

ProPhase Labs Inc. – Pharnaloz Manufacturing Inc.'s Value Potentially Surpasses ProPhase Labs' Market Cap, With Other Business Segments Advancing and Near-Term Commercialization of Equivir and BE-Smart

ProPhase Labs Inc. (NASDAQ: PRPH)

Share Price: \$5.04

Valuation: \$21.00



Key Statistics

52 Week Range	\$4.05 – \$9.94
Avg. Volume (3 months)	24.23K
Shares Outstanding	18.05M
Market Capitalization	\$90.95M
EV/Revenue	1.7x
Cash Balance*	\$1.61M
Analyst Coverage	4

*Cash balance as of December 2023

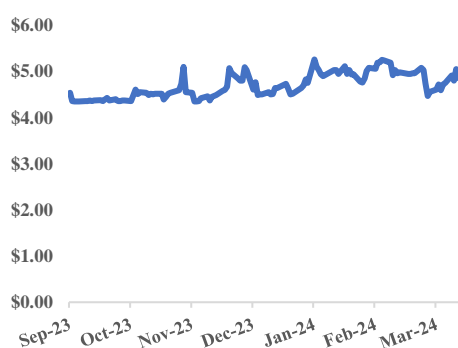
Revenue (in \$mm)

Dec - FY	2023A	2024E	2025E
1Q	19.30	15.72	31.13
2Q	13.22	18.35	33.31
3Q	8.37	23.85	35.64
4Q	4.35	29.65	38.18
FY	45.24	87.57	138.26

EPS (in \$)

Dec – FY	2023A	2024E	2025E
1Q	0.03	(0.15)	0.10
2Q	(0.20)	(0.08)	0.12
3Q	(0.30)	0.04	0.12
4Q	(0.51)	0.09	0.14
FY	(0.98)	(0.10)	0.48

Stock Price Chart



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Investment Highlights

- FY 2023 Financial Results Update:** For the fiscal year ending December 31, 2023, ProPhase Labs, Inc. continued investing in its high growth segments:
 - ProPhase Labs has optimized its laboratory operations, shifting from primarily focusing on Covid-19 and clinical lab services to establishing itself as a premier Whole Genome Sequencing facility. Boasting an advanced genomics laboratory in New York, which allows for in-house processing rather than outsourcing internationally, the company is on a clear path to transform its current direct-to-consumer approach into an expansive business-to-business strategy. The growth potential for this segment is considerable. Simultaneously, the company has fast-tracked the enhancement of its Pharnaloz Manufacturing facility's capacity. The surge in both global and domestic demand for lozenge production capabilities, coupled with a shrinking capacity both in the U.S. and abroad, has positioned the company as a sought-after partner for leading lozenge brands. The projected increase in capacity is expected to substantially boost revenue and profits in the future. This particular subsidiary may surpass the total market valuation of ProPhase Labs and has the potential for further expansion in subsequent quarters. In addition to these developments, the company is preparing to launch several promising initiatives in the latter half of 2024. Among these are the BE-Smart Esophageal Cancer test, an innovative diagnostic solution for a largely untapped market worth billions, and Equivir, a comprehensive antiviral that will be marketed as a dietary supplement. Considering the intrinsic value of these assets and their growth prospects, this presents an exceptionally appealing investment proposition.
 - Net revenue saw a decrease of 63.1%, falling to \$45.2 million from the previous year's \$122.6 million. This decline was primarily due to a substantial decrease in diagnostic services revenue, which dropped by \$83.5 million, attributed to reduced COVID-19 testing volumes. Conversely, consumer products revenue increased by \$6.1 million. Cost of revenues for the year was \$29.0 million, down from \$52.0 million in 2022, reflecting a decrease in costs associated with diagnostic services and an increase in costs for consumer products. General and administrative expenses slightly increased to \$34.5 million, up from \$34.4 million, mainly due to increases in personnel, marketing, and professional fees associated with strategic initiatives. Research and development costs rose to \$1.4 million from \$0.7 million, reflecting heightened activities at ProPhase BioPharma, including product research and field testing. The fiscal year ended with a net loss of \$16.8 million, or \$(0.98) per share, compared to net income of \$18.5 million, or \$1.17 per share, in 2022. Cash, cash equivalents, and restricted cash totaled \$2.1 million, down from \$9.1 million, with working capital decreasing to \$26.7 million from \$44.8 million. This reduction in cash positions was influenced by operational cash use, asset purchases, statutory tax payments on stock transactions, share repurchases, investments, and capital expenditures, offset by various financing activities.
 - Other financial highlights include securing a low-interest rate mortgage for the Pharnaloz plant in Q4 2023. Post-year-end developments include over \$3.6 million realized from the partial sale of an investment, over \$2.5 million raised by securitizing receivables, and an increase in monthly accounts receivable collections, reflecting a strategic approach to strengthening the company's financial position amidst challenging conditions.
- Valuation:** ProPhase Labs has been continuously targeting growth across multiple subsidiaries, which is marked by strategic expansions, innovative product offerings, and substantial revenue growth potential. We have updated our valuation model to account for the latest financial results and upgraded our estimates based on latest disclosed segment details. Additionally, we have re-assessed our SOTP approach, yielding an increased valuation of \$21.00 per share (from \$20.00), contingent on the company's successful execution.

