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

FORM 10-Q

(Mark one)

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

For the quarterly period ended June 30, 2022

☐ **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: 001-38241

OPTINOSE, INC.

(Exact name of registrant as specified in its charter)

Delaware	**42-1771610**
(State of other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification Number)

1020 Stony Hill Road, Suite 300
Yardley, Pennsylvania 19067
(Address of principal executive offices, including zip code)

(267) 364-3500
(Registrant's telephone number including area code)

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

Title of each class	Trading symbol(s)	Name of each exchange on which registered
Common stock, par value $0.001 per share	OPTN	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 Act).Yes ☐ No ☒

The number of shares of the registrant's common stock outstanding at August 11, 2022 was 83,277,504 shares.

Unless the context otherwise requires, all references in this Form 10-Q to "Optinose," "Company," "we," "us," and "our" refer to OptiNose, Inc. and its subsidiaries.

Trademark Notice

OPTINOSE®, XHANCE®, EDS® and EXHALATION DELIVERY SYSTEM™ are trademarks of ours in the United States. All other trademarks, trade names and service marks appearing in this Form 10-Q are the property of their respective owners. We do not intend our use or display of other companies' trademarks, trade names or service marks to imply a relationship with, or endorsement or sponsorship of us by, any other companies.

NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Form 10-Q contains “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995. These statements include, among others, statements relating to:

- the impact of, our plans regarding and the uncertainties caused by, the COVID-19 pandemic;
- the potential uses for and advantages of XHANCE® and the Exhalation Delivery System (EDS) and related technologies;
- our planned activities in pursuit of a follow-on indication for chronic sinusitis;
- our plan to submit a supplemental new drug application for XHANCE to the U.S. Food and Drug Administration (FDA) by the end of 2022;
- the potential for XHANCE to be the first product approved by the FDA for the treatment of chronic sinusitis;
- the potential for XHANCE to be the standard of care for the treatment of chronic rhinosinusitis with and without nasal polyps;
- the potential for continued XHANCE prescription and net revenue growth and potential drivers of such growth;
- the potential for direct-to-consumer (DTC) advertising to be a future driver of XHANCE prescription growth;
- the potential benefits of our patient affordability programs and their potential effect on XHANCE demand and financial results;
- our ability to maintain sufficient inventory of XHANCE and for our manufacturers to timely supply XHANCE;
- our expectation for XHANCE prescriptions to be impacted by the seasonality observed in the intranasal steroid (INS) market and the seasonal variation in patient visits with their doctor resulting in reduced XHANCE prescription demand in the third quarter;
- our expectation for XHANCE prescriptions and average net revenue per prescription to be adversely impacted by the annual resetting of patient healthcare insurance plan deductibles and changes in individual patients' healthcare insurance coverage, both of which often occur in January;
- our expectation that the research and development costs associated with the conduct of our chronic sinusitis program will significantly decrease;
- our expectation that our GAAP operating expenses in 2022 will be between $129.0 million and $134.0 million and that our non-cash stock-based compensation expense will be approximately $9.0 million;
- our expectation that XHANCE net product revenues for the full year of 2022 will be between $85.0 million and $92.0 million;
- our expectation that the average net product revenue per prescription for XHANCE for the full year of 2022 will exceed $220;
- our belief that our existing cash and cash equivalents will be sufficient to maintain the minimum cash balance required under the Note Purchase Agreement that we entered into with funds managed by Pharmakon Advisors,LP, the investment manager of the BioPharma Credit Funds (the Note Purchase Agreement) and to fund our operations for at least twelve months from the filing date of this Form 10-Q;
- our ability to maintain compliance with the financial covenant to achieve certain minimum trailing twelve-month consolidated XHANCE net product sales and royalties and other provisions under the Note Purchase Agreement and the consequences of failing to do so;
- our expectations and the accuracy of our estimates regarding our future expenses, revenue, capital requirements, potential sources of capital and consequences of failing to obtain additional capital;

as well as other statements relating to our future operations, financial performance and financial condition, prospects, strategies, objectives or other future events. Forward-looking statements appear primarily in the sections of this Form 10-Q entitled “Item 1. Financial Statements,” and “Item 2. Management’s Discussion and Analysis of Financial Condition and Results of Operations.” In some cases, you can identify forward-looking statements by words such as “may,” “will,” “could,” “would,” “should,” “expect,” “intend,” “plan,” “anticipate,” "target," “believe,” “estimate,” “predict,” “project,” “potential,” “continue,” “ongoing,” “scheduled” and similar expressions, although not all forward-looking statements contain these identifying words.

Forward-looking statements are based upon our current expectations and assumptions and are subject to a number of known and unknown risks, uncertainties and other factors that could cause actual results to differ materially and adversely from those expressed or implied by such statements. Factors that could cause or contribute to such differences include, but are not limited to, those discussed in this Form 10-Q and in our annual report on Form 10-K for the year ended December 31, 2021, filed with the Securities and Exchange Commission (SEC), and in particular, the risks and uncertainties discussed therein under the caption “Risk Factors”. Moreover, we operate in a very competitive and rapidly changing environment. New risks emerge from time to time. It is not possible for our management to predict all risks, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements we may make. As a result, you should not place undue reliance on forward-looking statements.

Additionally, the forward-looking statements contained in this Form 10-Q represent our views only as of the date of this Form 10-Q (or any earlier date indicated in such statement). While we may update certain forward-looking statements from time to time, we specifically disclaim any obligation to do so, even if new information becomes available in the future. However, you are advised to consult any further disclosures we make on related subjects in the reports that we file with the SEC.

The foregoing cautionary statements are intended to qualify all forward-looking statements wherever they may appear in this Form 10-Q. For all forward-looking statements, we claim the protection of the safe harbor for forward-looking statements contained in the Private Securities Litigation Reform Act of 1995.

MARKET, INDUSTRY AND OTHER DATA

This Form 10-Q contains estimates, projections, market research and other data generated by independent third parties, by third parties on our behalf and by us concerning markets for XHANCE, XHANCE market access, the INS market and prescription data. Information that is based on estimates, projections, market research or similar methodologies is inherently subject to uncertainties and actual results, events or circumstances may differ materially from results, events and circumstances reflected in this information. As a result, you are cautioned not to give undue weight to such information.

PART I

ITEM 1. FINANCIAL STATEMENTS

OptiNose, Inc.
Consolidated Balance Sheets
(in thousands, except share and per share data)

	June 30, 2022 (unaudited)	December 31, 2021
Assets		
Current assets:		
Cash and cash equivalents	$ 78,264	$ 110,502
Accounts receivable, net	25,766	35,449
Inventory	10,973	11,847
Prepaid expenses and other current assets	3,054	2,581
Total current assets	118,057	160,379
Property and equipment, net	1,063	1,347
Other assets	3,712	4,345
Total assets	$ 122,832	$ 166,071
Liabilities and stockholders' deficit		
Current liabilities:		
Accounts payable	$ 9,829	$ 8,013
Accrued expenses and other current liabilities	45,209	51,222
Total current liabilities	55,038	59,235
Long-term debt, net	127,483	126,418
Other liabilities	1,094	2,190
Total liabilities	183,615	187,843
Stockholders' deficit:		
Common stock, $0.001 par value; 200,000,000 shares authorized at June 30, 2022 and December 31, 2021; 83,044,366 and 82,238,900 shares issued and outstanding at June 30, 2022 and December 31, 2021, respectively	83	82
Additional paid-in capital	594,009	588,288
Accumulated deficit	(654,791)	(610,061)
Accumulated other comprehensive loss	(84)	(81)
Total stockholders' deficit	(60,783)	(21,772)
Total liabilities and stockholders' deficit	$ 122,832	$ 166,071

See accompanying notes to unaudited interim consolidated financial statements

OptiNose, Inc.
Consolidated Statements of Operations
For the Three and Six Months Ended June 30, 2022 and 2021
(in thousands, except share and per share data)
(Unaudited)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2022	2021	2022	2021
Revenues:				
Net product revenues	$ 20,582	$ 18,357	$ 35,342	$ 29,317
Licensing revenues	—	—	—	1,000
Total revenues	20,582	18,357	35,342	30,317
Costs and expenses:				
Cost of product sales	2,143	2,425	4,157	4,165
Research and development	4,270	8,179	9,072	13,404
Selling, general and administrative	29,514	27,308	58,853	54,493
Total operating expenses	35,927	37,912	72,082	72,062
Loss from operations	(15,345)	(19,555)	(36,740)	(41,745)
Other (income) expense:				
Interest income	(36)	(12)	(170)	(33)
Interest expense	4,086	4,012	8,159	7,888
Foreign currency (gains) losses	2	14	1	22
Gain on sale of equipment	—	(67)	—	(67)
Net loss	$ (19,397)	$ (23,502)	$ (44,730)	$ (49,555)
Net loss per share of common stock, basic and diluted	$ (0.23)	$ (0.44)	$ (0.54)	$ (0.93)
Weighted average common shares outstanding, basic and diluted	82,740,096	53,120,574	82,594,786	53,059,492

See accompanying notes to unaudited interim consolidated financial statements

OptiNose, Inc.
Consolidated Statements of Comprehensive Loss
For the Three and Six Months Ended June 30, 2022 and 2021
(in thousands)
(Unaudited)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2022	2021	2022	2021
Net loss	$ (19,397)	$ (23,502)	$ (44,730)	$ (49,555)
Other comprehensive loss:				
Foreign currency translation adjustment	(2)	—	(3)	2
Comprehensive loss	$ (19,399)	$ (23,502)	$ (44,733)	$ (49,553)

See accompanying notes to unaudited interim consolidated financial statements

OptiNose, Inc.
Consolidated Statements of Changes in Stockholders' Deficit
(in thousands, except share data)

Six Months Ended June 30, 2022

	Stockholders' Equity (Deficit)					
	Common Stock		Additional Paid-in Capital	Accumulated Deficit	Accumulated Other Comprehensive Loss	Total Stockholders' Equity (Deficit)
	Shares	Amount				
Balance at December 31, 2021	82,238,900	$ 82	$ 588,288	$ (610,061)	$ (81)	$ (21,772)
Stock compensation expense	—	—	1,998	—	—	1,998
Vesting of restricted stock units	262,942	—	—	—	—	—
Issuance of common stock under employee stock purchase plan	179,206	1	249	—	—	250
Foreign currency translation adjustment	—	—	—	—	(1)	(1)
Net loss	—	—	—	(25,333)	—	(25,333)
Balance at March 31, 2022	82,681,048	$ 83	$ 590,535	$ (635,394)	$ (82)	$ (44,858)
Stock compensation expense	—	—	3,474	—	—	3,474
Vesting of restricted stock units and exercise of options	363,318	—	—	—	—	—
Foreign currency translation adjustment	—	—	—	—	(2)	(2)
Net loss	—	—	—	(19,397)	—	(19,397)
Balance at June 30, 2022	83,044,366	$ 83	$ 594,009	$ (654,791)	$ (84)	$ (60,783)

Six Months Ended June 30, 2021

	Stockholders' Equity (Deficit)					
	Common Stock		Additional Paid-in Capital	Accumulated Deficit	Accumulated Other Comprehensive Loss	Total Stockholders' Equity (Deficit)
	Shares	Amount				
Balance at December 31, 2020	52,945,865	$ 53	$ 534,585	$ (527,765)	$ (85)	$ 6,788
Stock compensation expense	—	—	2,596	—	—	2,596
Vesting of restricted stock units	166,709	—	—	—	—	—
Foreign currency translation adjustment	—	—	—	—	2	2
Net loss	—	—	—	(26,053)	—	(26,053)
Balance at March 31, 2021	53,112,574	$ 53	$ 537,181	$ (553,818)	$ (83)	$ (16,667)
Stock compensation expense	—	—	2,729	—	—	2,729
Vesting of restricted stock units	37,034	—	—	—	—	—
Issuance of common stock under employee stock purchase plan	135,525	—	367	—	—	367
Foreign currency translation adjustment	—	—	—	—	—	—
Net loss	—	—	—	(23,502)	—	(23,502)
Balance at June 30, 2021	53,285,133	$ 53	$ 540,277	$ (577,320)	$ (83)	$ (37,073)

See accompanying notes to unaudited interim consolidated financial statements

OptiNose, Inc.
Consolidated Statements of Cash Flows
For the Six Months Ended June 30, 2022 and 2021
(in thousands)
(Unaudited)

	Six Months Ended June 30,	
	2022	2021
Operating activities:		
Net loss	$ (44,730)	$ (49,555)
Adjustments to reconcile net loss to cash used in operating activities:		
Depreciation and amortization	256	324
Stock-based compensation	5,444	5,343
Amortization of debt discount and issuance costs	1,065	861
Gain on sale of property and equipment	—	(67)
Changes in operating assets and liabilities:		
Accounts receivable	9,683	2,679
Prepaid expenses and other assets	446	451
Inventory	950	(4,218)
Accounts payable	1,810	(1,900)
Accrued expenses and other liabilities	(7,397)	(4,436)
Cash used in operating activities	(32,473)	(50,518)
Investing activities:		
Purchases of property and equipment	(50)	(115)
Proceeds from sale of property and equipment	—	105
Cash used in investing activities	(50)	(10)
Financing activities:		
Cash paid for financing costs	27	(91)
Proceeds from issuance of common stock under employee stock purchase plan	249	367
Cash provided by financing activities	276	276
Effects of exchange rate changes on cash and cash equivalents	3	—
Net decrease in cash, cash equivalents and restricted cash	(32,244)	(50,252)
Cash, cash equivalents and restricted cash at beginning of period	110,515	144,179
Cash, cash equivalents and restricted cash at end of period	$ 78,271	$ 93,927
Supplemental disclosure of noncash activities:		
Fixed asset purchases within accounts payable and accrued expenses	$ 18	$ 23
Recognition of right-of-use assets	$ 287	$ 157
Recognition of lease liabilities	$ 287	$ 157

See accompanying notes to unaudited interim consolidated financial statements

OptiNose, Inc.
Notes to Unaudited Interim Consolidated Financial Statements
(in thousands, except share and per share data)

1. Organization and Description of Business

OptiNose, Inc. (the Company) was incorporated in Delaware in May 2010 (inception) and has facilities in Yardley, Pennsylvania, Ewing, New Jersey, and Oslo, Norway. The Company's predecessor entity, OptiNose AS, was formed under the laws of Norway in September 2000. In 2010, OptiNose AS became a wholly-owned subsidiary of the Company as part of an internal reorganization. During 2022, the Company's board of directors approved the liquidation of Optinose AS and Optinose UK in order to simplify corporate structure.

The Company is a specialty pharmaceutical company focused on the development and commercialization of products for patients treated by ear, nose and throat (ENT) and allergy specialists. The Company's first commercial product, XHANCE® (fluticasone propionate) nasal spray, 93 mcg, is a therapeutic utilizing its proprietary Exhalation Delivery System (EDS) that delivers a topically-acting corticosteroid for the treatment of chronic rhinosinusitis with nasal polyps and, if approved, chronic rhinosinusitis without nasal polyps (also referred to as chronic sinusitis). XHANCE was approved by the United States (US) Food and Drug Administration (FDA) in September 2017 for the treatment of nasal polyps in patients 18 years of age or older. XHANCE was made widely available through commercial channels in April 2018.

2. Liquidity

Since inception, the Company's operations have focused on organization and staffing, business planning, raising capital, establishing an intellectual property portfolio, conducting preclinical studies and clinical trials, pursuing regulatory approvals and most recently, commercializing XHANCE in the US. As of June 30, 2022, the Company had cash and cash equivalents of $78,264. For the six months ended June 30, 2022, the Company had a net loss of $44,730 and negative cash from operations of $32,473. As of June 30, 2022, the Company had an accumulated deficit of $654,791.

The Company will likely require additional capital in the future secured through equity or debt financings, partnerships, collaborations, or other sources in order to meet its debt service obligations, including repayment, under the Company's outstanding senior secured notes, and to carry out the Company's planned development and commercial activities. The terms of the outstanding senior secured notes, including applicable covenants, are described in Note 8. If additional capital is not obtained when required, the Company may need to delay or curtail its operations until additional funding is received.

The Company is subject to a number of risks similar to other life sciences companies, including, but not limited to, successful discovery, development and commercialization of its products and product candidates, raising additional capital, the development by its competitors of new technological innovations, protection of proprietary technology and market acceptance of the Company's products.

3. Basis of Presentation and Summary of Significant Accounting Policies

The accompanying unaudited interim consolidated financial statements have been prepared in conformity with US generally accepted accounting principles (GAAP). Any reference in these notes to applicable guidance is meant to refer to GAAP as found in the Accounting Standards Codification (ASC) and Accounting Standards Updates (ASU) of the Financial Accounting Standards Board (FASB).

In the opinion of management, the accompanying unaudited interim financial statements include all normal and recurring adjustments (which consist primarily of accruals and estimates that impact the financial statements) considered necessary to present fairly the Company's financial position as of June 30, 2022 and its results of operations for the three and six months ended June 30, 2022 and 2021 and cash flows for the six months ended June 30, 2022 and 2021. Operating results for the three and six months ended June 30, 2022 are not necessarily indicative of the results that may be expected for the year ending December 31, 2022. The unaudited interim financial statements, presented herein, do not contain the required disclosures under GAAP for annual financial

statements. The accompanying unaudited interim financial statements should be read in conjunction with the annual audited financial statements and related notes as of and for the year ended December 31, 2021 contained in the Company's annual report on Form 10-K for the year ended December 31, 2021, filed with the SEC on March 8, 2022.

Use of estimates

The preparation of the unaudited interim consolidated financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the unaudited interim consolidated financial statements and reported amounts of expenses during the reporting period. Due to the uncertainty of factors surrounding the estimates or judgments used in the preparation of the unaudited interim consolidated financial statements, actual results may materially vary from these estimates. Estimates and assumptions are periodically reviewed and the effects of revisions are reflected in the unaudited interim consolidated financial statements in the period they are determined to be necessary.

Concentration of credit risk

Financial instruments that potentially subject the Company to concentrations of credit risk are primarily cash and accounts receivable. The Company generally invests its cash in deposits with high credit quality financial institutions. Additionally, the Company performs periodic evaluations of the relative credit standing of these financial institutions.

Customer and supplier concentration

The Company has exposure to credit risk in accounts receivable from sales of product. XHANCE is sold to wholesale pharmaceutical distributors and preferred pharmacy network (PPN) partners, who, in turn, sell XHANCE to pharmacies, hospitals and other customers. Five customers represented approximately 40% of the Company's accounts receivable at June 30, 2022 and five customers represented approximately 26% and 29% of the Company's net product sales for the three and six months ended June 30, 2022.

The Company purchases XHANCE and its components from several third-party suppliers and manufacturing partners, certain of which are available through a single source. Although the Company could obtain each of these components from alternative third-party suppliers, it would need to qualify and obtain FDA approval for another supplier as a source for each such component. The Company has initiated the process of qualifying an alternate third-party supplier for select components of XHANCE. Alternate third party suppliers of XHANCE components are subject to qualification and approval from the FDA.

Fair value of financial instruments

At June 30, 2022 and December 31, 2021, the Company's financial instruments included cash and cash equivalents, accounts receivable, grants receivable, accounts payable and accrued expenses. The carrying amounts reported in the Company's financial statements for these instruments approximate their respective fair values because of the short-term nature of these instruments. In addition, the Company believes that at June 30, 2022, the carrying value of long-term debt approximated fair value as the interest rates are reflective of the rate the Company could obtain on debt with similar terms and conditions. At June 30, 2022 and December 31, 2021, there were no financial assets or liabilities measured at fair value on a recurring basis.

Restricted cash

As of June 30, 2022 and December 31, 2021, the restricted cash balance included in prepaid expenses and other assets was $7 and $13, respectively.

