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NightHawk Biosciences, Inc. (NHWK: NYSE)

Shifting Focus to Biomanufacturing

Valuation is determined using a DCF model, which employs a 25% discount rate and a probability of achieving full operational status of 95% for the San Antonio facility and 70% for the Manhattan facility. Assets valued in our model include the biomanufacturing facilities and the biodefense assets.

Current Price (12/9/2022)	$1.00
Valuation	**$11.00**

OUTLOOK

NightHawk is a vertically integrated biotechnology company with manufacturing, development, testing and commercialization assets consisting of SkunkWorx Bio, Elusys Therapeutics & Scorpion Biological Services.

The clinical pipeline has been dropped and emphasis has been shifted toward the biomanufacturing and biodefense assets. Biomanufacturing includes a 20k sq ft facility in San Antonio which opened in 3Q:22 and a 500k sq ft facility in Manhattan expected to open in 2026.

The biodefense portfolio includes one marketed product, Anthim, and the in-development RapidVax customizable vaccine platform. NHWK also offers Biomanufacturing through Scorpion and two facilities: one clinical scale to open in 3Q:22 and one commercial which will break ground in late 2022.

NightHawk derives the vast majority of its value from its biomanufacturing assets which are expected to begin generating revenues in 2023.

SUMMARY DATA

52-Week High	**4.24**
52-Week Low	**1.00**
One-Year Return (%)	**-75.7**
Beta	**0.30**
Average Daily Volume (sh)	**65,992**
Shares Outstanding (mil)	**25.7**
Market Capitalization ($mil)	**25.7**
Short Interest Ratio (days)	**5.8**
Institutional Ownership (%)	**9.9**
Insider Ownership (%)	**5.2**
Annual Cash Dividend	**$0.00**
Dividend Yield (%)	**0.00**
5-Yr. Historical Growth Rates	
Sales (%)	**N/A**
Earnings Per Share (%)	**N/A**
Dividend (%)	**N/A**
P/E using TTM EPS	**N/A**
P/E using 2022 Estimate	**N/A**
P/E using 2023 Estimate	**N/A**
Zacks Rank	**N/A**

Risk Level	**Above Average**
Type of Stock	**Small-Growth**
Industry	**Med-Biomed/Gene**

ZACKS ESTIMATES

Revenue
(In millions of USD)

	Q1 (Mar)	Q2 (Jun)	Q3 (Sep)	Q4 (Dec)	Year (Dec)
2021	$0.5 A	$0.5 A	$0.5 A	$0.6 A	$2.1 A
2022	$0.2 A	$0.1 A	$6.0 A	$0.6 E	$6.9 E
2023					$9.8 E
2024					$22.6 E

Earnings per Share

	Q1	Q2	Q3	Q4	Year
2021	-$0.31 A	-$0.26 A	-$0.30 A	-$0.54 A	-$1.41 A
2022	-$0.32 A	-$0.40 A	-$0.51 A	-$0.43 E	-$1.36 E
2023					-$0.99 E
2024					-$0.43 E

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WHAT'S NEW

NightHawk Biosciences, Inc. (NYSE: NHWK) reported third quarter results on November 14, 2022 in a press release and in its Form 10-Q filing. It has been a whirlwind year for the company as it made an acquisition, expanded its manufacturing efforts, converted into a vertically integrated biosciences company and executed several transformational changes. The company's opened its San Antonio biologics manufacturing facility in October, began populating its biosafety lab in North Carolina and has made initial efforts to break ground on the Manhattan, Kansas manufacturing and bioanalytic services facility. NightHawk delivered 3,000 vials of Anthim to Canada in the third quarter, satisfying the requirements of the April sale of the anthrax treatment. In a material change of strategy, NightHawk announced that it will discontinue development of clinical assets in its oncology portfolio. As a result, we adjust our valuation to reflect the company's new priorities in infectious disease, biodefense and biomanufacturing.

