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, 2023

OR

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

For the transition period from _____ to _____

Commission file number: 001-35994

NightHawk Biosciences, Inc.
(Exact name of registrant as specified in its charter)

Delaware	**26-2844103**
(State or other jurisdiction of incorporation or organization)	*(I.R.S. Employer Identification No.)*
627 Davis Drive, Suite 300 Morrisville, NC	**27560**
(Address of principal executive offices)	*(Zip Code)*

(919) 240-7133
(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	NHWK	NYSE American LLC
Common Stock Purchase Rights		NYSE American LLC

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

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

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

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

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

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

As of August 14, 2023, there were 26,081,890 shares of Common Stock, $0.0002 par value per share, outstanding.

NIGHTHAWK BIOSCIENCES, INC.

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FORWARD-LOOKING STATEMENTS

This Quarterly Report on Form 10-Q contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the "Securities Act"), and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). All statements, other than statements of historical facts, contained in this Quarterly Report on Form 10-Q, including statements regarding our strategy, future operations, future financial position, future revenues, projected costs, prospects, plans and objectives of management, are forward-looking statements. The words "anticipate," "believe," "estimate," "expect," "intend," "may," "plan," "predict," "project," "target," "potential," "will," "would," "could," "should," "continue" and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words.

Forward-looking statements are not guarantees of future performance and our actual results could differ materially from the results discussed in the forward-looking statements. Factors that could cause actual results to differ materially from those in the forward-looking statements include, but are not limited to, our ability to raise additional capital to support our biodefense program, our manufacturing operations and other operations, our ability to develop products of commercial value and to identify, discover and obtain rights to additional potential product candidates, the outcome of research and development activities, our reliance on third-parties, the timing of completion of construction of the planned manufacturing facility in Kansas, our ability to successfully operate a manufacturing facility, competitive developments, the effect of current and future legislation and regulation and regulatory actions, as well as other risks described more fully in this Quarterly Report on Form 10-Q and our other filings with the Securities and Exchange Commission (the "SEC"). Readers are cautioned that these forward-looking statements are only predictions and are subject to risks, uncertainties, and assumptions that are difficult to predict, including those identified below, under Part II, Item 1A. "Risk Factors" and elsewhere herein and those identified under Part I, Item 1A of our Annual Report on Form 10-K for the year ended December 31, 2022 filed with the SEC on March 31, 2023 (the "2022 Annual Report"). Therefore, actual results may differ materially and adversely from those expressed in any forward-looking statements. We undertake no obligation to revise or update any forward-looking statements for any reason.

As a result of these and other factors, we may not actually achieve the plans, intentions or expectations disclosed in our forward-looking statements, and you should not place undue reliance on our forward-looking statements. Our forward-looking statements do not reflect the potential impact of any future acquisitions, mergers, dispositions, joint ventures or investments we may make. We do not assume any obligation to update any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law.

NOTE REGARDING COMPANY REFERENCES

Throughout this Quarterly Report on Form 10-Q, "NightHawk," "NightHawk Biosciences," "the Company," "we" and "our" refer to NightHawk Biosciences, Inc.

PART I—FINANCIAL INFORMATION

ITEM 1. FINANCIAL STATEMENTS

NIGHTHAWK BIOSCIENCES, INC.
Consolidated Balance Sheets

	June 30, 2023	December 31, 2022
	(unaudited)	
Current Assets		
Cash and cash equivalents	$ 5,836,684	$ 8,434,554
Short-term investments	12,726,545	35,837,309
Accounts receivable	260,191	81,456
Grant receivable	—	1,524,522
Income tax refund receivable	600,877	600,877
Prepaid expenses and other current assets	3,357,644	3,575,541
Total Current Assets	22,781,941	50,054,259
Property and Equipment, net	19,110,942	20,480,375
Intangible assets, net	7,941,875	8,669,375
Goodwill	3,873,079	3,301,959
Operating lease right-of-use asset	5,471,414	6,005,147
Finance lease right-of-use asset	19,312,783	15,329,075
Other assets	1,456,039	260,011
Deposits	236,334	296,711
Total Assets	$ 80,184,407	$ 104,396,912
Liabilities and Stockholders' Equity		
Current Liabilities		
Accounts payable	$ 2,322,048	$ 4,424,053
Deferred revenue, current portion	2,702,024	1,585,808
Operating lease liability, current portion	343,047	490,378
Finance lease liability, current portion	260,488	301,048
Accrued expenses and other liabilities	3,479,325	4,301,922
Contingent consideration, current portion	6,234,115	6,934,114
Total Current Liabilities	15,341,047	18,037,323
Long Term Liabilities		
Deferred revenue, net of current portion	32,500	32,500
Operating lease liability, net of current portion	2,912,038	3,079,887
Financing lease liability, net of current portion	7,728,522	5,520,034
Contingent consideration, net of current portion	6,100,000	5,290,500
Other liabilities	1,002,904	—
Total Liabilities	33,117,011	31,960,244
Commitments and Contingencies (Note 13 and Note 14)		
Stockholders' Equity		
Common stock, $0.0002 par value; 250,000,000 shares authorized, 26,047,164 and 25,661,488 shares issued and outstanding at June 30, 2023 and December 31, 2022, respectively	5,210	5,126
Additional paid-in capital	284,453,899	283,019,456
Accumulated deficit	(235,830,321)	(209,153,659)
Accumulated other comprehensive income	104,962	51,924
Total Stockholders' Equity - NightHawk Biosciences, Inc.	48,733,750	73,922,847
Non-Controlling Interest	(1,666,354)	(1,486,179)
Total Stockholders' Equity	47,067,396	72,436,668
Total Liabilities and Stockholders' Equity	$ 80,184,407	$ 104,396,912

See Notes to Consolidated Financial Statements

NIGHTHAWK BIOSCIENCES, INC.
Consolidated Statements of Operations and Comprehensive Loss
(Unaudited)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
Revenue	$ 657,778	$ 50,981	$ 1,423,678	263,399
Operating expenses:				
Cost of revenues	383,691	—	995,431	—
Research and development	5,732,961	4,726,517	12,728,809	8,659,864
Selling, general and administrative	7,393,197	4,890,544	14,213,747	8,667,167
Amortization of intangible asset	363,750	350,000	727,500	350,000
Change in fair value of contingent consideration	1,100,000	(203,000)	109,500	(224,000)
Total operating expenses	14,973,599	9,764,061	28,774,987	17,453,031
Loss from operations	(14,315,821)	(9,713,080)	(27,351,309)	(17,189,632)
Change in fair value of warrant liability	—	1,511	—	9,290
Interest (loss) income	(191,000)	42,697	(139,969)	158,265
Unrealized (loss) gain on available-for-sale securities	(26,001)	(595,038)	63,321	(1,431,631)
Total non-operating loss	(217,001)	(550,830)	(76,648)	(1,264,076)
Net loss before income taxes	(14,532,822)	(10,263,910)	(27,427,957)	(18,453,708)
Income tax benefit	571,120	3,326,000	571,120	3,326,000
Net loss	(13,961,702)	(6,937,910)	(26,856,837)	(15,127,708)
Net loss - non-controlling interest	(69,686)	(106,624)	(180,175)	(175,835)
Net loss attributable to NightHawk Biosciences, Inc.	$ (13,892,016)	$ (6,831,286)	$ (26,676,662)	$ (14,951,873)
Net loss per share, basic and diluted	$ (0.53)	$ (0.27)	$ (1.03)	$ (0.58)
Weighted-average common shares outstanding, basic and diluted	26,047,591	25,602,965	26,009,578	25,598,481
Comprehensive loss:				
Net loss	$ (13,961,702)	$ (6,937,910)	$ (26,856,837)	$ (15,127,708)
Unrealized gain on foreign currency translation	21,075	149,855	53,038	94,586
Total comprehensive loss	(13,940,627)	(6,788,055)	(26,803,799)	(15,033,122)
Comprehensive loss attributable to non-controlling interest	(69,686)	(106,624)	(180,175)	(175,835)
Comprehensive loss - NightHawk Biosciences, Inc.	$ (13,870,941)	$ (6,681,431)	$ (26,623,624)	$ (14,857,287)

See Notes to Consolidated Financial Statements

NIGHTHAWK BIOSCIENCES, INC.
Consolidated Statements of Stockholders' Equity
(Unaudited)

	Three Months Ended June 30, 2023					
	Common Stock	APIC	Accumulated Deficit	Accumulated Other Comprehensive Income	Non-Controlling Interest	Total Stockholders' Equity
Balance at March 31, 2023	$ 5,210	$ 283,785,089	$ (221,938,305)	$ 83,887	$ (1,596,668)	$ 60,339,213
Stock-based compensation	—	668,810	—	—	—	668,810
Other comprehensive income	—	—	—	21,075	—	21,075
Net loss	—	—	(13,892,016)	—	(69,686)	(13,961,702)
Balance at June 30, 2023	**$ 5,210**	**$ 284,453,899**	**$ (235,830,321)**	**$ 104,962**	**$ (1,666,354)**	**$ 47,067,396**

	Six Months Ended June 30, 2023					
	Common Stock	APIC	Accumulated Deficit	Accumulated Other Comprehensive Income	Non-Controlling Interest	Total Stockholders' Equity
Balance at December 31, 2022	$ 5,126	$ 283,019,456	$ (209,153,659)	$ 51,924	$ (1,486,179)	$ 72,436,668
Issuance of common stock from vesting of restricted stock awards	79	(79)	—	—	—	—
Issuance of common stock - ESPP	5	(5)	—	—	—	—
Stock-based compensation	—	1,434,527	—	—	—	1,434,527
Other comprehensive income	—	—	—	53,038	—	53,038
Net loss	—	—	(26,676,662)	—	(180,175)	(26,856,837)
Balance at June 30, 2023	**$ 5,210**	**$ 284,453,899**	**$ (235,830,321)**	**$ 104,962**	**$ (1,666,354)**	**$ 47,067,396**

See Notes to Consolidated Financial Statements

NIGHTHAWK BIOSCIENCES, INC.
Consolidated Statements of Stockholders' Equity
(Unaudited)

	Three Months Ended June 30, 2022					
	Common Stock	APIC	Accumulated Deficit	Accumulated Other Comprehensive (Loss) Income	Non-Controlling Interest	Total Stockholders' Equity
Balance at March 31, 2022	$ 5,120	$ 279,800,072	$ (173,839,540)	$ (123,210)	$ (1,143,954)	$ 104,698,488
Stock-based compensation	—	803,230	—	—	—	803,230
Other comprehensive income	—	—	—	149,855	—	149,855
Net loss	—	—	(6,831,286)	—	(106,624)	(6,937,910)
Balance at June 30, 2022	**$ 5,120**	**$ 280,603,302**	**$ (180,670,826)**	**$ 26,645**	**$ (1,250,578)**	**$ 98,713,663**

	Six Months Ended June 30, 2022					
	Common Stock	APIC	Accumulated Deficit	Accumulated Other Comprehensive Income	Non-Controlling Interest	Total Stockholders' Equity
Balance at December 31, 2021	$ 5,055	$ 278,890,153	$ (165,718,953)	$ (67,941)	$ (1,074,743)	$ 112,033,571
Issuance of common stock from vesting of restricted stock awards	65	(65)	—	—	—	—
Stock-based compensation	—	1,713,214	—	—	—	1,713,214
Other comprehensive income	—	—	—	94,586	—	94,586
Net loss	—	—	(14,951,873)	—	(175,835)	(15,127,708)
Balance at June 30, 2022	**$ 5,120**	**$ 280,603,302**	**$ (180,670,826)**	**$ 26,645**	**$ (1,250,578)**	**$ 98,713,663**

See Notes to Consolidated Financial Statements

NIGHTHAWK BIOSCIENCES, INC.
Consolidated Statements of Cash Flows
(Unaudited)

	For the Six Months Ended June 30,	
	2023	**2022**
Cash Flows from Operating Activities		
Net loss	$ (26,856,837)	$ (15,127,708)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	2,935,067	420,630
Amortization of intangible asset	727,500	350,000
Noncash lease expense	218,551	53,313
Noncash interest expense	—	11,870
Stock-based compensation	1,434,527	1,713,214
Change in fair value of common stock warrants	—	(9,290)
Change in fair value of contingent consideration	109,500	(224,000)
Unrealized (gain) loss on investments	(63,321)	1,431,631
Deferred tax liability	(571,120)	(3,326,000)
Increase (decrease) in cash arising from changes in assets and liabilities, net of acquisitions:		
Accounts receivable	(179,321)	(82,992)
Other assets	(193,124)	(11,013,793)
Prepaid expenses and other current assets	217,463	1,336,620
Grant receivable	1,524,522	(206,163)
Contract receivables	—	24,526,231
Right-of-use assets	386,336	—
Deposits	60,376	10,592
Accounts payable	(2,101,841)	3,421,220
Deferred revenue	1,116,216	2,500
Accrued expenses and other liabilities	(767,835)	(4,719,416)
Other long-term liabilities	—	2,925
Net Cash Used In Operating Activities	(22,003,341)	(1,428,616)
Cash Flows from Investing Activities		
Purchase of short-term investments	(340,380)	(1,762,833)
Sale of short-term investments	23,514,465	28,948,785
Purchases of property and equipment	(1,036,623)	(3,350,670)
Disposal of property and equipment	184,528	—
Acquisition of Elusys Therapeutics, net of cash paid	—	2,719,898
Payment of contingent consideration	—	(22,784,571)
Net Cash Provided By Investing Activities	22,321,990	3,770,609
Cash Flows from Financing Activities		
Repayments of principal under finance lease	(2,915,654)	(111,146)
Net Cash Used In Financing Activities	(2,915,654)	(111,146)
Effect of exchange rate changes on cash and cash equivalents	(865)	(42,067)
Net (Decrease) Increase in Cash and Cash Equivalents	(2,597,870)	2,188,780
Cash and Cash Equivalents – Beginning of the Period	8,434,554	8,053,879
Cash and Cash Equivalents – End of the Period	$ 5,836,684	$ 10,242,659
Supplemental Disclosure for Cash Flow Information:		
Right-of-use assets obtained upon operating lease commencements	$ —	$ 704,004
Right-of-use assets obtained upon financing lease commencements	$ 7,789,655	$ —
Right-of-use assets surrendered upon financing lease modifications	$ (3,092,408)	$ —
Cash paid for receivable consideration included in contract receivables	$ —	$ 20,784,571
Supplemental disclosure of non-cash investing and financing activities:		
Purchases of property and equipment included in accounts payable	$ 373,127	$ —
Purchases of other assets included in accounts payable	$ —	$ 2,345,624
Contingent and deferred cash consideration related to Elusys acquisition	$ —	$ 45,953,685
Increase in other assets and uncertain tax position from the finalization of Elusys' purchase accounting	$ 1,002,904	$ —
Increase in goodwill and deferred tax liability from the finalization of Elusys' purchase accounting	$ 571,120	$ —

See Notes to Consolidated Financial Statements

1. Basis of Presentation and Significant Accounting Policies

Basis of Presentation and Principles of Consolidation

Effective May 3, 2022, Heat Biologics, Inc. changed its name to NightHawk Biosciences, Inc. (the "Company") by filing a Certificate of Amendment (the "Certificate of Amendment") to its Third Amended and Restated Certificate of Incorporation with the Secretary of State of the State of Delaware.