Net product revenues

The Company accounts for revenue in accordance with ASC Topic 606, *Revenue from Contracts with Customers* (ASC 606), which the Company adopted on January 1, 2018. The Company recognizes revenue from XHANCE

sales at the point customers obtain control of the product, which generally occurs upon delivery. The transaction price that is recognized as revenue for products includes an estimate of variable consideration. The Company's estimates of variable consideration and determination of whether to include estimated amounts in the transaction price are based largely on an assessment of its anticipated performance and all information (historical, current and forecasted) that is reasonably available. The components of the Company's variable consideration include the following:

Provider Chargebacks and Discounts. Chargebacks for fees and discounts to providers represent the estimated obligations resulting from contractual commitments to sell products to qualified healthcare providers at prices lower than the list prices charged to customers who directly purchase the product from the Company. Customers charge the Company for the difference between what they pay for the product and the ultimate selling price to the qualified healthcare providers. These components of variable consideration are established in the same period that the related revenue is recognized, resulting in a reduction of product revenue and accounts receivable.

Trade Discounts and Allowances. The Company generally provides customers with discounts that include incentive fees which are explicitly stated in the Company's contracts. These discounts are recorded as a reduction of revenue and accounts receivable in the period in which the related product revenue is recognized.

Product Returns. Consistent with industry practice, the Company has a product returns policy that provides customers a right of return for product purchased within a specified period prior to and subsequent to the product's expiration date. The Company estimates the amount of its product that may be returned and presents this amount as a reduction of revenue in the period the related product revenue is recognized, in addition to establishing a liability. The Company considers several factors in the estimation process, including expiration dates of product shipped to customers, inventory levels within the distribution channel, product shelf life, prescription trends and other relevant factors.

Government Rebates. The Company is subject to discount obligations under state Medicaid programs and Medicare. Reserves related to these discount obligations are recorded in the same period the related revenue is recognized, resulting in a reduction of product revenue and the establishment of a current liability. The Company's liability for these rebates consists of estimates of claims for the current quarter and estimated future claims that will be made for product that has been recognized as revenue but remains in the distribution channel inventories at the end of the reporting period.

Payor Rebates. The Company contracts with certain third-party payors, primarily health insurance companies and pharmacy benefit managers, for the payment of rebates with respect to utilization of its products. These rebates are based on contractual percentages applied to the amount of product prescribed to patients who are covered by the plan or the organization with which it contracts. The Company estimates these rebates and records such estimates in the same period the related revenue is recognized, resulting in a reduction of product revenue and the establishment of a current liability.

Patient Assistance. Other programs that the Company offers include voluntary co-pay patient assistance programs intended to provide financial assistance to eligible patients with prescription drug co-payments required by payors and coupon programs for cash payors. The calculation of the current liability for this assistance is based on an estimate of claims and the cost per claim that the Company expects to receive associated with product that has been recognized as revenue but remains in the distribution channel inventories at the end of each reporting period.

Distribution and Other Fees. The Company pays distribution and other fees to certain customers in connection with the sales of its products. The Company records distribution and other fees paid to its customers as a reduction of revenue, unless the payment is for a distinct good or service from the customer and the Company can reasonably estimate the fair value of the goods or services received. If both conditions are met, the Company records the consideration paid to the customer as an operating expense. These costs are typically known at the time of sale, resulting in minimal adjustments subsequent to the period of sale.

Licensing revenues

(in thousands, except share and per share data)

The Company has license agreements with Centessa Pharmaceuticals (Centessa) and Currax Pharmaceuticals LLC (Currax). These license agreements provide for exclusive licensed rights to certain intellectual property, a non-refundable up-front payment, potential milestone payment(s) and potential royalty payment(s). The Company analyzed the performance obligations under the license agreements, the consideration received to date and the consideration the Company could receive in the future as part of its analysis related to ASC 606. The Company is not eligible to receive any further payments under the Currax license agreement other than reimbursement for certain expenses. The Company does not expect to any receive license revenues under the Centessa agreement in the near term.

Net income (loss) per common share

Basic net income (loss) per common share is determined by dividing net income (loss) applicable to Company common stock (Common Stock) holders by the weighted average common shares outstanding during the period. For the three and six months ended June 30, 2022 and 2021, the outstanding Common Stock options, Restricted Stock units, Common Stock warrants and shares to be issued under the Company's 2017 Employee Stock Purchase Plan have been excluded from the calculation of diluted net loss per share because their effect would be anti-dilutive. Therefore, the weighted average shares used to calculate both basic and diluted net loss per share are the same.

Diluted net loss per common share for the periods presented do not reflect the following potential common shares, as the effect would be antidilutive:

	June 30,	
	2022	2021
Stock options	10,235,914	7,980,424
Restricted stock units	2,201,683	2,198,766
Common stock warrants	2,500,000	810,357
Employee stock purchase plan	208,138	—
Total	15,145,735	10,989,547

Income taxes

In accordance with ASC 270, *Interim Reporting*, and ASC 740, *Income Taxes*, the Company is required at the end of each interim period to determine the best estimate of its annual effective tax rate and then apply that rate in providing for income taxes on a current year-to-date (interim period) basis. For the three and six months ended June 30, 2022 and 2021, the Company recorded no tax expense or benefit due to the expected current year loss and its historical losses. As of June 30, 2022 and December 31, 2021, the Company concluded that a full valuation allowance would be necessary for all of its net deferred tax assets. The Company had no amounts recorded for uncertain tax positions, interest or penalties in the accompanying consolidated financial statements.

4. Inventory

Inventory consisted of the following:

	June 30, 2022	December 31, 2021
Raw materials	$ 2,508	$ 3,504
Work-in-process	5,989	4,816
Finished goods	2,476	3,527
Total inventory	$ 10,973	$ 11,847

Inventories are stated at the lower of cost or net realizable value, as determined on a first-in, first-out, basis.

(in thousands, except share and per share data)

5. Property and Equipment

Property and equipment, net, consisted of the following:

	June 30, 2022	December 31, 2021
Computer equipment and software	$ 1,199	$ 1,173
Furniture and fixtures	366	366
Machinery and equipment	3,061	3,367
Leasehold improvements	609	609
Construction in process	115	115
	5,350	5,630
Less: accumulated depreciation	(4,287)	(4,283)
	$ 1,063	$ 1,347

Depreciation expense was $137 and $119 for the three months ended June 30, 2022 and 2021, respectively. Depreciation expense was $255 and $323 for the six months ended June 30, 2022 and 2021, respectively. In addition, depreciation expense of $651 and $10 was charged to inventory and prepaid expenses and other assets, respectively, as of June 30, 2022, which represents depreciation expense related to equipment involved in the manufacturing process.

6. Accrued Expenses and Other Current Liabilities

Accrued expenses and other current liabilities consisted of:

	June 30, 2022	December 31, 2021
Accrued expenses:		
Selling, general and administrative expenses	$ 7,016	$ 6,124
Research and development expenses	3,086	6,857
Payroll expenses	7,332	7,569
Product revenue allowances	23,126	26,521
Other	2,293	2,057
Total accrued expenses	42,853	49,128
Other current liabilities:		
Lease liability	2,356	2,094
Total other current liabilities	2,356	2,094
Total accrued expenses and other current liabilities	$ 45,209	$ 51,222

7. Licensing Revenue

Currax License Agreement

On September 25, 2019, OptiNose AS entered into a license agreement (the Currax License Agreement) with Currax pursuant to which the Company granted Currax a license to certain intellectual property for the commercialization of Onzetra Xsail® in the US, Canada and Mexico.

Under the terms of the Currax License Agreement, Currax paid the Company an upfront payment of $3,730, which was recognized as license revenue during the year ended December 31, 2019. On December 29, 2020, the Company received an additional $750 upon the expiration of the escrow that was established for a limited period to cover potential indemnification obligations. In addition, in January 2021 the Company received a $1,000 milestone payment in connection with the achievement of a specified regulatory milestone. The Company is no longer eligible to receive any further payments from Currax under the terms of the Currax License Agreement other than reimbursement for certain expenses.

(in thousands, except share and per share data)

8. Long-term Debt

On September 12, 2019 (the Closing Date), the Company entered into a Note Purchase Agreement with funds managed by Pharmakon Advisors, LP (Pharmakon), the investment manager of BioPharma Credit Funds (BioPharma). The Note Purchase Agreement provided the Issuer with $130,000 in debt financing, of which $80,000 of Pharmakon Senior Secured Notes was issued on the Closing Date, $30,000 was issued on February 13, 2020 after achieving the $9,000 consolidated XHANCE net sales and royalties threshold for the quarter ended December 31, 2019 and $20,000 was issued on December 1, 2020 after achieving the $14,500 consolidated XHANCE net sales and royalties threshold for the quarter ended September 30, 2020.

The Pharmakon Senior Secured Notes bear interest at a fixed rate of 10.75% per annum and are scheduled to mature on September 12, 2024 (the Maturity Date). Principal repayments will commence on September 15, 2023, with five equal quarterly installments of principal and interest through the Maturity Date.

The Issuer is required to repay the Pharmakon Senior Secured Notes in full upon the occurrence of a change of control (as defined in the Note Purchase Agreement). In addition, the Issuer may make voluntary prepayments in whole or in part. All mandatory and voluntary prepayments are subject to the payment of prepayment premiums as follows: (i) if prepayment occurs prior to the third anniversary of the Closing Date, an amount equal to 2% of the principal prepaid, (ii) if prepayment occurs on or after the third anniversary of the Closing Date but prior to the fourth anniversary of the Closing Date, an amount equal to 1% of the principal prepaid, and (iii) if prepayment occurs on or after the fourth anniversary of the Closing Date, no prepayment premium is required. The Company is also required to pay a "make-whole" amount in respect of any principal prepayments (whether mandatory or voluntary) made prior to the 30-month anniversary of the closing of the Company's underwritten public offering on November 18, 2021, in an amount equal to the interest that would have accrued through the 30-month anniversary in respect of such note but for such principal prepayment, provided that in the case of any prepayment made prior to the 15-month anniversary, the Company will not be required to pay a "make-whole" amount in excess of an amount equal to the interest that would have accrued through the 15-month anniversary but for such principal prepayment.

The Pharmakon Senior Secured Notes are secured by a pledge of substantially all of the assets of the Issuer and the Guarantors and the Note Purchase Agreement contains affirmative and negative covenants customary for financings of this type, including limitations on the Company’s and its subsidiaries’ ability, among other things, to incur additional debt, grant or permit additional liens, make investments and acquisitions, merge or consolidate with others, dispose of assets, pay dividends and distributions, repay junior indebtedness and enter into affiliate transactions, in each case, subject to certain exceptions. In addition, the Note Purchase Agreement contains financial covenants requiring the Company to maintain at all times certain minimum trailing twelve-month consolidated XHANCE net sales and royalties, tested on a quarterly basis, and at least $30,000 of cash and cash equivalents. As of June 30, 2022, the Company was in compliance with the covenants. The Note Purchase Agreement also includes events of default customary for financings of this type, in certain cases subject to customary periods to cure, following which BioPharma may accelerate all amounts outstanding under the Pharmakon Senior Secured Notes.

The Company recorded interest expense of $4,086 and $4,012 during the three months ended June 30, 2022 and 2021, respectively, and $8,159 and $7,888 during the six months ended June 30, 2022 and 2021, respectively. Interest expense included total coupon interest and the amortization of debt issuance costs.

The long-term debt balance is comprised of the following:

	June 30, 2022	December 31, 2021
Face amount	$ 130,000	$ 130,000
Front end fees	(559)	(717)
Debt issuance costs	(3,258)	(4,165)
Back end fees	1,300	1,300
Long-term debt, net	$ 127,483	$ 126,418

(in thousands, except share and per share data)

9. Employee Benefit Plans

For US employees, the Company maintains a defined contribution 401(k) retirement plan. As of June 30, 2022, $91 was recorded in accrued liabilities related to the Company match. The Company's contributions are made in cash.

For foreign employees, the Company maintains a defined contribution pension plan which meets the statutory requirements of the jurisdiction. The Company incurred costs related to the pension plan of $2 and $1 for the three months ended June 30, 2022 and 2021, respectively, and $3 and $3 for the six months ended June 30, 2022 and 2021, respectively.

10. Stockholders' Equity

Common stock warrants

On November 18, 2021, in conjunction with the Second Amendment to the Note Purchase Agreement (the Second Amendment), the Company issued warrants to purchase an aggregate of 2,500,000 shares of Common Stock at an exercise price of $1.60 and fair value of $2,009. Upon execution of the Second Amendment, warrants previously issued of 810,357 at a share price of $6.72 which were set to expire on September 12, 2022, were cancelled.

As of June 30, 2022, the Company had the following warrants outstanding to purchase shares of Common Stock:

Number of Shares	Exercise Price Per Share	Expiration Date
2,500,000	$1.60	November 18, 2024

11. Stock-based Compensation

The Company recorded stock-based compensation expense related to stock options and shares issued under the Company's 2010 Stock Incentive Plan and 2017 Employee Stock Purchase Plan (2017 Plan) in the following expense categories of its accompanying consolidated statements of operations for the three and six months ended June 30, 2022 and 2021:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2022	2021	2022	2021
Cost of product sales	$ 7	$ 6	$ 20	$ 17
Research and development	233	286	429	567
General and administrative	3,204	2,441	4,995	4,759
	$ 3,444	$ 2,733	$ 5,444	$ 5,343

In addition, stock-based compensation expense of $85 and $1 was charged to inventory and prepaid expenses and other assets, respectively, during the six months ended June 30, 2022, which represents the total stock-based compensation expense incurred related to employees involved in the manufacturing process of finished goods and samples during the period.

(in thousands, except share and per share data)

Stock Options

The Company issues stock-based awards pursuant to its 2010 Stock Incentive Plan. Effective as of October 12, 2017, the Company's 2010 Stock Incentive Plan was amended and restated (A&R Plan).The Company has issued service-based, performance-based, and market-based stock options that generally have a contractual life of up to 10 years and may be exercisable in cash or as otherwise determined by the Company's board of directors or committee thereof. Vesting generally occurs over a period of not greater than four years. Performance-based options may vest upon the achievement of certain milestones. As of June 30, 2022, all of the performance conditions related to performance-based stock options issued by the Company had been achieved. Market-based options may vest upon the achievement of certain market-based objectives relating to the trading price of the Common Stock.

The following table summarizes the activity related to stock option grants to employees and non-employees for the six months ended June 30, 2022:

	Shares	Weighted average exercise price per share	Weighted average remaining contractual life
Outstanding at December 31, 2021	7,958,781	$ 8.87	6.50
Granted	2,902,370	1.88	
Exercised	(67,125)	1.63	
Expired	(135,983)	8.89	
Forfeited	(422,129)	3.86	
Outstanding at June 30, 2022	10,235,914	$ 7.65	6.62
Exercisable at June 30, 2022	5,819,746	$ 10.37	5.26
Vested and expected to vest at June 30, 2022	9,342,884	$ 7.65	6.62

During the six months ended June 30, 2022, stock options to purchase 2,902,370 shares of Common Stock were granted to employees and generally vest over four years. Included in the total stock options granted were market-based options to purchase 959,215 shares of Common Stock. The stock options, including the market-based options, had an estimated weighted average grant date fair value of $1.19. During the six months ended June 30, 2021, stock options to purchase 1,542,696 shares of Common Stock were granted to employees that generally vest over four years. The stock options had an estimated weighted average grant date fair value of $2.29.

The grant date fair value of each stock option grant, other than market-based stock option grants, was estimated at the time of grant using the Black-Scholes option-pricing model using the following weighted average assumptions:

	Six Months Ended June 30,	
	2022	2021
Risk free interest rate	1.82 %	1.00 %
Expected term (in years)	6.08	6.08
Expected volatility	72.67 %	74.28 %
Annual dividend yield	0.00 %	0.00 %
Fair value of common stock	$ 1.90	$ 3.52

At June 30, 2022, the unrecognized compensation cost related to unvested stock options, other than market-based stock options, expected to vest was $6,655. This unrecognized compensation will be recognized over an estimated weighted-average amortization period of 2.28 years.

During the six months ended June 30, 2022, market-based options to purchase 959,215 shares of Common Stock were granted to employees and generally become eligible to vest over four years, subject to the achievement of certain market-based objectives relating to the trading price of the Common Stock. Stock based compensation for these awards is recognized over the derived service period of approximately 2 years. The grant date fair value of

(in thousands, except share and per share data)

each stock option grant, as well as the derived service period for these awards, was estimated at the time of grant using a Monte Carlo simulation based on the following assumptions:

	Six Months Ended June 30, 2022
Risk free rates of return	1.70 %
Expected volatility	75.00 %
Annual dividend yield	— %

Restricted Stock Units

The Company has issued service-based and performance-based restricted stock units (RSUs). Vesting generally occurs over a period not greater than four years. Vesting of the performance-based RSUs is subject to the achievement of certain milestones in connection with the Company's development programs.

The following table summarizes the activity related to RSUs granted to employees for the six months ended June 30, 2022:

	Shares
Outstanding at December 31, 2021	1,959,358
Granted	1,105,246
Vested and settled	(598,775)
Expired/forfeited/canceled	(264,146)
Outstanding at June 30, 2022	2,201,683
Expected to vest at June 30, 2022	2,201,683

During the six months ended June 30, 2022, the Company granted 1,105,246 RSUs at a grant date fair value of $1.85, all of which were service-based RSUs. No performance-based RSUs were granted in 2022. As of June 30, 2022, one of the milestones associated with the previously granted performance based-RSUs was achieved. As a result 248,830 RSUs vested on June 15, 2022 and stock based compensation expense of $1,346 was recognized for these awards. At June 30, 2022, the unrecognized compensation cost related to unvested service-based RSUs expected to vest was $5,041, to be recognized over an estimated weighted-average amortization period of 2.63 years. The unrecognized compensation cost related to unvested performance-based RSUs was $1,749, which will be recognized over the remaining service period.

Included in the table above are 60,000 RSUs granted outside the A&R Plan. The grants were made pursuant to the Nasdaq inducement grant exception in accordance with Nasdaq Listing Rule 5635(c)(4).

2017 Employee Stock Purchase Plan

Under the 2017 Plan, shares of Common Stock may be purchased by eligible employees who elect to participate in the 2017 Plan at 85% of the lower of the fair market value of Common Stock on the first or last day of designated offering periods. The Company recognized stock-based compensation expense of $74 and $91 during the three months ended June 30, 2022 and 2021, respectively, and $162 and $199 during the six months ended June 30, 2022 and 2021, respectively, related to the 2017 Plan.

(in thousands, except share and per share data)

The Company calculated the fair value of each option grant and the shares issued under the 2017 Plan on the respective dates of grant using the following weighted average assumptions:

	Six Months Ended June 30,	
	2022	2021
Risk free interest rate	0.22 %	0.09 %
Expected term (in years)	0.5	0.5
Expected volatility	88.56 %	86.88 %
Annual dividend yield	0.00 %	0.00 %

15. Subsequent Events

On August 10, 2022, the Company entered into a Third Amendment to the Note Purchase Agreement (the Third Amendment). The Third Amendment reduced the minimum consolidated XHANCE net sales and royalties required to be achieved under the Note Purchase Agreement for the trailing twelve-month period ending December 31, 2022 from $90,000 to $85,000 in exchange for a $780 fee due on the repayment of the Pharmakon Senior Secured Notes.

ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

You should read this section in conjunction with our unaudited interim consolidated financial statements and related notes included in Part I. Item 1 of this Form 10-Q and our audited consolidated financial statements and related notes thereto and "Management's Discussion and Analysis of Financial Condition and Results of Operations" included in our Annual Report on Form 10-K for the year ended December 31, 2021, filed with the Securities and Exchange Commission (SEC) on March 8, 2022. In addition to historical information, some of the information contained in this discussion and analysis includes forward-looking statements that involve risks and uncertainties. As a result of many factors, our actual results could differ materially from the results described in or implied by such forward-looking statements. Please refer to the "Note Regarding Forward-Looking Statements" section of this Form 10-Q for additional information.