Company Description

ProPhase Labs, Inc. (Nasdaq: PRPH) is a diversified diagnostic, genomics, and biotech company seeking to leverage its CLIA lab services to provide whole genome sequencing and research directly to consumers and build a genomics database to be used for further research. The company also operates a contract manufacturing subsidiary and offers the TK Supplements line of dietary supplements, which are distributed in food, drug, and retailer stores.

Please see last page for important disclosures

- Pharmaloz Manufacturing, Significantly Scaling Production and Revenue Growth:** Pharmaloz Manufacturing reported revenues of over \$9 million in FY2023, driven by efficiencies from new automation equipment. The subsidiary is targeting to significantly increase its capacity, with revenue goals of \$30 million to \$45 million with the installation of a second lozenge line by Q3 2024 and further to \$90-\$100 million with a 20-25% pre-tax net profit margin upon adding two more lines by the first half of 2025. Pharmaloz is capitalizing on the global shortage of lozenge manufacturing capacity, engaging in late-stage negotiations with four major brands in need of an FDA-approved manufacturer. Recent achievements include signing deals worth over \$5 million in annual revenues, with production already started for one. Future expansions could significantly increase these figures. Engineering efforts have outlined a plan to expand up to seven lozenge lines within four years, potentially pushing annual capacity to over \$250 million. Additionally, the subsidiary is ahead of schedule in acquiring new liquid fill equipment, poised for delivery in Q2, allowing for the introduction of higher-margin business lines. A price increase of 15.2% has been accepted by existing customers for production beginning in 2024. Pharmaloz also successfully passed a 3-year FDA audit with no citations, underscoring its commitment to quality and regulatory compliance.
- Whole Genome Sequencing Expansion Underscored by Continuous Client Wins:** In a strategic move to expand its global footprint, Nebula Genomics has entered a significant business-to-business partnership with MenaDNA, a well-established distribution firm, enhancing its international reach. Furthermore, Nebula is on the verge of finalizing another major international deal potentially worth \$10-\$20 million in annual revenues, with more significant agreements in the final stages of negotiation. To strengthen its operational capabilities, Nebula acquired a second high-capacity whole genome sequencing machine, working towards an optimized, automated workflow for high-efficiency, low-failure genomic sequencing. This addition doubles the subsidiary's low pass whole genome sequencing (WGS) capacity, enabling it to potentially handle over 2 million specimens annually and potentially generate \$150 to over \$200 million in revenue. Nebula Genomics stands out in the genetic testing industry by analyzing over 99% of human DNA, significantly surpassing the typical ancestry tests that cover less than 1%. Its proprietary bioinformatics platform delivers in-depth genetic health insights, including rare genetic mutations and ancestry information, at highly competitive prices. The subsidiary ensures data security with top-tier cyber protection measures. The company also enhanced its team by hiring key industry veterans and optimizing clinical laboratory personnel. A new service offering includes genetic counseling for direct-to-consumer customers, adding value to its comprehensive genetic testing solutions.
- BE-Smart Esophageal Cancer Test Imminent Commercialization Planned for 2H 2024:** The BE-Smart Esophageal Cancer Test has progressed with the completion of additional samples that are currently under analysis by Stat King, a division of Genesis Drug Discovery and Development. This step is aimed at further confirming the test's sensitivity and specificity rates, which are already exceeding 90%. The company is also actively engaging in commercialization discussions with various global partners, aiming for a market launch in the latter half of 2024. Concurrently, BE-Smart is on schedule to acquire Current Procedural Terminology (CPT) codes by mid-2024, which will facilitate insurance reimbursements, marking a significant step towards commercial viability. Collaborations with CDx Diagnostics are enhancing the test's multistage prediction algorithm through the analysis of multiple samples from individual patients. Innovatively, BE-Smart is developing an 'advanced traffic light' system to stratify cancer risk into four categories—green, yellow, orange, and red—enabling tailored treatment strategies. This nuanced risk assessment model has the potential to become a standard requirement by insurance providers for endoscopies in Barrett's Esophagus patients, emphasizing its clinical importance. Furthermore, the subsidiary is advancing in its assessment of RNA Seq data to confirm the presence of eight major proteins identified by the BE-Smart test, which are under patent protection. This also includes verifying the absence of significant expression of proteins currently considered the gold standard in diagnosis. This comprehensive validation process emphasizes BE-Smart's competitive edge over existing technologies, solidifying its standing as a notable advancement in esophageal cancer diagnostics.
- Equivir Initial Trial Results Indicate Potential Breakthrough in Respiratory Health:** Equivir, another subsidiary under ProPhase Labs, Inc., has achieved significant milestones in its clinical development. The subsidiary successfully completed enrollment of over 329 patients, with the last participant starting at the beginning of 2024. Interim results from the first 152 patients at the 90-day mark have been particularly promising. The data revealed that 68% of the total number of upper respiratory incidents occurred in the placebo group, compared to only 32% in the Equivir group, indicating a strong potential for Equivir in potentially reducing upper respiratory incidents. The initial data surpassed expectations, with the full dataset expected to be available by the end of June 2024. In anticipation of these positive outcomes, Pharmaloz is preparing to increase the production of Equivir capsules, targeting a product launch in the second half of 2024. Equivir is also advancing its market strategy through collaborations with distribution partners, aiming to secure a presence in over 40,000 food, drug, and mass retail stores. This extensive distribution network positions Equivir for significant impact upon its launch, highlighting the potential for widespread adoption and success in the marketplace.

