

ProPhase Labs Inc. – Pharmed Manufacturing Inc.'s Value Potentially Surpasses ProPhase Labs' Market Cap, With Nebula Genomics Holding Even Greater Potential over the next 6-12 months. Imminent commercialization of Equivir and BE-Smart Provide Investors Additional Upside Optionality.

ProPhase Labs Inc. (NASDAQ: PRPH)

Share Price: \$4.95

Valuation: \$20.00



Key Statistics

52 Week Range	\$4.05 – \$9.94
Avg. Volume (3 months)	25.40K
Shares Outstanding	18.05M
Market Capitalization	\$89.32M
EV/Revenue	1.8x
Cash Balance*	\$0.70M
Analyst Coverage	4

*Cash balance as of September 2023

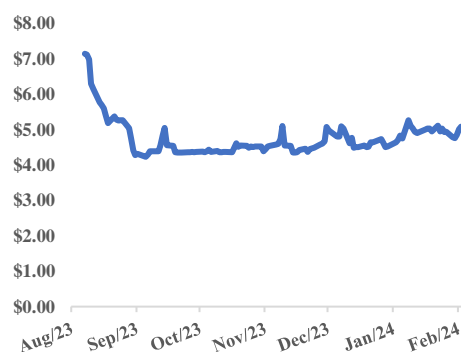
Revenue (in \$mm)

Dec - FY	2022A	2023E	2024E
1Q	47.53	19.30	17.75
2Q	29.09	13.22	19.28
3Q	24.20	8.37	21.02
4Q	21.82	11.01	25.20
FY	122.65	51.90	83.25

EPS (in \$)

Dec – FY	2022A	2023E	2024E
1Q	0.81	0.03	(0.11)
2Q	0.48	(0.20)	(0.09)
3Q	0.06	(0.30)	(0.05)
4Q	(0.15)	(0.25)	0.03
FY	1.17	(0.72)	(0.22)

Stock Price Chart



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Investment Highlights

- Key Client Wins and Expansion Plans Fuel Strong Near-Term Growth Momentum:** Pharmed Manufacturing Inc. (PMI) is experiencing notable growth momentum, propelled by strategic initiatives that strengthen its position in the Contract Development and Manufacturing Organization (CDMO) market, especially within the over-the-counter (OTC) segment. In the first quarter of 2024, PMI executed an approximately 15% price hike across its entire product portfolio, capitalizing on robust market demand and a competitive landscape with limited competition, which is expected to significantly boost revenues and profit margins. Additionally, the company secured two new major contracts in January 2024 with two major lozenge brands, anticipated to increase annual revenues by an additional \$5 million and pre-tax profits by an additional \$1.25 million, with projections of further revenue growth as capacity expands. These developments remarkably elevate PMI's estimated revenue run rate to \$16 million by the second quarter of 2024, with an annualized net profit forecast of \$3.2 to \$4 million, translating to a net profit margin of 20-25%. It's important to note that these forecasts exclude revenues from TK supplements, which are estimated to contribute an additional \$2.5 to \$3 million in profitable revenue. PMI also reported that it is in late-stage discussions with an additional two major global lozenge brands. Contracts with either one has the potential to double or triple the \$16 million run rate of estimated business.
- Long Term Growth Trajectory Extremely Positive:** In response to escalating demand, PMI has embarked on an aggressive expansion strategy, underpinned by the recent acquisition of advanced automation equipment. This equipment is expected to augment production capacity by over 50%, raising annual production capabilities to at least \$16 million by Q2 2024. The subsequent installation of a second production line and further automation in Q3 2024 aims to double this new increased capacity to a revenue run rate of \$30-\$35 million, with plans for additional enhancements in Q4 2024 to potentially increase annual production to \$60-\$80 million by mid-2025. By extending the workweek, PMI aspires to reach a milestone of \$100 million in revenue which could in turn generate \$20-\$25 million in net profit. The management's strategic foresight envisions expanding production capacity to \$200 million in annual revenues over the next three years, leveraging positive market reception, and favorable trends in the OTC market.
- ProPhase Labs' Bold Leap Forward with Nebula Genomics:** ProPhase Labs has appointed Jason Karkus as President of Nebula Genomics, marking a significant shift towards expanding its genomics business into the business-to-business space in addition to the direct-to-consumer space. Karkus, known for his leadership in driving ProPhase Diagnostics to a \$200 million revenue milestone from Covid testing, will spearhead Nebula's growth in B2B operations, D2C Whole Genome Sequencing (WGS) offerings, and the operation of a state-of-the-art lab featuring sequencing platforms from several global manufacturers. This move responds to the growing importance of WGS in personalized precision medicine, a field where Nebula has already established a foothold through direct sales and international partner labs. Nebula Genomics aims to transform the WGS consumer market with a competitively priced genetic testing product set to launch in 2024. Historically, high costs have limited the accessibility of WGS for many healthcare providers. However, Nebula's world-class genomics lab located in Garden City, NY now positions it to offer some of the lowest cost sequencing services, making WGS more accessible domestically and globally. This can spark significant interest among telemedicine platforms and physician networks to offer WGS to their patients at a low cost for the first time, which can potentially turn Nebula's B2B initiative into a multi-hundred-million-dollar business within a few years. With strategic partnerships and experienced executives driving the initiative, Nebula Genomics is poised to play a pivotal role in the advancement of personalized precision medicine.
- Valuation:** Considering Pharmed Manufacturing Inc.'s comprehensive expansion strategy, our analysis leads us to conclude that the intrinsic value of Pharmed alone potentially exceeds the current market capitalization of ProPhase Labs. It is important to note that ProPhase Labs encompasses several other valuable entities as well, including Nebula Genomics, BE-Smart esophageal cancer test and Equivir broad based anti-viral. In light of these factors, we reaffirm our valuation of ProPhase Labs at \$20.00 per share, contingent on the company's successful execution of its strategies. Additionally, the goal to commercialize both Equivir and BE-Smart this year could significantly amplify ProPhase Labs' revenue and potentially its valuation.

