Third Stream RESEARCH

Insight into Growth and Innovation Update Report – May 30, 2023

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PRPH Stock Data

Price (5/26/23): $9.78

52-Week High: $15.25

52-Week Low: $6.60

Avg. Daily Volume: 64,650 shares

Market Capitalization: $164M

Enterprise Value: $162M

Shares Outstanding: 17.2M

Free Float: 12.8M

EV/Revenues (ltm): 1.7x

Cash & Inv. (mrq): $15.5M

Insider Ownership: 22.8%

Institutional Ownership: 16.4%

ProPhase Labs, Inc. (Nasdaq: PRPH)

Update Report on ProPhase Labs, Inc.

STRONG BUY- Long-term market outperformance.

ProPhase Labs is amid a dynamic transition from an earnings story based on COVID-19 testing (2020-2022) into a diversified biopharma company with biotech, genomics and diagnostic assets with the potential to be worth a significant multiple (4X or higher) of the current market valuation of PRPH in the next two years. **The company's achievements have been severely discounted; investors credit the earnings bonanza more as serendipity than the result of agile design and execution. Yet the acquisitions and other initiatives taken by ProPhase concurrent with its financial windfall and bear market in small biotech stocks reinforce our view of management's ability to execute on an ambitious new phase of growth. In fact, this was the crux of our investment thesis in the initial report.** We estimate a *minimum* value for the diagnostics, manufacturing, and supplements subsidiaries at ~$100 million, or ~$6 per share, accounting for the 12-month business outlook, value of equipment, customers, suppliers, and 2023 capital expansions in process. This attributes *at most* a ~$60 million valuation to: A) **ProPhase Biopharma**, which is targeting multi-billion dollar markets globally with a pipeline led by i) a potentially breakthrough esophageal-cancer test on track to be commercialized by mid-2024 and ii) Linebacker-1, a cancer co-therapy/individual drug with strong pre-clinical results, and B) a profitable **Nebula Genomics**, the lowest-cost direct-to-consumer US provider of genomic sequencing with nearly 100% revenue growth. **We rate PRPH a Strong Buy at its current price with an extremely favorable risk-reward profile.**

Third Stream Research initiated PRPH coverage on October 18, 2022; report and updates here.

Investment Highlights

- For the first quarter ended March 31, 2023, **ProPhase topped the market's expectations by reporting a small profit**, with improvements in gross margins for diagnostics services and consumer products, despite the anticipated decline in revenues due to the steep downturn in COVID-19 testing and transition of revenue mix. Losses are expected for Q2 and Q3 2023, traditionally the slowest quarters for the respiratory testing, lozenges manufacturing and health supplements businesses. A full review of financials begins on page 3.

- **Nebula Genomics is one of the largest providers of direct-to-consumer whole genome sequencing (WGS)**. In March 2023, Nebula introduced the lowest standard price of $249 for its WGS test. PRPH management believes that comparable businesses are behind Nebula's stage of development by as many as 3 to 5 years. It expects to leverage the consumer services in 2H 2023 and particularly in Q4; currently, several major drug retailers are still conducting tests and ProPhase management remains confident that Nebula's WGS test will be available on store shelves of giants such as Walgreens and CVS. However, the timing of any potential agreement is still unknown. A successful entry into this market will add significant momentum to Nebula's business, which is already running close to 100% growth year-over-year. In addition, the current integration of genomic sequencing into ProPhase's CLIA-certified labs and increased penetration into B2C and B2B channels, which includes clinical testing, universities, research organizations (once processing of the specimens is performed in-house), will set up Nebula to accelerate growth in Q4 2023 and onward. Finally, Nebula's collaboration with G42 Healthcare, a leading Abu-Dhabi based AI health-tech company, continues to be a major wildcard with the possibility to help transform ProPhase into a global competitor.

- **BEsmart™, the company's esophageal cancer test,** enables early detection that identifies and quantifies the biomarkers associated with esophageal cancer (as well as other diseases) with high accuracy. This is a dramatic advance over the current methodology which has pathologists viewing a biopsy under a microscope and making diagnoses too late; 80% to 90% of people diagnosed with esophageal cancer, the 6th leading cause of cancer related deaths, will die of esophageal cancer. ProPhase will initially target people who are already getting endoscopies, eliminating a big sales force since the focus is on the physicians doing the procedures. With numerous specimens being studied under a microscope, just a sliver of a tissue specimen is needed for PRPH's tests. The results provide highly accurate readings showing if a patient is developing esophageal cancer.