Company Overview

ProPhase Labs, Inc. (NASDAQ: PRPH), based in Long Island, NY, USA, has been working on developing and providing varied healthcare products and services to the broad public and other institutions. Founded in 1989, the company offers a vast array of clinical diagnostics and testing services at its Clinical Laboratory Improvement Amendments (CLIA) certified laboratories, including polymerase chain reaction (PCR) testing for SARS-CoV-2 (COVID-19), Influenza A, Influenza B and Respiratory syncytial virus (RSV). It also possesses advanced technologies for genomics sequencing and testing; and specializes in the development, manufacturing, and marketing of over-the-counter (OTC) health and wellness products. Cold-EEZE, its flagship product, sold to Mylan Pharma in 2017, helped bring in liquidity amounting to \$50 million, and the company still continues to contract-manufacture the lozenges in its Pharmedol (PMI) manufacturing facility. The company's manufacturing facility is located in Pennsylvania, and its testing facilities are located in New Jersey and New York. It distributes its products to major retailers across the United States, including Walmart, Walgreens, CVS Health Corporation, and Amazon, among others.

ProPhase Labs provides diverse clinical diagnostics and testing services at its CLIA-certified labs, including PCR testing for COVID-19 and Influenza A/B. It also features cutting-edge genomics technologies and specializes in producing and marketing OTC health products



Exhibit 1: The Five Divisions of ProPhase Labs. Source: Company Presentation

ProPhase Labs began with a focus on developing, manufacturing and marketing innovative pharmaceutical products. In its early years, the company primarily focused on developing drugs for the treatment of common health conditions, such as allergies and respiratory diseases. However, in the late 1990s, the company shifted its focus to over-the-counter (OTC) health and wellness products, recognizing the growing demand for convenient and accessible health solutions. Of late, the company has acquired many companies from diverse domains, thus expanding its presence in the healthcare industry. Nebula Genomics, ProPhase Diagnostics, Inc., ProPhase BioPharma, Inc., and TK Supplements, among others, are some of the better-known names in the respective industries and have helped ProPhase Labs expand its product portfolio. Nebula Genomics, Inc's acquisition brought a whole array of genome sequencing and related technology into the company's portfolio of offerings. It comprises a comprehensive methodology for analyzing entire genomes, including the genes and chromosomes in DNA whose data can help in identifying, analyzing, and taking preventive measures for breaking the progression of various inherited disorders. Eventually, the data acquired from sequencing can be adapted to develop targeted therapeutics.

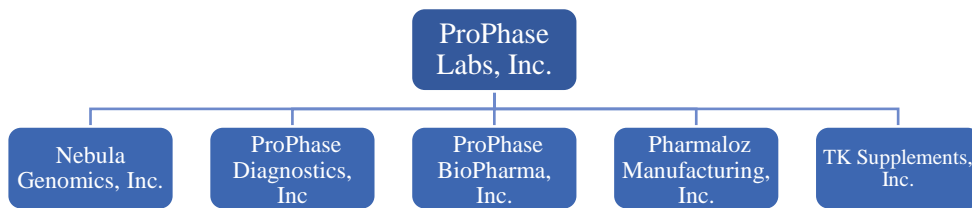


Exhibit 2: Company Structure. Source: Company Filings, Diamond Equity Research

Foraying into biotechnology, the company formed a wholly-owned subsidiary, ProPhase BioPharma, Inc, which focuses on creating and formulating new compounds. The IP of the company includes Equivir and Linebacker, of which it possesses exclusive worldwide development and commercialization rights. Equivir, a dietary supplement available OTC and Equivir G, available by prescription, has shown potential against various serious viral outbreak-associated viruses. The company is conducting a large multi-center trial to show its efficacy. The trial is set to conclude in Q3 2023, with an anticipated Q4 2023 OTC dietary supplement launch. The Linebacker portfolio features proprietary compounds LB1 and LB2, which, in initial in-vitro tests, have shown promise for cancer co-therapy, bacterial and viral infections, and neurological and pain modulation.