The accompanying consolidated financial statements have been prepared in conformity with accounting principles generally accepted in the United States of America ("U.S. GAAP") for interim financial reporting. Certain information or footnote disclosures normally included in the annual financial statements prepared in accordance with U.S. GAAP have been condensed, or omitted, pursuant to the rules and regulations of the Securities and Exchange Commission (the "SEC"). In the opinion of the Company's management, these financial statements include all normal and recurring adjustments necessary for the fair statement of the results for the interim periods presented. The results for the three and six months ended June 30, 2023 are not necessarily indicative of the results that may be expected for any other interim period or for the fiscal year ending December 31, 2023.

The consolidated financial statements as of and for the three and six months ended June 30, 2023 and 2022 are unaudited. The balance sheet as of December 31, 2022 is derived from the audited consolidated financial statements as of that date. These financial statements should be read in conjunction with the audited consolidated financial statements and related notes contained in the Company's Annual Report on Form 10-K for the year ended December 31, 2022 filed with the SEC on March 31, 2023 (the "2022 Annual Report").

The accompanying unaudited consolidated financial statements as of and for the three and six months ended June 30, 2023 and 2022 include the accounts of NightHawk Biosciences, Inc., and its subsidiaries ("the Company"), Pelican Therapeutics, Inc. ("Pelican"), Heat Biologics I, Inc. ("Heat I"), Heat Biologics III, Inc. ("Heat III"), Heat Biologics IV, Inc. ("Heat IV"), Heat Biologics GmbH, Heat Biologics Australia Pty Ltd., Zolovax, Inc., Skunkworx Bio, Inc. (formerly known as Delphi Therapeutics, Inc.), Scorpius BioManufacturing, Inc. ("Scorpius") (formerly Scorpion Biological Services, Inc), Blackhawk Bio, Inc., Abacus Biotech, Inc., and Elusys Therapeutics, Inc. ("Elusys"). The functional currency of the entities located outside the United States of America (the foreign entities) is the applicable local currency of the foreign entities. Assets and liabilities of the foreign entities are translated at period-end exchange rates. Statement of operations accounts are translated at the average exchange rate during the period. The effects of foreign currency translation adjustments are included in other comprehensive loss, which is a component of accumulated other comprehensive income in stockholders' equity. All significant intercompany accounts and transactions have been eliminated in consolidation. At June 30, 2023 and December 31, 2022, NightHawk held an 85% controlling interest in Pelican. NightHawk accounts for its less than 100% interest in accordance with U.S. GAAP. Accordingly, the Company presents non-controlling interest as a component of stockholders' equity on its consolidated balance sheets and reports non-controlling interest net loss under the heading "net loss – non-controlling interest" on its consolidated statements of operations and comprehensive loss.

Going Concern Uncertainty

The Company has an accumulated deficit of approximately $235.8 million as of June 30, 2023 and a net loss of approximately $26.9 million for the six months ended June 30, 2023 and has not generated significant revenue or positive cash flows from operations. The Company expects to incur significant expenses and continued losses from operations for the foreseeable future. The Company expects its expenses to increase in connection with its ongoing activities, particularly as the Company ramps up operations in its in-house bioanalytic, process development and manufacturing facility in San Antonio, TX, expands its infectious disease/biological threat program, and continues to support the development of, and commencement of operations at, a new biodefense-focused large molecule and biologics biomanufacturing facility in Manhattan, Kansas. As of June 30, 2023, a lease has not been executed for this Kansas facility. In addition, any new business ventures that the Company may engage in are likely to require commitments of capital. Accordingly, the Company will in the future need to obtain substantial additional funding in connection with its planned operations. Adequate additional financing may not be available to the Company on acceptable terms, or at all. If the Company is unable to raise capital when needed or on attractive terms, it would be forced to delay, reduce or eliminate its programs,

any future commercialization efforts or the manufacturing services it plans to provide. To meet its capital needs, the Company intends to continue to consider multiple alternatives, including, but not limited to, additional equity financings such as sales of its common stock under at-the-market offerings, debt financings, partnerships, grants, funding collaborations and other funding transactions, if any are available. As of June 30, 2023, the Company had approximately $18.6 million in cash and cash equivalents and short-term investments, which it believes is sufficient to fund its operations into Q4 2023. The Company will need to generate significant revenues to achieve profitability, and it may never do so. Management has determined that there is substantial doubt about the Company's ability to continue as a going concern within one year after the consolidated interim financial statements are issued.

Risk and Uncertainties

The Company's future results of operations involve a number of risks and uncertainties. Factors that could affect the Company's future operating results and cause actual results to vary materially from expectations include, but are not limited to, uncertainty of regulatory approval of the Company's drug candidates or its manufacturing facility, the timing of completion of construction of the planned manufacturing facility in Kansas, uncertainty of market acceptance of the Company's products or manufacturing capability or success of new business ventures, competition from substitute products and larger companies, government budget and spending on biological threat programs, securing and protecting proprietary technology, strategic relationships and dependence on key individuals and sole source suppliers.

The Company depends on third-party suppliers for key materials and services used in research and development, as well as manufacturing processes, and is subject to certain risks related to the loss of these third-party suppliers or their inability to supply adequate materials and services. The Company does not control the manufacturing processes of the contract development and manufacturing organizations ("CDMOs") with whom it contracts and is dependent on these third parties for the production of its therapeutic candidates in accordance with relevant regulations (such as current Good Manufacturing Practices "cGMP"), which include, among other things, quality control, quality assurance and the maintenance of records and documentation.

Cash and Cash Equivalents

The Company considers all cash and other highly liquid investments with initial maturities from the date of purchase of three months or less to be cash and cash equivalents.

Derivative Financial Instruments

The Company has issued common stock warrants in connection with the execution of certain equity financings. The fair value of the warrants, which were deemed to be derivative instruments, was recorded as a derivative liability under the provisions of Accounting Standards Codification ("ASC") Topic 815, *Derivatives and Hedging ("ASC 815")*, because they are not considered indexed to the Company's own stock. Subsequently, the liability is adjusted to fair value as of the end of each reporting period and the changes in fair value of derivative liabilities are recorded in the consolidated statements of operations and comprehensive loss under the caption "Change in fair value of warrant liability." See Note 3 for additional information.

The fair value of the warrants, including the warrants issued in connection with the January 2020 common stock offering and recorded as a liability, was determined using the Monte Carlo simulation model, which is deemed to be an appropriate model due to the terms of the warrants issued.

The fair value of warrants was affected by changes in inputs to the Monte Carlo simulation model including the Company's stock price, expected stock price volatility, the remaining term, and the risk-free interest rate. This model uses Level 3 inputs, including stock price volatility, in the fair value hierarchy established by *ASC 820 Fair Value Measurement.* At June 30, 2023 the fair value of such warrants was $0.

Short-term Investments

The Company's short-term investments are equity securities and are carried at their fair value based on quoted market prices. Realized and unrealized gains and losses on equity securities are included in net earnings in the period earned or incurred.

Use of Estimates

The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Estimates are used for, but not limited to, useful lives of fixed assets, contingent consideration, income taxes, and stock-based compensation. Actual results may differ from those estimates.

Segments

Operating segments are identified as components of an enterprise about which separate discrete financial information is available for evaluation by the chief operating decision-maker in making decisions regarding resource allocation and assessing performance. To date, the Company has viewed the operations and managed the business as one segment.

Business Combinations

The accounting for the Company's business combinations consists of allocating the purchase price to tangible and intangible assets acquired and liabilities assumed based on their estimated fair values, with the excess recorded as goodwill. The Company has up to one year from the acquisition date to use information as of each acquisition date to adjust the fair value of the acquired assets and liabilities, which may result in material changes to their recorded values with an offsetting adjustment to goodwill. Determining the fair value of assets acquired and liabilities assumed requires significant judgment, which includes, among other factors, analysis of historical performance and estimates of future performance. The Company has used discounted cash flow analyses, which were based on its best estimate of future revenue, earnings and cash flows as well as its discount rate, adjusted for risk, and estimated attrition rates.

Goodwill and Intangible Assets

The Company classifies intangible assets into three categories: (1) intangible assets with definite lives subject to amortization, (2) intangible assets with indefinite lives not subject to amortization and (3) goodwill. The Company determines the useful lives of definite-lived intangible assets after considering specific facts and circumstances related to each intangible asset. Factors the Company considers when determining useful lives include the contractual term of any agreement related to the asset, the historical performance of the asset, and other economic facts; including competition and specific market conditions. Intangible assets that are deemed to have definite lives are amortized, primarily on a straight-line basis, over their estimated useful lives. Intangible assets that are deemed to have indefinite lives, including goodwill, are reviewed for impairment annually, or more frequently if events or changes in circumstances indicate that the asset might be impaired. The impairment test for indefinite-lived intangibles, other than goodwill, consists of a comparison of the fair value of the intangible asset with its carrying amount. If the carrying amount exceeds the fair value, an impairment charge is recognized in an amount equal to that excess. Indefinite-lived intangible assets, such as goodwill, are not amortized. The Company tests the carrying amounts of goodwill for recoverability on an annual basis or when events or changes in circumstances indicate a potential impairment exists, using a fair value-based test. The Company records a goodwill impairment charge if a reporting unit's carrying value exceeds its fair value.

In-process research and development ("IPR&D") assets are considered to be indefinite-lived until the completion or abandonment of the associated research and development projects. IPR&D assets represent the fair value assigned to technologies that the Company acquires, which at the time of acquisition have not reached technological feasibility and have no alternative future use. During the period that the assets are considered indefinite-lived, they are tested for impairment on an annual basis, or more frequently if the Company becomes aware of any events occurring or changes in circumstances that indicate that the fair value of the IPR&D assets are less than their carrying amounts. If and when development is complete, which generally occurs upon regulatory approval and the ability to commercialize products

associated with the IPR&D assets, these assets are then deemed definite-lived and are amortized based on their estimated useful lives at that point in time. If development is terminated or abandoned, the Company may have a full or partial impairment charge related to the IPR&D assets, calculated as the excess of the carrying value of the IPR&D assets over fair value.

Contingent Consideration

Consideration paid in a business combination may include potential future payments that are contingent upon the acquired business achieving certain milestones in the future ("contingent consideration"). Contingent consideration liabilities are measured at their estimated fair value as of the date of acquisition, with subsequent changes in fair value recorded in the consolidated statements of operations. The Company estimates the fair value of the contingent consideration as of the acquisition date using the estimated future cash outflows based on the probability of meeting future milestones. The milestone payments will be made upon the achievement of clinical and commercialization milestones as well as single low digit royalty payments and payments upon receipt of sublicensing income. Subsequent to the date of acquisition, the Company reassesses the actual consideration earned and the probability-weighted future earn-out payments at each balance sheet date. Any adjustment to the contingent consideration liability will be recorded in the consolidated statements of operations and comprehensive loss, for the change that occurred during the fiscal year. Contingent consideration liabilities expected to be settled within 12 months after the balance sheet date are presented in current liabilities, with the non-current portion recorded under long term liabilities in the consolidated balance sheets.

Cost of revenues and selling, general and administrative expenses

Cost of revenues consists of production wages, material costs and overhead, and other costs related to the recognition of revenue. Selling, general and administrative expenses consist of salaries and related costs for administrators, public company costs, business development personnel as well as legal, patent-related expenses and consulting fees. Public company costs include compliance, auditing services, tax services, insurance and investor relations.

Research and Development

Research and development includes costs associated with developmental products not yet approved by the FDA as well as costs associated with bringing developmental products into advanced phase clinical trials as incurred. These costs consist primarily of pre-manufacturing and manufacturing drug costs, clinical trial execution, investigator payments, license fees, salaries, stock-based compensation and related personnel costs. Other costs include fees paid to consultants and outside service providers related to the development of the Company's product candidates and other expenses relating to the design, development, testing and enhancement of its product candidates.