Company Overview

We are a specialty pharmaceutical company focused on the development and commercialization of products for patients treated by ear, nose and throat (ENT) and allergy specialists. Our first commercial product, XHANCE® (fluticasone propionate) nasal spray, 93 micrograms (mcg), is a therapeutic utilizing our proprietary Exhalation Delivery System (EDS) that delivers a topically-acting corticosteroid for the treatment of chronic rhinosinusitis with nasal polyps and, if approved, chronic rhinosinusitis without nasal polyps (also known as chronic sinusitis). Chronic rhinosinusitis is a serious nasal inflammatory disease that is treated using therapies, such as intranasal steroids (INS), which have significant limitations. We believe XHANCE has a differentiated clinical profile with the potential to become part of the standard of care for this disease because it is able to deliver medication to the primary site of inflammation high and deep in the nasal passages in regions not adequately reached by conventional INS.

In September 2017, the U.S. Food and Drug Administration (FDA) approved XHANCE for the treatment of nasal polyps in patients 18 years of age or older. XHANCE was made widely available through commercial channels in April 2018.

We have completed two Phase 3b clinical trials of XHANCE for a follow-on indication for the treatment of chronic sinusitis. Positive top-line results from the trials were announced in March and June 2022. Based on the results of these trials, XHANCE has the potential to be the first drug therapy approved by the FDA for the treatment of chronic sinusitis. We plan to submit a supplemental new drug application for XHANCE to the U.S. Food and Drug Administration (FDA) by the end of 2022.

Business Updates in Response to the COVID-19 Pandemic

The COVID-19 pandemic has caused business and economic disruption, and the duration and impact of that disruption is uncertain at this time.

- Where permitted by governmental requirements and the policies of physician offices, our territory managers began to return to in-person detailing of physicians in May and June 2020. Given the localized nature of the restrictions that are in place and the potential for restrictions to return, we have equipped our territory managers to operate in an environment that will include a mix of virtual and in-person physician detailing with dependencies on geography and time. We are currently operating under a hybrid-model for our office-based employees which includes a mix of in-office and work-from-home days.
- Federal, state and local government requirements and guidances have impacted virtually all of the physicians' offices in which our territory managers detail XHANCE. These impacts include reduced patient visits, temporary halt of territory managers' visits, restrictions imposed on territory managers' visits and temporary closings of physicians' offices.
- Although XHANCE prescriptions have grown since the start of the pandemic, the rate of growth was below our pre-pandemic expectations. The duration and magnitude of the impact of the COVID-19 pandemic on XHANCE prescriptions and XHANCE net revenue remains uncertain and it has and could in the future continue to affect our ability to remain in compliance with the financial covenant to achieve certain minimum trailing twelve month consolidated XHANCE net product sales and royalties and other covenants under that certain Note Purchase Agreement dated as of September 12, 2019 that we entered into with funds managed by Pharmakon Advisors, LP (Pharmakon), the investment manager of the BioPharma Credit Funds (BioPharma), as amended pursuant to that certain letter agreement dated as of August 13, 2020, as further amended by that certain First Amendment to Note Purchase Agreement dated as of March 2, 2021, as further amended pursuant to that certain Second Amendment to Note Purchase Agreement dated as of

November 16, 2021, and as further amended pursuant to that certain Third Amendment dated as of August 10, 2022 (as so amended, the Note Purchase Agreement).

- We believe we are maintaining appropriate levels of finished product inventories in the event of future supply disruption; however, the duration and magnitude of a future negative impact from the COVID-19 pandemic could constrain our supply of XHANCE.
- For subjects participating in our two chronic sinusitis trials, procedures to facilitate ongoing treatment and capture of data during periods of in-person care restrictions were put in place. Pauses in patient enrollment due to factors related to the COVID-19 pandemic had varying effects in different geographies resulted in delays and additional costs associated with our chronic sinusitis trials.

The full impact of the COVID-19 pandemic on our business is still unknown. It is likely to continue to have adverse impacts on XHANCE prescription growth and net revenues as a result of fewer patients visiting physician offices, restrictions imposed by some physician offices relating to territory managers' visits, changes in employment that can adversely affect availability of insurance coverage of XHANCE, our ability to maintain compliance with the financial and other covenants under the Note Purchase Agreement, and the availability and cost of capital for us to fund our business operations and service our debt. We will continue to assess the evolving impact of the COVID-19 pandemic and will make adjustments to our operations as necessary.

XHANCE Business Update

We track and report metrics that we believe are an important part of assessing our progress in key strategic areas including:

- XHANCE Prescriptions and Market Share. Based on third-party prescription data as well as data from PPN partners, the total estimated number of XHANCE prescriptions in the second quarter of 2022 was 87,600, which represents 6% growth for prescriptions when compared to estimated second quarter 2021 prescriptions of 82,900. The INS prescription market increased 4% from second quarter 2021 to second quarter 2022 based on third-party prescription data. In addition, the total estimated number of XHANCE prescriptions was 86,300 in the third quarter of 2021, 93,700 in the fourth quarter of 2021, and 80,600 in the first quarter of 2022. The decrease of prescriptions from fourth quarter 2021 to first quarter 2022 was primarily driven by changes to our co-pay assistance program in January 2022 intended to increase average net revenue per prescription by decreasing the proportion of prescriptions filled by patients with insurance coverage that required co-pays above a target threshold as well as by seasonal factors as described below.

  A seasonal effect has historically been observed in the INS prescription market in which market volume generally peaks near the middle of the second quarter and declines into the early part of the third quarter of each calendar year. Based on third-party prescription data, INS market prescriptions decreased 4% from fourth quarter 2020 to the first quarter of 2021, increased 14% from the first quarter of 2021 to the second quarter of 2021, decreased 4% from the second quarter of 2021 to the third quarter of 2021, increased 1% from the third quarter 2021 to the fourth quarter 2021, were flat from the fourth quarter of 2021 to the first quarter of 2022, and increased 7% from the first quarter of 2022 to the second quarter 2022. In addition, based on third-party prescription data, INS market prescriptions were flat from full year 2020 to full year 2021.

  Although the underlying disease that we are treating is chronic and causes symptoms year-round, we believe the variation in patient flow through the offices of relevant physician specialists, and seasonality in disease flare-ups, has an impact on the number of patients that present themselves and who are therefore available to receive a new prescription for XHANCE. Demand has historically been, and we expect will continue to be, impacted by the INS market seasonality and the seasonal variation in patient visits with their doctor, resulting in reduced XHANCE prescription demand in the third quarter.

  Additionally, we believe that first quarter prescription demand and average net revenue per prescription for XHANCE is adversely impacted by the annual resetting of patient healthcare insurance plan deductibles and changes in individual patients' healthcare insurance coverage, both of which often occur in January.

  We track the market share of XHANCE within our current target audience. For this purpose, we calculate market share as the proportion of XHANCE prescriptions to the number of prescriptions written for other INS within our current target audience of approximately 21,000 physicians. Our target physician audience includes all ENT and Allergy specialist physicians who, based on third-party data, write intranasal steroid

spray prescriptions. In addition, our current target audience includes specialty-like primary care physicians called on by our territory managers.

We believe market share, in addition to XHANCE prescription volume, provides important information regarding XHANCE utilization because market share normalizes XHANCE prescriptions for market effects including the INS market seasonality, seasonal variation in patient visits with their doctor, annual deductible resets and annual changes in individual patient's healthcare insurance coverage referenced above. Based on third-party prescription data as well as data from PPN partners, we estimate XHANCE had a market share in our current target audience of 21,000 physicians of 4.8% in the fourth quarter of 2020, 5.0% in the first quarter of 2021, 5.2% in the second quarter of 2021, 5.7% in the third quarter of 2021, 5.9% in the fourth quarter of 2021, 5.4% in the first quarter of 2022, and 5.6% in the second quarter of 2022 . Note that most of the INS prescriptions written within our target physician audience are for chronic sinusitis, allergic rhinitis and other conditions outside of our nasal polyp indication. Our target physician audience is subject to revision each quarter to account for changes such as revised sales target prioritization, and physician retirements. Changes to the target physician audience can contribute to some of the quarter-over-quarter change in market share.

- XHANCE New Prescriptions and Refill Prescriptions. The underlying disease that we are treating is chronic and, as a result, many patients may fill multiple prescriptions per year. We monitor new prescriptions as they create the potential for future refill prescriptions. Based on third-party prescription data as well as data from PPN partners, the total estimated number of XHANCE new prescriptions in the second quarter of 2022 was 29,200, which represents 1% growth for new prescriptions when compared to estimated second quarter 2021 new prescriptions of 29,000. In addition, the total estimated number of XHANCE new prescriptions was 27,900 in the third quarter of 2021, 29,900 in the fourth quarter of 2021, and 28,200 in the first quarter of 2022. Based on third-party prescription data, the INS market for new prescriptions increased 8% from the second quarter of 2021 to the second quarter of 2022 and increased 7% from the first quarter of 2022 to the second quarter of 2022.

  We track refill prescriptions and provide patient assistance to support refill programs that are administered by our PPN partners. Based on third-party prescription data as well as data from PPN partners, the total estimated number of XHANCE refill prescriptions in the second quarter of 2022 was 58,400, which represents 8% growth for refill prescriptions when compared to estimated second quarter 2021 refill prescriptions of 53,900. In addition, the total estimated number of XHANCE refill prescriptions was 58,400 in the third quarter of 2021, 63,800 in the fourth quarter of 2021, and 52,400 in the first quarter of 2022.

- Prescribing Breadth and Depth. We track the number of physicians who prescribe XHANCE in a time period to evaluate the breadth of prescribing. Based on third-party prescription data as well as data from PPN partners, the total estimated number of physicians who had at least one patient fill a prescription for XHANCE in the second quarter of 2022 was 7,600, which represents 6% growth when compared to the estimated 7,188 physicians who had at least one patient fill a prescription for XHANCE in the second quarter of 2021. In addition, the total estimated number of physicians who had at least one patient fill a prescription for XHANCE was 7,196 in the third quarter of 2021, 7,532 in the fourth quarter of 2021, and 7,690 in the first quarter of 2022.

  We also track the number of prescriptions filled by a prescribing physician's patients in a time period to evaluate depth of prescribing. Based on third-party prescription data as well as data from PPN partners, the total estimated number of physicians who had more than 15 XHANCE prescriptions filled by their patients in the second quarter of 2022 was 1,550, which represents 10% growth when compared to the estimated 1,414 physicians who had more than 15 XHANCE prescriptions filled by their patients in the second quarter of 2021. In addition, the total estimated number of physicians who had more than 15 XHANCE prescriptions filled by their patients was 1,459 in the third quarter of 2021, 1,589 in the fourth quarter of 2021, and 1,468 in the first quarter of 2022.

- XHANCE Net Product Revenues per Prescription. We calculate average net product revenues per prescription, one metric that we use to gauge the profitability of XHANCE, by dividing net product revenues for the quarter by the estimated number of XHANCE prescriptions dispensed during the quarter. Average XHANCE net product revenues per prescription were $235 in the second quarter of 2022 which represents an approximately 6% increase when compared to the $221 average XHANCE net product revenues per prescription in the second quarter of 2021. This increase was primarily driven by changes to our co-pay assistance program in January 2022 intended to increase average net revenue per prescription by decreasing the proportion of prescriptions filled by patients with insurance coverage that required co-pays

above a target threshold. In addition, average XHANCE net revenues per prescription were $253 in the third quarter of 2021, $240 in the fourth quarter of 2021, and $183 in the first quarter of 2022. Average XHANCE net product revenues per prescription were $210 for the six months ended June 30, 2022 which represents an approximately 12% increase when compared to the $188 average XHANCE net product revenues per prescription for the six months ended June 30, 2021.

Sales, Marketing & Distribution

We have established a commercial infrastructure designed to drive adoption and sales of XHANCE with healthcare professionals who treat patients with nasal polyps. We believe that approximately 15,000 physicians treat an estimated 3.5 million chronic rhinosinusitis patients, an estimated 1.2 million of whom have chronic rhinosinusitis with nasal polyps.

- Customer Model. We have a sales force of approximately 90 territory managers who target over 10,000 ENTs, allergists and “specialty-like” primary care physicians, and we target additional physicians through digital and non-personal promotion in areas where we do and do not have territory managers. Our sales team is equipped with educational materials demonstrating the benefit and safety profile of XHANCE. In the future we may increase the number of geographic territories as well as hire additional territory managers in order to increase the number of called-on target physicians and frequency of calls. We believe that in the long term, direct-to-consumer (DTC) advertising could be an effective way to increase XHANCE prescription growth.

- XHANCE Co-Pay Savings Program. We believe our co-pay savings program provides an affordability solution for patients that physicians support. This program provides patient co-pay assistance to eligible commercially insured patients. These patients may obtain XHANCE for as little as $0 out-of-pocket.

- Market Access. Based on currently available third-party data and our internal analyses as of July 31, 2022, we believe that approximately 80% of commercially insured lives are currently in a plan that covers XHANCE. However, payors may change coverage levels for XHANCE, positively or negatively, at any time. Additionally, payors generally impose restrictions on access to or usage of XHANCE, such as by requiring prior authorizations or "step-edits". For example, insurers may require that a physician attest that they are treating a patient for an approved indication prior to becoming eligible for coverage for XHANCE. We estimate that approximately half of the commercially covered lives as of July 31, 2022 are in a plan that requires a prior authorization and most of those prior authorizations request information regarding prior use of INS and a patient diagnosis of nasal polyps. In some cases, patients do not meet the payors' utilization management criteria, and in other cases, healthcare providers may not complete the administrative process required to demonstrate or document that the patients for whom XHANCE has been prescribed meet the payors’ utilization management criteria (i.e., prior authorizations or step-edits) and, as a result, patients may not gain access to XHANCE treatment. In our contract negotiations with payors we seek to balance patient access and affordability, breadth of coverage, payor utilization management and rebates levels. We have also contracted with the Centers for Medicare and Medicaid Services for coverage of certain government insured lives and continue to expand XHANCE market access for other government-insured populations.

- Trade and Distribution We currently sell XHANCE primarily to PPN partners. We established this channel to offer patients the option of filling prescriptions through a network of preferred pharmacies that may be able to better serve the needs of patients through services including delivery of XHANCE by mail and performing certain patient services such as patient insurance benefit verification. We also sell XHANCE to wholesale pharmaceutical distributors, who, in turn, sell XHANCE to retail pharmacies, hospitals and other customers. We have contracted with a third-party logistics provider for key services related to logistics, warehousing and inventory management, and distribution. Further, our third-party logistics provider provides customer order fulfillment services and accounts receivable management.

XHANCE Development

In addition to XHANCE’s existing indication for the treatment of nasal polyps, in order to broaden our U.S. market opportunity, we initiated a clinical trial program in pursuit of a follow-on indication for the treatment of chronic sinusitis in the U.S. We believe XHANCE has the potential to be the first drug therapy approved by the FDA for the treatment of chronic sinusitis. We expect the program will be comprised of two Phase 3b clinical trials, the first of which, ReOpen1, was initiated in the fourth quarter of 2018, completed enrollment of approximately 330 chronic sinusitis patients with and without nasal polyps in July of 2021. The second trial, ReOpen2, was initiated in the second quarter of 2019 and completed enrollment of approximately 220 chronic sinusitis patients without nasal

polyps in October of 2021. We announced positive top-line results for ReOpen1 and ReOpen2 in March and June 2022, respectively.

ReOpen 1

Top-line results from ReOpen1 were summarized in our Form 10-Q for the quarterly period ended March 31, 2022, filed with the Securities and Exchange Commission on May 12, 2022.

ReOpen2

ReOpen2 was a randomized double-blinded, placebo controlled Phase 3 clinical trial examining the safety and efficacy of XHANCE versus a placebo Exhalation Delivery System (which we refer to as placebo EDS) in adults with chronic sinusitis with or without nasal polyps. This clinical trial (which we refer to as ReOpen2) is intended to serve as the second of two pivotal clinical trials we intend to submit to the FDA in a future supplemental NDA for XHANCE for the treatment of adults with chronic sinusitis. This clinical trial was conducted in the United States, Australia, Bulgaria, Czechia, New Zealand, Poland, Romania, Spain, The Republic of Georgia and the United Kingdom.

Top-line results from ReOpen2 are summarized below.

Study Design

The clinical trial included a single-blind EDS-placebo lead-in and a EDS-placebo control group, a multi-center, multi-national study population to increase generalizability and an assessment of the safety and efficacy of multiple doses (186 or 372 mcg twice daily) over a 24-week period. A total of 222 adult subjects were enrolled in this study.

	Placebo EDS (N=110)	**OPN-375 186 µg (N=110)**	**OPN-375 372 µg (N=107)**
Full Analysis Set	75	73	74
Completed Study	69	70	71
Subjects Discontinuing Early	6	3	3

ReOpen2 had co-primary endpoints of (i) change in a composite score of nasal congestion/obstruction symptoms, nasal discharge, and facial pain and pressure from baseline to week, and (ii) change in average percent of opacified volume of the ethmoid and maxillary sinuses from baseline to week 24. The severity of nasal symptoms was recorded by patients in an electronic diary immediately before dosing in the morning (AM) and evening (PM), and was measured using 7-day average instantaneous AM diary scores. Each symptom was scored from 0-3. The volume of the ethmoid and maxillary sinuses occupied by disease was assessed using computer-assisted assessment of CT scans to determine the percentage (0-100%) of the sinus cavity space summed across all ethmoid and maxillary sinuses that was opacified. CT scans were performed at screening and at Week 24.
This trial also evaluated several secondary endpoints, including the proportion of patients with acute disease exacerbations and their time to exacerbation and the Sinonasal Outcome Test-22 score, which considers the core defining signs and symptoms of chronic sinusitis and the impact on functioning, quality of life and sleep.

Top-Line Efficacy Results

The 186- and 372-mcg treatment groups achieved statistically significant reductions in the primary assessments of composite symptom scores at week 4 and reductions in the opacified volume of the maxillary and ethmoid sinuses on CT scans at week 24 relative to a placebo EDS.

The following table summarizes the mean change in composite symptom scores (or CSS) from baseline to week 4 and the change in the percent of opacified volume (or APOV) of the ethmoid and maxillary sinuses from baseline to week 24.

				Difference from Placebo EDS

Treatment	n	Baseline Score (Standard Deviation)	Mean (Standard Error) Change from Baseline	Mean	95% confidence interval	P-value (1)
Change in CSS from Baseline to Week 4						
XHANCE 372 mcg	74	5.97 (1.59)	-1.74 (0.20)	-0.93	-1.49, -0.37	0.001
XHANCE 186 mcg	73	5.87 (1.48)	-1.54 (0.20)	-0.73	-1.29, -0.17	0.011
Placebo EDS	75	6.15 (1.77)	-0.81 (0.20)	-	-	-
Change in APOV in the Ethmoid and Maxillary Sinuses from Baseline to Week 24						
XHANCE 372 mcg	74	61.50 (18.46)	-5.14 (1.74)	-6.33	-11.08, -1.58	0.009
XHANCE 186 mcg	73	60.51 (19.37)	-7.00 (1.73)	-8.19	-12.93, -3.45	<0.001
Placebo EDS	75	64.09 (17.74)	+1.19 (1.74)	-	-	-
1 - The p-value, or probability value, is a measure of statistical significance reflecting the likelihood that an observed result occurred by chance.						

Top-Line Safety Results

XHANCE was well tolerated across the 186- and 372-mcg dose groups and the safety profile in this trial was generally consistent with the safety profile contained in XHANCE's currently approved label. No serious adverse events were reported in ReOpen2. The table below summarizes adverse events that occurred at a rate of more than 3% with XHANCE and more common than the placebo EDS in this trial.