- **BEsmart™ will be widely known by gastroenterologists in the US in one year**, according to ProPhase, which is actively presenting the strong results of its test at major cancer conferences and working on key opinion leaders and leading cancer institutes to garner support. The company recently hired an expert to facilitate a Medical CPT code, which is critical to streamlining reporting and increasing accuracy and efficiency, as well as for claims processing and developing guidelines for medical care review. An average of ~7 million people in the US get endoscopy (upper) procedures related to GERD, or Gastroesophageal reflux disease and Barret's Esophagus, with ~2 million for only Barret's Esophagus. At a projected cost of $1,000 to $2,000 per test, this translates to an addressable market for BEsmart in the range of $2 billion to $14 billion.

- **Linebacker-1 has potential as both a co-therapy and individual cancer drug**, with a positive outlook for pharma collaborations based on analysis of recently announced results in initial studies with Eurofins. ProPhase expects further updates in the coming weeks relating to studies at Dana-Farber Cancer Institute in the Harvard University Society.

- **ProPhase Diagnostics' CLIA lab business will ramp in 2H 2023**, once validations are complete, to become a fully diversified clinical lab (blood, urine, toxicology, and more) that integrates a state-of-the-art genomic testing lab, initially performing the early steps (i.e., extraction) of WGS in one location. Management believes that the same expertise that enabled it to build a thriving COVID business is proving to be a great advantage: relationships with regulatory agencies and relationships with suppliers and customers will ensure that ProPhase can meet the burgeoning demand, especially in genomics processing. Increased efficiencies between ProPhase's lab technologists, sessioners, customer service people and its IT platform are also key factors.

- **Pharmaloz Manufacturing has demand for at least $25 million of revenues in 2024**. Management is constrained by only how quickly it can build out the additional capacity, which is happening this year. Currently, revenues are running at nearly 100% growth year over year. ProPhase had been committed to its manufacturing business to keep the infrastructure and distribution in place and maintain its network of 40,000 food, drug, and mass retail in the United States. Now that revenue is growing at nearly 100% per year and demand is surging, ProPhase has a premium facility and customer base that is capable of expanding in the US and globally, in addition to supporting aspects of ProPhase's businesses, including Equivir, an OTC anti-viral that management expects to be market ready in late 2023.

FINANCIAL HIGHLIGHTS

ProPhase Labs: Financial Results for Q1 2023

Net revenue of $19.3 million for the three months ended March 31, 2023, as compared to $47.5 million for the three months ended March 31, 2022.

Net Income of $0.6 million, or $0.03 per diluted share, for the three months ended March 31, 2023, as compared to net income of $12.5 million, or $0.68 per diluted share, for the same quarter one year earlier.

Adjusted EBITDA of $3.1 million for Q1 2023, as compared to adjusted EBITDA of $14.6 million for the quarter ended March 31, 2022.

Cash, cash equivalents and marketable equity securities of $15.6 million and working capital of $42.8 million as of March 31, 2023.

Overall gross margin was 54.5% in Q1 2023 versus 60.3% for the same period one year ago.

Gross margin for diagnostic services was 64.0% and 62.8% in the 2023 and 2022 comparable periods, respectively. The increase was mainly due to (i) increased efficiencies in lab processing, (ii) a decrease in sample collection costs and (iii) a decrease in the cost of test materials.

Gross margin for consumer products was 25.5% and 17.8% in the 2023 and 2022 comparable periods, respectively. Gross margin for consumer products has historically been influenced by fluctuations in quarter-to-quarter production volume, fixed production costs and related overhead absorption, raw ingredient costs, inventory mark to market write-downs and timing of shipments to customers.

Diagnostic services costs for Q1 2023 were $1.2 million compared to $4.7 million for the quarter ended March 31, 2022. The decrease of $3.5 million was due to decreased COVID-19 testing volumes in 2023 compared to the 2022 period, which saw a spike in COVID-19 testing as a result of the Omicron variant, which emerged in late 2021.