Highlights for 2022 include:

- Merger with Elusys completed – April 2022
- Type C meeting (manufacturing items) with FDA for HS-110 – April 2022
- Canadian contract executed for Anthim distribution – April 2022
- New biodefense manufacturing facility in Manhattan, Kansas announced – April 2022
- Name change to NightHawk Biosciences (NHWK) – May 2022
- Presentation at the Treg Directed Therapies Summit, Boston, MA – May 2022
- Stephan Kutzer, Ph.D. appointed Interim CEO of Scorpion – June 2022
- Halt to clinical oncology programs – November 2022
- Reorientation of strategy towards infectious disease, biodefense & biomanufacturing – November 2022

For its third quarter, NightHawk generated revenues of $6.0 million and posted a net loss of ($13.0) million, or ($0.51) per share. As of September 30, 2022, NightHawk holds a grants receivable balance of $1.5 million for CPRIT proceeds not yet received.

For the quarter ending September 30, 2022 versus the same prior year period:

- Revenues were $6.0 million, up 11-fold from $0.5 million. Revenues consisted of $5.98 million of product sales related to the Anthim delivery and $60,000 of contract revenue;
- Product cost of sales were $6.4 million vs. nil. It is composed of $5.9 million of inventory, $0.3 million of pre-acquisition backlog, $0.2 million of shipping and fulfillment and $10,000 of royalty expense;
- Research & development expenses totaled $6.9 million, up 57% from $4.4 million, driven primarily by higher unallocated R&D expenses and spending on Anthim, partially offset by lower allocations to PTX-35, HS-110 and HS-130;
- General & administrative expenses were $5.1 million, a 51% rise from $3.4 million, on greater costs for personnel, rent, consulting and other professional expenses partially offset by a decrease in stock-based compensation;
- Net loss was ($13.0) million, or ($0.51) per share, compared to ($7.4) million or ($0.30) per share.

At the end of the quarter, NightHawk held cash, equivalents and short-term investments totaling $57.4 million, compared to $96.4 million at the end of 2021. Cash used in operations for the first nine months of the year was ($17.1) million, compared to ($28.1) million in the comparable 2021 period.

Scorpion Biosciences

In mid-April, CEO Jeff Wolf announced a partnership with the State of Kansas and Kansas State University to develop a biodefense-focused large molecule and biologics biomanufacturing facility in Manhattan, Kansas. Kansas State University hosts the Biosecurity Research Institute (BRI), and the National Bio and Agro-Defense Facility (NBAF), providing a supportive environment for the endeavor. The new facility will exceed 500,000 square feet and is designed for manufacturing large molecules and biologics, with a focus on biodefense. When fully operational, the facility will directly employ over 500 people and will provide capacity of up to 144,000 liters across 48 bioreactors.

Scorpion has built a 20,144 square foot facility in San Antonio, Texas to produce product for laboratory, research, analytical, and/or biomanufacturing purposes. The facility held its grand opening in October and is expected to be operational before year-end. The goal of the build is to reduce dependence on third-party vendors as the company advances R&D and approved products. Excess capacity will be available for contract and provide offsetting revenue for the business unit.

In mid-June, Stephan Kutzer, Ph.D. was appointed as Interim CEO of Scorpion Biological Services. He also serves on Scorpion's advisory board. Dr. Kutzer was previously CEO of Alcami Corporation, and divisional CEO of the Pharma Biotech & Customer Manufacturing division of Lonza Group. He has also held a variety of other senior roles at Lonza.

Elusys Therapeutics

On December 21, 2021, NightHawk announced that it had signed a definitive merger agreement to acquire Elusys Therapeutics which was subsequently closed on April 20, 2022. Elusys is a commercial-stage biodefense company and manufacturer of obiltoxaximab (Anthim), a treatment for anthrax inhalation that is approved in the US, Canada, Europe and the UK. Elusys is a wholly owned subsidiary of NightHawk, expanding NightHawk's infectious disease portfolio. Elusys has been supplying Anthim to the US Strategic National Stockpile through an ongoing, multi-year partnership. Anthim is a monoclonal antibody that binds to the protective antigen component of anthrax toxin, thereby preventing the entry of the toxin into vulnerable cells. On January 31, 2022, NIghtHawk announced that Elusys had finalized its contract to deliver Anthim to the US Department of Health and Human Services (HHS). The first phase of the contract, worth $50 million, was completed, and HHS holds options valued up to $31 million, resulting in total contract value of approximately $80.9 million. The terms of the contract are now expected to be satisfied in 1H:23. To date, Elusys has won over $400 million in research and development contracts and procurement orders and was recently awarded a CAD$7.9 (USD $6.0) million contract to deliver Anthim to Canada's National Emergency Strategic Stockpile which has since been fulfilled.