ProPhase BioPharma – Developing Novel Diagnostic and Therapeutic Products

The wholly-owned subsidiary was created to diversify the company's portfolio, tap into the growing potential of these industries, and leverage existing resources and expertise to develop innovative solutions for various medical conditions, such as viral infections and cancer. This strategic decision to create the biopharma division is expected to foster synergies with other business divisions by leveraging existing resources, expertise, and infrastructure. The company unveiled two licensing agreements for Equivir (dietary supplement) and Equivir G (Rx), both broad-spectrum antivirals and Linebacker LB-1 and LB-2, small-molecule PIM kinase inhibitors which also encompasses the current portfolio of licensed compounds under development. Additionally, the company acquired the exclusive global rights to BE-Smart Esophageal Pre-Cancer diagnostic screening test.

The biopharma division aims to enhance synergies with other divisions, utilizing existing resources and expertise

BE-Smart Esophageal Pre-Cancer Diagnostic Screening Test: Targeting a Large Underserved Market

Seeking to acquire proprietary diagnostic technology that is synergistic with its laboratory diagnostic business, ProPhase Labs Inc. signed an asset purchase agreement to [acquire exclusive global rights](#) to BE-Smart Esophageal Pre-Cancer diagnostic screening test and related intellectual property assets. The transaction, which closed in January 2023, had an approximate value of \$4.5 million, comprising \$3.5 million in cash and \$1 million in ProPhase common stock. Moreover, contingent payments amounting to an additional \$2 million in stock and royalties are to be

executed upon the successful commercialization of the test. The BE-Smart test is a diagnostic screening tool aimed at the detection of esophageal cancer before it develops, particularly for patients with Barrett's Esophagus (BE), a condition where the esophageal lining becomes damaged by acid reflux, leading to thickening and redness which increases the risk of developing esophageal adenocarcinoma.

Esophageal cancer (EC) is marked by high mortality, unfavorable prognosis at diagnosis, and substantial histopathological differences depending on the geographic region. EC ranks as the eighth most prevalent cancer globally and the sixth leading cause of cancer-related fatalities, with a 5-year survival rate below 25%.¹ Early-stage EC typically does not present specific symptoms. The two main histological subtypes, esophageal squamous cell carcinoma (ESCC) and esophageal adenocarcinoma (EAC) make up over 90% of EC cases. A retrospective study examining the epidemiology and outcomes of 23,804 EAC and 13,919 ESCC patients found that the majority were diagnosed at stage IV (classified as distant and metastatic), resulting in the worst outcomes.¹ The 5-year survival rate for distant esophageal cancer is a mere 6%. This late-stage diagnosis leading to poor prognosis and significantly reduced survival rates highlights the urgent need for effective screening strategies to enable early detection of ESCC and EAC, ultimately reducing morbidity and mortality. The BE-Smart Test has the potential to be a standard and effective screening test while drastically improving patient outcomes and survival rates.

The BE-Smart test has been tested on over 200 human samples by mProbe, in collaboration with Dr. Christopher Hartley, Dr. Joe Abdo, and Mayo Clinic. The test has shown more than 99% accuracy in identifying critical differences in cell abnormalities related to esophageal cancer.² This accuracy was also confirmed in a separate study using RNA sequencing data. In addition, the test was 100% accurate in detecting invasive cancer in biopsy samples that did not show clear signs of cancer when analyzed using traditional methods.² The accuracy of the test was later verified through follow-up testing using other methods, like surgery or endoscopic ultrasound.

Equivir Line of Products

Equivir is a blend of FDA-approved polyphenols (Myricetin, Hesperidin, and Piperine), designated as Generally Recognized as Safe (GRAS), designed to be taken in capsule form, either as a multivitamin or at the onset of symptoms. It has been hypothesized and is currently being evaluated in a multi-center trial that the composition is believed to block the entry of viruses, such as influenza, rhinovirus, Ebola, and SARS-COV2, into host cells, thus preventing infection and replication. While Equivir is under assessment as an over-the-counter (OTC) product, Equivir G, a blend of polyphenols akin to Equivir with the addition of Gallic acid, is being investigated as a prescription-based antiviral treatment.

Equivir, a blend of FDA-approved, GRAS-designated polyphenols (Myricetin, Hesperidin, Piperine), is a capsule taken as a multivitamin or when symptoms begin

¹ Then EO, Lopez M, Saleem S, Gayam V, Sunkara T, Culliford A, Gaduputi V. Esophageal Cancer: An Updated Surveillance Epidemiology and End Results Database Analysis. World J Oncol. 2020 Apr

² Company Press Release

EQUIVIR AND EQUIVIR G



MYRICETIN

Polyphenol found in vegetables, fruits, nuts, berries, tea, and red wine

Proposed function: Point-source intracellular inhibition
Hypothesized to Inhibit TNF- α , which drives ICAM-1 expression
Potentially Down regulates
↓ ICAM-1
Helicase
Neuraminidase