Revenue Recognition

The Company recognizes revenue in accordance with ASC 606, *Revenue from Contracts with Customers.* Under ASC 606, revenue is recognized when a customer obtains control of promised goods or services, in an amount that reflects the consideration which the entity expects to receive in exchange for those goods or services. To determine revenue recognition for arrangements that an entity determines are within the scope of ASC 606, the Company performs the following five steps: (i) identify the contract(s) with a customer; (ii) identify the performance obligations in the contract; (iii) determine the transaction price; (iv) allocate the transaction price to the performance obligations in the contract; and (v) recognize revenue when (or as) the entity satisfies a performance obligation.

Revenue is recognized when a customer obtains control of promised goods or services, in an amount that reflects the consideration which the entity expects to receive in exchange for those goods or services. To the extent the transaction price includes variable consideration, the Company estimates the amount of variable consideration that should be included in the transaction price using the most likely method based on historical experience as well as applicable information currently available.

Product Sales

The Company recognizes revenue from product sales when its performance obligation with its customers has been satisfied. The performance obligation is satisfied at a point in time when the Company's customers obtain control of the product, which is typically upon acceptance of the product at the delivery site. The Company invoices its customers after acceptance of the product and invoice payments are generally due within 30 days of the invoice date. The Company records product sales net of any variable consideration, including refund rights. The Company uses the most likely amount method when estimating its variable consideration, unless terms are specified within contracts. The Company recognizes revenue to the extent that it is probable that a significant revenue reversal will not occur in a future period. These estimates may differ from actual consideration received. The Company evaluates these estimates to reflect known changes.

Grant Revenue

The Company recognized revenue from a grant related to the Cancer Prevention and Research Institute of Texas ("CPRIT") contract, which was accounted for under *ASU No. 2018-08, Not-For-Profit Entities (Topic 958): Clarifying the Scope and the Accounting Guidance for Contributions Received and Contributions Made,* as a conditional non-exchange contribution.

The CPRIT grant covered the period from June 1, 2017 through May 31, 2023, for a total grant award of up to $15.2 million. CPRIT advanced grant funds upon request by the Company consistent with the agreed upon amounts and schedules as provided in the contract. The first tranche of funding of $1.8 million was received in May 2017, a second tranche of funding of $6.5 million was received in October 2017, and the third tranche of funding of $5.4 million was received in December 2019. The remaining $1.5 million was received in April 2023. Funds received were reflected in deferred revenue as a liability until revenue was earned. Grant revenue was recognized when qualifying costs are incurred. When grant funds were received after costs had been incurred, the Company recorded revenue and a corresponding grants receivable until grant funds were received. As of June 30, 2023, all $15.2 million has been recognized and received.

License revenue

The Company has licensed certain provisional patent applications and know-how related to fusion proteins to treat cancer and other diseases that were not being developed by the Company. Shattuck Labs, Inc. ("Shattuck") paid the Company an initial license fee of $50,000 in June 2016 and is obligated to pay the Company fees upon its receipt of sublicensing income, achievement of certain milestones, and royalties upon sales of commercial products. In March 2023, the Company received a milestone payment of $100,000 from Shattuck due to completion of a Phase 1A monotherapy dose escalation clinical trial of SL-172154. However, the technology that the Company out-licensed remains in the early stages of development since there is a low likelihood of success for any technology at such stage, there can be no assurance that any products will be developed by Shattuck or that the Company will derive any additional future revenue from Shattuck.

Process development revenue

Process development revenue generally represents revenue from services associated with the custom development of a manufacturing process and analytical methods for a customer's product. Process development revenue is recognized over time utilizing an input method by tracking the progress toward completion by measuring inputs to date relative to total estimated inputs needed to satisfy the performance obligation. Under a process development contract, the customer owns the product details and process, which has no alternative use. These process development projects are customized to each customer to meet its specifications and typically include only one performance obligation. Each process represents a distinct service that is sold separately and has stand-alone value to the customer. The customer also retains control of its product as the product is being created or enhanced by our services and can make changes to its process or specifications upon request. Under these agreements, we are entitled to consideration for progress to date that includes an element of profit margin.

The transaction price for services provided under our customer contracts reflects our best estimate of the amount of consideration to which we are entitled in exchange for providing goods and services to our customers. For contracts with multiple performance obligations, we allocate transaction price to each performance obligation identified in a contract on

a relative standalone selling price basis. If observable standalone selling prices are not available, we estimate the applicable standalone selling price based on the pricing of other comparable services or on a price that we believe the market is willing to pay for the applicable service.

In determining the transaction price, we also considered the different sources of variable consideration including, but not limited to, discounts, credits, refunds, price concessions or other similar items. We have included in the transaction price some or all of an amount of variable consideration, utilizing the most likely method, only to the extent that it is probable that a significant reversal in the amount of cumulative revenue recognized will not occur when the uncertainty associated with the variable consideration is subsequently resolved. The actual amount of consideration ultimately received may differ.

Deferred Revenue

Deferred revenue is comprised of an exclusive license agreement with Shattuck and process development customer deposits received in advance of our fulfillment of performance obligations.

License Agreements

The Company has licensed certain provisional patent applications and know-how related to fusion proteins to treat cancer and other diseases that were not being developed by the Company. Shattuck paid the Company an initial license fee of $50,000 in June 2016 and is obligated to pay the Company fees upon its receipt of sublicensing income, achievement of certain milestones, and royalties upon sales of commercial products. In-as-much as the technology that the Company out-licensed remains in the early stages of development since there is a low likelihood of success for any technology at such stage, there can be no assurance that any products will be developed by Shattuck or that the Company will derive any additional future revenue from Shattuck.

Process Development

Process development deferred revenue generally represents customer payments received in advance of the Company's fulfillment of performance obligations associated with the custom development of a manufacturing process and analytical methods for a customer's product. As of June 30, 2023, there was $2.7 million of deferred revenue related to process development.

Accounts Receivable

Accounts receivable are primarily comprised of amounts owed to us for services and sales provided under our customer contracts and are recorded at the invoiced amount net of an allowance for doubtful accounts, if necessary. The Company applies judgment in assessing the ultimate realization of our receivables and we estimate an allowance for doubtful accounts based on various factors, such as the aging of our receivables, historical experience, and the financial condition of our customers.

Prepaid Expenses and Other Current Assets

The Company's prepaid expenses and other current assets consist primarily of amounts paid in advance for manufacturing activities, clinical trial support, contract assets and insurance. Contract assets consist of unbilled receivables.

Income Taxes

Income taxes are accounted for using the asset and liability method. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to temporary differences between the carrying amounts of assets and liabilities and their respective tax bases, operating loss carryforwards, and tax credit carryforwards. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized

in income in the period that includes the enactment date. Deferred tax assets are reduced by a valuation allowance to the extent that utilization is not presently more likely than not.

Other Assets

In conjunction with a lease agreement further discussed in Note 13, Scorpius has made prepaid rent payments to the lessor for costs incurred in conjunction with the leased site. These payments were reclassed to right-of-use asset and property plant and equipment in September 2022. The remaining balance consists of $0.5 million of land option agreements for the Kansas facility and $1.0 million of an indemnification asset related to the Elusys acquisition.

Other Liabilities

In conjunction with the acquisition of Elusys, the Company recorded an uncertain tax position reserve for the research and development credits utilized on the Elusys pre-acquisition short period 2022 return. The Company is not able to assert that the credit amounts utilized are more likely than not to be sustained by the IRS upon audit and thus a liability of $1.0 million was recorded.

Significant Accounting Policies

The significant accounting policies used in preparation of these interim financial statements are disclosed in the audited consolidated financial statements and related notes included in the Company's 2022 Annual Report.

Impact of Recently Adopted Accounting Standards

In February 2016, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2016-13, Financial Instruments - Credit Losses: Measurement of Credit Losses on Financial Instruments (ASU 2016-13), which amends the impairment model by requiring entities to use a forward looking approach based on expected losses to estimate credit losses on certain types of financial instruments, including trade receivables. For trade receivables and other instruments, entities will be required to use a new forward-looking expected loss model that generally will result in the earlier recognition of allowances for losses. The Company adopted ASU 2016-13 as of January 1, 2023.

The cumulative effect of applying the new credit loss standard was not material and, therefore, did not result in an adjustment to retained earnings. The adoption of this standard did not have a material impact on the Company's consolidated financial statements or related financial statement disclosures.

2. Acquisitions

Pelican Therapeutics

In 2017, the Company consummated the acquisition of 80% of the outstanding equity of Pelican, a related party, and Pelican became a majority owned subsidiary of the Company. During the quarter ended March 31, 2018, cash consideration of approximately $300,000 was distributed to the participating Pelican stockholders and the remainder of approximately $200,000 for certain Pelican liabilities not satisfied was recognized as other income in the statements of operations and comprehensive loss for the period. In October 2018, the Company entered into an agreement with the University of Miami ("UM") whereby UM exchanged its shares of stock in the Company's subsidiaries, Heat I, Inc. and Pelican. The stock exchange resulted in the Company increasing its controlling ownership in Pelican from 80% to 85%.

Under the agreement, the Company was also obligated to make future payments based on the achievement of certain clinical and commercialization milestones, as well as low single digit royalty payments and payments upon receipt of sublicensing income. However, due to the discontinuation of PTX-35 no future milestone payments are expected to be made. The goodwill and in-process R&D resulting from the acquisition were fully impaired as of December 31, 2022.

Elusys Therapeutics

On April 18, 2022 ("Closing Date"), the Company closed on the acquisition of Elusys. NightHawk paid at the closing a cash upfront payment of $3,000,000 to the former owners ("Sellers") of Elusys. NightHawk was obligated to pay the Sellers $2,000,000 of deferred cash consideration ("Merger Consideration") at the same time that the payment of the receivable consideration was to be distributed to the Sellers as described below, which was paid in the second quarter of 2022. Earn out payments will be paid to the Sellers for a period of 12 years from the date of the closing equal to 10% of the gross dollar amount of payments received during each one year period during such twelve year period with respect to any sale, license or commercialization anywhere in the world of ANTHIM® that either: (a) occurs during the first nine years after the Closing Date in any respect; or (b) occurs thereafter pursuant to any contract, agreement, commitment or order that is placed, granted, awarded, or entered into during the first nine years after the Closing Date.

Per the merger agreement that was executed in connection with the acquisition of Elusys (the "Merger Agreement"), upon collection of the Elusys contract receivables of $24.5 million, NightHawk will remit payment of $22.3 million (the "Receivable Consideration") to the Sellers. In April 2022, $20.8 million was remitted to the Sellers less a hold back of $1.5 million related to future fulfillment cost. Elusys is expected to receive additional revenue from the future fulfillment of an existing U.S. Government contract, and NightHawk has agreed to fulfill the future obligations of Elusys under such contract and pass through and distribute to the Sellers the payments received under such contract minus the costs associated with such fulfillment obligations, subject to certain adjustments to the Merger Consideration specified in the Merger Agreement, including income taxes payable with respect to such payments (the "Contract Deferred Consideration"). The Merger Agreement further provides that 80% of any amounts paid to and received by Elusys (the "Additional Earn Out") after the Closing Date and prior to June 30, 2023, shall be paid to the Sellers, subject to certain adjustments specified in the Merger Agreement.

The Company acquired Elusys to expand its role in the biodefense space, complementing NightHawk's focus to target emerging biological threats. NightHawk plans to leverage Elusys' existing relationships and distribution channels. In addition, NightHawk expects to leverage the capabilities of its planned Scorpius biomanufacturing facility in Manhattan, Kansas, which will enable the Company to manufacture these therapies internally and therefore benefit from significant operating synergies, as well as enhanced oversight, quality control, and speed to market. The Company is also exploring opportunities to expand ANTHIM® distribution abroad. The acquisition is aligned with NightHawk's vision to establish a fully-integrated ecosystem to deliver medical innovations faster, better, and more efficiently.

The fair value of the purchase consideration was approximately $42.9 million. The purchase consideration consists of $3.0 million in cash and $2.0 million in deferred cash consideration, and the estimated fair value of the contingent and deferred consideration liabilities related to the receivable consideration, contract deferred consideration, earn out and additional earn out totaling $37.9 million. The valuation of the contract deferred consideration and earn out liabilities were valued using a discounted cash flow analysis that utilized discount rates of 24% and 14%, respectively. The value of the additional earn out liability was calculated as 80% of the estimated gross sales price of 1,500 pre-filled vials of ANTHIM®, less estimated fulfillment costs to be incurred. The value of the receivable consideration was equal to the value of the contract receivables acquired, less holdback expenses, as this liability was settled within 30 days of the Closing Date.

The acquisition of Elusys was accounted for as a business combination and reflects the application of acquisition accounting in accordance with ASC 805, Business Combinations. The acquired Elusys' assets, including identifiable intangible assets and liabilities assumed, have been recorded at their fair values with the excess purchase price assigned to goodwill. The recognition of goodwill is largely attributed to the value paid for Elusys' capabilities, which will broaden NightHawk's role in the biodefense space. The goodwill recorded for this transaction is valued at $3.9 million and will be deductible for tax purposes over 15 years.