Summary of Adverse Events with XHANCE Reported in ≥ 3% and More Common Than Placebo EDS in ReOpen2

Adverse Event (AE)	Placebo EDS BID (N =75) n (%)	XHANCE 186 mcg BID (N =73) n (%)	XHANCE 372 mcg BID (N =74) n (%)
COVID-19	2 (2.7)	3 (4.1)	7 (9.5)
Epistaxis	0	4 (5.5)	7 (9.5)
Headache	6 (8.0)	2 (2.7)	7 (9.5)
Depression	1 (1.3)	0	3 (4.1)

Pooled Results from the ReOpen Program

In July 2022, we announced selected pooled results from the ReOpen program. First, to inform possible differences in response of patients previously using a standard nasal steroid spray, a pre-planned analysis of pooled data assessed symptom improvement for patients entering the trials with at least moderate symptoms despite reporting use of a standard nasal steroid spray. For this subgroup, patients receiving XHANCE improved more from baseline than patients receiving placebo comparator. Second, a pooled analysis was performed to assess change in CT scans, measured by APOV at week 24, for the subgroup of patients receiving XHANCE who had chronic sinusitis without nasal polyps. Compared to patients treated with placebo comparator, XHANCE treatment produced greater reduction in sinus opacification in this subgroup. Differences between active and placebo in 186 mcg or 372 mcg XHANCE treatment groups were similar and nominally statistically significant. Finally, an analysis of pooled data found that the 372 mcg treatment group achieved a type 1 error controlled statistically significant reduction of 66% in the incidence of exacerbations compared to placebo comparator. Reductions in the number of exacerbations, ranging from 53 to 80%, were found for subgroups of chronic sinusitis patients with or without nasal polyps in the 186 mcg or 372 mcg XHANCE treatment groups in additional pre-planned exploratory analyses that were not type 1 error controlled. Exacerbations were defined as a worsening of at least one of the four cardinal symptoms of chronic sinusitis (nasal congestion/obstruction, rhinorrhea, facial pain/pressure, and loss of sense of smell) lasting at least 3 days accompanied by an escalation in medical care, such as doctor visits or antibiotic or steroid prescription.

In addition, we completed an analysis of mean change in APOV by Patient-Reported Global Change Score (PGIC). The PGIC is a 7-point Likert scale on which the subject directly reports their perceived overall change in disease since initiating study medication.

The following three tables summarize these results.

				Difference from Placebo EDS	
Treatment	**n**	**Baseline Score**	**LS Mean Change from Baseline**	**LS Mean**	**Nominal P-value (1)**
Change in Symptoms in Prior Nasal Steroid Users from Baseline to Week 4 (Pooled)					
XHANCE 186 or 372 mcg	172	5.63	-1.46	-0.7	<0.001
Placebo EDS	108	5.84	-0.77	-	-
Change in APOV in CS Patients without Nasal Polyps from Baseline to Week 24 (Pooled)					
XHANCE 186 or 372 mcg	225	61.33	-6.31	-4.76	0.004
XHANCE 372 mcg	112	61.26	-6.5	-4.95	0.01
XHANCE 186 mcg	113	61.4	-6.12	-4.57	0.019
Placebo EDS	116	63.32	-1.55	-	-

Treatment Group	n	Events	LS Mean	Incidence Rate Ratio (Active/PBO)	P-value [1]
Frequency of Exacerbations over 24 Weeks (Full Analysis Set/All Patients)					
XHANCE 186 or 372 mcg	362	35	0.081	0.389	0.001
XHANCE 372 mcg	180	15	0.072	0.343	0.002[2]
XHANCE 186 mcg	182	20	0.092	0.441	0.012
Placebo EDS	185	41	0.208	-	-
Frequency of Exacerbations over 24 Weeks (Patients with Nasal Polyps)					
XHANCE 186 or 372 mcg	137	12	0.052	0.276	0.005
XHANCE 372 mcg	68	4	0.038	0.203	0.01
XHANCE 186 mcg	69	8	0.07	0.376	0.055
Placebo EDS	69	17	0.187	-	-
Frequency of Exacerbations over 24 Weeks (Patients without Nasal Polyps)					
XHANCE 186 or 372 mcg	225	23	0.113	0.472	0.032
XHANCE 372 mcg	112	11	0.113	0.47	0.077
XHANCE 186 mcg	113	12	0.113	0.474	0.076
Placebo EDS	116	24	0.239	-	-

1. The p-value, or probability value, is a measure of statistical significance reflecting the likelihood that an observed result occurred by chance and compares the indicated group to the relevant placebo EDS group. Unless otherwise noted, all p-values shown in this table represent nominal p-values (meaning they are exploratory, not type 1 error controlled) and therefore have an increased possibility of being a chance finding
2. This p-value for all patients receiving XHANCE 372 mcg in the ReOpen Program is a type 1 error controlled statistically significant result. All other p-values shown in this table are nominal p-values.

Mean change in APOV by Patient-Reported Global Change Score at Week 24							
	PGIC Category						
	Very Much Improved	Much Improved	Minimally Improved	No Change	Minimally Worsened	Much Worsened	Very Much Worsened
Subjects	67	64	164	90	16	10	4
Mean Change in APOV	(10.53)%	(7.26)%	(2.86)%	(0.32)%	2.01 %	4.82 %	5.30 %

Pooled Safety Results from the ReOpen Program

XHANCE was well tolerated across the 186- and 372-mcg dose groups and the safety profile in the ReOpen program was generally consistent with the safety profile contained in XHANCE's currently approved label. No serious adverse events were reported in the ReOpen program. The table below summarizes adverse events that occurred at a rate of more than 3% with XHANCE and more common than the placebo EDS in this trial.

Summary of Adverse Events with XHANCE Reported in ≥ 3% and More Common Than Placebo EDS in Pooled data			
Adverse Event (AE)	**Placebo EDS BID (N =187) n (%)**	**XHANCE 186 mcg BID (N =184) n (%)**	**XHANCE 372 mcg BID (N =183) n (%)**
Epistaxis	1 (0.5)	9 (4.9)	20 (10.9)
COVID-19	8 (4.3)	5 (2.7)	12 (6.7)
Nasopharyngitis	8 (4.3)	9 (4.9)	7 (3.8)
Headache	7 (3.7)	4 (2.2)	10 (5.5)

Financial Operations Overview

The following discussion sets forth certain components of our consolidated statements of operations as well as factors that impact those items.

Net product revenues

Sales of XHANCE generated $20.6 million and $18.4 million in net product revenues for the three months ended June 30, 2022 and 2021, respectively, and $35.3 million and $29.3 million for the six months ended June 30, 2022 and 2021, respectively. In accordance with GAAP, we determine net product revenues for XHANCE, with specific assumptions for variable consideration components including but not limited to trade discounts and allowances, co-pay assistance programs and payor rebates.

Based on available XHANCE prescription data purchased from third parties and data from our PPN partners, who collectively dispensed more than 80% of our total prescriptions (TRxs) in the period, our average net product revenues per prescription for the second quarter of 2022 was $235, an increase compared to average net product revenues per prescription of $221 in the second quarter of 2021 and an increase compared to $183 in the first quarter of 2022.

The increase in average net product revenues per prescription from the second quarter of 2021 to the second quarter of 2022 is driven largely by changes in 2022 to our co-pay assistance program that were intended to increase revenues per prescription by decreasing the proportion of prescriptions filled by patients with insurance coverage that required co-pays above a target threshold.

The increase in average net product revenues per prescription from the first quarter of 2022 to the second quarter of 2022 is largely a consequence of the reset of many patient insurance deductibles in January. As a result of this annual reset, we provide greater copay support under our assistance programs. In addition, we believe another contributor to the first quarter 2022 increase is related to changes in patients' healthcare insurance coverage that reduce demand for refill prescriptions early in the year. This reduction in refill prescriptions also has the effect of lowering average net product revenues per prescription as it reduces the proportion of prescriptions that are covered (reimbursed) by a commercial insurer, which results in us providing greater copay support under our assistance programs.

We calculate average net product revenues per prescription, one metric that we use to gauge the profitability of XHANCE, by dividing net product revenues for the quarter by the estimated number of XHANCE prescriptions dispensed during the quarter. As a result, average net product revenues per prescription is subject to variability. That variability is impacted by factors that do not necessarily reflect a change in the price that is paid for an individual unit of XHANCE, including but not limited to ordering patterns and inventory levels for our wholesale customers and PPN partners, patient utilization rates of affordability programs and the proportion of patients acquiring XHANCE through an insurance benefit. There is also the potential for variability that results from changes in estimation methodology by the third parties that we rely upon to provide prescription data which may lead to revisions of historical estimates of prescription volumes and our calculated average net product revenues per prescription.

We expect full year 2022 net product revenues will be between $85.0 million and $92.0 million. Previously we expected full year 2022 net product revenues would be at least $90.0 million. We revised our full year 2022 guidance for net revenue because we experienced greater than expected vacancy rates in our sales territories in recent months and greater than expected summer seasonal volume declines. We expect full year 2022 average net product revenues per prescription will be greater than $220.

Licensing revenues

In September 2019, OptiNose AS, a wholly owned subsidiary of the Company, entered into the Currax License Agreement. Under the terms of the Currax License Agreement, Currax paid us a $3.7 million upfront payment in 2019, an additional $0.8 million in December 2020 upon expiration of the escrow that was established for a limited period to cover potential indemnification obligations, and an additional $1.0 million milestone payment in January 2021 upon the achievement of a specified regulatory milestone. We are not eligible to receive any further payments from Currax under the terms of the Currax License Agreement other than reimbursement for certain expenses.

Costs of product sales

Costs of product sales includes the cost of inventory sold, which includes direct and indirect manufacturing and supply chain costs.

Research and development expense

Research and development expense consists primarily of expenses incurred to prepare for, initiate and conduct our planned clinical trials, ongoing research efforts of new products and device improvements. We expense research and development costs as incurred. These expenses include:

- personnel expenses, including salaries, benefits and stock-based compensation expense;
- costs of funding clinical development performed by third parties, including pursuant to agreements with contract research organizations (CROs), as well as investigative sites and consultants that conduct or support our nonclinical studies and clinical trials;
- expenses associated with the continued development of the EDS;
- expenses incurred under agreements with contract manufacturing organizations (CMOs), including manufacturing scale-up expenses prior to regulatory approval of products for commercial sale and the cost of acquiring and manufacturing preclinical study and clinical trial materials;
- consultant fees and expenses associated with outsourced professional scientific development services;
- expenses for regulatory activities, including filing fees paid to regulatory agencies and costs incurred to compile and respond to filings with the FDA prior to regulatory approval of products for commercial sale; and

- allocated expenses for facility costs, including rent, utilities, depreciation and maintenance.

We typically use our employee, consultant and infrastructure resources across our research and development programs. Although we track certain outsourced development costs by product candidate, we do not allocate personnel costs or other internal costs to specific product candidates.

We plan to incur research and development expenses as we continue the development of XHANCE for the treatment of chronic sinusitis and our other product candidates. Clinical trial costs associated with our chronic sinusitis program represent a substantial portion of our total research and development expenses. While we would expect to continue to incur regulatory and other development expenses after the conclusion of our chronic sinusitis clinical program, we expect the costs associated with the conduct of clinical trials to significantly decrease.

Selling, general and administrative expense

General and administrative expense consists primarily of personnel expenses, including salaries, benefits and stock-based compensation expense, for employees in executive, finance, accounting, business development, information technology, legal and human resource functions. General and administrative expense also includes corporate facility costs, including rent, utilities, depreciation and maintenance, not otherwise included in research and development expense, as well as regulatory fees and professional fees for legal, patent, accounting and other consulting services.

Sales and marketing expenses include our sales team and supporting promotional materials, digital promotion, peer-to-peer education, congresses / conventions, samples, and marketing activities targeted towards health care providers, payors and patients/consumers, including initiatives and fees related to our co-promotion efforts. Additionally, sales and marketing-related expenses include fees paid to our PPN partners for services unrelated to traditional distribution functions, such as data fees and benefit claims adjudication.

Interest (income) expense

Interest (income) expense consists of interest earned on our cash and cash equivalents held with institutional banks and interest expense is primarily related to the Note Purchase Agreement.

Other (income) expense

Other (income) expense consists primarily of foreign currency (income) losses due to exchange rate fluctuations on transactions denominated in a currency other than our functional currency.

Consolidated Results of Operations

Comparison of three months ended June 30, 2022 and 2021

The following table sets forth our selected consolidated statements of operations data for the periods indicated (in thousands):

	Three Months Ended June 30,	
	2022	2021
Revenues:		
Net product revenues	$ 20,582	$ 18,357
Licensing revenues	—	—
Total revenues	20,582	18,357
Costs and expenses:		
Cost of product sales	2,143	2,425
Research and development	4,270	8,179
Selling, general and administrative	29,514	27,308
Total operating expenses	35,927	37,912
Loss from operations	(15,345)	(19,555)
Other (income) expense:		
Interest (income) expense	4,050	4,000
Other (income) expense	2	(53)
Total other (income) expense	4,052	3,947
Net loss	$ (19,397)	$ (23,502)

Net product revenues

Net product revenues related to sales of XHANCE were $20.6 million and $18.4 million for the three months ended June 30, 2022 and 2021, respectively. Revenue growth is attributable primarily to an increase in our average net selling price during the three months ended June 30, 2022.

Cost of product sales

Cost of product sales related to XHANCE were $2.1 million and $2.4 million for the three months ended June 30, 2022 and 2021, respectively.

Research and development expense

Research and development expense was $4.3 million and $8.2 million for the three months ended June 30, 2022 and 2021, respectively. This decrease was primarily attributable primarily to a decrease in costs related to the conduct of our clinical trials of XHANCE for the treatment of chronic sinusitis, both trials had top-line data readouts in 2022.

Selling, general and administrative expense

Selling, general and administrative expense was $29.5 million and $27.3 million for the three months ended June 30, 2022 and 2021, respectively. The $2.2 million increase was due primarily to:

- a $1.9 million increase in payroll and related costs;
- a $0.6 million increase in PPN fees and other patient assistance costs;

The increase was offset by a $0.3 million decrease in other sales, marketing and administrative expenses.

Interest (income) expense, net

Interest (income) expense, net, was $4.1 million and $4.0 million for the three months ended June 30, 2022 and 2021, respectively, which was primarily comprised of interest expense on the Pharmakon Senior Secured Notes during both periods.

Comparison of six months ended June 30, 2022 and 2021

The following table sets forth our selected consolidated statements of operations data for the periods indicated (in thousands):

	Six Months Ended June 30,	
	2022	**2021**
Revenues:		
Net product revenues	$ 35,342	$ 29,317
Licensing revenues	—	1,000
Total revenues	35,342	30,317
Costs and expenses:		
Cost of product sales	4,157	4,165
Research and development	9,072	13,404
Selling, general and administrative	58,853	54,493
Total operating expenses	72,082	72,062
Loss from operations	(36,740)	(41,745)
Other (income) expense:		
Interest (income) expense	7,989	7,855
Other (income) expense	1	(45)
Total other (income) expense	7,990	7,810
Net loss	$ (44,730)	$ (49,555)

Net product revenues

Net product revenues related to sales of XHANCE were $35.3 million and $29.3 million for the six months ended June 30, 2022 and 2021, respectively. Revenue growth is attributable primarily to an increase in units sold to customers as a result of a greater number of XHANCE prescriptions dispensed, as well as an increase in our average net selling price during the six months ended June 30, 2022.

Cost of product sales

Cost of product sales related to XHANCE were $4.2 million and $4.2 million for the six months ended June 30, 2022 and 2021, respectively.

Research and development expense

Research and development expense was $9.1 million and $13.4 million for the six months ended June 30, 2022 and 2021, respectively. The $4.3 million decrease was attributable primarily to a decrease in costs related to the conduct of our clinical trials of XHANCE for the treatment of chronic sinusitis, both trials had top-line data readouts in 2022.

Selling, general and administrative expense

Selling, general and administrative expense was $58.9 million and $54.5 million for the six months ended June 30, 2022 and 2021, respectively. The $4.4 million increase was due primarily to:

- a $2.4 million increase in payroll and related costs;
- a $1.1 million increase in other sales, marketing and consulting costs;
- a $0.8 million increase in PPN fees and other patient assistance costs;
- a $0.1 million increase in other administrative expenses.

Interest (income) expense, net

Interest (income) expense, net, was $8.0 million and $7.9 million for the six months ended June 30, 2022 and 2021, respectively, which was primarily comprised of interest expense on the Pharmakon Senior Secured Notes during both periods.

Liquidity and Capital Resources

Since inception, we have incurred significant net losses and expect to continue to incur net losses for the foreseeable future. We incurred net losses of $44.7 million and $49.6 million for the six months ended June 30, 2022 and 2021, respectively. As of June 30, 2022, we had an accumulated deficit of $654.8 million. We have funded our operations primarily through the sale and issuance of stock and debt, as well as through sales of XHANCE and licensing revenues. As of June 30, 2022, we had $78.3 million in cash and cash equivalents.

The following table shows a summary of our cash flows for the periods indicated (in thousands):

	Six Months Ended June 30,	
	2022	2021
Net cash used in operating activities	$ (32,473)	$ (50,518)
Net cash used in investing activities	(50)	(10)
Net cash provided by financing activities	276	276
Effects of exchange rates on cash and cash equivalents	3	—
Net decrease in cash, cash equivalents and restricted cash	$ (32,244)	$ (50,252)

Operating activities

Cash used in operating activities decreased by $18.0 million, from $50.5 million for the six months ended June 30, 2021 to $32.5 million for the six months ended June 30, 2022. The decrease in cash used in operating activities was attributable to a decrease in accounts receivable and inventory due to increased sales and collections for the six months ended June 30, 2022.

Investing activities

Cash used in investing activities increased by $0.1 million from the six months ended June 30, 2021 to the six months ended June 30, 2022 due to proceeds from the sale of equipment during the six months ended June 30, 2021.

Financing activities

Cash provided by financing activities was $0.3 million for the six months ended June 30, 2022 and 2021. Cash used in financing activities for both periods was primarily driven by proceeds from the issuance of common stock under our employee stock purchase plan.

Senior Secured Note Purchase Agreement

On September 12, 2019 (the Closing Date), we entered into a Note Purchase Agreement with funds managed by Pharmakon Advisors, LP (Pharmakon), the investment manager of BioPharma Credit Funds (BioPharma). The Note Purchase Agreement provided us, through our subsidiary OptiNose US, Inc., with $130.0 million in debt financing, of which $80.0 million of Pharmakon Senior Secured Notes was issued on the Closing Date, $30.0 million was issued on February 13, 2020 after achieving the $9.0 million consolidated XHANCE net sales and royalties threshold for the quarter ended December 31, 2019 and $20.0 million was issued on December 1, 2020 after achieving the $14.5 million consolidated XHANCE net sales and royalties threshold for the quarter ended September 30, 2020.

Amounts outstanding under the Pharmakon Senior Secured Notes bear interest at a fixed rate of 10.75% per annum and are scheduled to mature on September 12, 2024 (the Maturity Date). We are required to make interest-only payments on the Pharmakon Senior Secured Notes until September 2023. Principal repayments will commence on September 15, 2023, with five equal quarterly installments of principal and interest through to the Maturity Date. Upon repayment of the Senior Secured Notes we will also be required to pay $2.1 million in fees.

We are required to repay the Pharmakon Senior Secured Notes in full upon the occurrence of a change of control (as defined in the Note Purchase Agreement). In addition, we may make voluntary prepayments in whole or in part. All mandatory and voluntary prepayments are subject to the payment of prepayment premiums as follows: (i) if prepayment occurs prior to the third anniversary of the Closing Date, an amount equal to 2% of the principal prepaid, (ii) if prepayment occurs on or after the third anniversary of the Closing Date but prior to the fourth anniversary of the Closing Date, an amount equal to 1% of the principal prepaid, and (iii) if prepayment occurs on or after the fourth anniversary of the Closing Date, no prepayment premium is required. We are also required to pay a "make-whole" amount in respect of any principal prepayments (whether mandatory or voluntary) made prior to the 30-month anniversary of the closing of our underwritten public offering on November 18, 2021, in an amount equal to the interest that would have accrued through the 30-month anniversary in respect of such note but for such principal prepayment, provided that in the case of any prepayment made prior to the 15-month anniversary, we will not be required to pay a "make-whole" amount in excess of an amount equal to the interest that would have accrued through the 15-month anniversary but for such principal prepayment.