HESPERIDIN

Polyphenol found in citrus fruits

Proposed function: Extracellular inhibition
Hypothesized to Partially migrates to skin, lung, and nasal tissue

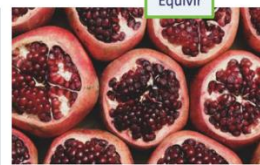
Potentially Down regulates
↓ TNF- α
ICAM-1
VCAM-1
ATPase
↓ IL-1 β
IL-6
IL-8
IL-12



PIPERINE

Alkaloid found in black pepper

Proposed function: Increases trans-membrane permeability/bioavailability



GALLIC ACID

Classified as a Phenolic acid found in pomegranate extract, sumac, witch hazel and grape seed extract.

Proposed function: Adhesion molecule and cell infiltration, has bacteriostatic and antioxidant activities, MAPK and NF- κ B signaling pathway

Exhibit 3: Polyphenols Found in Equivir and Equivir G. Source: Company Presentation

Linebacker Line of Products

ProPhase BioPharma, Inc. (PPIO) has entered into a licensing agreement for the Linebacker portfolio (LB-1 and LB-2), consisting of two patented small molecule PIM kinase inhibitors with substantial potential across various therapeutic areas, including cancer, inflammation-related conditions or symptoms, and memory-related syndromes, diseases, or symptoms such as dementia and Alzheimer's disease. Linebacker is a versatile therapeutic platform aimed at addressing metabolic, neurological, cancerous, and infectious diseases. This platform was inspired by the U.S. Defense Advanced Research Projects Agency (DARPA) Panacea Project, which focuses on providing innovative, multi-target therapeutics for unaddressed physiological needs. Linebacker is a modified polyphenol derived from Myricetin, a widespread plant-based flavonoid known for its potent antioxidant, anticancer, antidiabetic, and anti-inflammatory properties. A growing body of evidence has reported that myricetin supplementation displays therapeutic activities in a lot of nervous system disorders, such as cerebral ischemia, Alzheimer's disease, Parkinson's disease, epilepsy, and glioblastoma.³ Mechanistic studies have shown that inhibition of oxidative stress, cellular apoptosis, and neuroinflammatory response are common mechanisms for the neuroprotective actions of myricetin.³

PIM kinase inhibitors are a class of therapeutic agents that target the PIM kinases, a family of serine/threonine kinases. PIM kinases consist of three isoforms: PIM-1, PIM-2, and PIM-3. These kinases are involved in various cellular processes, including cell cycle progression, cell survival, and proliferation. PIM kinases are overexpressed in various types of cancers, such as hematological malignancies and solid tumors, and contribute to cancer cell survival, drug resistance, and tumor progression. Inhibition of PIM kinases has been recognized as a promising therapeutic strategy for the treatment of various cancers. PIM kinase inhibitors act by blocking the activity of PIM kinases, which in turn can lead to the suppression of cancer cell growth & survival

³ Li J, Xiang H, Huang C, Lu J. Pharmacological Actions of Myricetin in the Nervous System: A Comprehensive Review of Preclinical Studies in Animals and Cell Models. Front Pharmacol. 2021 Dec 16

and enhancement of the efficacy of other anticancer therapies. These inhibitors have shown potential in preclinical and clinical studies for the treatment of different cancer types and are being actively investigated for their role in cancer therapy.

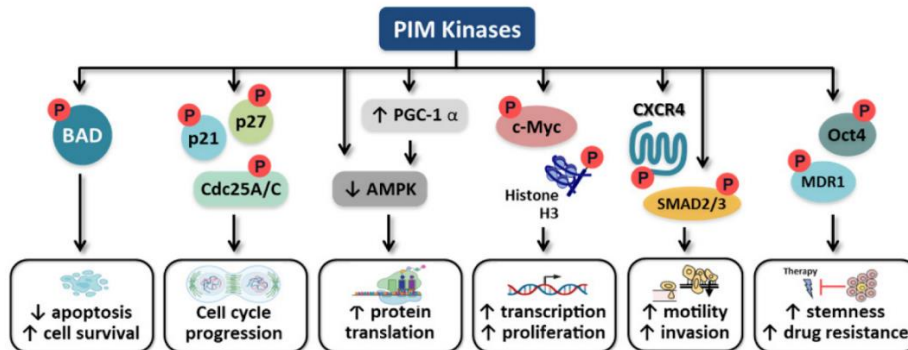


Exhibit 4: PIM Kinases Pathways of Carcinogenesis. Source: [Julson JR et al.](#)