The purchase price of $42.9 million has been allocated to the underlying assets and liabilities based on their fair value at the date of acquisition. The excess of the purchase price over the fair value of assets acquired and liabilities assumed was recorded as goodwill:

Aggregate consideration:	
Cash consideration	$ 3,000,000
Deferred cash consideration	2,000,000
Earn out	5,900,000
Additional earn out	4,735,000
Receivable consideration	22,318,685
Contract deferred consideration	4,900,000
Total purchase consideration	$ 42,853,685

The purchase price allocation resulted in the following amounts being allocated to the assets acquired and liabilities assumed as of the closing date based on their respective fair values summarized below:

Purchase price allocation:	
Cash and cash equivalents	$ 5,719,899
Contract receivables	24,526,232
Prepaid expenses and other current assets	1,818,278
Inventory	5,844,000
Intangible asset – definite-lived (Note 7)	9,700,000
Property and equipment	50,224
Operating lease right of use assets	352,906
Other assets	1,329,153
Total assets acquired	49,340,692
Accounts payable	(204,794)
Accrued expenses and other current liabilities	(5,155,363)
Operating lease obligations	(352,906)
Deferred income tax liability	(3,644,120)
Other liabilities	(1,002,904)
Total liabilities assumed	(10,360,087)
Net assets acquired and liabilities assumed	38,980,605
Goodwill	3,873,080
Total purchase consideration	$ 42,853,685

From the Elusys acquisition date through June 30, 2022, $0.03 million of total revenue and a net loss of $1.2 million associated with Elusys operations are included in the condensed consolidated statements of operations and comprehensive loss for the three months ended June 30, 2022.

The following unaudited pro forma financial information assumes the companies were combined as of January 1, 2021. The unaudited pro forma financial information as presented below is for informational purposes only and is based on estimates and assumptions that have been made solely for purposes of developing such pro forma information. This is not necessarily indicative of the results of operations that would have been achieved if the acquisition had taken place on January 1, 2021, nor is it necessarily indicative of future results. Consequently, actual results could differ materially from the unaudited pro forma financial information presented below. The following table presents the pro forma operating results as if Elusys had been included in the Company's Consolidated Statements of Operations and Comprehensive Loss as of January 1, 2021 (unaudited):

	Three months ended June 30,	Six months ended June 30,
	2022	2022
	(unaudited)	(unaudited)
Revenue	$ 23,358,641	$ 23,852,732
Net income (loss)	$ 1,551,554	$ (8,276,775)
Net income (loss) per share, basic and diluted	$ 0.06	$ (0.32)

3. Fair Value of Financial Instruments

The carrying amount of certain of the Company's financial instruments, including cash and cash equivalents, accounts payable and accrued expenses and other payables approximate fair value due to their short maturities.

As a basis for determining the fair value of certain of the Company's financial instruments, the Company utilizes a three-tier fair value hierarchy, which prioritizes the inputs used in measuring fair value as follows:

Level I – Observable inputs such as quoted prices in active markets for identical assets or liabilities.

Level II – Observable inputs, other than Level I prices, such as quoted prices for similar assets or liabilities, quoted prices in markets that are not active, or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.

Level III – Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

This hierarchy requires the Company to use observable market data, when available, and to minimize the use of unobservable inputs when determining fair value. Assets and liabilities measured at fair value are classified in their entirety based on the lowest level of input that is significant to the fair value measurement. The Company's assessment of the significance of a particular input to the entire fair value measurement requires management to make judgments and consider factors specific to the asset or liability. The Company's cash equivalents are classified within Level I of the fair value hierarchy.

The Company's short-term investments consist of Level I securities which are comprised of highly liquid money market funds. The estimated fair value of the short-term investments was based on quoted market prices. There were no transfers between fair value hierarchy levels during the quarters ended June 30, 2023 or 2022.

In January 2020, the Company issued warrants in connection with the public offering of common stock (the "January 2020 Warrants"). Pursuant to the terms of these warrants, the warrants were not considered indexed to the Company's own stock and therefore are required to be measured at fair value and reported as a liability in the consolidated balance sheets. Additionally, upon the closing of the January 2020 offering, 479,595 outstanding warrants were evaluated for whether they were modified for accounting purposes, and it was determined that they were required to be classified as a liability. The fair value of the warrant liability is based on the Monte Carlo methodology. The Company is required to revalue the warrants at each reporting date with any changes in fair value recorded in our consolidated statements of operations and

comprehensive loss. The valuation of the warrants is classified under Level 3 of the fair value hierarchy due to the need to use assumptions in the valuation that are both significant to the fair value measurement and unobservable. In order to calculate the fair value of the warrants, certain assumptions were made, including the selling price or fair market value of the underlying common stock, risk-free interest rate, volatility, and remaining life. Changes to the assumptions could cause significant adjustments to valuation. The Company estimated a volatility factor utilizing its own data. The risk-free interest rate is based on the U.S. Treasury yield in effect at the time of the grant for treasury securities of similar maturity.

The following table presents quantitative information about the inputs used in the valuation for the Company's fair value measurement of the warrant liability classified as Level 3:

	June 30, 2023	December 31, 2022
Current stock price	$ 0.67	$ 0.81
Estimated volatility of future stock price	59.68 %	80.94 %
Risk free interest rate	5.49 %	4.75 %
Contractual term	0.41 years	0.90 years

As of June 30, 2023, there were a total of9,357 warrants outstanding that are subject to quarterly revaluation with a fair value of $0.

The fair value of financial instruments measured on a recurring basis is as follows:

	As of June 30, 2023			
Description	**Total**	**Level 1**	**Level 2**	**Level 3**
Assets:				
Short-term investments	$ 12,726,545	$ 12,726,545	—	—
Liabilities:				
Contingent consideration	$ 12,334,115	—	—	$ 12,334,115
Warrant liability	—	—	—	—

	As of December 31, 2022			
Description	**Total**	**Level 1**	**Level 2**	**Level 3**
Assets:				
Short-term investments	$ 35,837,309	$ 35,837,309	—	—
Liabilities:				
Contingent consideration	12,224,614	—	—	12,224,614
Warrant liability	—	—	—	—

The following tables summarize the change in fair value, as determined by Level 3 inputs, for all assets and liabilities using unobservable Level 3 inputs for the six months ended June 30, 2023 and 2022:

	Elusys Contingent Consideration
Balance at December 31, 2022	$ 12,224,614
Change in fair value	109,501
Balance at June 30, 2023	$ 12,334,115

	Pelican Contingent Consideration	Warrant Liability
Balance at December 31, 2021	$ 3,342,515	$ 11,020
Change in fair value	(224,000)	(9,290)
Balance at June 30, 2022	$ 3,118,515	$ 1,730

The change in the fair value of the contingent consideration of $0.1 million and $(0.2) million for the six months ended June 30, 2023 and 2022, respectively, was primarily due to the change in timing and amount of the contract deferred consideration. Adjustments associated with the change in fair value of contingent consideration are included in the Company's consolidated statements of operations and comprehensive loss.

The following table presents quantitative information about the inputs and valuation methodologies used for the Company's fair value measurements of contingent consideration classified as Level 3 as of June 30, 2023 and December 31, 2022:

	As of June 30, 2023		
	Valuation Methodology	Significant Unobservable Input	Weighted Average (range, if applicable)
Elusys revenue earn-out	Discounted cash flow analysis	Timing of expected payments	2025-2036
		Discount rate	24.5%
		Future revenue projections	$ 325.9 million
Elusys deferred contract consideration	Discounted cash flow analysis	Timing of expected payments	2023
		Discount rate	15.5%
		Future revenue projections	$ 6.6 million

	As of December 31, 2022		
	Valuation Methodology	Significant Unobservable Input	Weighted Average (range, if applicable)
Elusys revenue earn-out	Discounted cash flow analysis	Timing of expected payments	2025-2036
		Discount rate	24.5%
		Future revenue projections	$ 325.9 million
Elusys deferred contract consideration	Discounted cash flow analysis	Timing of expected payments	2023
		Discount rate	15.5%
		Future revenue projections	$ 7.6 million

The Company records certain non-financial assets on a non-recurring basis, including goodwill and in-process R&D. This analysis requires significant judgments, including primarily the estimation of future development costs, the probability of success in various phases of its development programs, potential post-launch cash flows and a risk-adjusted weighted average cost of capital.

4. Short-Term Investments

Short-term investments consist of equity securities. The Company holds its securities at fair value as of June 30, 2023 and December 31, 2022. Unrealized gains and losses on securities are reported in the other expense line item in the statements

of operations and comprehensive loss. Short-term investments at June 30, 2023 and December 31, 2022 consisted of mutual funds with fair values of $12.7 million and $35.8 million, respectively.

5. Prepaid Expenses and Other Current Assets

Prepaid expenses and other current assets consist of the following at:

	June 30, 2023	December 31, 2022
Prepaid manufacturing expense	$ 2,060,682	$ 1,849,875
Other prepaid expenses and current assets	1,050,457	1,432,242
Contract assets	163,410	—
Prepaid insurance	63,375	227,532
Prepaid preclinical and clinical expenses	19,720	65,892
	$ 3,357,644	$ 3,575,541

6. Property and Equipment

Property and equipment are recorded at cost and depreciated using the straight-line method over their estimated useful lives, ranging generally from three to eight years. Expenditures for maintenance and repairs are charged to expense as incurred.

Property and equipment consist of the following:

	June 30, 2023	December 31, 2022
Lab equipment	$ 20,347,817	$ 18,060,058
Leasehold improvements	2,830,147	2,495,585
Construction-in-process	—	2,053,335
Computers	779,333	502,084
Furniture and fixtures	313,484	286,739
Vehicles	—	44,562
Total	24,270,781	23,442,363
Accumulated depreciation	(5,159,839)	(2,961,988)
Property and equipment, net	$ 19,110,942	$ 20,480,375

Depreciation expense was $1.1 million and $2.2 million for the three and six months ended June 30, 2023, respectively, and $0.2 million and $0.3 million for the three and six months ended June 30, 2022, respectively.

7. Goodwill and Other Intangible Assets

The Company performs an annual impairment test at the reporting unit level as of April 1st of each fiscal year or more frequently when an event occurs or circumstances change that indicate the carrying value may not be recoverable.

Pelican Goodwill and In-Process R&D

Goodwill of $2.2 million and in-process R&D of $5.9 million were recorded in connection with the acquisition of Pelican, as described in Note 3 and have been allocated to the Pelican reporting unit. During the fourth quarter of 2021, due to a sustained decline in the quoted market price of its common stock, the Company performed an interim impairment analysis using the income approach and in-process R&D with a total carrying value of $5.9 million was written down to its estimated fair value of $3.5 million and an impairment charge of $2.4 million during the fourth quarter of 2021 was recorded and goodwill in the amount of $1.5 million was fully impaired. During the third quarter of 2022, the Company

elected to terminate any further development of PTX-35. As a result of the termination, the in-process R&D affiliated with PTX-35, in the amount of $3.5 million, was fully impaired.

Elusys Goodwill and Intangible Assets

Goodwill of $3.9 million and an intangible asset of $9.7 million were recorded in connection with the acquisition of Elusys which has been allocated to the Elusys reporting unit. During the fourth quarter of 2022, due to a sustained decline in the quoted market price of its common stock, the Company performed an interim goodwill impairment analysis using the income approach. However, through its quantitative analysis, the Company determined the carrying value was not in excess of its estimated fair value and therefore no impairment charge was recorded at December 31, 2022. The Company's annual impairment analysis was performed on April 1, 2023 using the income approach that determined the carrying value remained not in excess of its estimated fair value and, therefore, no impairment charge was necessary. An additional analysis was performed as of June 30, 2023 due to the sustained decline in stock price. The income approach was used and it was determined the carrying value remained not in excess of its estimated fair value and, therefore, no impairment charge was necessary. Elusys' intangible asset relates to the ANTHIM® formulation and is amortized over its remaining patent life of approximately 80 months.

The change in the carrying amount of goodwill and intangible assets during the three months ended June 30, 2023 is as follows:

	Goodwill	Intangible Assets
Balance at December 31, 2022	$ 3,301,959	$ 8,669,375
Acquisition fair value adjustments	571,120	—
Amortization	—	(727,500)
Balance at June 30, 2023	$ 3,873,079	$ 7,941,875

During the three months ended June 30, 2023, the Company finalized the purchase price allocation for the Elusys acquisition and recorded a measurement period adjustment that increased goodwill by approximately $0.6 million, increased other assets by $1.0 million, increased the liability for uncertain tax positions by $1.0 million and increased the deferred tax liability by the $0.6 million (see Note 12).

8. Accrued Expenses and Other Liabilities

Accrued expenses and other liabilities consist of the following:

	June 30, 2023	December 31, 2022
Accrued preclinical and clinical trial expenses	$ 827,306	$ 959,992
Due to Elusys shareholders	624,427	624,427
ANTHIM® technology transfer fee	500,000	500,000
Accrued marketing expenses	499,999	—
Compensation and related benefits	328,846	552,536
Other expenses	403,322	438,049
Accrued manufacturing expenses	162,276	94,358
Income tax payable	113,149	1,092,560
Accrued franchise tax	20,000	40,000
	$ 3,479,325	$ 4,301,922

9. Stockholders' Equity

Common Stock Warrants

As of June 30, 2023, the Company had outstanding warrants to purchase 313,358 shares of common stock issuable at a weighted-average exercise price of $11.55 per share. As of December 31, 2022, the Company had outstanding warrants to purchase 747,383 shares of common stock issuable at a weighted-average exercise price of $11.06 per share.

The following table summarizes the activity of the Company's common stock warrants for the six months ended June 30, 2023. The Company had no common stock warrant activity during the six months ended June 30, 2022.

	Common Stock Warrants
Outstanding, December 31, 2022	747,383
Expired	(434,025)
Outstanding, June 30, 2023	313,358

Equity Compensation Plans

The Company maintains various equity compensation plans ("Plans") with substantially similar provisions under which it may award employees, directors and consultants incentive and non-qualified stock options, restricted stock, stock appreciation rights and other stock-based awards with terms established by the Compensation Committee of the Board of Directors which has been appointed by the Board of Directors to administer the plans.