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

- Equivir Trial Shows Promising Immunity Boost Against Respiratory Viruses:** ProPhase Labs has reported promising preliminary results from the clinical trial of its dietary supplement, Equivir, which is under evaluation for its potential to strengthen immunity against upper respiratory viruses, including colds, flu, and Covid-19, and is designed as a capsule to be taken like a multivitamin. Conducted by Vedic Life Sciences in India, the study involves 300 participants across two double-blind, placebo-controlled trials. The interim analysis shows a significant reduction in viral infection rates and symptom severity for those taking Equivir compared to a placebo. Notably, 62.3% in the placebo group experienced viral infections, compared to only 37.7% of Equivir recipients, with Equivir users also showing quicker recovery and no instances of reinfection. While not seeking FDA drug approval, ProPhase Labs plans to market Equivir as an OTC supplement, with full results to be published after the completion of the second trial in Q2 2024. The company anticipates leveraging its extensive distribution network for a successful product launch in late 2024, and highlights Equivir's potential to significantly contribute to the company's profitability. Furthermore, the product will be encapsulated and packaged at the Pharmedz plant thereby increasing its potential contribution to the bottom line. Following the strategic sale of the Cold-EZEE brand for \$50 million, recent trial results suggest that Equivir may be a broad-based antiviral that can potentially surpass the value of Cold-EEZE. Consequently, management plans to leverage the marketing and distribution channels originally developed for Cold-EEZE, aiming to achieve significant market penetration and impact with Equivir.
- BE-Smart Test Game Changing Technology Nears Commercialization with Broad IP Protection Granted:** BE-Smart is a novel diagnostic test intended to detect and quantify early signs of certain types of cancer in individuals with Barrett's Esophagus, a condition known to significantly increase the risk of developing esophageal cancer. This breakthrough test has shown an area under curve of greater than 99% distinguishing highly impactful histologic classification, identifying whether the biopsied tissue is currently cancerous. Importantly, and what is particularly important to the insurance companies, the test also targets to project whether the patient is at high risk or low risk of developing esophageal cancer. This would allow for a simple procedure to eradicate the pre-cancerous cells and save a significant number of lives. The test has been in development for nearly five years and is nearing the completion of clinical studies. If the clinical trial results are successful, the company will aim for a commercial launch in 2024. Recently, an additional 139 specimens were analyzed in collaboration with The Mayo Clinic for the purpose of assessing the test's precision and reliability in identifying esophageal adenocarcinoma risk. These additional specimens continue to achieve consistently positive preliminary results. All tested samples are currently under review by Genesis Biotechnology Group, a leading independent statistical analysis firm, for independent verification of the results. The company was granted broad-ranging IP that protects its novel approach to identifying biomarkers for use in oncology and other disease types. With an estimated 20 million people suffering from Barrett's Esophagus, the test could have multi-billion-dollar long-term potential.
- BE-SMART Targeting Enormous Market with Imminent Launch:** ProPhase has recently announced the appointment of Jed Latkin as its Chief Operating Officer (COO). Mr. Latkin, holds a Columbia MBA and a distinguished track record in various leadership roles, is poised to significantly enhance ProPhase's trajectory. Notably, he played a key role in representing the seller during ProPhase's acquisition of the BE-SMART Esophageal Cancer Test, underscoring his critical involvement in the company's biotechnological advancements. His extensive background in finance and operations, especially within the pharmaceutical sector, is anticipated to be crucial for the commercialization of the BE-Smart test. The company places significant emphasis on the rollout of the BE-Smart Esophageal Cancer Test, targeting a 2024 launch. This diagnostic innovation is set to potentially revolutionize esophageal cancer screening by offering a novel approach to early detection and treatment, potentially redefining clinical standards in the field. The BE-Smart test specifically targets the initial market of 7 million annual endoscopies conducted for GERD (Gastroesophageal Reflux Disease) and Barrett's Esophagus diagnoses. ProPhase estimates the reimbursement for this test to range between \$1,000 and \$2,000, projecting an initial market potential of \$7 billion to \$14 billion. There is also the potential that insurance companies might mandate the utilization of the BE-Smart test in these endoscopic procedures. Additionally, the possibility of partnering with a major cancer testing company could further amplify its market reach. Thus, with only a minimal investment needed before its commercialization, the BE-SMART test is potentially well-positioned to secure notable market share.