General and administration expenses for the three months ended March 31, 2023, were $8.3 million as compared to $7.8 million for the three months ended March 31, 2022. The increase of $0.5 million in general and administration expenses was principally related to an increase in personnel expenses and professional fees associated with our diagnostic services business.

Research and development costs for the three months ended March 31, 2023, were $144,000 as compared to $35,000 for the three months ended March 31, 2022. The increase in research and development costs for the three months ended March 31, 2023, as compared to the same period one year earlier was principally due to increased activities at ProPhase Biopharma, Inc. These activities include product research and field testing.

ProPhase's short-term financial performance is dependent on its ability to transition the diagnostics business, which has thus far been focused on COVID-19 testing, into more sustainable diagnostics services.

The company's success with executing on its COVID-19 testing and the growth to date for Nebula Genomics support the view that ProPhase will be up and running with its full-service clinical lab before Q4 2023. To date the principal sources of capital to fund operations have been diagnostic services, genomics sequencing, product sales, net proceeds from the offering of equity securities, and issuances of promissory notes. Based on management's current business plans, PRPH estimates it will have enough cash and liquidity to finance its operating requirements at least until May/June 2024.

Third Stream Research refrains from earnings estimates and other financial projections due to the total uncertainty of assumptions in the analysis of development-stage technology and life science companies.

ProPhase Labs, Inc. – Financial Highlights: FY 2017 to Present

Fiscal Years (Dec. 31)	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	Q1 2023
(In millions)						
Total Revenues	13.1	9.9	14.5	79.0	122.6	19.3
Total Revenues (CAGR 1Y %)	33.0	(24.7)	47.0	444.6	55.2	(59.4)
Gross Profit	4.8	2.6	4.6	42	70.7	10.5
Gross Profit Margin %	36.4	26.5	31.7	53.1	57.6	54.5%
EBITDA	(1.3)	(2.8)	(3.5)	13.0	34.2	2.2
EBITDA Margin %	-	-	-	16.5	27.9	11.2
Net Income	(1.6)	(3.1)	(2.3)	6.3	18.5	0.2
Net Income Margin %	-	-	-	7.9	15.0	2.8
Diluted EPS ($)	(0.14)	(0.27)	(0.20)	0.40	1.02	0.03
Capital Structure						
Diluted Shares Outstanding	11,396	11,564	11,595	18,393	18,651	18,061
Total Cash and Short Term Invest.	8.2	1.4	8.5	17.3	17.4	15.6
Total Debt	-	-	14.7	14.9	5.6	14.1
Enterprise Value (EV)	27.2	21.2	118.3	106.8	120.4	162.0
Cash Flow Analysis						
Cash from Operations	(2.1)	(0.8)	(2.6)	(13.6)	28.6	0.5
Capital Expenditure	(0.1)	(0.2)	(1.7)	(4.2)	(3.9)	(3.3)

Source: Koyfin, FactSet

Liquidity and Capital Resources

Cash and equivalents as of March 31, 2023, were $9.6 million as compared to $9.1 million as of December 31, 2022 (marketable securities of $5.9 million not included). Over the same two periods, working capital was $42.8 million and $44.8 million, respectively. The increase of $0.5 million in cash position was primarily due to the proceeds from the sale of marketable debt securities of $1.3 million, proceeds issuance of notes payable of $7.6 million, and $0.5 million cash provided by operating activities, offset by (i) the asset purchase of Stella of $2.9 million, (ii) repurchase of common shares for payment of statutory taxes due on cashless exercise of options for $5.4 million, (iii) repurchase of common shares for $0.5 million and (iii) capital expenditures of $0.5 million.