Nebula Genomics

ProPhase Labs' acquisition of Nebula Genomics marks a strategic move towards precision medicine and the integration of genomics in healthcare. This strategic acquisition took place on August 10, 2021, and is a part of ProPhase's goal to empower individuals in managing their health through DNA analysis. Nebula Genomics brings cutting-edge DNA sequencing technology and molecular laboratory prowess to the table. Their advanced whole genomics sequencing (WGS) and testing technologies enable in-depth exploration of human genes and chromosomes. Nebula, a company with significant brand equity, has gained recognition from major media outlets and is HIPAA and GDPR compliant. Successfully selling in over 130 countries, Nebula has achieved 67% global penetration in WGS market. Their robust B2B pipeline contributes to 30% of their whole genome sequencing volume, supplying clinical-grade data to research institutions, CROs, healthcare systems, and pharmaceutical offices. This strong global presence and B2B sales have helped create a digital biobank with over 250 trillion genomic data points. Additionally, Nebula Genomics is poised to significantly enhance its marketing and go-to-market (GTM) strategy by collaborating with best-in-class marketing and advertising partners known for their expertise in scaling digital health products. ProPhase Labs is set on a mission to make personal genome sequencing more accessible and affordable. They aim to provide clients with extensive genetic insights that could transform their lives, from detecting hereditary disorders to forecasting disease risk and even understanding the genetic mutations driving cancer progression.

Nebula Genomics offers advanced DNA sequencing and molecular lab expertise. Their whole genomics sequencing and testing technologies enable in-depth exploration of human genes and chromosomes

The company aims to integrate Nebula's whole genome sequencing (WGS) services with ProPhase's clinical diagnostic testing services, including its CLIA-certified laboratories, in an effort to yield synergistic benefits, boost sales and reduce cost overlapping. Additionally, by utilizing its wide-reaching distribution network that encompasses over 40,000 food, drug, and mass retail stores, ProPhase endeavors to expand the availability of Nebula's genomic sequencing services to a larger audience. Initial retailers include the three largest pharmacy chains and two of the three largest mass retailers in the U.S. The company is also investigating research applications for its genomics testing services, establishing collaborations with universities, and providing them with more accessible, low-cost WGS options.

Genomic Solutions Providing Crucial Insights

Nebula Genomics' solution is driven by the innovations of George Church, Ph.D., a Professor of Genetics at Harvard Medical School and Chairman of the company's Scientific Advisory Board. Dr. Church has been at the forefront of developing various DNA sequencing methods, including molecular multiplexing approaches that enable next-generation sequencing (NGS) and nanopore sequencing. Nebula offers a comprehensive solution for whole genome sequencing, providing valuable insights to consumers and creating a robust data set for research purposes.

Plan	Discount	Price	Membership	Total Price
Deep	62% OFF	\$249	\$200	\$644
Ultra Deep	59% OFF	\$899	\$200	\$1,094
Standard	-	\$99	\$200	\$299

Deep
Whole Genome Sequencing
62% OFF
\$249 ⁶⁴⁹
Plus Nebula Explore™ Membership

- Deep ancestry report
- Detects all predispositions
- Detect rare genetic mutations
- High accuracy
- Requires Nebula Membership

Membership: Lifetime (\$200) Total: \$644

Ultra Deep
Whole Genome Sequencing
59% OFF
\$899 ²¹⁸⁴
Plus Nebula Explore™ Membership

- Ultra deep ancestry report
- Detects all predispositions
- Detect rare genetic mutations
- Ultra high accuracy
- Requires Nebula Membership

Membership: Lifetime (\$200) Total: \$1,094

Standard
Whole Genome Sequencing
\$99 ²⁹⁹
Plus Nebula Explore™ Membership

- Basic ancestry report
- Detects common predispositions
- Requires Nebula Membership

Membership: Lifetime (\$200) Total: \$299

Why is there a membership?

Exhibit 5: Nebula Genomics Solutions. Source: Company Website

- **Affordable direct-to-consumer WGS:** Nebula Genomics is the first company to bring the cost of whole genome sequencing below \$300, making it more accessible to a broader range of consumers. The company's current cost for whole genome sequencing tests is priced at \$249.
- **Comprehensive genetic data:** The company's whole genome sequencing test decodes approximately 6.4 billion base pairs of the human genome, generating high-quality data that surpasses most competing services. Nebula's tests sequence each position in the whole genome an average of 30 times which is the current gold standard for accuracy in genetic sequencing.
- **Personalized reports and exploration tool:** Nebula Genomics provides over 300 personalized reports based on an individual's genomic profile, accessible via a secure online portal. Additionally, the company offers exploration tools like a gene browser and gene analysis tool, enabling customers to further analyze and understand their genetic data.

Leveraging Ever-Expanding Nebula Library to Build a Subscription-Based Business Model

The company's whole genome sequencing test is just one aspect of its offering. Committed to making cutting-edge scientific discoveries easily accessible and comprehensible, Nebula Genomics has introduced the Nebula Research Library - a repository of research publications and

genomic discoveries. Updated weekly, this library offers personalized reports based on the latest genetic findings and features over 300 genome-wide association studies (GWAS). The Nebula Research Library provides guidance on understanding the outcomes of genome-wide association studies, such as polygenic scores that represent the impact of identified genetic variants. Nebula Genomics provides customers with up-to-date genomic findings through a subscription model, offering updated reports and new insights based on the latest scientific research and adding these discoveries to the Nebula library for personalized information on genetic traits such as ancestry and health. Furthermore, the subscriber also enjoys unlimited use of genome exploration tools and premium support provided by geneticists.