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 Pharmaloz (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.

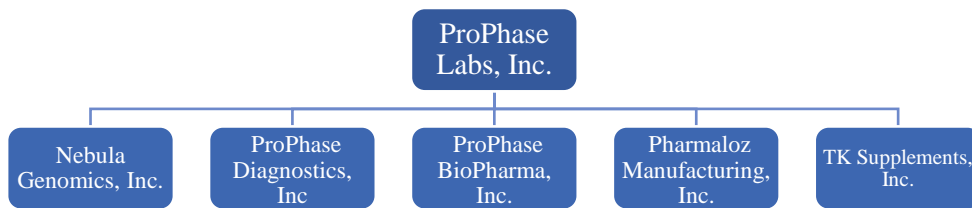


Exhibit 2: Company Structure. Source: Company Filings, Diamond Equity Research

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

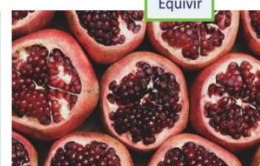
Potentially Down regulates
TNF- α
ICAM-1
VCAM-1
ATPase
IL-1 β
IL-6
IL-8
IL-12



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.

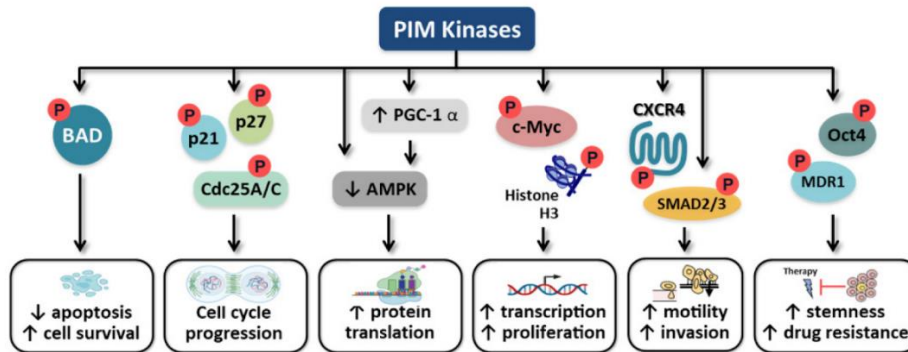


Exhibit 4: PIM Kinases Pathways of Carcinogenesis. Source: [Julson JR et al.](#)

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
\$249⁶⁴⁹¹
Plus Nebula Explore™ Membership

- Deep ancestry report
- Detects all predispositions
- Detect rare genetic mutations
- High accuracy⁹
- Requires Nebula Membership

Membership: _____ Lifetime (\$200) ▼
Total: \$644
[Why is there a membership?](#)

Ultra Deep
Whole Genome Sequencing
\$899²¹⁸⁴¹
Plus Nebula Explore™ Membership

- Ultra deep ancestry report
- Detects all predispositions
- Detect rare genetic mutations
- Ultra high accuracy⁹
- Requires Nebula Membership

Membership: _____ Lifetime (\$200) ▼
Total: \$1104
[Why is there a membership?](#)

Standard
Whole Genome Sequencing
\$99²⁹⁹¹
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.

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

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

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	FY2021 A	FY2022 A	FY2023 E	FY2024 E	FY2025 E
Net sales	79,042.0	122,647.0	51,900.4	83,255.9	131,366.0
Cost of sales	(37,054.0)	(51,993.0)	(27,597.9)	(42,095.6)	(66,651.4)
Gross profit	41,988.0	70,654.0	24,302.4	41,160.3	64,714.6
Operating expenses					
Diagnostic expenses	(9,174.0)	(12,022.0)	(2,052.0)	(517.4)	(565.2)
General and administrative expenses	(22,493.0)	(34,385.0)	(35,304.0)	(38,832.4)	(48,333.7)
Research and development expense	(520.0)	(652.0)	(1,660.8)	(4,995.4)	(7,225.1)
Income from Operations	9,801.0	23,595.0	(14,714.3)	(3,184.8)	8,590.5
Interest income	642.0	153.0	261.6	513.9	384.7
Interest expense	(1,148.0)	(764.0)	(1,113.6)	(1,420.6)	(1,420.6)
Change in fair value of investment securities	(240.0)	(76.0)	-	-	-
Other income	-	-	-	-	-
Profit before exceptional items, extraordinary items and tax	9,055.0	22,908.0	(15,566.4)	(4,091.6)	7,554.7
Impairment of secured promissory note receivables	(3,750.0)	-	-	-	-
Employee separation cost	-	-	-	-	-
Profit before tax from continuing operations	5,305.0	22,908.0	(15,566.4)	(4,091.6)	7,554.7
Income tax (expense) benefit	968.0	(4,445.0)	3,104.0	-	(1,586.5)
Net earnings including noncontrolling interests	6,273.0	18,463.0	(12,462.4)	(4,091.6)	5,968.2

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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