Accounting for Stock-Based Compensation:

Stock Compensation Expense - For the three and six months ended June 30, 2023, the Company recorded $0.7 million and $1.4 million of stock-based compensation expense, respectively. For the three and six months ended June 30, 2022, the Company recorded $0.8 million and $1.7 million of stock-based compensation expense, respectively. No compensation expense for employees with stock awards was capitalized during the three and six months ended June 30, 2023 and 2022.

Stock Options - Under the Plans, the Company has issued stock options. A stock option grant gives the holder the right, but not the obligation, to purchase a certain number of shares at a predetermined price for a specific period of time. The Company typically issues options that vest over four years in equal installments beginning on the first anniversary of the date of grant. Under the terms of the Plans, the contractual life of the option grants may not exceed ten years. During the six months ended June 30, 2023 and 2022, the Company issued options that expire ten years from the date of grant.

Fair Value Determination – The Company has used the Black-Scholes option pricing model to determine the fair value of our stock option awards on the date of grant. The Company will reconsider the use of the Black-Scholes model if additional information becomes available in the future that indicates another model would be more appropriate or if grants issued in future periods have characteristics that cannot be reasonably estimated under this model.

The following weighted-average assumptions were used for option grants during the three and six months ended June 30, 2023 and 2022:

- ***Volatility*** – The Company used an average historical stock price volatility from its own data.
- ***Expected life of options*** – The expected term represents the period that the Company's stock option grants are expected to be outstanding. The Company elected to utilize the "simplified" method to estimate the expected term. Under this approach, the weighted-average expected life is presumed to be the average of the vesting term and the contractual term of the option.

- ***Risk-free interest rate*** – The rate is based on U.S. Treasury interest rates at the time of the grant whose term is consistent with the expected life of the stock options.

- ***Dividend yield*** – The expected dividend yield was considered to be0% since the Company has not paid any dividends and has no plan to do so in the future.

- ***Forfeitures*** – As required by ASC 718, *Compensation—Stock Compensation,* the Company reviews recent forfeitures and stock compensation expense. The Company accounts for forfeitures as they occur.

The following table summarizes weighted-average assumptions used in our calculations of fair value for the six months ended June 30, 2023 and 2022:

	2023	2022
Dividend yield	— %	— %
Expected volatility	101.92 %	102.57 %
Risk-free interest rate	2.47 %	2.39 %
Expected lives (years)	5.6 years	6.1 years

Stock Option Activity – During the six months ended June 30, 2023, there wereno options granted. The weighted-average fair value of options granted during the six months ended June 30, 2022, as determined under the Black-Scholes option pricing model, was $2.26 per share.

The following is a summary of the stock option activity for the six months ended June 30, 2023:

	Shares	Weighted Average Exercise Price	Aggregate Intrinsic Value	Weighted Average Remaining Contractual Life
Stock options outstanding at December 31, 2022	7,036,874	$ 3.67	$ 16,842	
Expired	(95,558)	8.75		
Forfeited	(83,223)	4.25		
Stock options outstanding at June 30, 2023	6,858,093	$ 3.60	$ 13,894	8.7 Years
Stock options exercisable at June 30, 2023	3,582,001	$ 5.20	$ 13,894	8.3 Years

Unrecognized compensation expense related to unvested stock options was $4.1 million as of June 30, 2023, which is expected to be recognized over a weighted-average period of 1.1 years and will be adjusted for forfeitures as they occur.

Restricted Stock - Under the Plans, the Company has issued restricted stock. A restricted stock award is an issuance of shares that cannot be sold or transferred by the recipient until the vesting period lapses. The grant date fair value of the restricted stock is equal to the closing market price of our common stock on the date of grant.

The following is a summary of restricted stock award activity for the six months ended June 30, 2023:

	Shares	Weighted Average Fair Value
Restricted stock at December 31, 2022	34,001	$ 3.22
Released	(34,001)	3.22
Restricted stock at June 30, 2023	—	$ —

Restricted Stock Units - Under the Plans, the Company may issue time-based Restricted Stock Units ("RSUs"). RSUs are not actual shares, but rather a right to receive shares in the future. The shares are not issued and the employee cannot sell or transfer shares prior to vesting and has no voting rights until the RSUs vest. The employees' time-based RSUs vest pro-rata over 36 months. The grant date fair value of the RSUs is equal to the closing market price of our common stock on the grant date. The Company recognizes the grant date fair value of RSUs the Company expects to issue as compensation expense ratably over the requisite service period.

The following is a summary of restricted stock unit activity for the six months ended June 30, 2023:

	Shares	Weighted Average Fair Value
RSUs at December 31, 2022	—	$ —
Granted	360,000	1.18
Vested	(50,000)	1.18
RSUs at June 30, 2023	310,000	$ 1.18

10. Revenue

Product sales

On April 19, 2022, Elusys entered into a contract with Public Works and Government Services of Canada to deliver3,000 vials of ANTHIM® (FDA-approved anthrax antitoxin) for treatment of inhalational anthrax due to Bacillus anthrax. The total contract award was $6.0 million with a delivery date on or before September 30, 2022. This order was fulfilled on September 13, 2022 for the total contract amount of $6.0 million. There were no product sales of ANTHIM® during the three and six months ended June 30, 2023 and 2022.

Grant revenue

In June 2016, Pelican entered into a cancer research grant contract (or "Grant Contract") with CPRIT, under which CPRIT awarded a grant not to exceed $15.2 million for use in developing cancer treatments by targeting a novel T-cell costimulatory receptor (namely, TNFRSF25). The grant contract covers a period from June 1, 2016 through November 30, 2020, as amended through May 31, 2023. The first tranche of funding of $1.8 million was received in May 2017, a second tranche of funding of $6.5 million was received in October 2017 and a third tranche of funding of $5.4 million was received in December 2019. The remaining $1.5 million was received in April 2023 after the Company had fulfilled every requirement of the grant and the grant had been approved to be finalized. As of June 30, 2023, all $15.2 million has been recognized and received. There was no grant revenue during the three and six months ended June 30, 2023 and $0.0 million and $0.2 million of grant revenue during the three and six months ended June 30, 2022.

The grant is subject to customary CPRIT funding conditions including a matching funds requirement where Pelican will match $0.50 for every $1.00 from CPRIT. Consequently, Pelican was required to provide $7.6 million in matching funds over the life of the project. Upon commercialization of the product, the terms of the grant require Pelican to pay tiered royalties in the low to mid-single digit percentages. Such royalties reduce to less than one percent after a mid-single-digit multiple of the grant funds have been paid to CPRIT in royalties.

Through June 30, 2023, $15.2 million of grant funding has been recognized as revenue and received. As of December 31, 2022, the Company had a grant receivable balance of $1.5 million for CPRIT proceeds not yet received but for which the costs had been incurred or the conditions of the award have been met. In April, 2023, the final $1.5 million of funding was received.

License revenue

In June 2016, NightHawk licensed certain provisional patent applications and know-how related to fusion proteins to treat cancer and other diseases with Shattuck. Shattuck paid the Company an initial license fee of $50,000 in June 2016 and is obligated to pay the Company fees upon its receipt of sublicensing income, achievement of certain milestones, and royalties upon sales of commercial products. In March 2023, the Company received a milestone payment of $100,000 from Shattuck due to completion of a Phase 1A monotherapy dose escalation clinical trial of SL-172154.

Process development revenue

During the three and six months ended June 30, 2023, the Company recognized $0.7 million and $1.3 million in process development revenue. All process development revenue was derived from three customers who each represented over 10% of the total recognized revenue. These revenues were derived from the contract liability which was recorded in the prior period as deferred revenue.

The following table presents changes in contract liabilities:

	Contract liabilities
Balance at December 31, 2022	$ (1,618,308)
Changes to the beginning balance arising from:	
Reclassification to revenue as the result of performance obligations satisfied	1,323,678
Net change to contract balance recognized since beginning of period due to amounts collected	(2,439,894)
Balance at June 30, 2023	$ (2,734,524)

The timing of revenue recognition, billings and cash collections results in billed accounts receivable and contract liabilities (customer deposits and deferred revenue). Contract liabilities represent customer deposits and deferred revenue billed and/or received in advance of our fulfillment of performance obligations. Contract liabilities convert to revenue as we perform our obligations under the contract.

11. Net Loss Per Share

Basic net loss per common share is computed by dividing net loss attributable to common stockholders by the weighted-average number of common shares outstanding during the periods. Fully diluted net loss per common share is computed using the weighted average number of common and dilutive common equivalent shares outstanding during the periods. Common equivalent shares consist of stock options, warrants, and unvested restricted stock that are computed using the treasury stock method.

For the three and six months ended June 30, 2023 and 2022, all of the Company's common stock options, unvested restricted stock units and warrants are anti-dilutive and therefore have been excluded from the diluted calculation.

The following table reconciles net loss to net loss attributable to NightHawk Biosciences, Inc.:

	For the Three Months Ended June 30,		For the Six Months Ended June 30,	
	2023	2022	2023	2022
Net loss	$ (13,961,702)	$ (6,937,910)	$ (26,856,837)	$ (15,127,708)
Net loss - Non-controlling interest	(69,686)	(106,624)	(180,175)	(175,835)
Net loss attributable to NightHawk	$ (13,892,016)	$ (6,831,286)	$ (26,676,662)	$ (14,951,873)
Weighted-average common shares outstanding, basic and diluted	26,047,591	25,602,965	26,009,578	25,598,481
Net loss per share, basic and diluted	$ (0.53)	$ (0.27)	$ (1.03)	$ (0.58)

The following potentially dilutive securities were excluded from the calculation of diluted net loss per share during the six months ended June 30, 2023 and 2022 due to their anti-dilutive effect:

	2023	2022
Outstanding stock options	6,858,093	3,007,986
Restricted stock subject to forfeiture and restricted stock units	310,000	46,859
Outstanding common stock warrants	313,358	747,383

12. Income Tax

Income taxes have been computed using the asset and liability method in accordance with ASC 740 “Income Taxes”. The Company computes its interim provision for income taxes by applying the estimated annual effective tax rate method. The Company estimates an annual effective tax rate of 0% for the year ending December 31, 2023. The total tax expense or (benefit) during the three months ended June 30, 2023 and 2022, was approximately $(0.6) million and $(3.0) million, respectively. The total tax expense or (benefit) during the six months ended June 30, 2023 and 2022, was approximately $(0.6) million and $(3.0) million, respectively. The below detail describes what caused the quarterly or YTD effective tax rate to be significantly different from our historical annual ETR.

During the six months ended June 30, 2022, the Company recorded an income tax benefit of approximately $3.0 million as a result of the acquired deferred tax liability ("DTL") from the acquisition of Elusys Therapeutics, Inc. in April 2022. Under ASC 740 “Income Taxes”, the release of an acquirer’s valuation allowance on the acquirer’s (i.e., the Company’s) deferred tax assets, as the result of purchase accounting and the acquisition of the Elusys net DTL, should be recognized as an income tax benefit for the acquirer. The income tax benefit recorded in 2022 was based on provisional amounts recorded for the Elusys DTL because the Company had not finalized its accounting for the acquisition in 2022.

During the quarter ended June 30, 2023, the Company completed the purchase price allocation for the acquisition of Elusys Therapeutics, Inc. in April 2022 and concluded that the acquired Elusys DTL should be increased by $0.6 million, resulting in an additional release of the Company’s valuation allowance on the acquirer's deferred tax assets. The additional release of the acquirer's valuation allowance in the amount of $0.6 million results in a corresponding $0.6 million income tax benefit recognized as a discrete item during the quarter ended June 30, 2023.

The Company incurred losses for the six month period ended June 30, 2023 and is forecasting additional losses through the year, resulting in an estimated net loss for both financial statement and tax purposes for the year ending December 31, 2023. Due to the Company’s history of losses, there is not sufficient evidence to record a net deferred tax asset associated with the U.S., Australian, and German operations. Accordingly, a full valuation allowance has been recorded related to the net deferred tax assets in those jurisdictions.

U.S. GAAP requires a two-step approach to recognizing and measuring uncertain tax positions. The first step is to evaluate the tax position for recognition by determining if the available evidence indicates that it is more likely than not that the position will be sustained on audit, including resolution of related appeals or litigation processes, if any. The second step is to measure the tax benefit as the largest amount that is cumulatively more than 50% likely to be realized upon ultimate settlement.

As of June 30, 2023, the Company's liability for unrecognized tax benefits was $1.5 million. Of this balance, $1.0 million would affect the Company's effective tax rate if recognized.

13. Leases

The Company accounts for its leases under ASC 842, *Leases*. The Company has determined that its leases for office and laboratory space without optional terms or variable components are operating leases.

The Company conducts its operations from leased facilities in Morrisville, North Carolina; San Antonio, Texas; Parsippany, New Jersey and North Brunswick, New Jersey. The North Carolina lease will expire in 2030, the Texas lease will expire in 2037, the Parsippany lease will expire in July 2024 and the New Brunswick leases will expire in July 2024. The leases are for general office space, manufacturing space, and lab space and require the Company to pay property taxes, insurance, common area expenses and maintenance costs.

In June 2021, the Company entered into a lease agreement with Durham KTP Tech 7, LLC, to lease a 15,996 square foot facility in Morrisville, North Carolina to expand its research and development activities. The lease has a term of eight years following the commencement date and provides the Company the option to extend the lease term for one five year term, however the option to extend was not included in the ROU asset and liability. It is subject to fixed rate escalation increases and also provides up to $2.4 million for tenant improvements. NightHawk recorded an operating lease right-of-use asset of $5.6 million and lease liability of $3.2 million for this lease in the accompanying consolidated balance sheets.

