the past. There can be no assurance that any such financing opportunities will also be available on acceptable terms, if at all.

New Accounting Pronouncements

For a discussion of recent accounting pronouncements, refer to Note 2, *Summary of Significant Accounting Policies*, to our consolidated financial statements in our 2021 Annual Report on Form 10-K and Note 2, *Summary of Significant Accounting Policies*, appearing elsewhere in this Quarterly Report on Form 10-Q.

Trends and Uncertainties

Impact of the COVID-19 Pandemic

The COVID-19 pandemic, including containment and mitigation measures, has impacted, and may continue to impact, our business and operations and financial results, particularly in our day-to-day operations and our collaboration agreement for North America with AbbVie.

Since the beginning of the pandemic, we have monitored the impact of the COVID-19 pandemic in the territories where our customer-facing employees are located. While our customer-facing employees have generally resumed in-person work practices, they may be limited in the number of in-person details and other activities they are able to conduct due to containment and mitigation measures related to the COVID-19 pandemic. Our headquarters have re-opened, but all headquarters employees have the option to work primarily remotely.

We and our partner, AbbVie, are focused on maintaining the availability of LINZESS for adult men and women suffering from IBS-C or CIC. As of the date of this Quarterly Report on Form 10-Q, the COVID-19 pandemic has not caused significant disruptions to manufacturing operations or supply of LINZESS in the U.S.

We include our and AbbVie's collaboration-related selling, general, and administrative expenses, which have historically included expenses from in-person selling activities, in the calculation of net profits from the sale of LINZESS in the U.S. and present net payments to us as collaborative arrangements revenue. As a result of the COVID-19 pandemic, since 2020, we and AbbVie agreed to include certain costs associated with remote selling activities performed by our and AbbVie's customer-facing employees in collaboration-related selling, general and administrative expenses in our calculation of net profits from the sale of LINZESS in the U.S. We have experienced fluctuations in our quarterly settlement payments based on the ratio of selling, general and administrative expenses incurred by each party and may continue to experience such fluctuations in the future as a result of the reimbursement of costs associated with remote selling activities and potential limitations in the number of in-person details we or AbbVie may be able to conduct due to containment and mitigation measures related to the COVID-19 pandemic. The COVID-19 pandemic may negatively impact future net sales of LINZESS in the U.S., including as a result of reduced and/or restricted in-person promotion or potential changes in patient access to healthcare (including due to unemployment or modifications in insurance coverage) and payor reimbursement levels.

Given the uncertainties surrounding the extent and duration of the impact of the pandemic on our business and operations, we continue to evaluate the impact of the COVID-19 pandemic on our operating results and financial condition, and we may incur additional expenses in future periods as a result. Refer to "Risk Factors" in Item 1A of our 2021 Annual Report on Form 10-K for additional information on risks associated with COVID-19 that could impact our operations and results.

Item 3. ***Quantitative and Qualitative Disclosures about Market Risk***

Interest Rate Risk

We are exposed to market risk related to changes in interest rates. We invest our cash in a variety of financial instruments, principally securities issued by the U.S. government and its agencies, collateralized reverse repurchase agreements, and money market instruments. The goals of our investment policy are preservation of capital, fulfillment of liquidity needs and fiduciary control of cash and investments. We also seek to maximize income from our investments without assuming significant risk.

Our primary exposure to market risk is interest income sensitivity, which is affected by changes in the general level of interest rates, particularly because our investments are in short-term marketable securities. Due to the primarily short-term duration of our investment portfolio and the low risk profile of our investments, an immediate 1% change in interest rates would not have a material effect on the fair market value of our portfolio. Accordingly, we would not expect our operating results or cash flows to be affected to any significant degree by the effect of a sudden change in market interest rates on our investment portfolio.

We do not believe our cash and cash equivalents have significant risk of default or illiquidity. While we believe our cash and cash equivalents do not contain excessive risk, we cannot provide absolute assurance that in the future our investments will not be subject to adverse changes in market value. In addition, we maintain significant amounts of cash and cash equivalents at one or more financial institutions that are in excess of federally insured limits. Given the potential instability of financial institutions, we cannot provide assurance that we will not experience losses on these deposits.

