



ProPhaseLabs.com

NASDAQ: PRPH

FORWARD LOOKING STATEMENTS

Except for the historical information contained herein, this document contains forward looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, including statements regarding our strategy, plans, objectives and initiatives, including our expectations regarding the future revenue growth potential of each of our subsidiaries, our expected timeline for commercializing our BE-Smart Esophageal Cancer Test, our expectations regarding future liquidity events, the success of our efforts to collect accounts receivables and anticipated timeline for any payments relating thereto, and our ability to successfully transition into a consumer products company. Management believes that these forward-looking statements are reasonable as and when made. However, such forward-looking statements involve known and unknown risks, uncertainties, and other factors that may cause actual results to differ materially from those projected in the forward-looking statements. These risks and uncertainties include but are not limited to our ability to obtain and maintain necessary regulatory approvals, general economic conditions, consumer demand for our products and services, challenges relating to entering into and growing new business lines, the competitive environment, and the risk factors listed from time to time in our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q and any other SEC filings. The Company undertakes no obligation to update forward-looking statements except as required by applicable securities laws. Readers are cautioned that forward-looking statements are not guarantees of future performance and are cautioned not to place undue reliance on any forward-looking statements.

MARKET AND INDUSTRY DATA

This presentation includes market and industry data and forecasts that the Company has derived from independent consultant reports, publicly available information, various industry publications, other published industry sources, and its internal data and estimates. Independent consultant reports, industry publications and other published industry sources generally indicate that the information contained therein was obtained from sources believed to be reliable. Although the Company believes that these third-party sources are reliable, it does not guarantee the accuracy or completeness of this information, and the Company has not independently verified this information. The Company's internal data and estimates are based upon information obtained from trade and business organizations and other contacts in the markets in which the Company operates and management's understanding of industry conditions.

Although the Company believes that such information is reliable, it has not had this information verified by any independent sources.



PROPHASE LABS BUSINESS VERTICALS

ProPhase has entered into an initiative with Crown Medical Collections targeting over \$50 million in net near-term cash recovery form COVID-19 receivables.

ProPhase BioPharma includes BE-Smart™, a potentially ground-breaking early detection esophageal cancer diagnostic test, with a target market of \$7-14 billion¹. The recent publication of its pivotal validation study in *Clinical and Translational Gastroenterology* confirms BE-Smart's clinical utility, marking a key milestone toward commercialization. Collaborating with world-class consultants to initiate commercialization as a laboratory developed test (LDT) with an eye toward a potential strategic partnership with one of numerous, large cancer diagnostic companies.

Nebula Genomics, co-founded by Dr. George Church, world renowned Professor of Genetics at Harvard Medical School and Massachusetts Institute of Technology. We believe that Nebula's dataset is one of the largest and most diverse genomic datasets in the world, which includes world class proprietary bioinformatics. Nebula has a uniquely diverse 16-petabyte DNA dataset (equivalent to roughly 150 million ancestry SNP-based tests), with samples spanning 130 countries. Includes DNA Complete, a world-class Whole Genome Sequencing and Bioinformatics DTC test offering.

ProPhase Supplements, leveraging deep expertise in direct-to-consumer marketing and sales. Company is developing Equivir as a potential lead product.

Crown Medical Collections\$50 million net accounts
receivable initiative













ProPhase Supplements



Committed to executional excellence, smart diversification, and a synergistic, omni-channel approach

OUR BEST IS YET TO COME! PERFORMANCE TRACK RECORD











2012

2017

2018

2020

2021

Ted Karkus, CEO, restructures and turns around the Company. Stock bottoms at \$.65 per share.

Sold the Cold-EEZE cold remedy brand for \$50m to Mylan Pharmaceuticals.

From 2018 to 2022, delivered shareholder value through special cash dividends of \$2.40 per share in total.

Commenced CLIA lab services for COVID-19 testing. Generated enormous revenues and earnings for the following two years. Cash flow used to diversify the company for long term growth.

Acquisition of Nebula Genomics.
Providing world class whole genome sequencing.













2022

2023

2024

Q4 2024 – Q1 2025

Q1 2025

Q3 2025

Exclusively licensed a broadbased compound, Equivir (Dietary Supplement).

Acquired worldwide exclusive rights to the BE-Smart Esophageal Pre-Cancer diagnostic screening test.
Multi-billion-dollar potential.