The Pharmakon Senior Secured Notes are secured by a pledge of substantially all of our assets and the Note Purchase Agreement contains affirmative and negative covenants customary for financings of this type, including limitations on our and our subsidiaries' ability, among other things, to incur additional debt, grant or permit additional liens, make investments and acquisitions, merge or consolidate with others, dispose of assets, pay dividends and distributions, repay junior indebtedness and enter into affiliate transactions, in each case, subject to certain exceptions. In addition, the Note Purchase Agreement contains financial covenants requiring us to maintain at all times certain minimum trailing twelve-month consolidated XHANCE net sales and royalties, tested on a quarterly basis, as follows (in millions):

Trailing Twelve-Months Ending	Requirement under the Note Purchase Agreement After the Second Amendment
March 31, 2022	70.00
June 30, 2022	75.00
September 30, 2022	80.00
December 31, 2022	85.00
March 31, 2023	98.75
June 30, 2023	102.50
September 30, 2023	106.25
December 31, 2023	110.00
March 31, 2024	113.75
June 30, 2024	117.50

We are also required to maintain at all times at least $30.0 million of cash and cash equivalents. As of June 30, 2022, we were in compliance with the covenants. The Note Purchase Agreement also includes events of default

customary for financings of this type, in certain cases subject to customary periods to cure, following which BioPharma may accelerate all amounts outstanding under the Pharmakon Senior Secured Notes.

On August 10, 2022, we entered into the Third Amendment to the Note Purchase Agreement (the Third Amendment). The Third Amendment reduced the minimum consolidated XHANCE net sales and royalties required to be achieved under the Note Purchase Agreement for the trailing twelve-month period ending December 31, 2022 from $90.0 million to $85.0 million (as reflected in the table above) in exchange for a $0.8 million fee due on the repayment of the Pharmakon Senior Secured Notes.

Projected 2022 operating expenses

We expect that our total GAAP operating expenses (consisting of selling, general & administrative expenses and research & development expenses) for 2022 will be between $129.0 million and $134.0 million of which approximately $9.0 million is expected to be stock-based compensation expense. As a result, total GAAP operating expenses excluding stock-based compensation expense are expected to be between $120.0 million and $125.0 million. Previously we expected total GAAP operating expenses (consisting of selling, general & administrative expenses and research & development expenses) for 2022 to be between $135.0 million and $140.0 million of which approximately $10.0 million was expected to be stock-based compensation expense. An increase in selling, general, and administrative expenses from 2021 to 2022 is anticipated primarily due to inflation, and an increase in fees paid to our PPN partners associated with higher projected XHANCE prescription volumes which is offset by an expected decrease in research and development expenses as our clinical trial program in pursuit of a follow-on indication for XHANCE for the treatment of chronic sinusitis nears completion.

Future capital requirements

We expect to continue to incur significant expenses in connection with our ongoing activities, particularly as we:

- continue advertising and other promotional activities to support the commercialization of XHANCE;
- continue to provide co-pay and other patient affordability programs for XHANCE;
- continue clinical development activities for XHANCE, including studies mandated under the Pediatric Research Equity Act, and activities in pursuit of a follow-on indication for the treatment of chronic sinusitis;
- evaluate product candidates;
- continue to contract to manufacture XHANCE and our other product candidates;
- maintain, expand and protect our patent portfolio;
- service our debt obligations under the Pharmakon Senior Secured Notes;
- maintain infrastructure necessary to operate as a publicly-traded, commercial-stage company; and
- hire additional staff and add operational, financial and information systems to execute our business plan.

Our future capital requirements, both near and long-term, will depend on many factors, including, but not limited to:

- the duration and impact of the COVID-19 pandemic on our business;
- the success of our commercialization of XHANCE for the treatment of nasal polyps including, among other things, continued patient and physician adoption of XHANCE and our ability to maintain adequate insurance coverage and reimbursement for XHANCE;
- the cost of commercialization activities for XHANCE, including product manufacturing, distribution, marketing and sales;
- net product revenues received from sales of XHANCE;
- the level of co-pay assistance and other patient affordability programs offered for XHANCE;
- our clinical development plans for XHANCE, including the outcome, timing and cost studies mandated under the Pediatric Research Equity Act, and activities in pursuit of a follow-on indication for the treatment of chronic sinusitis;

- the outcome, timing and cost of the regulatory approval process of XHANCE for chronic sinusitis by the FDA, including the potential for the FDA to require that we perform more studies and clinical trials than those that we currently expect;
- the costs involved in preparing, filing and prosecuting patent applications and annuity fees relating to issued patents;
- the cost of maintaining and enforcing our intellectual property rights, as well as the cost of defending intellectual property disputes, including patent infringement actions brought by third parties against us;
- the initiation, progress, timing, costs and results of clinical trials and other research and development related to additional product candidates;
- the extent to which we in-license, acquire or otherwise partner in development or commercialization of other products, product candidates or technologies; and
- our ability to maintain compliance with the financial covenant to achieve certain minimum trailing twelve-month consolidated XHANCE net sales and royalties and the other provisions under the Note Purchase Agreement, and, if needed and available from the holders of the Pharmakon Senior Secured Notes, the costs and conditions associated with obtaining a waiver or modification of such covenant or other provisions.

Although it is difficult to predict our future liquidity requirements, we will likely require additional capital in the future secured through equity or debt financings, partnerships, collaborations, or other sources in order to meet the debt service obligations under our outstanding Pharmakon Senior Secured Notes, including repayment, and to carry out our planned development and commercial activities. We believe that our existing cash and cash equivalents will be sufficient to maintain the minimum cash balance required under our outstanding debt and to fund our operations for at least twelve months from the filing date of this Quarterly Report on Form 10-Q. Additional capital, secured in the future through equity or debt financings, partnerships, collaborations, or other sources, will be required, and may not be available on a timely basis, on favorable terms, or at all, and such capital, if raised, may not be sufficient to meet our debt service obligations, including repayment, or enable us to continue to implement our long-term business strategy. Commencing on September 15, 2023, we will be required to begin making principal repayments on our debt in five quarterly installments of $26.0 million each through maturity in September 2024. If additional capital is not secured when required, we may need to delay or curtail our operations until such funding is received. If we cannot expand our operations or otherwise capitalize on our business opportunities because we lack sufficient capital, our business, financial condition and results of operations could be materially adversely affected and we may need to delay or curtail our operations until such funding is received. Additionally, we may fail to satisfy our debt covenants, may never become profitable, or if we do, may not be able to sustain profitability on a recurring basis.

As of the filing of this quarterly report on Form 10-Q, we expect consolidated XHANCE net sales and royalties for the trailing twelve-month period ending December 31, 2022 to be between $85 million and $92 million. Previously we expected consolidated XHANCE net sales and royalties for such twelve month period to be at least $90 million. If we are unable to achieve at least $85 million of consolidated XHANCE net sales and royalties for the trailing twelve-month period ending December 31, 2022 or are unable to achieve the minimum consolidated XHANCE net sales and royalties for any other trailing twelve-month period as required under the Note Purchase Agreement, and we are unable to obtain a waiver or modification to this financial covenant, we will be in breach under the Note Purchase Agreement, which will constitute an event of default under the terms of the Note Purchase Agreement. If the holders of the Pharmakon Senior Secured Notes elect to accelerate the repayment of all or a portion of the unpaid principal, accrued interest and other amounts due under such holders' Pharmakon Senior Secured Notes in such an event, we will require additional capital secured through equity or debt financings, partnerships, collaborations, or other sources in order to meet such payment obligations, and to carry out our planned development and commercial activities. The holders of the Pharmakon Senior Secured Notes have, in the past, conditioned modifications to the minimum trailing twelve-month consolidated XHANCE net sales and royalties financial covenant and other provisions of the Note Purchase Agreement on our securing additional capital through equity financings and other conditions and fees, and could do so again in the future, which would impact the timing and amount that we may seek to raise in a financing. Although there can be no guarantee that the holders of the Pharmakon Senior Secured Notes will provide a waiver or modification if requested. In addition, in order to complete future financings the investors in such financings may require us to obtain certain modifications to the minimum trailing twelve-month consolidated XHANCE net sales and royalties financial covenant and other provisions of the Note Purchase Agreement which may or may not be acceptable to the holders of the Pharmakon Senior Secured Notes.

Critical accounting policies

The Critical Accounting Policies and Significant Judgments and Estimates included in our annual report on Form 10-K for the year ended December 31, 2021, as filed with the SEC on March 8, 2022, have not materially changed.

Recent accounting pronouncements

See Note 3 to our unaudited interim consolidated financial statements of this Form 10-Q for a description of recent accounting pronouncements applicable to our consolidated financial statements.

JOBS Act

The JOBS Act permits an "emerging growth company" such as us to take advantage of an extended transition period to comply with new or revised accounting standards applicable to public companies until those standards would otherwise apply to private companies. We have irrevocably elected to "opt out" of this provision and, as a result, we will comply with new or revised accounting standards when they are required to be adopted by public companies that are not emerging growth companies.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We are a smaller reporting company as defined by Rule 12b-2 of the Securities Exchange Act of 1934 and are not required to provide the information under this item.

ITEM 4. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

The term "disclosure controls and procedures," as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (Exchange Act), refers to controls and procedures that are designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the company's management, including its principal executive and principal financial officers, or persons performing similar functions, as appropriate to allow timely decisions regarding required disclosure.

In designing and evaluating our disclosure controls and procedures, management recognizes that any controls and procedures, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the disclosure controls and procedures are met. Additionally, in designing disclosure controls and procedures, our management was required to apply its judgment in evaluating the cost-benefit relationship of possible disclosure controls and procedures. The design of any system of controls also is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions; over time, controls may become inadequate because of changes in conditions, or the degree of compliance with policies or procedures may deteriorate. Because of the inherent limitations in a control system, misstatements due to error or fraud may occur and not be detected.

Our Chief Executive Officer and our Chief Financial Officer evaluated the effectiveness of our disclosure controls and procedures, as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act, as of the end of the period covered by this report. Based on this evaluation, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective as of June 30, 2022.

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting that occurred during the three months ended June 30, 2022 that materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II

ITEM 1. LEGAL PROCEEDINGS

We are not currently a party to any legal proceedings.

ITEM 1A. RISK FACTORS

Except as set forth below, there have been no material changes to the risk factors previously disclosed in Part I, "Item 1A, Risk Factors" of our Annual Report on Form 10-K for the year ended December 31, 2021, which was filed with the SEC on March 8, 2022.

Our failure to comply with the covenants or other terms of the Note Purchase Agreement, including as a result of events beyond our control, could result in a default under the Note Purchase Agreement that could materially and adversely affect the ongoing viability of our business.

As of June 30, 2022, we have issued $130.0 million of senior secured notes (the Pharmakon Senior Secured Notes) under that certain Note Purchase Agreement, dated September 12, 2019, among us and our subsidiaries, OptiNose US, Inc., OptiNose UK Limited and OptiNose AS, BioPharma Credit PLC, as collateral agent, and the purchasers party thereto from time to time (Purchasers), as previously amended pursuant to that certain letter agreement dated August 13, 2020, as further amended pursuant to that certain first amendment to Note Purchase Agreement dated March 2, 2021, as further amended pursuant to that certain second amendment to Note Purchase Agreement dated November 16, 2021 and as further amended pursuant to that certain third amendment to Note Purchase Agreement dated August 10, 2022 (as amended, the Note Purchase Agreement). We are not eligible to issue any additional Pharmakon Senior Secured Notes under the Note Purchase Agreement. Amounts outstanding under the Note Purchase Agreement bear interest at a fixed rate of 10.75% per annum and are scheduled to mature on September 12, 2024 (the Maturity Date). As of June 30, 2022, the outstanding principal, accrued interest and fees under the Note Purchase Agreement was $131.8 million.

We are required to make quarterly interest payments until the Maturity Date. We are also required to make principal payments, which are payable in five equal quarterly installments beginning on September 15, 2023, and continuing until the Maturity Date. The Pharmakon Senior Secured Notes are guaranteed by OptiNose, Inc. and our subsidiaries and are secured by a pledge of substantially all of our and their assets.

The Note Purchase Agreement contains various covenants that limit our ability to engage in specified types of transactions without our lenders' prior consent, as well as financial covenants that require us to maintain at least $30.0 million of cash and cash equivalents in certain deposit accounts and require us to achieve certain minimum trailing twelve-month consolidated XHANCE net sales and royalties, tested on a quarterly basis. The financial covenant to achieve minimum trailing twelve-month consolidated XHANCE net product sales and royalties under the Note Purchase Agreement are as follows (amounts in millions):

Trailing Twelve-Months Ending	Requirement under the Note Purchase Agreement After the Second Amendment
March 31, 2022	70.00
June 30, 2022	75.00
September 30, 2022	80.00
December 31, 2022	85.00
March 31, 2023	98.75
June 30, 2023	102.50
September 30, 2023	106.25
December 31, 2023	110.00
March 31, 2024	113.75
June 30, 2024	117.50

Each holder of the Pharmakon Senior Secured Notes may elect to accelerate the repayment of all unpaid principal and accrued interest under such holders' Pharmakon Senior Secured Notes upon consummation of a specified change of control transaction or occurrence of certain events of default (as specified in the Note Purchase Agreement), including, among other things:

- our default in a payment obligation under the Pharmakon Senior Secured Notes;
- our breach of a financial covenant (including the financial covenants that require us to maintain at least $30.0 million of cash and cash equivalents in certain deposit accounts and require us to achieve certain minimum trailing twelve-month consolidated XHANCE net sales and royalties, tested on a quarterly basis), the restrictive covenants or other terms of the Pharmakon Senior Secured Notes;
- our breach of reporting obligations;
- our failure to properly maintain the collateral;
- any circumstance that could reasonably be expected to have a material adverse effect (as defined in the Note Purchase Agreement) on us;
- certain regulatory and/or commercial actions that cause an ongoing delay in commercialization of XHANCE; and
- certain specified insolvency and bankruptcy-related events.

Subject to any applicable cure period set forth in the Pharmakon Senior Secured Notes, all amounts outstanding with respect to the Pharmakon Senior Secured Notes (principal and accrued interest), as well as any applicable prepayment premiums or interest "make-whole" payments, would become due and payable immediately upon an event of default at a default interest rate of 13.75%. Our assets or cash flow may not be sufficient to fully repay our obligations under the Pharmakon Senior Secured Notes if the obligations thereunder are accelerated upon any events of default. The duration and magnitude of the negative impact from the COVID-19 pandemic on XHANCE net revenues has previously affected, and could affect in the future, our ability to meet the consolidated XHANCE net product sales and royalties threshold to remain in compliance with our financial covenants. Further, if we are unable to repay, refinance or restructure our obligations under the Pharmakon Senior Secured Notes, the holders of such Pharmakon Senior Secured Notes could proceed to protect and enforce their rights under the Pharmakon Senior Secured Notes by exercising such remedies (including foreclosure on the assets securing our obligations under the Pharmakon Senior Secured Notes and the Note Purchase Agreement) as are available to the holders thereunder and in respect thereof under applicable law, either by suit in equity or by action at law, or both, whether for specific performance of any covenant or other agreement contained in the Pharmakon Senior Secured Notes or in aid of the exercise of any power granted in the Pharmakon Senior Secured Notes. Any such action would materially and adversely affect the ongoing viability of our business.

On August 10, 2022, we entered into a third amendment (the Third Amendment) to the Note Purchase Agreement to reduce the minimum consolidated XHANCE net sales and royalties required to be achieved for the trailing twelve-month period ending December 31, 2022 from $90.0 million to $85.0 million (such reduction is reflected in the table above) in exchange for a $0.8 million fee due on the repayment of the Pharmakon Senior Secured Notes. As of the filing of this quarterly report on Form 10-Q, we expect consolidated XHANCE net sales and royalties for the trailing twelve-month period ending December 31, 2022 to be between $85 million and $92 million. Previously we expected consolidated XHANCE net sales and royalties for such twelve month period to be at least $90 million. If we are unable to achieve at least $85 million of consolidated XHANCE net sales and royalties for the trailing twelve-month period ending December 31, 2022 or are unable to achieve the minimum consolidated XHANCE net sales and royalties for any other trailing twelve-month period as required under the Note Purchase Agreement, and we are unable to obtain a waiver or modification to this financial covenant, we will be in breach under the Note Purchase Agreement, which will constitute an event of default under the terms of the Note Purchase Agreement. If the holders of the Pharmakon Senior Secured Notes elect to accelerate the repayment of all or a portion of the unpaid principal, accrued interest and other amounts due under such holders' Pharmakon Senior Secured Notes in such an event, we will require additional capital secured through equity or debt financings, partnerships, collaborations, or other sources in order to meet such payment obligations, and to carry out our planned development and commercial activities. The holders of the Pharmakon Senior Secured Notes have, in the past, conditioned modifications to the minimum trailing twelve-month consolidated XHANCE net sales and royalties financial covenant and other provisions of the Note Purchase Agreement on our securing additional capital through equity financings and other conditions and fees, and could do so again in the future, which would impact the timing and amount that we may seek to raise in a financing. Although there can be no guarantee that the holders of the Pharmakon Senior Secured Notes will provide a waiver or modification if requested. In addition, in order to complete future financings the

investors in such financings may require us to obtain certain modifications to the minimum trailing twelve-month consolidated XHANCE net sales and royalties financial covenant and other provisions of the Note Purchase Agreement which may or may not be acceptable to the holders of the Pharmakon Senior Secured Notes.

ITEM 5. OTHER INFORMATION

Third Amendment to Note Purchase Agreement

On August 10, 2022, the Company entered into a third amendment (the Third Amendment) to that certain Note Purchase Agreement, dated September 12, 2019, among us and our subsidiaries, OptiNose US, Inc., OptiNose UK Limited and OptiNose AS, BioPharma Credit PLC, as collateral agent, and the purchasers party thereto from time to time (Purchasers), as previously amended pursuant to that certain letter agreement dated August 13, 2020, as further amended pursuant to that certain first amendment to Note Purchase Agreement dated March 2, 2021 and as further amended pursuant to that certain second amendment to Note Purchase Agreement dated November 16, 2021 (as amended, the Note Purchase Agreement). The Third Amendment reduced the minimum consolidated XHANCE net sales and royalties required to be achieved under the Note Purchase Agreement for the trailing twelve-month period ending December 31, 2022 from $90.0 million to $85.0 million in exchange for a $0.8 million fee due on the repayment of the Pharmakon Senior Secured Notes issued pursuant to the Note Purchase Agreement.

The foregoing is a summary description of certain terms of the Third Amendment and, by its nature, is not complete. It is qualified in its entirety by reference to the Third Amendment which is filed as Exhibit 10.3 to this Form 10-Q, and is incorporated herein by reference.

Indemnification Agreements with Recently Appointed Officers

As previously reported, on June 2, 2022 the Company appointed Ms. Janis to serve as the Company's Acting Chief Financial Officer (and principal financial officer) and appointed Anthony Krick to serve as the Company's Chief Accounting Officer (and principal accounting officer). In connection with such appointments, the Company entered into its standard form of indemnification agreement for officers and directors with each of Ms. Janis and Mr. Krick on August 8, 2022. The indemnification agreements provide Ms. Janis and Mr. Krick with contractual rights to indemnification and, in some cases, expense advancement in any action or proceeding arising out of their respective services as one of the Company's officers or as a director or officer of any other company or enterprise to which he may provides services at the Company's request.

The foregoing is a summary description of certain terms of the indemnification agreements and, by its nature, is not complete. It is qualified in its entirety by reference to the Form of Indemnification Agreement which is filed as Exhibit 10.2 to this Form 10-Q, and is incorporated herein by reference.

ITEM 6. EXHIBITS

The following is a list of exhibits filed as part of this Quarterly Report on Form 10-Q. Where so indicated, exhibits that were previously filed are incorporated by reference. For exhibits incorporated by reference, the location of the exhibit in the previous filing is indicated.