In October 2021, Scorpius entered into a lease agreement with Merchants Ice II, LLC to lease a 20,144 square foot facility in San Antonio, TX for general office, laboratory, research, analytical, and/or biomanufacturing purposes. Merchants Ice II, LLC is a nonprofit entity investing in the building with the intention to encourage development of emerging technologies. As a result, investments made by both Merchants Ice II, LLC and Scorpius into the building may qualify and share tax credits under the New Market Tax Credit ("NMTC") program. Scorpius agreed that all investments and expenditures qualifying under the NMTC (i.e., certain equipment and building improvements) would be purchased by Merchants Ice II, LLC to generate the largest possible tax incentive and Scorpius would reimburse Merchants Ice II, LLC for these payments. The lease officially commenced on September 15, 2022. As of December 31, 2022, Scorpius has reimbursed Merchants Ice II, LLC $24.3 million. Based on ASC 842, the Company has capitalized $13.2 million of the reimbursements as lab equipment, expensed $0.9 million as supplies and facilities, and $10.2 million has been included in the finance lease right-of-use asset. The lease has a term of fifteen years following the commencement date and provides Scorpius the option to extend the lease term for one fifteen-year term, and one subsequent ten year term upon expiration of the first extended term. These options to extend were not included in the ROU asset and lease liability. It is subject to fixed rate escalation increases and also provides up to $2.4 million for tenant improvements. Scorpius recorded a finance lease right-of-use asset of $15.1 million and lease liability of $5.1 million for this lease in the accompanying consolidated balance sheets.

In December 2022, Scorpius entered into a lease agreement with TPB Merchants Ice, LLC to lease an 8,042 square foot facility in San Antonio, TX for additional general office, laboratory, research, analytical, and/or biomanufacturing purposes. The lease has a term of fifteen years following the commencement date and provides Scorpius the option to extend the lease term for one fifteen-year term, and one subsequent ten-year term upon expiration of the first extended term. It is subject to fixed rate escalation increases and provides up to $6.5 million for tenant improvements. As of June 30, 2023, Scorpius has paid the lessor $5.4 million in prepaid rent which rolled-up into the right-of-use asset upon lease commencement. The lease commenced on May 2, 2023. Scorpius recorded a right-of-use asset of $7.8 million and a lease liability of $2.3 million for this lease in the accompanying consolidated balance sheets.

Total cash paid for operating leases during the three and six months ended June 30, 2023 was $0.2 million and $0.5 million and is included within cash flows from operating activities within the consolidated statement of cash flows.

The Company's lease cost is reflected in the accompanying statements of operations and comprehensive loss within general and administrative and research and development as follows:

	For the Three Months Ended June 30, 2023	For the Six Months Ended June 30, 2023
Operating lease cost	$ 334,541	$ 688,590
Finance lease cost		
Amortization of lease assets	363,468	713,539
Interest on lease liabilities	155,783	290,225
Total finance lease cost	$ 519,251	$ 1,003,764

The weighted average remaining lease term and incremental borrowing rate as of June 30, 2023 and 2022 were as follows:

	For the Six Months Ended June 30, 2023	For the Six Months Ended June 30, 2022
Weighted average remaining lease term		
Operating leases	7.0 years	4.4 years
Finance leases	13.6 years	1.9 years
Weighted average incremental borrowing rate		
Operating leases	9.47 %	5.34 %
Finance leases	9.81 %	5.27 %

Maturities of operating and finance lease liabilities as of June 30, 2023 were as follows:

	Operating Leases	Finance Leases	Total
2023 (excluding the six months ended June 30, 2023)	$ 322,008	$ 457,309	$ 779,317
2024	618,918	1,074,874	1,693,792
2025	635,180	986,154	1,621,334
2026	575,350	873,804	1,449,154
2027	592,572	902,127	1,494,699
2028	610,407	931,290	1,541,697
2029	628,723	961,311	1,590,034
Thereafter	536,932	9,340,354	9,877,286
Total minimum lease payments	4,520,090	15,527,223	20,047,313
Less: imputed interest	(1,265,005)	(7,538,213)	(8,803,218)
Present value of lease liabilities	$ 3,255,085	$ 7,989,010	$ 11,244,095

14. Commitments and Contingencies

We rely on Lonza, a third-party manufacturer, to produce commercial quantities of our ANTHIM® substance requirements. We have firm orders with Lonza for future purchases of bulk drug substance, with remaining total non-cancellable future commitments of approximately $53.0 million through 2025. If we terminate certain firm orders with Lonza without cause, we will be required to pay for bulk drug substance scheduled for manufacture under our arrangement.

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

You should read the following discussion and analysis of our financial condition and results of operations together with our financial statements and related notes included in this Quarterly Report on Form 10-Q. The following discussion contains forward-looking statements that involve risks and uncertainties. Our actual results and the timing of certain events could differ materially from those anticipated in these forward-looking statements as a result of certain factors, including those discussed below and elsewhere in this Quarterly Report on Form 10-Q. This discussion should be read in conjunction with the accompanying unaudited consolidated financial statements and the audited consolidated financial statements and notes thereto included in our 2022 Annual Report. This discussion may contain forward-looking statements that involve risks and uncertainties. See "Forward-Looking Statements." You should review the disclosure under the heading "Risk Factors" in this Quarterly Report on Form 10-Q and the 2022 Annual Report for a discussion of important factors that could cause our actual results to differ materially from those anticipated in these forward-looking statements.

OVERVIEW

We are a fully integrated biopharmaceutical company specializing in the end-to-end development, manufacturing, and commercialization of innovative medical countermeasures that combat unmet and emerging biothreats. Our ecosystem is driven by the clinical and commercial biodefense expertise of our subsidiary, Elusys, and the bioanalytical, process development and biomanufacturing capabilities of our subsidiary Scorpius and the discovery efforts of our subsidiary, Skunkworx. The coordination of this ecosystem potentiates the streamlined development and delivery of life-saving medical countermeasures, including our commercially available anthrax antitoxin ANTHIM® (obiltoxaximab).

The monoclonal antibody ANTHIM® (obiltoxaximab) received FDA approval and orphan drug exclusivity in 2016 for the treatment of inhalational anthrax in combination with antibiotics, and as a prophylaxis when alternative therapies are not available or are not appropriate. Additionally, ANTHIM® was approved in 2020 as the only licensed anthrax antitoxin treatment in the European Union ("EU") and Canada, and in 2021 in the United Kingdom. Working closely with Biomedical Advanced Research and Development Authority ("BARDA"), the National Institute of Allergy and Infectious Disease ("NIAID"), and the Department of Defense ("DoD"), Elusys has successfully advanced ANTHIM® to the commercial stage and provides the therapeutic for inclusion in both the US Strategic National Stockpile ("SNS") and the Public Health Agency of Canada Office of Emergency Response Services Depot.

Scorpius pairs cGMP biomanufacturing and quality control expertise with cutting edge capabilities in immunoassays, molecular assays, and bioanalytical methods to support cell- and gene-based therapies as well as large molecule biologics. As Scorpius operations ramp up, this could decrease our dependence on third-party contract research and development biomanufacturing organizations (CDMOs) for the manufacture of ANTHIM® (obiltoxaximab) and other assets and allows us to be opportunistic in offering excess capacity to third parties as a fee-for-service model. Our lead facility commenced operations in October 2022 in San Antonio, Texas. Planning and development efforts are underway on a potential commercial manufacturing facility to be built in Manhattan, Kansas in the coming years.

During the past year, our priorities have shifted to our biodefense and biomanufacturing capabilities resulting in a refocusing of our resources and efforts towards biodefense and biomanufacturing and away from our clinical-stage oncology assets including HS-110 and PTX-35.

CRITICAL ACCOUNTING POLICIES AND ESTIMATES

We believe that several accounting policies are important to understanding our historical and future performance. We refer to these policies as "critical" because these specific areas generally require us to make judgments and estimates about matters that are uncertain at the time we make the estimate, and different estimates—which also would have been reasonable—could have been used, which would have resulted in different financial results.

Our management's discussion and analysis of financial condition and results of operations is based on our consolidated financial statements, which have been prepared in accordance with U.S. GAAP. The preparation of our consolidated financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenue and expenses and related disclosure of contingent assets and liabilities. On an ongoing basis, we evaluate our estimates based on historical experience and make various assumptions, which management believes to be reasonable under the circumstances, which form the basis for judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

Revenue and Deferred Revenue

Process development revenue generally represents revenue from services associated with the custom development of a manufacturing process and analytical methods for a customer's product. Process development revenue is recognized over time utilizing an input method by tracking the progress toward completion by measuring inputs to date relative to total estimated inputs needed to satisfy the performance obligation.

The transaction price for services provided under our customer contracts reflects our best estimates of the amount of consideration to which we are entitled in exchange for providing goods and services to our customers. For contracts with multiple performance obligations, we allocate transaction price to each performance obligation identified in a contract on a relative standalone selling price basis. If observable standalone selling prices are not available, we may estimate the applicable standalone selling price based on the pricing of other comparable services or on a price that we believe the market is willing to pay for the applicable service.

In determining the transaction price, we also consider the different sources of variable consideration including, but not limited to, discounts, credits, refunds, price concessions or other similar items. We include in the transaction price some or all of an amount of variable consideration, utilizing the most likely method, only to the extent that it is probable that a significant reversal in the amount of cumulative revenue recognized will not occur when the uncertainty associated with the variable consideration is subsequently resolved. The actual amount of consideration ultimately received may differ.

All other significant accounting policies had no change and are summarized in Note 2 to our financial statements contained in our 2022 Annual Report.

RESULTS OF OPERATIONS

Comparison of the Three Months Ended June 30, 2023 and 2022

Revenues. For the three months ended June 30, 2023 we recognized $0.7 million of revenue from process development. For the three months ended June 30, 2022 we recognized $0.05 million of service revenue. The increase in process development revenue is attributable to the operations of the San Antonio CDMO facility.

Cost of revenues. Cost of revenues were $0.4 million for the three months ended June 30, 2023. These expenses primarily reflect direct cost of labor, overhead and material costs at Scorpius. There was no cost of revenues for the three months ended June 30, 2022 as the Scorpius facility was not operational.

Research and development expense. Research and development expenses increased approximately 21.3% to $5.7 million for the three months ended June 30, 2023 compared to $4.7 million for the three months ended June 30, 2022. The components of R&D expense are as follows, in millions:

	For the Three Months Ended June 30,	
	2023	2022
Programs		
HS-110	$ 0.4	$ 0.1
HS-130	—	0.1
PTX-35	0.3	0.7
ANTHIM	0.6	—
Other programs	0.3	0.6
Unallocated research and development expenses	4.1	3.2
	$ 5.7	$ 4.7

- HS-110 expense increased by $0.3 million primarily due to site close out fees.
- HS-130 expense decreased to $0 from $0.1 million due to the de-prioritization of our oncology assets.
- PTX-35 expense decreased by $0.4 million primarily due to the discontinued clinical trial and development of the product candidate in the third quarter of 2022.
- ANTHIM was not acquired until the second quarter of 2022 and the 2023 expense primarily relates to fill finish.
- Other programs expense decreased by $0.3 million primarily due to a decrease in laboratory supplies expense related to preclinical R&D expenses.
- Unallocated research expenses increased by $0.9 million primarily due to increased personnel costs, including stock-based compensation from stock awards, contractor expense and supplies purchased for discovery projects.

Selling, general and administrative expense. Selling, general and administrative expenses were $7.4 million and $4.9 million for the three months ended June 30, 2023 and 2022, respectively. The increase was primarily due to an increases in consulting and other professional expenses of $0.7 million, personnel expense of $0.5 million, marketing expense of $0.5 million, facility expense of $0.3 million, rent expense of $0.2 million, depreciation and amortization of $0.3 million, insurance and taxes of $0.2 million, offset by a decrease in supplies expense of $0.2 million.

Change in fair value of contingent consideration. The change in fair value of contingent consideration was $1.1 million for the three months ended June 30, 2023, compared to $(0.2) million for the three months ended June 30, 2022. The change in the 2023 period was primarily due to the timing of expected payout and a decrease in expected payment related to deferred contract consideration.

Total non-operating loss. Total non-operating loss was $0.2 million for the three months ended June 30, 2023 which primarily consisted of $0.02 million of unrealized losses on short-term investment balances and $0.2 million of interest and dividends income on short-term investment balances. Total non-operating loss was $0.6 million for the three months ended June 30, 2022 which primarily consisted of $0.6 million of unrealized losses on short-term investment.

Comparison of the Six Months Ended June 30, 2023 and 2022

Revenues. For the six months ended June 30, 2023 we recognized $0.1 million of revenue from a licensing agreement with Shattuck Labs and $1.3 million of revenue from process development. For the six months ended June 30, 2022 we recognized $0.3 million of grant revenue under the CPRIT grant and $0.05 million of service revenue. The decrease in grant revenue in the current-year period is due to the fact that we have recognized and received all $15.2 million of grant revenue. We continue our efforts to secure future non-dilutive grant funding to subsidize ongoing research and development costs. The increase in process development revenue is attributable to the operations of the San Antonio CDMO facility.

Cost of revenues. Cost of revenues were $1.0 million for the six months ended June 30, 2023. These expenses primarily reflect direct cost of labor, overhead and material costs. There was no cost of revenues for the six months ended June 30, 2022 as the Scorpius facility was not operational.