Although mandatory, the company's subscription cost is more than justifiable as it offers customers a dynamic and constantly evolving understanding of their genetic traits. By ensuring access to the latest research findings, cutting-edge features, and tools, the subscription model empowers individuals to make well-informed decisions based on up-to-date genetic insights. Furthermore, this approach supports ongoing research in the field, driving new discoveries and enhancing the value provided to customers over time.

Partnership With G42 HealthCare

Nebula Genomics, Inc., previously announced a collaboration with G42 Healthcare aimed at leveraging each company's strengths to create a synergistic effect on their genomic sequencing capabilities, global healthcare offerings, and market reach. G42 Healthcare is a prominent Abu Dhabi-based health-tech organization utilizing AI and advanced medical technologies with a focus on tapping into the possibilities of customized and preventive care to revolutionize the conventional healthcare framework. The combination of Nebula Genomics' expertise in direct-to-consumer whole genome sequencing and G42 Healthcare's advanced sequencing facilities and AI technologies is expected to result in a more efficient and accurate genetic testing process, giving both companies a possible edge over competitors. Additionally, the collaboration facilitates market expansion for Nebula Genomics into high-growth, underserved markets like the UAE and the Middle East. G42 Healthcare is a global leader in whole genome sequencing, particularly in the UAE, with the goal of sequencing one million residents as mandated by the Emirati Genome Program. They have currently completed sequencing for about 200,000 individuals. This collaboration allows Nebula Genomics to benefit from G42 Healthcare's advantageous pricing on consumables due to their high volume of sequencing, resulting in more efficient and cost-effective processing of specimens. Furthermore, the partnership is expected to enable operational efficiencies and cost savings through the sharing of genomic data insights, best practices, and advanced certifications, which can be passed on to customers accelerating sales growth.

ProPhase Labs has substantially expanded its headquarters in Garden City, New York, and established a new genomics laboratory equipped with top-tier next-generation sequencing technology. This development allows the company to conduct whole genome sequencing and provide an extensive range of genetic testing services for both clinical and research objectives. In conjunction with building out the state of the art lab, Nebula continues to enhance its partnership with G42 thereby offering nearly unlimited capacity to allow for the rapid growth of both its B2B and DTC businesses. In conclusion, the alliance between Nebula Genomics and G42 Healthcare represents a strategic step towards a future where genomic data plays a crucial role in shaping healthcare decisions. The companies' combined expertise in advanced sequencing technologies

Nebula Research Library is a regularly updated repository of research publications and genomic discoveries. It offers personalized reports from over 300 genome-wide association studies (GWAS) and guidance on understanding outcomes like polygenic scores, representing the impact of identified genetic variants

and diagnostics positions them to offer personalized and accurate genetic testing services to a wider audience. Additionally, by possessing the most advanced and sophisticated genome sequencing facility in the East Coast region, ProPhase has the potential to establish itself as the premier destination for genetic sample processing collected by all 'virtual' companies across the United States.

Contract Manufacturing - Pharmaloz Manufacturing, Inc.

ProPhase Labs, Inc’s wholly-owned subsidiary, Pharmaloz Manufacturing, Inc. (PMI), serves as a full-service contract manufacturer and private label developer specializing in non-GMO, organic, and natural-based cough drop lozenges, OTC drugs, and dietary supplement products. The company’s 60,000 sq. ft. climate-controlled facility on 12 acres operating under FDA 21 CFR 210 & 211 guidelines provides the ability to offer products for diversified needs. The acquisition of new equipment throughout 2023 has significantly increased capacity and profitability leading into 2024. The company is also in the midst of a more massive expansion of its lozenge manufacturing business for 2024 and 2025. Altogether, these expansion initiatives are expected to lead to a 350% increase in capacity for 2024 as compared to 2022 with even more growth projected in 2025. This increased capacity aligns with the growing demand for PMI's products and services, allowing for potential revenue growth.

Pharmaloz Manufacturing, Inc. (PMI), a wholly-owned subsidiary of ProPhase Labs, is a full-service contract manufacturer and private label developer for non-GMO, organic, and natural-based cough drops, OTC drugs, and dietary supplements

TK Supplements – Utilizing Core Competencies

The TK Supplements product line of the company focuses on promoting better health, energy, and sexual vitality. The product line includes two key offerings: Legendz XL, a male sexual enhancement supplement, and Triple Edge XL, an energy and stamina booster.