Stock Buybacks and Cash Dividends

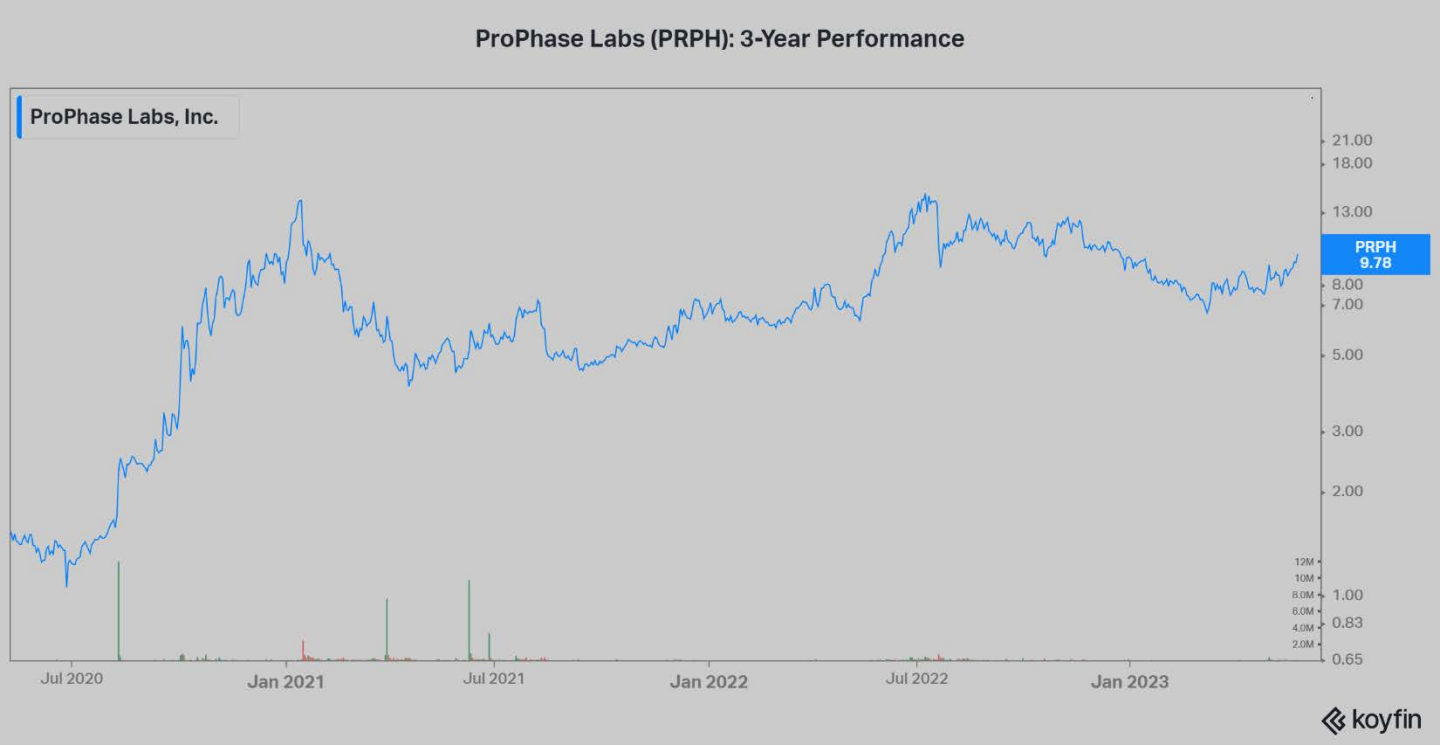
In 2022, ProPhase returned a total of 1.3 million shares to the company from the combination of its common stock repurchase plan and cashless stock options exercised at a total value of $11.3 million. PRPH recently announced a new $6 million dollar stock repurchase program. Under the new program, repurchases may be made, from time to time, over a six-month period through open market transactions. The company's previous stock buyback program expired in February 2023.

On May 9, 2022, ProPhase declared a special cash dividend of $0.30 per share on the company's common stock, paid on June 4, 2022, in the amount of $4.7 million to holders of record as of May 25, 2022.

On February 14, 2022, ProPhase declared a special cash dividend of $0.30 per share on the company's common stock, paid on March 10, 2022, in the amount of $4.6 million to holders of record on March 1, 2022.