Research and development expense. Research and development expenses increased approximately 47.0% to $12.7 million for the six months ended June 30, 2023 compared to $8.6 million for the six months ended June 30, 2022. The components of R&D expense are as follows, in millions:

	For the Six Month's Ended June 30,	
	2023	2022
Programs		
HS-110	$ 0.5	$ 0.3
HS-130	—	0.6
PTX-35	1.1	1.2
ANTHIM	0.9	—
Other programs	0.8	0.7
Unallocated research and development expenses	9.4	5.8
	$ 12.7	$ 8.6

- HS-110 expense increased $0.2 million primarily due to site close out fees.
- HS-130 expense decreased to $0 from $0.6 million due to the de-prioritization of our oncology assets.
- PTX-35 expense was $1.1 million primarily consisting of the expensing of prepaid expenses associated with the discontinued clinical trials and development of the product candidate in the third quarter of 2022.
- ANTHIM was not acquired until the second quarter of 2022 and the 2023 expense primarily relates to fill finish.
- Other programs expense increased by $0.1 million primarily due to an increase in laboratory supplies expense related to preclinical R&D expenses and the operations of our CDMO facility.

- Unallocated research expenses increased by $3.6 million primarily due to increased personnel costs, including stock-based compensation from stock awards, contractor expense and supplies purchased for discovery projects.

Selling, general and administrative expense. Selling, general and administrative expenses were $14.2 million and $8.7 million for the six months ended June 30, 2023 and 2022, respectively. The increase was primarily due to increases in personnel expenses of $1.5 million, professional expenses of $1.3 million, marketing expenses of $1.3 million, rent and facilities of $0.8 million, depreciation and amortization of $0.4 million insurance of $0.3 million offset by a decrease in stock-based compensation of $0.2 million.

Change in fair value of contingent consideration. The change in fair value of contingent consideration was $0.1 million for the six months ended June 30, 2023, compared to $(0.02) million for the six months ended June 30, 2022. The change in the 2023 period was primarily due to the timing of expected payout and a decrease in expected payment related to deferred contract consideration.

Total non-operating loss. Total non-operating loss was $0.08 million for the six months ended June 30, 2023 which primarily consisted of $0.06 million of unrealized gains on short-term investment balances and $(0.1) million of interest and dividends loss on short-term investment balances. Total non-operating loss was $1.3 million for the six months ended June 30, 2022 which primarily consisted of $1.4 million of unrealized losses on short-term investment balances partially offset by $0.3 million of interest income.

LIQUIDITY AND CAPITAL RESOURCES

Sources of Liquidity

As of June 30, 2023, we had approximately $18.6 million in cash and cash equivalents and short-term investments, which we believe is sufficient to fund our operations into mid-Q4 2023. Management has determined that there is substantial doubt about the Company's ability to continue as a going concern within one year after the consolidated financial statements are issued. We have not yet generated significant revenue from operations and do not anticipate that we will generate sufficient revenue from operations in the near term to sustain our operations and therefore we will need to raise capital to sustain our operations. As a result, management continues to evaluate the Company’s future direction, including continuing to explore strategic alternatives. However, there can be no assurance that these strategic alternatives will be successful. If we do not raise capital or successfully engage a strategic partner in the next few months, we may be required to delay, reduce, or terminate some or all of our operations, sell some of our assets, cease operations, liquidate our assets or reorganize the Company, or a combination of the foregoing.

Since our inception in June 2008, we have incurred significant losses and we have financed our operations with net proceeds from the private placement of our preferred stock, common stock and debt. Since our initial public offering, we have primarily financed our operations with net proceeds from the public offering of our securities and at-the market offerings, and to a lesser extent, the proceeds from the exercise of warrants. During May 2018, we closed a public offering of shares of our common stock and warrants to purchase shares of our common stock in which we received net proceeds of approximately $18.8 million and after the closing of the offering, an additional $4.8 million from the exercise of 436,381 warrants issued in this offering. During November 2018, we closed a public offering of shares of our common stock and warrants to purchase shares of our common stock in which we received net proceeds of approximately $12.7 million. For the years ended December 31, 2018 and 2019, we received net proceeds of approximately $3.8 million from sales of our common stock in at-the-market offerings. On January 21, 2020, we closed an underwritten public offering of shares of our common stock and warrants to purchase shares of our common stock pursuant to which we received net proceeds of approximately $6.4 million. During the year ended December 31, 2021, we received net proceeds of $25.6 million from the sale of 2,106,027 shares of our common stock in at-the-market offerings. As of June 30, 2023, we had an accumulated deficit of approximately $235.8 million and as of December 31, 2022, we had an accumulated deficit of approximately $209.2 million. We had net losses of $14.0 million and $6.9 million for the three months ended June 30, 2023 and 2022, respectively.

We expect to incur significant commercialization expenses related to product sales, marketing, manufacturing, and distribution. We will need to obtain substantial additional future funding in connection with our manufacture of ANTHIM® and our manufacturing facility construction and set up.

However, the actual amount of funds we will need to operate is subject to many factors, some of which are beyond our control. These factors include the following:

- the progress of our research activities;
- our ability to attract customers for our CDMO services and ANTHIM®
- the number and scope of our research programs;
- the progress of our preclinical development activities;
- the progress of the development efforts of parties with whom we have entered into research and development agreements;
- our expansion plans and cash needs of any new projects;
- our ability to maintain current research and development licensing arrangements and to establish new research and development and licensing arrangements;
- the costs involved in prosecuting and enforcing patent claims and other intellectual property rights;
- the costs and timing of regulatory approvals;
- the receipt of grant funding if any;
- clinical laboratory development and testing;
- additional manufacturing facility construction costs and equipment costs; and
- manufacturing costs of ANTHIM®.

We have based our estimates on assumptions that may prove to be wrong. We may need to obtain additional funds sooner or in greater amounts than we currently anticipate. Potential sources of financing include strategic partners, public or private sales of our equity or debt financings, mergers, a sale of our Company, divestiture of assets, a combination of these, or other strategic transactions. We may seek to access the public or private equity markets when conditions are favorable due to our long-term capital requirements. We do not have any committed sources of financing at this time, and it is uncertain whether additional funding will be available when we need it on terms that will be acceptable to us, or at all. If we raise funds by selling additional shares of common stock, such as through the Amended and Restated Common Stock Sales Agreement with B. Riley FBR, Inc. and Cantor Fitzgerald & Co., or other securities convertible into common stock, the ownership interest of our existing stockholders will be diluted. If we are not able to raise additional funds when needed or engage a strategic partner, the Company may be required to delay, reduce, or terminate some or all of its operations and it may be forced to cease operations, liquidate our assets, and possibly seek bankruptcy protection.

We rely on Lonza, a third-party manufacturer, to produce our commercial quantities of our ANTHIM® substance requirements. We have firm orders with Lonza for future purchases of drug substance, with remaining total non-cancellable future commitments of approximately $53.0 million through 2025. As of June 30, 2023, we had approximately $18.6 million in cash and cash equivalents and short-term investments, which we believe is sufficient to fund our operations into Q4 2023. Management has determined that there is substantial doubt about our ability to continue as a going concern within one year after the consolidated financial statements are issued.

Cash Flows

Operating activities. The use of cash during the six months ended June 30, 2023 and 2022 resulted primarily from our net losses adjusted for non-cash charges and changes in components of working capital as well as the commencement of our Scorpius facility. Net cash used in operating activities during the six months ended June 30, 2023 was $22.0 million compared to a use of $1.4 million during the same period in 2022. The increased use was primarily due to an increase in net loss of $11.7 million, an increase in depreciation of $2.5 million, a decrease in deferred tax liability of $2.8 million, a decrease in contract receivables of $24.5 million, a decrease in other assets of $10.8 million, an increase in deferred revenue of $1.1 million, and a decrease in accrued liabilities of $4.0 million.

Investing activities. Net cash provided by investing activities was $22.3 million during the six months ended June 30, 2023 compared to $3.8 million during the same period in 2022. The difference is primarily due to the payment of contingent consideration of $22.8 million in 2022.

Financing activities. Net cash used in financing activities was $(2.9) million during the six months ended June 30, 2023 compared to a use of $(0.1) million during the six months ended June 30, 2022. The difference was due to a $2.8 million net increase in repayments of principal under finance leases.

Current and Future Financing Needs

We have incurred an accumulated deficit of $235.8 million through June 30, 2023. We have incurred negative cash flows from operations since we started our business. We expect to incur significant commercialization expenses related to product sales, marketing, manufacturing, and distribution. We will need to obtain substantial additional future funding in connection with our manufacture of ANTHIM® and our manufacturing facility construction and set up. Furthermore, we anticipate increased costs associated with the manufacture of ANTHIM® and the increase in headcount due to the acquisition of Elusys. Our agreement with Lonza obligates us to pay for certain services upon placement of an order and only allows us to cancel manufacturing of batches for which we have placed orders under certain circumstances. Based upon the order that we placed in March 2023, we anticipate being obligated to pay over a two-year period to Lonza approximately $34 million and an additional $19 million for resins and other raw materials required for production. In April 2023, we received the final tranche of funding, $1.5 million, from the CPRIT grant.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK.

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

ITEM 4. CONTROLS AND PROCEDURES.

Evaluation of Disclosure Controls and Procedures

As of the end of the period covered by this Quarterly Report on Form 10-Q, we conducted an evaluation, under the supervision of and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act). Disclosure controls and procedures are those controls and procedures designed to provide reasonable assurance that the information required to be disclosed in our Exchange Act filings is (1) recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and (2) accumulated and communicated to management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure.

Based on that evaluation, our Chief Executive Officer and Chief Financial Officer concluded that, as of June 30, 2023, our disclosure controls and procedures were not effective because of material weaknesses in our internal control over financial reporting that were reported in our Annual Report on Form 10-K for the fiscal year ended December 31, 2022. The material weaknesses are further described below.

Material Weaknesses in Internal Control Over Financial Reporting

A material weakness (as defined in Rule 12b-2 under the Exchange Act) is a deficiency, or combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of our annual or interim financial statements will not be prevented or detected on a timely basis.

- We identified ineffective information technology general controls in the areas of user access and segregation of duties related to certain information technology systems that support our financial reporting process. As a result,

certain activity level controls were also deemed to be ineffective that are dependent on information derived from these information technology systems.

- In March 2023, we determined that we had made certain errors in the manner in which we recognized the deferred tax asset valuation allowance related to the acquisition of Elusys, with the result that net loss had been overstated in our quarterly filings for the periods ending June 30, 2022 through September 30, 2022. As a result, we determined that there were material errors in the financial statements that required a restatement of our Forms 10-Q for the quarterly periods ended June 30, 2022 through September 30, 2022. This was due to the inadequate design and implementation of controls to evaluate and monitor the accounting for income taxes.

- We identified a material weakness related to the ineffective design of certain management review controls across a significant portion of our financial statement areas, particularly with regard to the precision of the review and evidence of review procedures performed.

Remediation of Material Weaknesses

We are committed to maintaining a strong internal control environment and implementing measures designed to help ensure that these material weaknesses are remediated as soon as possible. We believe we have made progress towards remediation and continue to implement our remediation plan for the current material weakness in internal control over financial reporting. Specifically, we have identified the following practices and/or procedures to remediate the material weaknesses: (i) evaluating and implementing enhanced process controls around user access management and segregation of duties, (ii) expanding the documentation over user access and system controls and enhancing the level of evidence maintained in management review controls and (iii) enhancing the design of existing controls and are implementing new controls over the accounting, processing, and recording of income tax.

We will consider the material weaknesses remediated after the applicable controls operate for a sufficient period of time, and management has concluded, through testing, that the controls are operating effectively.

Changes in Internal Control over Financial Reporting

During the fiscal quarter ended June 30, 2023, other than the plan discussed above under “Remediation of Material Weaknesses”, there were no changes in our internal control over financial reporting that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II—OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS.

From time to time we may become involved in legal proceedings or be subject to claims arising in the ordinary course of our business. We are not presently a party to any legal proceedings that, if determined adversely to us, would individually or taken together have a material adverse effect on our business, operating results, financial condition or cash flows. Regardless of the outcome, litigation can have an adverse impact on us because of defense and settlement costs, diversion of management resources and other factors.

ITEM 1A. RISK FACTORS.

Investing in our securities involves a high degree of risk. You should carefully consider the following risks, together with all the other information in this Quarterly Report on Form 10-Q, including our condensed consolidated financial statements and notes thereto. If any of the following risks actually materialize, our operating results, financial condition and liquidity could be materially adversely affected. The following information updates should be read in conjunction with the information disclosed in Part 1, Item 1A, “Risk Factors,” contained in our 2022 Annual Report. Except as disclosed below, there have been no material changes from the risk factors and uncertainties disclosed in our 2022 Annual Report.

Our consolidated financial statements have been prepared assuming that we will continue as a going concern

We had an accumulated deficit of $235.8 million as of June 30, 2023 and a net loss of approximately $26.9 million for the six months ended June 30, 2023. We have an accumulated deficit of $209.2 million as of December 31, 2022 and a net loss of approximately $43.9 million for the year ended December 31, 2022 and have not generated significant revenue or positive cash flows from operations. We expect to incur significant expenses and continued losses from operations for the foreseeable future and expect our cash and cash equivalents and short-term investments to be sufficient to fund our operations into Q4 2023. We expect our expenses to increase in connection with our ongoing activities, particularly as we ramp up operations in our in-house bioanalytic, process development and manufacturing facility in San Antonio, TX, expand our infectious disease/biological threat program, and continue to support the development of, and commencement of operations at, a new biodefense-focused large molecule and biologics biomanufacturing facility in Manhattan, Kansas. Our audited financial statements for the fiscal year ended December 31, 2022 were prepared under the assumption that we will continue as a going concern; however, we have incurred significant losses from operations to date and we expect our expenses to increase in connection with our ongoing activities. These factors raise substantial doubt about our ability to continue as a going concern for one year after the financial statements are issued. Our auditors also included an explanatory paragraph in their report on our financial statements as of and for the year ended December 31, 2022 with respect to this uncertainty. There can be no assurance that funding will be available on acceptable terms on a timely basis, or at all. The various ways that we could raise capital carry potential risks. Any additional sources of financing will likely involve the issuance of our equity securities, which will have a dilutive effect on our stockholders. Any debt financing, if available, may involve restrictive covenants that may impact our ability to conduct our business. If we raise funds through collaborations and licensing arrangements, we might be required to relinquish significant rights to our technologies or tests or grant licenses on terms that are not favorable to us. If we do not succeed in raising additional funds on acceptable terms or at all, we may be unable to complete the planned build out of our Kansas facility or develop any new product candidates that we acquire. As such, we cannot conclude that such plans will be effectively implemented within one year after the date that the financial statements included in this Quarterly Report are filed with the SEC and there is uncertainty regarding our ability to maintain liquidity sufficient to operate our business effectively, which raises substantial doubt about our ability to continue as a going concern.