NightHawk paid $3.0 million at closing and expects to pay another $2.0 million subject to reduction based on cash balance and other purchase price reductions. Earn out payments are also owed equal to 10% of sales for a period of 12 years following the close of the arrangement. Additional obligations exist to Elusys shareholders following the close of the deal regarding near term sales and to Elusys employees.

The recently announced Manhattan, Kansas commercial biodefense biomanufacturing facility will produce Anthim to satisfy contracts when it is fully functional.

Biosafety Level 2 Laboratory

In August, NightHawk announced that it would build an advanced biosafety level 2 (BSL-2) laboratory, at the company's research facilities in Research Triangle Park, North Carolina. The facility will support biodefense discovery and preclinical efforts focused on identifying novel assets to combat emerging biological threats. According to the CDC, there are four biosafety levels that require controls related to laboratory practices, safety equipment and facility construction. Biosafety Level 1 (BSL-1) is appropriate for low-risk microbes while BSL-4 is designed to address high risk microbes. A BSL-2 lab works with microbes that pose moderate hazards to personnel and the environment. The lab works with local microbes and diseases. Specific characteristics of BSL-2 labs are restricted access during laboratory work, protective equipment is required, biological safety cabinets are required and an autoclave is used for decontamination. Furthermore, a BSL-2 facility installs self-closing doors and a sink and eyewash station.

As of early December, the laboratory has now been completed and NightHawk executives and employees are relocating to the facility. Final fit and finish and systems testing is underway to complete the new space which includes both offices and laboratory space in the 15,000 square foot space.

Oncology Portfolio

NightHawk has shifted its priorities away from its oncology drug development portfolio and has abandoned its HS-110, HS-130 and PTX-35 programs. Results of the programs have not been presented. Management will make the programs available to partners who wish to continue with further development; however, business development for this activity is not a priority. Due to cost and anticipated development time, management deemed the opportunities for the oncology programs to be less attractive than further investment into the infectious disease, biodefense and biomanufacturing spaces and has adjusted its strategy accordingly.

Events and Milestones

- Break ground on Scorpion Manhattan facility – 2H:22
- San Antonio microbial facility fully operational – March 2023
- Completion of Scorpion Manhattan facility construction – 1H:25

Valuation

We adjust our valuation to reflect the shift away from the oncology drug development programs and towards infectious disease, biodefense and biomanufacturing. After removing the contribution from the oncology drug development programs, the vast majority of NightHawk's value is derived from the cash flows that can be generated from the biomanufacturing assets.

We estimate that the San Antonio facility will begin to generate revenues in 2023 producing approximately $9.8 million from cleanroom and bioanalytical lab operations. As the facility increases its capacity utilization through increased sales and marketing efforts and as efficiencies improve, we see revenues increasing to $39.3 million by year 5 (2027) with continued improvements is capacity utilization in succeeding years. We attach a 95% probability of achieving full operational status of the facility.

The Manhattan facility was announced earlier in 2022 and we expect the facility will undergo several years of construction and validation efforts prior to being fully operational. Our estimates call for 25,000 liters of the targeted 144,000 liters of capacity to be operational in 2026. As development continues our forecasts call for incremental increases in capacity until 2029 when the full 144,000 liters of capacity will be online. Based on our literature review, we model a potential revenue per liter of $11,700 in 2026 growing at 3% per year. Of the available capacity forecasted, we estimate 20% capacity utilization in 2026 rising linearly to 84% by 2030, where it is maintained for the duration of our forecast.

Our model uses industry average gross margin (65%) and overhead (24%) for the biomanufacturing facilities. For the bioanalytical lab, we forecast gross margins of 55% and overhead of 24%. Our model anticipates modest single digit growth rates after the facilities have achieved equilibrium capacity which is in 2026 for San Antonio and 2030 for Manhattan.

We discount estimated revenues to present using a 25% rate in our discounted cash flow (DCF) model and a blended 72% probability of biomanufacturing assets achieving full capacity. The result of our DCF model is a valuation of $11.00 per share.