INDEX TO EXHIBITS

Exhibit Number		Exhibit Description
3.1		Fourth Amended and Restated Certificate of Incorporation of OptiNose, Inc. (incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K (File No. 001-38241), as filed with the SEC on October 18, 2017).
3.2		Amended and Restated Bylaws of OptiNose, Inc. (incorporated by reference to Exhibit 3.2 to the Company's Current Report on Form 8-K (File No. 001-38241), as filed with the SEC on October 18, 2017).
10.1		Cooperation Agreement, dated April 25, 2022, by and among OptiNose, Inc. M. Kingdon Offshore Master Fund L.P., Velan Capital Partners LP and certain other affiliated investors listed therein (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K (File No. 001-38241), as filed with the SEC on April 26, 2022).
10.2	*	Form of Indemnification Agreement.
10.3	*	Third Amendment, dated August 10, 2022, to the Note Purchase Agreement, dated September 12, 2019, among OptiNose US, Inc., OptiNose, Inc., OptiNose UK Limited and OptiNose AS, BioPharma Credit PLC, as collateral agent and the purchasers from time to time party thereto.
31.1	*	Certification of Chief Executive Officer pursuant to Rule 13a-14(a) or 15a-14(a) under the Exchange Act.
31.2	*	Certification of Chief Financial Officer pursuant to Rule 13a-14(a) or 15a-14(a) under the Exchange Act.
32.1	**	Certification Pursuant to 18 U.S.C. Section 1350 of principal executive officer.
32.2	**	Certification Pursuant to 18 U.S.C. Section 1350 of principal financial officer.
101.SCH		Inline XBRL Taxonomy Extension Schema Document.
101.CAL		Inline XBRL Taxonomy Extension Calculation Linkbase Document.
101.DEF		Inline XBRL Taxonomy Extension Definition Linkbase Document.
101.LAB		Inline XBRL Taxonomy Extension Label Linkbase Document.
101.PRE		Inline XBRL Taxonomy Extension Presentation Linkbase Document.
104		Cover Page Interactive Data File (formatted as inline XBRL and contained in Exhibit 101)

* Filed herewith.

** Furnished herewith.

SIGNATURES

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

Date: August 11, 2022

OPTINOSE, INC.

By: /s/ MICHELE JANIS

Name: Michele Janis

Title: *Acting Chief Financial Officer*

(Principal Financial Officer)

Date: August 11, 2022

OPTINOSE, INC.

By: /s/ ANTHONY J. KRICK

Name: Anthony J. Krick

Title: *Chief Accounting Officer*

(Principal Accounting Officer)

INDEMNIFICATION AGREEMENT

This Indemnification Agreement (this "Agreement") is made as of _____, 201___ by and between OptiNose, Inc., a Delaware corporation (the "Corporation"), in its own name and on behalf of its direct and indirect subsidiaries, and _____, an individual ("Indemnitee"). This Agreement supersedes and replaces any and all previous Agreements between the Corporation and Indemnitee covering the subject matter of this Agreement.

RECITALS:

WHEREAS, directors, officers, employees, controlling persons, fiduciaries and other agents ("Representatives") in service to corporations or business enterprises are being increasingly subjected to expensive and time-consuming litigation relating to, among other things, matters that traditionally would have been brought only against the corporation or business enterprise itself;

WHEREAS, the Board of Directors of the Company (the "Board") believes that highly competent persons have become more reluctant to serve corporations as Representatives unless they are provided with adequate protection through insurance and adequate indemnification against inordinate risks of claims and actions against them arising out of their service to and activities on behalf of the corporation or business enterprise;

WHEREAS, the Board has determined that the increased difficulty in attracting and retaining highly competent persons is detrimental to the best interests of the Corporation and its stockholders and that the Corporation should act to assure such persons that there will be increased certainty of protection against inordinate risks of claims and actions against them arising out of their service to and activities on behalf of the Corporation;

WHEREAS, it is reasonable, prudent and necessary for the Corporation contractually to obligate itself to indemnify, and to advance expenses on behalf of, such persons to the fullest extent permitted by applicable law so that they will serve or continue to serve the Corporation free from undue concern regarding such risks;

WHEREAS, (a) the Amended and Restated Bylaws of the Corporation (the "Bylaws") require indemnification of the officers and directors of the Corporation, (b) Indemnitee may also be entitled to indemnification pursuant to the General Corporation Law of the State of Delaware, as it may be amended from time to time (the "DGCL") and (c) the Bylaws and the DGCL expressly provide that the indemnification provisions set forth therein are not exclusive and thereby contemplate that contracts may be entered into between the Corporation and its Representatives with respect to indemnification;

WHEREAS, this Agreement is a supplement to and in furtherance of the Bylaws and any resolutions adopted pursuant thereto, and shall not be deemed a substitute therefore, nor to diminish or abrogate any rights of Indemnitee thereunder; and

WHEREAS, (a) Indemnitee does not regard the protection available under the Bylaws and insurance as adequate in the present circumstances, (b) Indemnitee may not be willing to serve or continue to serve as a Representative without adequate protection, (c) the Corporation desires Indemnitee to serve or continue to serve in such capacity and (d) Indemnitee is willing to serve, continue to serve and to take on additional service for or on behalf of the Corporation on the condition that he/she be so indemnified.

AGREEMENT:

NOW, THEREFORE, in consideration of the premises and the covenants contained herein, the Corporation and Indemnitee do hereby covenant and agree as follows:

Section 1. Definitions.

(a) As used in this Agreement:

"Agreement" shall have the meaning ascribed to such term in the Preamble hereto.

"Beneficial Owner" shall have the meaning given to such term in Rule 13d-3 under the Exchange Act (as defined below); provided, however, that Beneficial Owner shall exclude any Person otherwise becoming a Beneficial Owner by reason of the stockholders of the Corporation approving a merger of the Corporation with another entity.

"Board" shall have the meaning ascribed to such term in the Recitals hereto.

"Bylaws" shall have the meaning ascribed to such term in the Recitals hereto.

"Certificate of Incorporation" shall mean the Fourth Amended and Restated Certificate of Incorporation of the Corporation.

A "Change in Control" shall be deemed to occur upon the earliest to occur after the date of this Agreement of any of the following events:

i. Acquisition of Stock by Third Party. Any Person (as defined below), other than the Sponsor Entities (as defined below), is or becomes the Beneficial Owner (as defined below), directly or indirectly, of securities of the Corporation representing fifteen percent (15%) or more of the combined voting power of the Corporation's then outstanding securities, unless the change in relative Beneficial Ownership of the Corporation's securities by any Person results solely from a reduction in the aggregate number of outstanding shares of securities entitled to vote generally in the election of directors;

ii. Change in Board of Directors. During any period of two (2) consecutive years (not including any period prior to the execution of this Agreement), individuals who at the beginning of such period constitute the Board, and any new director (other than a director designated by a person who has entered into an agreement with the Corporation to effect a transaction described herein) whose election by the Board or nomination for election by the Corporation's stockholders was approved by a vote of at least two-thirds of the directors then still in office who either were directors at the beginning of the period or whose election or nomination for election was previously so approved, cease for any reason to constitute at least a majority of the members of the Board;

iii. Corporate Transactions. The effective date of a merger or consolidation of the Corporation with any other entity, other than a merger or consolidation which would result in the voting securities of the Corporation outstanding immediately prior to such merger or consolidation continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity in any such transaction) more than fifty percent (50%) of the combined voting power of the voting securities of such surviving entity outstanding immediately after such merger or consolidation and with the power to elect at least a majority of the board of directors or other governing body of such Surviving Entity;

iv. Liquidation. The approval by the stockholders of the Corporation of a complete liquidation of the Corporation or an agreement for the sale or disposition by the Corporation of all or substantially all of the Corporation's assets; and

v. Other Events. There occurs any other event of a nature that would be required to be reported in response to Item 6(e) of Schedule 14A of Regulation 14A (or a response to any similar item on any similar schedule or form) promulgated under the Exchange Act (as defined below), whether or not the Corporation is then subject to such reporting requirement.

"Corporate Status" describes the status of an individual who is or was a Representative of an Enterprise.

"Corporation" shall have the meaning ascribed to such term in the Preamble hereto.

"DGCL" shall have the meaning ascribed to such term in the Recitals hereto.

"Enterprise" shall mean the Corporation and any other Person, employee benefit plan, joint venture or other enterprise of which Indemnitee is or was serving at the request of the Corporation as a Representative.

"Exchange Act" shall mean the Securities Exchange Act of 1934, as amended from time to time, and the rules and regulations thereunder.

"Expenses" shall include all reasonable costs, expenses, fees and charges, including, without limitation, attorneys' fees, retainers, court costs, transcript costs, fees of experts, witness fees, travel expenses, duplicating costs, printing and binding costs, telephone charges, postage, delivery service fees, and all other disbursements or expenses of the types customarily incurred in connection with prosecuting, defending, preparing to prosecute or defend, investigating, being or preparing to be a witness in, or otherwise participating in, a Proceeding. Expenses also shall include, without limitation, (i) expenses incurred in connection with any appeal resulting from any Proceeding, including, without limitation, the premium, security for, and other costs relating to any cost bond, supersedes bond, or other appeal bond or its equivalent, (ii) for purposes of Section 12(d) only, expenses incurred by Indemnitee in connection with the interpretation, enforcement or defense of Indemnitee's rights under this Agreement, by litigation or otherwise, (iii) any federal, state, local or foreign taxes imposed on Indemnitee as a result of the actual or deemed receipt of any payments under this Agreement (on a grossed up basis), (iv) excise taxes and penalties under the Employee Retirement Income Security Act of 1974, and (v) any interest, assessments or other charges in respect of the foregoing.

"Indemnitee" shall have the meaning ascribed to such term in the Preamble hereto.

"Indemnity Obligations" shall mean all obligations of the Corporation to Indemnitee under this Agreement, including, without limitation, the Corporation's obligations to provide indemnification to Indemnitee and advance Expenses to Indemnitee under this Agreement.

"Independent Counsel" shall mean a law firm, or a member of a law firm, that is experienced in matters of corporation law and neither presently is, nor in the past five (5) years has been, retained to represent: (i) the Corporation or Indemnitee in any matter material to either such party (other than with respect to matters concerning the Indemnitee under this Agreement, or of other indemnitees under similar indemnification agreements) or (ii) any other party to the Proceeding giving rise to a claim for indemnification hereunder; provided, however, that the term "Independent Counsel" shall not include any person who, under the applicable standards of professional conduct then prevailing, would have a conflict of interest in representing either the Corporation or Indemnitee in an action to determine Indemnitee's rights under this Agreement.

"Liabilities" shall mean all claims, liabilities, damages, losses, judgments, orders, fines, penalties and other amounts payable in connection with, arising out of, in respect of, relating to or occurring as a direct or indirect consequence of, any Proceeding, including, without limitation, amounts paid in whole or partial settlement of any Proceeding, all Expenses incurred in complying with any judgment, order or decree issued or entered in connection with any Proceeding or any settlement agreement, stipulation or consent decree entered into or issued in settlement of any Proceeding, and any consequential damages resulting from any Proceeding or the settlement, judgment, or result thereof.

"Person" shall mean any individual, corporation, partnership, limited partnership, limited liability company, trust, governmental agency or body or any other legal entity.

"Proceeding" shall include any threatened, pending or completed action, claim, suit, counterclaim, cross claim, arbitration, mediation, alternate dispute resolution mechanism, formal or informal hearing, inquiry or investigation, administrative hearing or any other actual, threatened or completed judicial, administrative or arbitration proceeding (including, without limitation, any such proceeding under the Securities Act of 1933, as amended, or the Exchange Act or any other federal law, state law, statute or regulation), whether brought in the right of the Corporation or otherwise, and whether of a civil, criminal, administrative legislative or investigative nature, including any appeal therefrom, in which Indemnitee was, is or will be, or is threatened to be, involved as a party, potential party, non-party witness or otherwise (i) by reason of the fact that Indemnitee is or was a Representative of the Corporation, (ii) by reason of any actual or alleged action taken by Indemnitee (or a failure to take action by Indemnitee) or of any action (or failure to act) on Indemnitee's part while acting as Representative of the Corporation or (iii) by reason of the fact that Indemnitee is or was serving at the request of the Corporation as a Representative of another Person, whether or not serving in such capacity at the time any liability or Expense is incurred for which indemnification, reimbursement, or advancement of Expenses can be provided under this Agreement. If the Indemnitee believes in good faith that a given situation may lead to or culminate in the institution of a Proceeding, this shall be considered a Proceeding under this paragraph.

"Representative" shall have the meaning ascribed to such term in the Recitals hereto.

"Sponsor Entities" shall mean funds affiliated with Avista Capital Partners and any of their respective Affiliates who beneficially own shares of common stock, par value $0.001 per share, of the Corporation, and any securities into which such shares of common stock shall have been changed or any securities resulting from any reclassification or recapitalization of such shares of common stock from time to time; provided, however, that neither the Corporation nor any of its subsidiaries shall be considered Sponsor Entities hereunder.

"Submission Date" shall have the meaning ascribed to such term in Section 11(a).

(b) For the purpose hereof, references to "fines" shall include any excise tax assessed with respect to any employee benefit plan; references to "serving at the request of the Corporation" shall include any service as a Representative of the Corporation which imposes duties on, or involves services by, such Representative with respect to an employee benefit plan, its participants or beneficiaries; and a Person who acted in good faith and in a manner he/she reasonably believed to be in the best interests of the participants and beneficiaries of an employee benefit plan shall be deemed to have acted in manner "not opposed to the best interests of the Corporation" as referred to in this Agreement.

Section 2. Indemnity in Third-Party Proceedings. The Corporation shall indemnify and hold harmless Indemnitee, to the fullest extent permitted by applicable law, from and against all Liabilities and Expenses suffered or incurred by Indemnitee or on Indemnitee's behalf in connection with or as a consequence of any Proceeding (other than any Proceeding brought by or in the right of the Corporation to procure a judgment in its favor which

shall be governed by the provisions set forth in Section 3 below), if Indemnitee acted in good faith and in a manner he/she reasonably believed to be in, or not opposed to, the best interests of the Corporation and, in the case of a criminal proceeding, had no reasonable cause to believe that his conduct was unlawful. For the avoidance of doubt, a finding, admission or stipulation that an Indemnitee has not met such applicable standard of conduct or that Indemnitee acted with gross negligence or recklessness shall not, of itself, be a defense to any action pursuant to this Agreement or create a presumption that such Indemnitee has failed to meet the standard of conduct required for indemnification in this Section 2.

Section 3. Indemnity in Proceedings by or in the Right of the Corporation. The Corporation shall indemnify and hold harmless Indemnitee, to the fullest extent permitted by applicable law, from and against all Liabilities and Expenses suffered or incurred by Indemnitee or on Indemnitee's behalf in connection with or as a consequence of any Proceeding brought by or in the right of the Corporation to procure a judgment in its favor, or any claim, issue or matter therein, if Indemnitee acted in good faith and in a manner he/she reasonably believed to be in, or not opposed, to the best interests of the Corporation. No indemnification for Liabilities and Expenses shall be made under this Section 3 in respect of any claim, issue or matter as to which Indemnitee shall have been finally adjudged by a court to be liable to the Corporation, unless and only to the extent that the Delaware Court of Chancery or any court in which the Proceeding was brought shall determine upon application that, despite the adjudication of liability, but in view of all the circumstances of the case, Indemnitee is fairly and reasonably entitled to indemnification for such Liabilities and Expenses which the Court of Chancery or such other court shall deem proper. For the avoidance of doubt, a finding, admission or stipulation that an Indemnitee has not met such applicable standard of conduct or that Indemnitee acted with gross negligence or recklessness shall not, of itself, be a defense to any action pursuant to this Agreement or create a presumption that such Indemnitee has failed to meet the standard of conduct required for indemnification in this Section 3.

Section 4. Indemnification for Expenses of a Party Who is Wholly or Partly Successful. Notwithstanding any other provisions of this Agreement, and without limiting the rights of Indemnitee under any other provision hereof, to the extent that Indemnitee is a party to (or a participant in) any Proceeding and is successful on the merits or otherwise (including, without limitation, settlement thereof), as to one or more but less than all claims, issues or matters in such Proceeding, in whole or in part, then the Corporation shall indemnify Indemnitee, to the fullest extent permitted by applicable law, against all Liabilities and Expenses actually and reasonably incurred by Indemnitee or on Indemnitee's behalf, in connection with or as a consequence of each successfully resolved claim, issue or matter. For purposes of this Section 4 and without limitation, the termination of any claim, issue or matter in such a Proceeding by dismissal, with or without prejudice, shall be deemed to be a successful result as to such claim, issue or matter.

Section 5. Partial Indemnification. If Indemnitee is entitled under any provision of this Agreement to indemnification by the Corporation for some or a portion of Expenses, but not, however, for the total amount thereof, the Corporation shall nevertheless indemnify Indemnitee for the portion thereof to which Indemnitee is entitled.

Section 6. Indemnification for Expenses of a Witness. Notwithstanding any other provision of this Agreement, to the extent that Indemnitee is, by reason of Indemnitee's Corporate Status, a witness in any Proceeding to which Indemnitee is not a party, Indemnitee shall be indemnified to the fullest extent permitted by applicable law against all Liabilities and Expenses suffered or incurred by him or on his behalf in connection therewith.

Section 7. Additional Indemnification.

(a) Notwithstanding any limitation in Sections 2, 3, 4 or 5, the Corporation shall indemnify Indemnitee to the fullest extent permitted by applicable law if Indemnitee is a party to, or threatened to be made a party to, any Proceeding (including, without limitation, a Proceeding by or in the right of the Corporation to procure a judgment in its favor), by reason of Indemnitee's Corporate Status.

(b) For purposes of Section 7(a), the meaning of the phrase "to the fullest extent permitted by applicable law" shall include, but not be limited to:

(i) to the fullest extent permitted by the provision of the DGCL that authorizes or contemplates additional indemnification by agreement, or the corresponding provision of any amendment to, or replacement of, the DGCL, and

(ii) to the fullest extent authorized or permitted by any amendments to, or replacements of, the DGCL adopted after the date of this Agreement that increase the extent to which a corporation may indemnify its officers and directors.

Section 8. Exclusions. Notwithstanding any provision in this Agreement, the Corporation shall not be obligated under this Agreement to make any indemnification payment in connection with any claim involving Indemnitee:

(a) for which payment has actually been made to or on behalf of Indemnitee under any insurance policy or other indemnity provision, except with respect to any excess beyond the amount paid under any insurance policy or other indemnity provision; or

(b) subject to Section 14, for (i) an accounting of profits made from the purchase and sale (or sale and purchase) by Indemnitee of securities of the Corporation within the meaning of Section 16(b) of the Exchange Act (as defined in Section 1(a) hereof) or similar provisions of state statutory law or common law, (ii) any reimbursement of the Corporation by the Indemnitee of any bonus or other incentive-based or equity-based compensation or of any profits realized by the Indemnitee from the sale of securities of the Corporation, as required in each case under the Exchange Act (including any such reimbursements that arise from an accounting restatement of the Corporation pursuant to Section 304 of the Sarbanes-Oxley Act of 2002 (the "Sarbanes-Oxley Act"), or the payment to the Corporation of profits arising from the purchase and sale by Indemnitee of securities in violation of Section 306 of the Sarbanes-Oxley Act) or (iii) any reimbursement of the Corporation by Indemnitee of any compensation pursuant to any compensation recoupment or clawback policy adopted by the Board or the compensation committee of the Board to comply with stock exchange listing requirements implementing Section 10D of the Exchange Act; or

(c) except as provided in Section 13(d) of this Agreement, in connection with any Proceeding (or any part of any Proceeding) initiated by Indemnitee, including any Proceeding (or any part of any Proceeding) initiated by Indemnitee against the Corporation or its directors, officers, employees or other indemnitees, unless (i) the Board authorized the Proceeding (or any part of any Proceeding) prior to its initiation or (ii) the Corporation provides the indemnification, in its sole discretion, pursuant to the powers vested in the Corporation under applicable law.