PRPH Shares Climb 47% Since Low in March 2023

ProPhase experienced a downtrend from November 8, 2022, through March 10, 2023, suffering a decline of 47%. This slide was precipitated by PRPH's Q3 2022 financial results. It was apparent that certain market participants were relying on a rigid financial model that disregarded crucial intangible factors and emerging narratives. PRPH shares have now rebounded 47% since the March low. **We believe that greater understanding of ProPhase's resolute transition this year, coupled with a wider recognition of the values in the genomics, biopharma, diagnostics, and manufacturing subsidiaries, will attract new and larger investors. ProPhase has reoriented itself around a foundation of assets with multiple avenues for growth that will lead to significantly higher prices over the next 12 to 24 months.**



RISK FACTORS

Risks exist for any development stage company in the life science industry. ProPhase is not immune to potential setbacks, despite vastly improved fundamentals over the last two years. We highlight primary factors that deserve recognition:

- For the year ended December 31, 2022, ProPhase saw a significant increase in net revenues due to its substantial COVID-19 testing volumes, particularly during Q1, Q2 and Q3 of 2022. In Q4 2022, testing volumes significantly decreased as COVID-19 testing demand slowed. There can be no assurance that demand for PRPH's COVID-19 testing services will continue to exist in the future due to the widespread and effective vaccination of a majority of Americans against COVID-19 and successful containment efforts. If there is no demand for ProPhase's COVID-19 testing services, and the company is unable to generate sufficient profits from other Respiratory Pathogen Panel (RPP) Molecular tests, its business could be materially adversely affected.

- Billing for ProPhase's diagnostic tests is complex, time-consuming and expensive. Depending on the billing arrangement and applicable law, PRPH may bill different parties for its tests. This includes billing customers directly, as in the case of our hospital and other medical institution customers, as well as billing through Medicare, Medicaid, insurance companies and patients, all of which may have different billing requirements. ProPhase may face increased risk in its collection efforts due to the complexities of these billing requirements, including long collection cycles and lower collection rates, which could adversely affect its business, results of operations and financial condition.

- ProPhase's customer base for its COVID-19 and influenza tests is principally comprised of governmental bodies, municipalities, and large corporations who pay the company directly or through third-party payors. In March 2020, the Coronavirus Aid, Relief, and Economic Security Act (the "CARES Act") was enacted, providing for reimbursement to healthcare providers for COVID-19 tests provided to uninsured individuals, subject to continued available funding. Approximately 31.5% and 57.6% of PRPH's diagnostic services revenue for the years ended December 31, 2022, and 2021, respectively, was generated from this program for the uninsured. On March 22, 2022, the Health Resources & Services Administrations ("HRSA") uninsured program stopped accepting claims for COVID-19 testing and treatment due to the lack of sufficient funds. Despite requests from the Acting Director of the Office of Management and Budget and the White House Coordinator for COVID-19 Response for additional emergency funding for the uninsured program, emergency funding has not been allocated to the HRSA uninsured program. ProPhase continues to perform limited testing for uninsured persons and is incurring the accompanying costs.

- ProPhase is involved in the early development of biopharma compounds and drugs. Clinical trials are expensive, time consuming, and subject to uncertainty. There is no guarantee that any of the company's clinical trials will be conducted as planned or completed on schedule, if at all. Issues may arise that could suspend or terminate clinical trials. A failure of one or more of the company's clinical trials may occur at any stage of testing. Clinical trials may fail to adequately demonstrate the safety and efficacy of product candidates and the development of product candidates may be delayed or unsuccessful, which could prevent or delay regulatory approval and commercialization.

About Third Stream Research

Third Stream Research covers the new generation of emerging growth companies that are successfully leveraging digital transformation. We focus on the powerful trends impacting revenue growth, margin expansion, capital allocation, and corporate valuation. Our investment perspectives serve Wall Street's buy-side and sell-side. Joshua Levine, principal at Third Stream Research, has more than 30 years of experience in the financial markets, most recently as Senior Research Analyst of Digital Economics for 451 Research, a division of S&P Global Market Intelligence, where he established the research channel focusing on the intersection of macroeconomic and IT industry trends. Third Stream Research provides both independent research and sponsored research and advisory services to help technology-intensive firms with market capitalizations up to $1 billion build recognition of intrinsic value in the Wall Street community. Our market intelligence is built on the data and information we accumulate on the 1,000+ companies in our scope, but the centrality of intangible factors and qualitative analysis defines our process.

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