Nebula Genomics opened a world class whole genome sequencing (WGS) lab in Garden City, NY. This includes 4 leading platforms of WGS equipment. Capable of providing incredibly low prices which creates major opportunities.

Initiates expansion plan for Pharmaloz Manufacturing. New, automated equipment installed, significantly increasing capacity. Number of customers growing. Revenues and earnings growing going into 2025.* Exploring strategic alternatives including a potential sale of PMI.

Launched DNA Complete and DNA Expand on November 4, 2024.

Plans to introduce Equivir dietary supplement to the marketplace early 2025.

January: Sold Pharmaloz
Manufacturing for \$23.6 million
February: Shut down the genomics
laboratory, saving over \$6 million
per year.

March: Significantly reduced lab IT services and employee headcount saving millions of dollars per year.

August: Announced full USPTO approval for issuance of U.S. patent protecting esophageal adenocarcinoma risk assessment.

Moving forward aggressively with Crown Medical Collections \$50 million initiative.



• Management's analysis and guidance announced by ProPhase Labs on January 23, 2024: https://www.globenewswire.com/en/news-release/2024/01/23/2814037/0/en/Pharmaloz-Manufacturing-Accelerates-Expansion-Improves-Pricing-Boosts-Profitability-and-Secures-New-Contracts.html

CROWN MEDICAL COLLECTIONS

ProPhase has entered into an initiative with Crown Medical Collections targeting over \$50 million in net near-term cash recovery from COVID-19 receivables.

- Crown Medical is so confident in this initiative, their entire compensation for legal work is based on contingency fees; there is
 no cost to ProPhase Labs for this initiative.
- ProPhase has been collaborating with Crown Medical Collections to pursue over \$150 million in uncollected COVID-19 testing
 receivables from more than 1,100 insurance companies.
- Crown's legal strategy is unique and targets insurance companies and their unwillingness to reimburse valid COVID-19 claims
 as defined in the Cares Act.
- After closely reviewing these outstanding claims, Crown estimates that ProPhase could collect in excess of \$50 million dollars
 net of fees, potentially more than double the current amount of COVID-19 receivables recorded on its financial statements.
- Crown Medical's specialization lies in recovering unpaid COVID-19 reimbursements through a robust team of experienced
 attorneys who communicate directly with insurance companies' legal departments.





BE-Smart™ ESOPHAGEAL CANCER DIAGNOSTIC IN FINAL STAGES OF PREPARATION FOR COMMERCIALIZATION

ESOPHAGEAL ADENOCARCINOMA (EAC) - ONE OF THE DEADLIEST CANCERS

- 16,000+ Estimated Deaths in 2023 in the U.S.1
- 78.3% 5-Year Mortality Rate (2013-2019)1
- 21,000+ Estimated New Cases in 2023¹
- The change in the annual incidence of EAC was 766.67% higher in 2017 compared to 1973²
- Journal of American Medical Association once again reported that GI cancers for the 2nd straight decade are the fastest growing cancer type in America³

Gastroesophageal Reflux Disease (GERD) occurs when stomach acid repeatedly flows back into the esophagus. Backwash (acid reflux) can irritate the lining of esophagus. Many experience acid reflux from time to time; for some, GERD may trigger a change in the cells lining the lower esophagus causing Barrett's Esophagus.

Barrett's Esophagus - Esophagus becomes damaged by acid reflux; causes the lining to thicken and become red. Associated with increased risk of developing **Esophageal Adenocarcinoma**.

Discovering pre-cancerous tissue in early and treatable stages may increase disease survival and decrease cost of care. As high as 40% of esophageal carcinoma is missed or found late leading to more unfavorable diagnosis.