Section 9. Advances of Expenses. Notwithstanding any provision of this Agreement to the contrary (other than Section 13(d)), the Corporation shall advance, to the fullest extent permitted by law, Expenses incurred by Indemnitee in connection with any Proceeding (or part of any Proceeding) not initiated by Indemnitee or any Proceeding initiated by Indemnitee with the prior approval of the Board, and such advancement shall be made within ten (10) days after the receipt by the Corporation of a statement or statements requesting such advances from time to time, whether prior to, or after, final disposition of any Proceeding. Advances shall be unsecured and interest free. Indemnitee shall be entitled to continue to receive advancement of Expenses pursuant to this Section 9 unless and until the matter of Indemnitee's entitlement to indemnification hereunder has been finally adjudicated by court order or judgment from which no further right or appeal exists. Advances shall be made without regard to Indemnitee's ability to repay Expenses and without regard to Indemnitee's ultimate entitlement to indemnification under the other provisions of this Agreement. In accordance with Section 13(d), advances shall include any and all Expenses incurred pursuing an action to enforce this right of advancement, including, without limitation, Expenses incurred preparing and forwarding statements to the Corporation to support the advances claimed. Indemnitee shall qualify for advances upon the execution and delivery to the Corporation of this Agreement, which shall constitute an undertaking, providing that Indemnitee undertakes to repay the amounts advanced (without interest) to the extent that it is ultimately determined that Indemnitee is not entitled to be indemnified by the Corporation. No other form of undertaking shall be required other than the execution of this Agreement. This Section 9 shall not apply to any claim made by Indemnitee for which indemnity is excluded pursuant to Section 8.

Section 10. Procedure for Notification and Defense of Claim.

(a) Indemnitee shall notify the Corporation in writing of any Proceeding with respect to which Indemnitee intends to seek indemnification or advancement of Expenses hereunder as soon as reasonably practicable following the receipt by Indemnitee of written notice thereof. The written notification to the Corporation shall include a description of the nature of the Proceeding and the facts underlying the Proceeding. To obtain indemnification under this Agreement, Indemnitee shall submit to the Corporation a written request, including therein or therewith such documentation and information as is reasonably available to Indemnitee and is reasonably necessary to determine whether and to what extent Indemnitee is entitled to indemnification following the final disposition of such Proceeding. Any delay or failure by Indemnitee to notify the Corporation hereunder will not relieve the Corporation from any liability which it may have to Indemnitee hereunder or otherwise than under this Agreement, nor shall such delay or failure constitute a waiver by Indemnitee of any rights under this Agreement. The Secretary of the Corporation shall, promptly upon receipt of such a request for indemnification, advise the Board in writing that Indemnitee has requested indemnification.

(b) In the event Indemnitee seeks indemnification and/or advancement of Expenses with respect to any Proceeding, Indemnitee may, at Indemnitee's option, (i) retain legal counsel selected by Indemnitee and approved by the Corporation (which approval shall not to be unreasonably withheld, conditioned or delayed) to defend Indemnitee in such Proceeding, at the sole expense of the Corporation or (ii) have the Corporation assume the defense of Indemnitee in the Proceeding, in which case the Corporation shall assume the defense of such Proceeding with legal counsel selected by the Corporation and approved by Indemnitee (which approval shall not be unreasonably withheld, conditioned or delayed) within ten (10) days of the Corporation's receipt of written notice of Indemnitee's election to cause the Corporation to do so. If the Corporation is required to assume the defense of any such Proceeding, it shall engage legal counsel for such defense, and shall be solely responsible for all Expenses of such legal counsel and otherwise of such defense. Such legal counsel may represent both Indemnitee and the Corporation (and/or any other party or parties entitled to be indemnified by the Corporation with respect to such matter) unless, in the reasonable opinion of legal counsel to Indemnitee, there is a conflict of interest between Indemnitee and the Corporation (or any other such party or parties) or there are legal defenses available to Indemnitee that are not available to the Corporation (or any such other party or parties). Notwithstanding either party's assumption of responsibility for defense of a Proceeding, each party shall have the right to engage separate legal counsel at its own expense. The party having responsibility for defense of a Proceeding shall provide the other party and its legal counsel with all copies of pleadings and material correspondence relating to the Proceeding. Indemnitee and the Corporation shall reasonably cooperate in the defense of any Proceeding with respect to which indemnification is sought hereunder, regardless of whether the Corporation or Indemnitee assumes the defense thereof. Indemnitee may not settle or compromise any Proceeding without the prior written consent of the Corporation (which consent shall not be unreasonably withheld, conditioned or delayed). The Corporation may not settle or compromise any Proceeding without the prior written consent of Indemnitee (which consent shall not be unreasonably withheld, conditioned or delayed).

Section 11. Procedure Upon Application for Indemnification.

(a) Upon receipt of a written request by Indemnitee for indemnification pursuant to Section 10(a) (the "Submission Date"), if any determination by the Corporation is required by applicable law with respect to Indemnitee's ultimate entitlement to indemnification, such determination shall be made (i) if a Change in Control shall have occurred, by Independent Counsel in a written opinion to the Board, a copy of which shall be delivered to Indemnitee; or (ii) if a Change in Control shall not have occurred, (A) by a majority vote of the Disinterested Directors, even though less than a quorum of the Board, (B) by a committee of Disinterested Directors designated by a majority vote of the Disinterested Directors, even though less than a quorum of the Board, (C) if there are no such Disinterested Directors or, if such Disinterested Directors so direct, by Independent Counsel in a written opinion to the Board, a copy of which shall be delivered to Indemnitee or (D) if so directed by the Board, by the stockholders of the

Corporation. If it is so determined that Indemnitee is entitled to indemnification, payment to Indemnitee shall be made within ten (10) days after such determination. Indemnitee shall cooperate with the Person(s) making such determination with respect to Indemnitee's entitlement to indemnification, including, without limitation, providing to such Person(s), upon reasonable advance request, any documentation or information which is not privileged or otherwise protected from disclosure and which is reasonably available to Indemnitee and reasonably necessary to such determination. Any Expenses incurred by Indemnitee in so cooperating with the Person(s) making such determination shall be borne by the Corporation (irrespective of the determination as to Indemnitee's entitlement to indemnification) and the Corporation hereby indemnifies and agrees to hold Indemnitee harmless therefrom. The Corporation will not deny any written request for indemnification hereunder made in good faith by Indemnitee unless a determination as to Indemnitee's entitlement to such indemnification described in this Section 11(a) has been made. The Corporation agrees to pay Expenses of the Independent Counsel referred to above and to fully indemnify the Independent Counsel against any and all Expenses, claims, liabilities and damages arising out of or relating to this Agreement or its engagement pursuant hereto.

(b) In the event that the determination of entitlement to indemnification is to be made by the Independent Counsel pursuant to Section 11(a) hereof, the Independent Counsel shall be selected as provided in this Section 11(b). If a Change in Control has not occurred, the Independent Counsel shall be selected by the Board, and the Corporation shall give written notice to Indemnitee advising Indemnitee of the identity of the Independent Counsel so selected. If a Change in Control has occurred, the Independent Counsel shall be selected by Indemnitee (unless Indemnitee shall request that such selection be made by the Board, in which event the preceding sentence shall apply), and Indemnitee shall give written notice to the Corporation advising it of the identity of the Independent Counsel so selected. In either event, Indemnitee or the Corporation, as the case may be, may, within ten (10) days after such written notice of selection shall have been given, deliver to the Corporation or to Indemnitee, as the case may be, a written objection to such selection; provided, however, that such objection may be asserted only on the ground that the Independent Counsel so selected does not meet the requirements of "Independent Counsel" as defined in Section 1(a) of this Agreement, and the objection shall set forth with particularity the factual basis of such assertion. Absent a proper and timely objection, the person so selected shall act as Independent Counsel. If such written objection is so made and substantiated, the Independent Counsel so selected may not serve as Independent Counsel unless and until such objection is withdrawn or the Delaware Court of Chancery has determined that such objection is without merit. If, within twenty (20) days after the later of submission by Indemnitee of a written request for indemnification pursuant to Section 10(a) hereof and the final disposition of the Proceeding, no Independent Counsel shall have been selected and not objected to, either the Corporation or Indemnitee may petition the Delaware Court of Chancery for resolution of any objection which shall have been made by the Corporation or Indemnitee to the other's selection of Independent Counsel and/or for the appointment as Independent Counsel of a person selected by such court or by such other person as such court shall designate, and the person with respect to whom all objections are so resolved or the person so appointed shall act as Independent Counsel under Section 11(a) hereof. Upon the due commencement of any judicial proceeding or arbitration pursuant to Section 13(a) of this Agreement, Independent Counsel shall be discharged and relieved of any further responsibility in such capacity (subject to the applicable standards of professional conduct then prevailing).

Section 12. Presumptions and Effect of Certain Proceedings.

(a) In making a determination with respect to entitlement to indemnification hereunder, the Person(s) making such determination shall, to the fullest extent permitted by law, presume that Indemnitee is entitled to indemnification under this Agreement if Indemnitee has submitted a request for indemnification in accordance with Section 10(a) of this Agreement, and the Corporation shall, to the fullest extent permitted by law, have the burden of proof to overcome that presumption with clear and convincing evidence in connection with the making by any Person(s) of any determination contrary to that presumption. Neither the failure of the Corporation (including, without limitation, by its directors or independent legal counsel) to have made a determination prior to the commencement of any action pursuant to this Agreement that indemnification is proper in the circumstances because Indemnitee has met the

applicable standard of conduct, nor an actual determination by the Corporation (including, without limitation, by its directors or independent legal counsel) that Indemnitee has not met such applicable standard of conduct, shall be a defense to the action or create a presumption that Indemnitee has not met the applicable standard of conduct.

(b) Subject to Section 12(e), if the Person(s) empowered or selected under Section 10 hereof to determine whether Indemnitee is entitled to indemnification shall not have made a determination within sixty (60) days after receipt by the Corporation of the request therefore, the requisite determination of entitlement to indemnification shall, to the fullest extent permitted by law, be deemed to have been made and Indemnitee shall be entitled to such indemnification, absent a prohibition of such indemnification under applicable law; provided, however, that such sixty (60) day period may be extended for a reasonable time, not to exceed an additional thirty (30) days, if (i) the determination is to be made by the Independent Counsel and there is an objection to the selection of the Independent Counsel and (ii) the Person(s) making such determination requires such additional time for the obtaining or evaluating of documentation and/or information relating thereto; and provided, further, that the foregoing provisions of this Section 12(b) shall not apply (i) if the determination of entitlement to indemnification is to be made by the stockholders pursuant to Section 11(a) of this Agreement and if (A) within fifteen (15) days after receipt by the Corporation of the request for such determination the Board has resolved to submit such determination to the stockholders for their consideration at an annual meeting thereof to be held within seventy-five (75) days after such receipt and such determination is made thereat, or (B) a special meeting of stockholders is called within fifteen (15) days after such receipt for the purpose of making such determination, such meeting is held for such purpose within sixty (60) days after having been so called and such determination is made thereat.

(c) The termination of any Proceeding or of any claim, issue or matter therein, by judgment, order, settlement or conviction, or upon a plea of *nolo contendere* or its equivalent, shall not (except as otherwise expressly provided in this Agreement) of itself adversely affect the right of Indemnitee to indemnification or create a presumption that Indemnitee did not act in good faith and in a manner which he/she reasonably believed to be in, or not opposed to, the best interests of the Corporation or, with respect to any criminal Proceeding, that Indemnitee had reasonable cause to believe that Indemnitee's conduct was unlawful.

(d) Reliance as Safe Harbor. For purposes of any determination of good faith, Indemnitee shall be deemed to have acted in good faith if Indemnitee's action is based on the records or books of account of the Enterprise, including financial statements, or on information supplied to Indemnitee by the officers of the Enterprise in the course of their duties, or on the advice of legal counsel for the Enterprise, or on information or records given or reports made to the Enterprise by an independent certified public accountant or by an appraiser or other expert selected with reasonable care by the Enterprise. The provisions of this Section 12(d) shall not be deemed to be exclusive or to limit in any way the other circumstances in which Indemnitee may be deemed to have met the applicable standard of conduct set forth in this Agreement.

(e) Actions of Others. The knowledge and/or actions, or failure to act, of any Representative (other than Indemnitee) of the Enterprise shall not be imputed to Indemnitee for purposes of determining the right to indemnification under this Agreement.

Section 13. Remedies of Indemnitee.

(a) Subject to Section 12(d), in the event that (i) a determination is made pursuant to Section 11 of this Agreement that Indemnitee is not entitled to indemnification under this Agreement, (ii) advancement of Expenses is not timely made pursuant to Section 9 of this Agreement, (iii) no determination of entitlement to indemnification shall have been made pursuant to Section 11(a) of this Agreement within ninety (90) days after the Submission Date, (iv) payment of indemnification is not made pursuant to Section 4, 5, 6 or 11(a) of this Agreement within ten (10) days after receipt by the Corporation of a written

request therefore, (v) payment of indemnification pursuant to Section 2, 3 or 7 of this Agreement is not made within ten (10) days after a determination has been made that Indemnitee is entitled to indemnification or (vi) in the event that the Corporation or any other person takes or threatens to take any action to declare this Agreement void or unenforceable, or institutes any litigation or other action or Proceeding designed to deny, or to recover from, Indemnitee, the benefits provided or intended to be provided to Indemnitee hereunder, Indemnitee shall be entitled to an adjudication by a court of Indemnitee's entitlement to such indemnification and/or advancement of Expenses. Alternatively, Indemnitee, at Indemnitee's option, may seek an award in arbitration to be conducted by a single arbitrator pursuant to the Commercial Arbitration Rules of the American Arbitration Association. Indemnitee shall commence such proceeding seeking an adjudication or an award in arbitration within one hundred and eighty (180) days following the date on which Indemnitee first has the right to commence such proceeding pursuant to this Section 13(a). The Corporation shall not oppose Indemnitee's right to seek any such adjudication or award in arbitration.

(b) In the event that a determination shall have been made pursuant to Section 11 of this Agreement that Indemnitee is not entitled to indemnification, any judicial proceeding or arbitration commenced pursuant to this Section 13 shall be conducted in all respects as a *de novo* trial, or arbitration, on the merits and Indemnitee shall not be prejudiced by reason of that adverse determination. In any judicial proceeding or arbitration commenced pursuant to this Section 13, the Corporation shall have the burden of proving by clear and convincing evidence Indemnitee is not entitled to indemnification or advancement of Expenses, as the case may be.

(c) If a determination shall have been made pursuant to Section 11 of this Agreement that Indemnitee is entitled to indemnification, the Corporation shall be bound by such determination in any judicial proceeding or arbitration commenced pursuant to this Section 13, absent (i) a misstatement by the Indemnitee of a material fact, or an omission by the Indemnitee of a material fact necessary to make the Indemnitee's statement not materially misleading, in connection with the request for indemnification, or (ii) a prohibition of such indemnification under applicable law.

(d) The Corporation shall, to the fullest extent not prohibited by law, be precluded from asserting in any judicial proceeding or arbitration commenced pursuant to this Section 13 that the procedures and presumptions of this Agreement are not valid, binding and enforceable and shall stipulate in any such court or before any such arbitrator that the Corporation is bound by all the provisions of this Agreement. It is the intent of the Corporation that, to the fullest extent permitted by law, Indemnitee not be required to incur legal fees or other Expenses associated with the interpretation, enforcement or defense of Indemnitee's rights under this Agreement by litigation or otherwise because the cost and expense thereof would substantially detract from the benefits intended to be extended to Indemnitee hereunder. In addition, the Corporation shall, to the fullest extent permitted by law, indemnify Indemnitee against any and all such Expenses and, if requested by Indemnitee, shall (within ten (10) days after receipt by the Corporation of a written request therefore) advance, to the fullest extent not prohibited by law, such Expenses to Indemnitee, which are incurred by Indemnitee in connection with any action brought by Indemnitee for indemnification or advancement of Expenses from the Corporation under this Agreement or under any directors' and officers' liability insurance policies maintained by the Corporation if, in the case of indemnification, Indemnitee is wholly successful on the underlying claims; if Indemnitee is not wholly successful on the underlying claims, then such indemnification shall be only in connection with each successfully resolved claim, issue or matter, or otherwise as permitted by law, whichever is greater.

(e) Notwithstanding anything in this Agreement to the contrary, no determination as to entitlement to indemnification under this Agreement shall be required to be made prior to the final disposition of the Proceeding; provided, that in absence of any such determination with respect to such Proceeding, the Corporation shall pay Liabilities and advance Expenses with respect to such Proceeding as if Indemnitee has been determined to be entitled to indemnification and advancement of Expenses with respect to such Proceeding.

Section 14. Non-Exclusivity; Survival of Rights; Insurance; Subrogation.

(a) The rights of indemnification and to receive advancement of Expenses as provided by this Agreement shall not be deemed exclusive of any other rights to which Indemnitee may at any time be entitled under applicable law, the Certificate of Incorporation, the Bylaws, any agreement, a vote of stockholders, a resolution of directors or otherwise. No amendment, alteration or repeal of this Agreement or of any provision hereof shall limit or restrict any right of Indemnitee under this Agreement in respect of any action taken or omitted by such Indemnitee in Indemnitee's Corporate Status prior to such amendment, alteration or repeal. To the extent that a change in applicable law, whether by statute or judicial decision, permits greater indemnification or advancement of Expenses than would be afforded currently under the Certificate of Incorporation, the Bylaws and/or this Agreement, it is the intent of the parties hereto that Indemnitee shall enjoy by this Agreement the greater benefits so afforded by such change. No right or remedy herein conferred is intended to be exclusive of any other right or remedy, and every other right and remedy shall be cumulative and in addition to every other right and remedy given hereunder or now or hereafter existing at law or in equity or otherwise. The assertion or employment of any right or remedy hereunder, or otherwise, shall not prevent the concurrent assertion or employment of any other right or remedy.

(b) The Corporation hereby acknowledges that Indemnitee may have certain rights to indemnification, advancement of Expenses and/or insurance provided by one or more Persons with whom or which Indemnitee may be associated (including, without limitation, any Sponsor Entity). The Corporation hereby acknowledges and agrees that (i) the Corporation shall be the indemnitor of first resort with respect to any Proceeding, Expense, Liability or matter that is the subject of the Indemnity Obligations, (ii) the Corporation shall be primarily liable for all Indemnity Obligations and any indemnification afforded to Indemnitee in respect of any Proceeding, Expense, Liability or matter that is the subject of Indemnity Obligations, whether created by law, organizational or constituent documents, contract (including, without limitation, this Agreement) or otherwise, (iii) any obligation of any other Persons with whom or which Indemnitee may be associated (including, without limitation, any Sponsor Entity) to indemnify Indemnitee and/or advance Expenses to Indemnitee in respect of any proceeding shall be secondary to the obligations of the Corporation hereunder, (iv) the Corporation shall be required to indemnify Indemnitee and advance Expenses to Indemnitee hereunder to the fullest extent provided herein without regard to any rights Indemnitee may have against any other Person with whom or which Indemnitee may be associated (including, without limitation, any Sponsor Entity) or insurer of any such Person and (v) the Corporation irrevocably waives, relinquishes and releases any other Person with whom or which Indemnitee may be associated (including, without limitation, any Sponsor Entity) from any claim of contribution, subrogation or any other recovery of any kind in respect of amounts paid by the Corporation hereunder. In the event that any other Person with whom or which Indemnitee may be associated (including, without limitation, any Sponsor Entity) or their insurers advances or extinguishes any liability or loss which is the subject of any Indemnity Obligation owed by the Corporation or payable under any insurance policy provided under this Agreement, such payor shall have a right of subrogation against the Corporation or its insurer or insurers for all amounts so paid which would otherwise be payable by the Corporation or its insurer or insurers under this Agreement. In no event will payment of an Indemnity Obligation of the Corporation under this Agreement by any other Person with whom or which Indemnitee may be associated (including, without limitation, any Sponsor Entity) or their insurers, affect the obligations of the Corporation hereunder or shift primary liability for any Indemnity Obligation to any other Person with whom or which Indemnitee may be associated (including, without limitation, any Sponsor Entity). Any indemnification and/or insurance or advancement of Expenses provided by any other Person with whom or which Indemnitee may be associated (including, without limitation, any Sponsor Entity), with respect to any liability arising as a result of Indemnitee's Corporate Status or capacity as an officer or director of any Person, is specifically in excess of any Indemnity Obligation of the Corporation or valid and any collectible insurance (including, without limitation, any malpractice insurance or professional errors and omissions insurance) provided by the Corporation under this Agreement, and any obligation to provide indemnification and/or insurance or advance Expenses provided by any other Person with whom or which Indemnitee may be associated (including, without limitation, any Sponsor Entity) shall be reduced

by any amount that Indemnitee collects from the Corporation as an indemnification payment or advancement of Expenses pursuant to this Agreement.