Summary

On November 15, 2022, NightHawk reported third quarter results. Highlights for 2022 included the close of the Elusys transaction and sale of its product to Canada, listing on the NYSE, a name change to NightHawk Biosciences and a shift away from oncology drug development. The company will be focused on building and validating its two new biomanufacturing facilities over the next few quarters and may find partners to advance its inactive oncology portfolio. The San Antonio biomanufacturing facility has held its grand opening and is now expected to be fully functional including its microbial facility in March 2023.

NightHawk has undergone a radical transformation in 2022, morphing from a clinical stage oncology company to one that is focused on infectious disease, biodefense and biomanufacturing. Scorpion's San Antonio facility is almost fully operational and its Manhattan facility should begin construction next year. The recently completed BSL-2 lab which also now serve as NightHawk's headquarters, will enhance the company's ability to conduct process development, manufacturing and testing and provide additional avenues for revenue generation. We modify our valuation model to reflect NightHawk's new orientation and generate a valuation of $11 per share.

PROJECTED FINANCIALS

NightHawk Biosciences, Inc. - Income Statement

NightHawk Biosciences Inc.	2020 A	2021 A	Q1 A	Q2 A	Q3 A	Q4 E	2022 E	2023 E	2024 E
Total Revenues ($MM)	**$2.9**	**$2.1**	**$0.2**	**$0.1**	**$6.0**	**$0.6**	**$6.9**	**$9.8**	**$22.6**
YOY Growth	*-3%*	*-28%*	*-61%*	*-89%*	*1104%*	*-2%*	*227%*	*42%*	
Cost of Sales	$0.0	$0.0	$0.00	$0.0	$6.4	$0.0	$0.0	$6.9	$14.7
Product Gross Margin	*0%*	*0%*	*0%*	*0%*	*-6%*	*0%*	*0%*	*30%*	*35%*
Research & Development	$12.9	$18.8	$3.9	$4.7	$6.9	$6.7	$22.2	$10.0	$2.0
General & Administrative	$14.9	$16.8	$3.8	$4.9	$5.1	$5.0	$18.8	$19.8	$21.0
Other	$1.2	$1.9	($0.0)	$0.1	$0.7	$0.0	$0.8	$0.0	$0.0
Income from operations	($26.1)	($35.4)	($7.5)	($9.7)	($13.0)	($11.1)	($34.9)	($26.8)	($15.1)
Interest Income	$0.6	$0.8	$0.1	$0.2	$0.2	$0.1	$0.6	$0.0	$0.0
Other Income	($0.8)	($0.9)	($0.8)	($0.7)	($0.6)	$0.0	($2.1)	$0.0	$0.0
Pre-Tax Income	($26.4)	($35.5)	($8.2)	($10.3)	($13.3)	($11.0)	($36.4)	($26.8)	($15.1)
Provision for Income Tax	$0.0	$0.1	$0.0	$0.0	$0.2	$0.0	$1.0	$0.0	$0.0
Tax Rate	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*100.0%*	*200.0%*	*300.0%*
Net Income	**($26.4)**	**($35.4)**	**($8.2)**	**($10.3)**	**($13.1)**	**($11.0)**	**($35.4)**	**($26.8)**	**($15.1)**
Non-controlling Interest	($0.3)	($0.3)	($0.1)	($0.1)	($0.1)		($0.4)		
Net Income After NCI	**($26.0)**	**($35.1)**	**($8.1)**	**($10.2)**	**($13.0)**	**($11.0)**	**($35.0)**	**($26.8)**	**($15.1)**
Reported EPS	**($1.63)**	**($1.41)**	**($0.32)**	**($0.40)**	**($0.51)**	**($0.43)**	**($1.36)**	**($0.99)**	**($0.43)**
YOY Growth	*-61%*	*-14%*	*1.9%*	*52.4%*	*71.7%*	*-20.7%*	*-3%*		
Basic Shares Outstanding	15.98	24.91	25.59	25.60	25.61	25.77	25.65	27.15	35.00

Source: Company Filing // Zacks Investment Research, Inc. Estimates

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HISTORICAL STOCK PRICE

NightHawk Biosciences, Inc. – Share Price Chart



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