Our convertible senior notes bear interest at a fixed rate and therefore have minimal exposure to changes in interest rates; however, because these interest rates are fixed, we may be paying a higher interest rate, relative to market, in the future if our credit rating improves or other circumstances change.

Equity Price Risk

Our convertible notes include conversion and settlement provisions that are based on the price of our Class A Common Stock at conversion or maturity of the notes. The amount of cash we may be required to pay is determined by the price of our Class A Common Stock. The fair values of our convertible notes are dependent on the price and

volatility of our Class A Common Stock and will generally increase or decrease as the market price of our common stock changes.

To minimize the impact of potential dilution to our common stock upon conversion of the notes, we entered into the Convertible Note Hedges and Note Hedge Warrants, with respect to the 2022 Convertible Notes, and the Capped Calls, with respect to the 2024 Convertible Notes and 2026 Convertible Notes.

The convertible notes and derivatives are more fully described in Note 8, *Notes Payable,* in the accompanying notes to our condensed consolidated financial statements appearing elsewhere in this Quarterly Report on Form 10-Q.

Foreign Currency Risk

We have no significant monetary assets or liabilities expected to be settled in foreign currencies and we do not expect to be impacted significantly by foreign currency fluctuations.

Item 4. ***Controls and Procedures***

Evaluation of Disclosure Controls and Procedures

As required by Rule 13a-15(b) of the Securities Exchange Act of 1934, or the Exchange Act, our management, including our principal executive officer and our principal financial officer, conducted an evaluation as of the end of the period covered by this Quarterly Report on Form 10-Q of the effectiveness of the design and operation of our disclosure controls and procedures. Based on that evaluation, our principal executive officer and principal financial officer concluded that our disclosure controls and procedures are effective at the reasonable assurance level in ensuring that information required to be disclosed by us in the reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by us in the reports we file under the Exchange Act is accumulated and communicated to our management, including our principal executive officer and principal financial officer, as appropriate to allow timely decisions regarding required disclosure.

Changes in Internal Control

As required by Rule 13a-15(d) of the Exchange Act, our management, including our principal executive officer and our principal financial officer, conducted an evaluation of the internal control over financial reporting to determine whether any changes occurred during the period covered by this Quarterly Report on Form 10-Q that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Based on management's evaluation, our principal executive officer and principal financial officer concluded no changes during the period covered by this Quarterly Report on Form 10-Q materially affected, or were reasonably likely to materially affect, our internal control over financial reporting.

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PART II OTHER INFORMATION

Item 1A. *Risk Factors*

Our business faces significant risks and uncertainties. Certain important factors may have a material adverse effect on our business prospects, financial condition and results of operations, and you should carefully consider them. Accordingly, in evaluating our business, we encourage you to carefully consider the discussion of risk factors in "Part I, Item 1A—Risk Factors" in our Annual Report on Form 10-K for the year ended December 31, 2021, filed with the Securities and Exchange Commission on February 18, 2022, or the 2021 Annual Report on Form 10-K, in addition to other information contained in or incorporated by reference into this Quarterly Report on Form 10-Q.

There were no material changes from the risk factors previously disclosed in the 2021 Annual Report on Form 10-K.

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

Issuer Purchases of Equity Securities

In May 2021, our board of directors authorized a program to repurchase up to $150.0 million of our Class A Common Stock. Unless it is terminated or suspended prior to its expiration, the stock repurchase program will remain in effect until December 31, 2022. All shares repurchased under our repurchase program will be retired.

The following table summarizes our Class A Common Stock repurchase activity during the three months ended March 31, 2022:

Period	Total Number of Shares Purchased	Average Price Paid Per Share	Total Number of Shares Purchased as Part of Publicly Announced Program	Dollar Value of Shares that May Yet Be Purchased *(in thousands)*
January 1, 2022 - January 31, 2022	2,830,272	$ 11.36	2,830,272	$ 90,695
February 1, 2022 - February 28, 2022	3,105,900	10.99	3,105,900	56,574
March 1, 2022 - March 31, 2022	2,073,100	11.67	2,073,100	32,371
	8,009,272	$ 11.30	8,009,272	$ 32,371

Item 6. *Exhibits*

See the Exhibit Index on the following page of this Quarterly Report on Form 10-Q.