The company's commitment to using high-quality, research-based ingredients demonstrates a dedication to product efficacy and customer satisfaction. This approach can contribute to a strong brand reputation, which may result in increased sales and customer loyalty. The distribution channels for Legendz XL are promising, with availability in major retailers like Rite Aid, Walgreens, CVS, and Walmart, as well as through e-commerce platforms. The recent expansion of distribution to CVS and Walmart indicates growing market acceptance and potential for increased sales. Triple Edge XL is also gaining retailer acceptance, with a recent restaging strategy at CVS. By reducing the package size from 56ct to 20ct, the retail price became more competitive, resulting in a double-digit increase in consumer sales and a 40% expansion in the number of stores carrying the product. Based on this performance, Triple Edge XL is under review for authorization in other major pharmacies, which may lead to further growth in distribution and sales.

The global dietary supplements market is expected to grow at a CAGR of 8.40% in the next decade, driven by factors such as rising health awareness, an aging population, and increasing disposable income in emerging markets

Appendix

Income Statement	FY2022 A	FY2023 A	FY2024 E	FY2025 E	FY2026 E
Net sales	122,647.0	45,236.0	87,573.8	138,272.2	196,639.5
Cost of sales	(51,993.0)	(28,997.0)	(44,488.6)	(70,503.8)	(100,074.6)
Gross profit	70,654.0	16,239.0	43,085.3	67,768.4	96,564.9
Operating expenses					
Diagnostic expenses	(12,022.0)	(1,932.0)	(694.3)	(758.4)	(828.5)
General and administrative expenses	(34,385.0)	(34,502.0)	(40,588.2)	(50,147.4)	(58,398.0)
Research and development expense	(652.0)	(1,418.0)	(2,627.2)	(4,148.2)	(3,932.8)
Income from Operations	23,595.0	(21,613.0)	(824.5)	12,714.3	33,405.5
Interest income	153.0	78.0	71.0	242.0	144.3
Interest expense	(764.0)	(1,275.0)	(1,112.2)	(1,112.2)	(1,112.2)
Change in fair value of investment securities	(76.0)	-	-	-	-
Other income	-	10.0	-	-	-
Profit before exceptional items, extraordinary items and tax	22,908.0	(22,800.0)	(1,865.6)	11,844.1	32,437.6
Impairment of secured promissory note receivables	-	-	-	-	-
Employee seperation cost	-	-	-	-	-
Profit before tax from continuing operations	22,908.0	(22,800.0)	(1,865.6)	11,844.1	32,437.6
Income tax (expense) benefit	(4,445.0)	6,018.0	-	(2,487.3)	(6,811.9)
Net earnings including noncontrolling interests	18,463.0	(16,782.0)	(1,865.6)	9,356.8	25,625.7

Exhibit 6: Income Statement Snapshot. Source: Diamond Equity Research

Risk Factors

The success of ProPhase Labs Inc's business is dependent on its ability to navigate a range of risks and uncertainties associated with the healthcare industry. Some of the key risks that could impact the company's financial performance and operations include the following:

- **Product Liability Risks:** ProPhase Labs Inc may face product liability claims if its products cause harm to consumers. While the company has product liability insurance in place, any successful claims against its branded products or third-party products exceeding the insurance coverage could result in increased expenses and impact its reputation with customers negatively. This would ultimately have a material adverse effect on its business, financial position, and top-line numbers.
- **Cybersecurity Risks:** ProPhase Labs, Inc. receives and stores substantial personal information and genetic data of both its customers and employees, which may be vulnerable to cyber threats, such as data breaches, hacking, and ransomware attacks. These threats could compromise the security of its data and systems, leading to financial losses and reputational damage.
- **Technological & Competitive Risks:** The healthcare technology market is highly competitive, and ProPhase Labs Inc must compete with other companies that are also developing and implementing new technologies. ProPhase Labs Inc's success may depend on its ability to develop and implement new technologies, such as digital health platforms and telemedicine, to improve healthcare outcomes and patient care. Any failure to adapt to changing technologies could harm the company's competitiveness and profitability. These challenges could delay the launch of new products or services, increase costs, or impact the quality of its products and services.
- **Acquisition and Integration Risks:** ProPhase Labs Inc pursues acquisitions as a means of growing its business and expanding its market share. It may face risks associated with acquisitions and integrations, such as the failure to integrate acquired businesses, the loss of key personnel, and the failure to achieve expected synergies. This could impact employee morale, productivity, and the ability to achieve expected results.
- **Regulatory Compliance Risks:** Being a pharmaceutical and diagnostic company, ProPhase Labs Inc. is subject to stringent regulations from the FDA and HIPAA. The company must comply with FDA regulations to ensure the safety and effectiveness of its products and to obtain regulatory approval for new products. The company, as a provider of healthcare products and services, must also comply with HIPAA regulations to protect the privacy and security of patient information. Failure to comply with these regulations or obtain necessary approvals can have significant impacts on business operations, the company's reputation, and the ability to operate in the healthcare industry.

These risk factors are not comprehensive for full risk factors, please review ProPhase Labs Inc's relevant SEC filings with risk factors.

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