We continue to evaluate strategic alternatives due to our cash runway and there can be no assurance that any strategic alternative will be successful.

As of June 30, 2023, we had approximately $18.6 million in cash and cash equivalents and short-term investments, which we believe is sufficient to fund our operations into mid-Q4 2023. Management has determined that there is substantial doubt about the Company's ability to continue as a going concern within one year after the consolidated financial statements are issued. We have not yet generated significant revenue from operations and do not anticipate that we will generate sufficient revenue from operations in the near term to sustain our operations and therefore we will need to raise capital to sustain our operations. As a result, management continues to evaluate the Company’s future direction, including continuing to explore strategic alternatives. However, there can be no assurance that these strategic alternatives will be successful. If we do not raise capital or successfully engage a strategic partner in the next few months, we may be required to delay, reduce, or terminate some or all of our operations, sell some of our assets, cease operations, liquidate our assets or reorganize the Company, or a combination of the foregoing.

We have incurred net losses every year since our inception and expect to continue to generate operating losses and experience negative cash flows and it is uncertain whether we will achieve profitability.

We have incurred net losses in each year since our inception, including net losses of $26.9 million and $15.1 million for the six months ended June 30, 2023 and 2022, respectively. We had an accumulated deficit of $235.8 million as of June 30, 2023. For the years ended December 31, 2022 and 2021, we incurred a net loss of $43.9 million and $35.4 million, respectively. We expect to continue to incur operating losses until such time, if ever, as we are able to achieve sufficient levels of revenue from operations. As stated above, we do not anticipate generating significant revenue from sales of our products for several years or from our manufacturing facility until such time as it is fully operational and operating at full capacity. Our ability to achieve profitability will depend on us successfully manufacturing and receiving regulatory approval for ANTHIM® and our other product candidates and market acceptance of our product offerings and services and our capacity to develop, introduce and sell our products and services to our targeted markets. There can be no assurance

that future manufacturing of ANTHIM® will be approved or any of our product candidates that are under development will be approved for commercial sale, or even product candidates and products that are approved for commercial sale we will ever generate significant sales or achieve profitability. Furthermore, there can be no assurance that we generate sufficient revenue from manufacturing services to support the expenses anticipated to be incurred by the manufacturing facility. Accordingly, the extent of future losses and the time required to achieve profitability, if ever, cannot be predicted at this point.

Even if we succeed in developing and commercializing one or more product candidates and are successful in selling ANTHIM® or are successful in generating revenue as a CDMO, we expect to incur substantial losses for the foreseeable future and may never become profitable. We also expect to continue to incur significant operating expenses and anticipate that our expenses will increase substantially in the foreseeable future as we:

- continue to undertake preclinical development and conduct clinical trials for product candidates;
- seek regulatory approvals for product candidates;
- implement additional internal systems and infrastructure;
- devote resources to constructing a facility for the development of bioanalytics, process development and manufacturing activities;
- sell ANTHIM® and engage in commercial scale manufacturing of ANTHIM®; and
- hire additional personnel.

We also expect to experience negative cash flows for the foreseeable future as we fund our operating losses. As a result, we will need to generate significant revenues or raise additional financing in order to achieve and maintain profitability. We may not be able to generate these revenues or achieve profitability in the future. Our failure to achieve or maintain profitability would likely negatively impact the value of our securities and financing activities.

We will need to raise additional capital to support our long-term business plans and our failure to obtain funding when needed may force us to delay, reduce or eliminate our development programs or commercialization efforts.

During the six months ended June 30, 2023, our operating activities used net cash of approximately $22.0 million and as of June 30, 2023, our cash and cash equivalents and short-term investments were approximately $18.6 million. During the years ended December 31, 2022 and 2021, our operating activities used net cash of approximately $5.7 million and $38.1 million, respectively. We expect to incur additional operating losses in the future and therefore expect our cumulative losses to increase. We do not expect to derive significant revenue from our CDMO services or any of our product candidates currently in development in the near future until we or our potential partners successfully commercialize our products and in order to generate significant revenue from ANTHIM® sales we will need to engage in full scale manufacturing of ANTHIM® which will take several years. We expect our expenses to increase if and when we commence full scale manufacturing of ANTHIM®. Our agreement with Lonza obligates us to pay for certain services upon placement of an order and only allows us to cancel the manufacturing of batches for which we have placed orders under certain circumstances. Based upon the order that we placed on March 31, 2023, we anticipate being obligated to pay over a two year period to Lonza approximately $34 million and an additional $19 million for resins and other raw materials required for production. In addition, we expect our expenses to increase due to the operation of the manufacturing facility in San Antonio and the build out and purchase of equipment for the manufacturing facility in Kansas.

We will need to raise additional capital to fund our long-term operations and we cannot be certain that funding will be available to us on acceptable terms on a timely basis, or at all. To meet our financing needs, we are considering multiple alternatives, including, but not limited to, additional equity financings, which we expect will include sales of common stock through at the market issuances, debt financings and/or funding from partnerships or collaborations. Our ability to raise capital through the sale of securities may be limited by our number of authorized shares of common stock and various rules of the SEC and the NYSE American that place limits on the number and dollar amount of securities that we may sell. Any additional sources of financing will likely involve the issuance of our equity or debt securities, which will have a dilutive effect on our stockholders, assuming we are able to sufficiently increase our authorized number of shares of common stock. To the extent that we raise additional funds by issuing equity securities, our stockholders may experience significant dilution. Any debt financing, if available, may involve restrictive covenants that may impact our ability to conduct our business. If we fail to raise additional funds on acceptable terms, we may be unable to complete

commercialization of ANTHIM® or obtain necessary approvals for commercialization from the FDA and other regulatory authorities or continue to maintain our listing on the NYSE American. In addition, we could be forced to delay, discontinue or curtail product development, forego sales and marketing efforts, and forego licensing in attractive business opportunities. Any additional sources of financing will likely involve the issuance of our equity or debt securities, which will have a dilutive effect on our stockholders.

Future sales of our common stock by our existing stockholders could cause our stock price to decline.

On August 14, 2023, there were 26,081,890 shares of our common stock outstanding, all of which are currently eligible for sale in the public market, subject, in certain circumstances to the volume, manner of sale and other limitations under Rule 144 promulgated under the Securities Act. It is conceivable that stockholders may wish to sell some or all of their shares. If our stockholders sell substantial amounts of our common stock in the public market at the same time, the market price of our common stock could decrease significantly due to an imbalance in the supply and demand of our common stock. Even if they do not actually sell the stock, the perception in the public market that our stockholders might sell significant shares of our common stock could also depress the market price of our common stock.

A decline in the price of shares of our common stock might impede our ability to raise capital through the issuance of additional shares of our common stock or other equity securities, and may cause stockholders to lose part or all of their investment in our shares of common stock.

ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS.

There were no sales of unregistered securities during the quarter ended June 30, 2023 that were not previously disclosed.

ITEM 3. DEFAULTS UPON SENIOR SECURITIES.

Not Applicable.

ITEM 4. MINE SAFETY DISCLOSURES.

Not Applicable.

ITEM 5. OTHER INFORMATION.

None.

ITEM 6. EXHIBITS.

The exhibits filed as part of this Quarterly Report on Form 10-Q are set forth on the Exhibit Index. The Exhibit Index is incorporated herein by reference.

EXHIBIT INDEX

Exhibit No.	Description
3.1	Third Amended and Restated Certificate of Incorporation of Heat Biologics, Inc. dated as of March 20, 2013 (incorporated by reference to Exhibit 3.5 to the Registration Statement on Form S-1 with the Securities and Exchange Commission on May 6, 2013 (File No. 333-188365)).
3.2	Certificate of Amendment of the Third Amended and Restated Certificate of Incorporation of Heat Biologics, Inc. dated as of May 29, 2013 filed on May 30, 2013 (incorporated by reference to Exhibit 3.6 to the Registration Statement on Form S-1/A with the Securities and Exchange Commission on May 30, 2013 (File No. 333-188365)).

3.3	Certificate of Amendment of the Third Amended and Restated Certificate of Incorporation of Heat Biologics, Inc. dated as of July 13, 2017 (incorporated by reference to Exhibit 3.1 to the Current Report on Form 8-K/A filed with the Securities and Exchange Commission on July 17, 2017 (File No. 001-35994)).
3.4	Certificate of Amendment to the Third Amended and Restated Certificate of Incorporation of Heat Biologics, Inc. dated as of January 18, 2018 (incorporated by reference to Exhibit 3.1 to the Current Report on Form 8-K filed with the Securities and Exchange Commission on January 19, 2018 (File No. 001-35994)).
3.5	Certificate of Amendment of the Third Amended and Restated Certificate of Incorporation of Heat Biologics, Inc. dated as of March 20, 2020 (incorporated by reference to Exhibit 3.1 to the Current Report on Form 8 K with the Securities and Exchange Commission on March 23, 2020 (File No. 001-35994)).
3.6	Certificate of Amendment to the Third Amended and Restated Certificate of Incorporation of Heat Biologics, Inc. dated as of December 11, 2020 (incorporated by reference to Exhibit 3.1 to the Current Report on Form 8-K filed with the Securities and Exchange Commission on December 10, 2020 (File No. 001-35994)).
3.7	Certificate of Amendment of the Third Amended and Restated Certificate of Incorporation of Heat Biologics, Inc. dated as of April 28, 2022 (incorporated by reference to Exhibit 3.1 to the Current Report on Form 8-K with the Securities and Exchange Commission on May 3, 2022 (File No. 001-35994)).
3.8	Second Amended and Restated Bylaws, dated May 3, 2022 (incorporated by reference to Exhibit 3.2 to the Current Report on Form 8-K filed with the Securities and Exchange Commission on May 3, 2022 (File No. 001-35994)).
31.1*	Certification of Jeffrey Wolf, Principal Executive Officer, pursuant to Rule 13a 14(a) or15d 14(a) of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2*	Certification of William Ostrander, Principal Financial Officer and Principal Accounting Officer, pursuant to Rule 13a 14(a) or15d 14(a) of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1*	Certification of Jeffrey Wolf, Principal Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2*	Certification of William Ostrander, Principal Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS*	Inline XBRL Instance Document - the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.
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 with applicable taxonomy extension information contained in Exhibits 101).

* Filed 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.

NIGHTHAWK BIOSCIENCES, INC.

Date: August 14, 2023

By: /s/ Jeffrey A. Wolf
Jeffrey A. Wolf
Chairman and Chief Executive Officer
(Principal Executive Officer)

Date: August 14, 2023

By: /s/ William Ostrander
William Ostrander
Chief Financial Officer
(Principal Financial and Accounting Officer)

EXHIBIT 31.1

CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER
PURSUANT TO RULE 13a-14(a) OR RULE 15d-14(a) OF THE SECURITIES EXCHANGE ACT OF 1934,
AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Jeffrey Wolf, certify that:

1. I have reviewed this quarterly report on Form 10-Q of NightHawk Biosciences, Inc.;

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

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

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 14, 2023

By: /s/ Jeffrey Wolf
Name: Jeffrey Wolf
Title: Chief Executive Officer
(Principal Executive Officer)

EXHIBIT 31.2

CERTIFICATION OF PRINCIPAL FINANCIAL OFFICER
PURSUANT TO RULE 13a-14(a) OR RULE 15d-14(a) OF THE SECURITIES EXCHANGE ACT OF 1934,
AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, William Ostrander, certify that:

1. I have reviewed this quarterly report on Form 10-Q of NightHawk Biosciences, Inc.;

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

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

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 14, 2023

By: /s/ William Ostrander
Name: William Ostrander
Title: Chief Financial Officer
(Principal Financial Officer and Principal Accounting Officer)

EXHIBIT 32.1

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

I, Jeffrey Wolf, Chief Executive Officer (Principal Executive Officer) of NightHawk Biosciences, 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 Company's Quarterly Report on Form 10-Q for the period ended June 30, 2023 (the "Form 10-Q") fully complies with the requirements of Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934, as amended; and

2. The information contained in the Form 10-Q fairly presents, in all material respects, the financial condition and results of operations of the Company for the periods presented.

Date: August 14, 2023

By: /s/ Jeffrey Wolf
Name: Jeffrey Wolf
Title: Chief Executive Officer
(Principal Executive Officer)

EXHIBIT 32.2

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

I, William Ostrander, Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer) of NightHawk Biosciences, 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 Company's Quarterly Report on Form 10-Q for the period ended June 30, 2023 (the "Form 10-Q") fully complies with the requirements of Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934, as amended; and

2. The information contained in the Form 10-Q fairly presents, in all material respects, the financial condition and results of operations of the Company for the periods presented.

Date: August 14, 2023

By: /s/ William Ostrander
Name: William Ostrander
Title: Chief Financial Officer
(Principal Financial Officer and Principal Accounting Officer)