EXHIBIT INDEX

Exhibit No:	Description
3.1	Eleventh Amended and Restated Certificate of Incorporation. Incorporated by reference to Exhibit 3.1 of Ironwood Pharmaceuticals, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2009, filed with the SEC on March 30, 2010.
3.2	Certificate of Retirement. Incorporated by reference to Exhibit 3.2 of Ironwood Pharmaceuticals, Inc.'s Amendment No. 1 to Form 8-A, filed on January 3, 2019.
3.3	Certificate of Amendment of Eleventh Amended and Restated Certificate of Incorporation. Incorporated by reference to Exhibit 3.1 of Ironwood Pharmaceuticals, Inc.'s Current Report on Form 8-K, filed with the SEC on May 31, 2019.
3.4	Fifth Amended and Restated Bylaws. Incorporated by reference to Exhibit 3.2 of Ironwood Pharmaceuticals, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2009, filed with the SEC on March 30, 2010.
31.1*	Certification of Chief Executive Officer pursuant to Rules 13a-14 or 15d-14 of the Exchange Act.
31.2*	Certification of Chief Financial Officer pursuant to Rules 13a-14 or 15d-14 of the Exchange Act.
32.1‡	Certification of Chief Executive Officer pursuant to Rules 13a-14(b) or 15d-14(b) of the Exchange Act and 18 U.S.C. Section 1350.
32.2‡	Certification of Chief Financial Officer pursuant to Rules 13a-14(b) or 15d-14(b) of the Exchange Act and 18 U.S.C. Section 1350.
101.INS*	XBRL Instance Document – The Instance Document does not appear in the Interactive Data Files because its XBRL tags are embedded within the Inline XBRL document.
101.SCH*	XBRL Taxonomy Extension Schema Document.
101.CAL*	XBRL Taxonomy Extension Calculation Linkbase Document.
101.LAB*	XBRL Taxonomy Extension Label Linkbase Database
101.PRE*	XBRL Taxonomy Extension Presentation Linkbase Document
101.DEF*	XBRL Taxonomy Extension Definition Linkbase Document
104*	The cover page from this Quarterly Report on Form 10-Q formatted in Inline XBRL.

* Filed herewith.

‡ Furnished herewith.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, as amended, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

Ironwood Pharmaceuticals, Inc.

Date: May 5, 2022

By: /s/ THOMAS MCCOURT
Thomas McCourt
Chief Executive Officer
(Principal Executive Officer)

Date: May 5, 2022

By: /s/ RONALD SILVER
Ronald Silver
Vice President, Corporate Controller
(Principal Accounting Officer)

EXHIBIT 31.1

CERTIFICATION PURSUANT
TO RULES 13a-14(a) OR 15d-14(a) UNDER
THE SECURITIES EXCHANGE ACT OF 1934

I, Thomas McCourt, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Ironwood Pharmaceuticals, Inc. (the "registrant");

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: May 5, 2022

/s/ THOMAS MCCOURT
Thomas McCourt
Chief Executive Officer

EXHIBIT 31.2

CERTIFICATION PURSUANT
TO RULES 13a-14(a) OR 15d-14(a) UNDER
THE SECURITIES EXCHANGE ACT OF 1934

I, Sravan K. Emany, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Ironwood Pharmaceuticals, Inc. (the "registrant");

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: May 5, 2022

/s/ SRAVAN K. EMANY
Sravan K. Emany
Chief Financial Officer

EXHIBIT 32.1

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report of Ironwood Pharmaceuticals, Inc. (the "Company") on Form 10-Q for the period ended March 31, 2022 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Thomas McCourt, Chief Executive Officer 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, to my knowledge that:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and

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

/s/ THOMAS MCCOURT
Thomas McCourt
Chief Executive Officer

May 5, 2022

A signed original of this written statement required by Section 906 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.

EXHIBIT 32.2

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report of Ironwood Pharmaceuticals, Inc. (the "Company") on Form 10-Q for the period ended March 31, 2022 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Sravan K. Emany, Chief Financial Officer 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, to my knowledge that:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and

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

/s/ SRAVAN K. EMANY
Sravan K. Emany
Chief Financial Officer

May 5, 2022

A signed original of this written statement required by Section 906 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.