(c) The Corporation shall use its best efforts to obtain and maintain in full force and effect an insurance policy or policies providing liability insurance for Representatives of the Corporation or of any other Enterprise, and Indemnitee shall be covered by such policy or policies in accordance with its or their terms to the maximum extent of the coverage available for any such Representative under such policy or policies. If, at the time of the receipt of a notice of a claim pursuant to the terms hereof, the Corporation maintains an insurance policy or policies providing liability insurance for Representatives of the Corporation or of any other Enterprise, the Corporation shall give prompt notice of the commencement of such Proceeding to the insurers in accordance with the procedures set forth in the respective policy or policies. The Corporation shall thereafter take all necessary or desirable action to cause such insurers to pay, on behalf of Indemnitee, all amounts payable as a result of such Proceeding in accordance with the terms of such policies. In the event of a Change in Control or the Corporation's becoming insolvent, the Corporation shall maintain in force any and all insurance policies then maintained by the Corporation in providing insurance (directors' and officers' liability, fiduciary, employment practices or otherwise) in respect of Indemnitee for a period of six years thereafter.

(d) In the event of any payment under this Agreement, the Corporation shall not be subrogated to, and hereby waives any rights to be subrogated to, any rights of recovery of Indemnitee, including, without limitation, rights of indemnification provided to Indemnitee from any other Person or entity with whom Indemnitee may be associated (including, without limitation, any Sponsor Entity) as well as any rights to contribution that might otherwise exist; provided, however, that the Corporation shall be subrogated to the extent of any such payment of all rights of recovery of Indemnitee under insurance policies of the Corporation or any of its subsidiaries, and the Indemnitee shall execute all papers required and take all action necessary to secure such rights, including execution of such documents as are necessary to enable the Corporation to brings suit to enforce such rights.

(e) The indemnification and contribution provided for in this Agreement will remain in full force and effect regardless of any investigation made by or on behalf of Indemnitee.

Section 15. Duration of Agreement; Not Employment Contract. This Agreement shall continue until and terminate upon the latest of: (a) ten (10) years after the date that Indemnitee shall have ceased to serve as a Representative of the Corporation or any other Enterprise and (b) one (1) year after the final termination of any Proceeding then pending in respect of which Indemnitee is granted rights of indemnification or advancement of Expenses hereunder and of any proceeding commenced by Indemnitee pursuant to Section 13 of this Agreement relating thereto. This Agreement shall be binding upon the Corporation and its successors and assigns and shall inure to the benefit of Indemnitee and Indemnitee's heirs, executors and administrators. The Corporation shall require and cause any direct or indirect successor (whether by purchase, merger, consolidation or otherwise) to all or substantially all of the business or assets of the Corporation, by written agreement, expressly or to assume and agree to perform this agreement in the same manner and to the same extent that the Corporation would be required to perform if no such succession had taken place. This Agreement shall not be deemed an employment contract between the Corporation (or any of its subsidiaries or any Enterprise) and Indemnitee. Indemnitee specifically acknowledges that Indemnitee's employment with the Corporation (or any of its subsidiaries or any Enterprise), if any, is at will, and Indemnitee may be discharged at any time for any reason, with or without cause, except as may be otherwise provided in any written employment contract between Indemnitee and the Corporation (or any of its subsidiaries or any Enterprise), other applicable formal severance policies duly adopted by the Board, or, with respect to service as a Representative of the Corporation, by the Certificate of Incorporation, Bylaws and the DGCL.

Section 16. Severability. If any provision or provisions of this Agreement shall be held to be invalid, illegal or unenforceable for any reason whatsoever: (a) the validity, legality and enforceability of the remaining provisions of this Agreement (including, without limitation, each portion of any Section of this Agreement containing any such provision held to be invalid, illegal or unenforceable, that is not itself invalid, illegal or unenforceable) shall not in any way be affected or impaired thereby and shall remain enforceable to the fullest extent

permitted by law; (b) such provision or provisions shall be deemed reformed to the extent necessary to conform to applicable law and to give the maximum effect to the intent of the parties hereto; and (c) to the fullest extent possible, the provisions of this Agreement (including, without limitation, each portion of any Section of this Agreement containing any such provision held to be invalid, illegal or unenforceable, that is not itself invalid, illegal or unenforceable) shall be construed so as to give effect to the intent manifested thereby.

Section 17. Enforcement.

(a) The Corporation expressly confirms and agrees that it has entered into this Agreement and assumed the obligations imposed on it hereby in order to induce Indemnitee to serve as a Representative of the Corporation, and the Corporation acknowledges that Indemnitee is relying upon this Agreement in serving or continuing to serve as a Representative of the Corporation.

(b) This Agreement constitutes the entire agreement between the parties hereto with respect to the subject matter hereof and supersedes all prior agreements and understandings, oral, written and implied, between the parties hereto with respect to the subject matter hereof; provided, however, that this Agreement is a supplement to and in furtherance of the Bylaws and applicable law, and shall not be deemed a substitute therefore, nor to diminish or abrogate any rights of Indemnitee thereunder.

(c) The Corporation shall not seek from a court, or agree to, a "bar order" which would have the effect of prohibiting or limiting the Indemnitee's right to receive advancement of expenses under this Agreement.

Section 18. Modification and Waiver. No supplement, modification or amendment of this Agreement shall be binding unless executed in writing by the parties thereto. No waiver of any of the provisions of this Agreement shall be deemed or shall constitute a waiver of any other provisions of this Agreement nor shall any waiver constitute a continuing waiver. The failure of any party to enforce any of the provisions of this Agreement shall in no way be construed as a waiver of such provisions and shall not affect the right of such party thereafter to enforce each and every provision of this Agreement in accordance with its terms.

Section 19. Notices. All notices, requests, demands and other communications under this Agreement shall be in writing and shall be deemed to have been duly given if (a) delivered by hand and receipted for by the party to whom said notice or other communication shall have been directed, (b) mailed by certified or registered mail with postage prepaid, on the third business day after the date on which it is so mailed, (c) mailed by reputable overnight courier and receipted for by the party to whom said notice or other communication shall have been directed or (d) sent by facsimile transmission, with receipt of oral confirmation that such transmission has been received:

(a) If to Indemnitee, at the address indicated on the signature page of this Agreement, or such other address as Indemnitee shall provide to the Corporation.

(b) If to the Corporation to:

OptiNose, Inc.
1020 Stony Hill Road, Suite 300
Yardley, Pennsylvania 19067
Attn: Chief Legal Officer
Facsimile: (267) 395-2119

or to any other address as may have been furnished to Indemnitee by the Corporation.

Section 20. Contribution. To the fullest extent permissible under applicable law, if the indemnification provided for in this Agreement is unavailable to Indemnitee for any reason whatsoever, the Corporation, in lieu of indemnifying Indemnitee, shall contribute to the amount incurred by Indemnitee, whether for judgments, fines,

penalties, excise taxes, amounts paid or to be paid in settlement and/or for Expenses, in connection with any claim relating to an indemnifiable event under this Agreement, in such proportion as is deemed fair and reasonable in light of all of the circumstances of the Proceeding in order to reflect (a) the relative benefits received by the Corporation and Indemnitee as a result of the event(s) and/or transaction(s) giving cause to such Proceeding; and/or (b) the relative fault of the Corporation (and its directors, officers, employees and agents) and Indemnitee in connection with such event(s) and/or transaction(s).

Section 21. Applicable Law and Consent to Jurisdiction. This Agreement and the legal relations among the parties shall be governed by, and construed and enforced in accordance with, the laws of the State of Delaware, without regard to its conflict of laws rules. Except with respect to any arbitration commenced by Indemnitee pursuant to Section 13(a), the Corporation and Indemnitee hereby irrevocably and unconditionally (a) agree that any action or proceeding arising out of or in connection with this Agreement shall be brought only in the Delaware Court of Chancery, and not in any other state or federal court in the United States of America or any court in any other country, (b) consent to submit to the exclusive jurisdiction of the Delaware Court of Chancery for purposes of any action or proceeding arising out of or in connection with this Agreement, (c) waive any objection to the laying of venue of any such action or proceeding in the Delaware Court of Chancery and (d) waive, and agree not to plead or to make, any claim that any such action or proceeding brought in the Delaware Court of Chancery has been brought in an improper or inconvenient forum.

Section 22. Counterparts. This Agreement may be executed in one or more counterparts, each of which shall for all purposes be deemed to be an original but all of which together shall constitute one and the same Agreement. Only one such counterpart signed by the party against whom enforceability is sought needs to be produced to evidence the existence of this Agreement. Counterparts may be delivered via facsimile, electronic mail (including pdf or any electronic signature) or other transmission method and any counterpart so delivered shall be deemed to have been duly and validly delivered and be valid and effective for all purposes.

Section 23. Third-Party Beneficiaries. The Sponsor Entities are intended third-party beneficiaries of this Agreement.

Section 24. Miscellaneous. Use of the masculine pronoun shall be deemed to include usage of the feminine pronoun where appropriate. The headings of the paragraphs of this Agreement are inserted for convenience only and shall not be deemed to constitute part of this Agreement or to affect the construction thereof.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, the parties have caused this Agreement to be signed as of the day and year first above written.

OPTINOSE, INC.

Name: Peter Miller
Title: Chief Executive Officer

[Signature Page to Indemnification Agreement]

INDEMNITEE:

_____

[ ]

[Signature Page to Indemnification Agreement]

Schedule to Exhibit 10.1

The following directors and executive officers are parties to an Indemnification Agreement with the Company, each of which are substantially identical in all material respects to the representative Indemnification Agreement filed herewith as Exhibit 10.1 except as to the name of the signatory and the date of each signatory's Indemnification Agreement, which are listed below. The actual Indemnification Agreements are omitted pursuant to Instruction 2 to Item 601 of Regulation S-K.

INDEMNITEE	DATE
Peter K. Miller	October 2, 2017
Ramy A. Mahmoud, M.D., M.P.H.	October 2, 2017
Keith A. Goldan	October 2, 2017
Victor M. Clavelli	February 17, 2020
Michael F. Marino	October 2, 2017
Joseph C. Scodari	October 5, 2017
Wilhelmus Groenhuysen	October 5, 2017
Sandra K. Helton	February 22, 2018
Catherine E. Owen	July 29, 2020
Tomas J. Heyman	December 1, 2020
Eric Bednarski	December 10, 2021
Kyle Dempsey	December 10, 2021
R. John Fletcher	April 26, 2022
Michele Janis	August 8, 2022
Anthony Krick	August 8, 2022

THIRD AMENDMENT
TO
NOTE PURCHASE AGREEMENT

This Third Amendment to the Note Purchase Agreement (defined below) (this "**Amendment**"), dated as of August 10, 2022 (the "**Effective Date**"), is entered into by and among OPTINOSE US, INC., a Delaware corporation (the "**Issuer**"), OPTINOSE AS, a Norwegian private limited liability company with Norwegian business registration number 982 483 131, and OPTINOSE, INC., a Delaware corporation (the "**Parent**"), and the Purchasers (as defined in the Note Purchase Agreement) party to the Note Purchase Agreement as of the Effective Date and BIOPHARMA CREDIT PLC, a public limited company incorporated under the laws of England and Wales, as Collateral Agent.

RECITALS

WHEREAS, the Issuer, the Purchasers and the other parties thereto are party to that certain Note Purchase Agreement dated as of September 12, 2019, as amended pursuant to that certain letter agreement dated August 13, 2020 by and among such parties, as further amended by that certain First Amendment to Note Purchase Agreement dated as of March 2, 2021 by and among such parties and as further amended by that certain Second Amendment to Note Purchase Agreement dated as of November 16, 2021 by and among such parties (the "**Note Purchase Agreement**"); and

WHEREAS, in accordance with Section 12.01 of the Note Purchase Agreement, the Issuer and each of the Purchasers desire to amend the Note Purchase Agreement on the terms and conditions set forth herein.

AGREEMENT

NOW, THEREFORE, in consideration of the mutual covenants and premises herein contained and intending to be legally bound by this Amendment, each of the undersigned hereby agrees and declares as follows:

SECTION 1. Definitions; Interpretation. All capitalized terms used in this Amendment (including in the recitals hereof) and not otherwise defined herein shall have the meanings assigned to them in the Note Purchase Agreement. The rules of interpretation set forth in Section 1.02 of the Note Purchase Agreement shall be applicable to this Amendment and are incorporated herein by this reference.

SECTION 2. Amendments to Note Purchase Agreement. As of the date hereof, the Note Purchase Agreement is hereby amended as follows:

a. the Note Purchase Agreement is hereby amended by deleting in its entirety Section 8.16(a) of the Note Purchase Agreement and replacing it as follows:

"(a) Minimum Consolidated Net Sales. Permit trailing twelve-month Consolidated Net Sales, tested for each fiscal quarter commencing with the fiscal quarter ending December 31, 2021, to fall below the amount under the applicable column titled "Net Sales Threshold" set forth opposite the period in the table below:

Twelve Month Period Ending	Net Sales Threshold
December 31, 2021	$68,000,000
March 31, 2022	$70,000,000
June 30, 2022	$75,000,000
September 30, 2022	$80,000,000
December 31, 2022	$85,000,000
March 31, 2023	$98,750,000

June 30, 2023	$102,500,000
September 30, 2023	$106,250,000
December 31, 2023	$110,000,000
March 31, 2024	$113,750,000
June 30, 2024	$117,500,000

”

SECTION 3. Third Amendment Fee. The Issuer agrees that upon the earliest to occur of (x) the Maturity Date, (y) the date on which the maturity of the Notes is accelerated pursuant to Section 9.02(b), and (z) the date of any prepayment of the Notes pursuant to Section 2.07, the Issuer shall pay to each Purchaser its ratable portion of an amendment fee in an aggregate amount equal to $780,000.00 (the “**Third Amendment Fee**”). The Issuer agrees that the Third Amendment Fee shall be (i) paid in Dollars, (ii) fully earned on the Effective Date, (iii) nonrefundable for any reason whatsoever once paid and (iv) in addition to, and not creditable against, any other fee, cost or expense payable under the Note Documents.

SECTION 4. Representations and Warranties; Reaffirmation.

a. Each Note Party, jointly and severally with each other Note Party, hereby represents and warrants to each Purchaser and the Collateral Agent as follows:

(i) Such Note Party has all requisite power and authority to enter into this Amendment and to perform its obligations hereunder.

(ii) This Amendment has been duly executed and delivered by such Note Party and is the legally valid and binding obligation of such Note Party, enforceable against such Note Party in accordance with its terms, subject to applicable Debtor Relief Laws or other Laws affecting creditors’ rights generally and subject to general principles of equity.

(iii) The execution and delivery by such Note Party of, and the performance by such Note Party of its obligations under, this Amendment have been duly authorized and do not: (A) contravene the terms of any of such Note Party’s Organization Documents; (B) violate in any material respect any Law or regulation; (C) conflict with in any material respect, or result in any material breach or contravention of, any material order, judgment, injunction, writ, decree, determination or award of any Governmental Authority or any arbitral award to which such Note Party or any of its properties are subject; (D) require any approval, consent, exemption, authorization, or other action by, or notice to, or filing with, any Governmental Authority or any other Person, other than those that have already been obtained and are in full force and effect; or (E) conflict with in any material respect or result in any material breach or contravention of, or the creation of any Lien under, or require any payment to be made under, any material Contractual Obligation to which such Note Party is a party or affecting such Note Party or the properties of such Note Party or any of its Subsidiaries.

a. Each Note Party hereby ratifies, confirms, reaffirms, and acknowledges its obligations under the Note Documents to which it is a party and agrees that the Note Documents remain in full force and effect, undiminished by this Amendment, except as expressly provided herein. By executing this Amendment, each Note Party acknowledges that it has read, consulted with its attorneys regarding, and understands, this Amendment.

SECTION 5. References to and Effect on Note Purchase Agreement. Except as specifically set forth herein, this Amendment shall not modify or in any way affect any of the provisions of the Note Purchase Agreement, which shall remain in full force and effect and is hereby ratified and confirmed in all respects. On and after the Effective Date all references in the Note Purchase Agreement to “this Agreement,” “hereto,” “hereof,” “hereunder,” or words of

like import shall mean the Note Purchase Agreement as amended by this Amendment. The parties hereto hereby acknowledge and agree that this Amendment constitutes a Note Document.

SECTION 6. Counterparts; Etc. This Amendment may be executed in counterparts (and by different parties hereto in different counterparts), each of which shall constitute an original, but all of which when taken together shall constitute a single contract. Delivery of an executed counterpart of a signature page of this Amendment by facsimile or other electronic imaging means (e.g. "pdf" or "tif") shall be effective as delivery of a manually executed counterpart of this Amendment.

SECTION 7. Governing Law; Jurisdiction, Etc. Section 12.14 of the Note Purchase Agreement is hereby incorporated by reference, *mutatis mutandis*.

[Signature Page Follows]

IN WITNESS WHEREOF, each of the undersigned has caused this Amendment to be duly executed and delivered as of the date first above written.

OPTINOSE US, INC.,
as the Issuer
By:
Name: Peter K. Miller
Title: CEO

_____

OPTINOSE AS,
as a Guarantor
By:
Name: Peter K. Miller
Title: CEO

OPTINOSE, INC.,
as a Guarantor
By:
Name: Peter K. Miller
Title: CEO

BPCR LIMITED PARTNERSHIP,
as a Purchaser
By: Pharmakon Advisors, LP,
its Investment Manager
By: Pharmakon Management I, LLC,
its General Partner

By _____ Name: Pedro Gonzalez de Cosio Title: Managing Member

BIOPHARMA CREDIT INVESTMENTS V (MASTER) LP,

as a Purchaser
By: Pharmakon Advisors, LP,
its Investment Manager
By: Pharmakon Management I, LLC,
its General Partner

By_____ Name: Pedro Gonzalez de Cosio Title: Managing Member

Acknowledged by:

BIOPHARMA CREDIT PLC,
as Collateral Agent

By: Pharmakon Advisors, LP,
its Investment Manager

By: Pharmakon Management I, LLC,
its General Partner

By_____ Name: Pedro Gonzalez de Cosio Title: Managing Member

CERTIFICATION UNDER SECTION 302 OF THE

SARBANES-OXLEY ACT OF 2002

I, Peter K. Miller, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of OptiNose, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) 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 12, 2022

/s/ Peter K. Miller
Peter K. Miller
Chief Executive Officer
(Principal Executive Officer)

CERTIFICATION UNDER SECTION 302 OF THE

SARBANES-OXLEY ACT OF 2002

I, Keith A. Goldan, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of OptiNose, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) 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 12, 2022

/s/ Keith A. Goldan
Chief Financial Officer
(Principal Financial Officer and Principal Accounting Officer)

CERTIFICATION UNDER SECTION 906 OF THE

SARBANES-OXLEY ACT OF 2002

I, Peter K. Miller, Chief Executive Officer of OptiNose, Inc. (the "Company"), do hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to the best of my knowledge:

1. the Quarterly Report on Form 10-Q of the Company for the period ending March 31, 2022 (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 for the periods presented therein.

Date: May 12, 2022

/s/ Peter K. Miller
Peter K. Miller
Chief Executive Officer
(Principal Executive Officer)

CERTIFICATION UNDER SECTION 906 OF THE

SARBANES-OXLEY ACT OF 2002

I, Keith A. Goldan, Chief Financial Officer of OptiNose, Inc. (the "Company"), do hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to the best of my knowledge

1. the Quarterly Report on Form 10-Q of the Company for the period ended March 31, 2022 (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 for the periods presented therein.

Date: May 12, 2022

/s/ Keith A. Goldan
Keith A. Goldan
Chief Financial Officer
(Principal Financial Officer and Principal Accounting Officer)