^{1- -} https://bit.ly/40ONuqt - Cancer Stat Facts: Esophageal Cancer

^{2- .} https://bit.ly/3KGWGr9 - Epidemiology of early esophageal adenocarcinoma

OPPORTUNITY TO PREVENT ESOPHAGEAL CANCER WITH EARLY AND ACCURATE DIAGNOSIS

Prevalence of GERD in the U.S of 20%¹ (Census 337 million²)

~ 67 million

Prevalence of Barrett's Esophagus in the U.S. is 5.6% of the population³ (Census 337 million²)

~ 18 million

New Cases of Esophageal Adenocarcinoma in U.S. per year⁴

~ 20K

Endoscopy (upper) related to GERD and Barrett's Esophagus average⁵

~ 7 million

1- https://www.ncbi.nlm.nih.gov/books/NBK441938/

Target Market Endoscopies:

~7mm

Estimated average cost per test:

\$1k - \$2k

Total Potential Addressable Market:

~\$7b - \$14b

^{2 -} https://www.census.gov/popclock/

^{3- &}lt;u>https://www.aafp.org/pubs/afp/issues/2022/1000/barret</u>t

esophagus.html#:~:text=Barrett%20esophagus%20is%20estimated%20to,Barrett%20esophagus%20or%20esophageal%20adenocarcinoma

⁴⁻https://pmc.ncbi.nlm.nih.gov/articles/PMC10007944/#:~:text=Carcinoma%20of%20esophagus%20is%20the,for%2016%2C410%20deaths%20(2

⁵⁻https://linkinghub.elsevier.com/retrieve/pii/S0016508521036556

ADVANTAGES OF THE BE-Smart™ ESOPHAGEAL CANCER DIAGNOSTIC COMPARED TO LIQUID BIOPSIES

- ✓ BE-Smart is designed to take EXISTING biopsy blocks from routine endoscopies, which is the standard of care for diagnosis of GERD, Barrett's Esophagus and esophageal adenocarcinoma. No additional samples are needed from patients after the endoscopy. With liquid biopsies, the patient would have to return to the physician's office to draw the blood.
- ✓ BE-Smart is highly sensitive and specific in distinguishing early-stage esophageal adenocarcinoma in studies to date. On the other hand, liquid biopsies require the cancer to spread to neighboring tissue and blood vessels in order to produce detectable markers in the blood.
- ✓ Our BE-Smart test examines the suspicious tissue DIRECTLY, not a bi-product somewhere in the blood. In liquid biopsies, there are factors that can create many false positives and false negatives as the tested markers are at very low concentrations. These factors can be other pathological and non-pathological conditions, including exercise, trauma, and surgery.¹
- ✓ We are testing the affected tissue directly on a clinically proven instrument (mass spectrometer), which is highly sensitive.
- ✓ By directly analyzing the affected tissue, the BE-Smart test is designed to detect early stages of cancer before markers have entered the blood.
- ✓ While we are still studying the test's safety and effectiveness, we believe that the BE-Smart test may have the ability to determine early carcinogenesis. FDA Approved liquid biopsy tests on the market are used to monitor a disease or to determine treatment path of a disease. They are still required to be used in combination with standard tests such as endoscopies.

Conclusion: The utility of BE-Smart is potentially quite significant. The BE-Smart test is designed to determine early carcinogenesis of biopsies in which a pathologist might be on the fence and/or mistakenly classify as non-cancerous. This can literally mean the difference between life and death for the patient. An accurate and early diagnosis can lead to more effective and earlier treatments which can lead to significantly better outcomes for the patient.

BE-Smart™ - ESOPHAGEAL CANCER DIAGNOSTIC

ProPhase is thrilled to appoint Dr. Joe Abdo, former CEO of Stella Diagnostics, to drive the commercialization of its BE-Smart diagnostic asset. With deep expertise in biomarker discovery and gastrointestinal disease management, Dr. Abdo has a proven track record, having launched a prostate cancer blood test and an immunotherapy response assay—both now thriving in the U.S. market.

ProPhase also announced the formation of its Clinical Science Advisory Board to support the clinical adoption and commercialization of the BE-Smart molecular test for esophageal disease.

The advisory board includes **Dr**. **Joe Abdo**, the inventor of the BE-Smart test and a nationally recognized leader in molecular oncology. Dr. Abdo looks to leverage his deep relationships with academia, the Mayo Clinic GI Path department, KUMC gastroenterology and KOLs in the esophageal cancer space.

Also joining the advisory board is **Mr**. James McCullough, founder and CEO of Renalytix and former Chief Executive Officer of Exosome Diagnostics Inc., a pioneer in liquid biopsy diagnostics. Additional key opinion leaders and experts in the field will be added to the advisory board in the near future as the Company plans for its initial commercial launch.

Announced full USPTO approval for issuance of U.S. patent protecting esophageal adenocarcinoma risk assessment.* Issued U.S. Patent No. 12379378-B2 for the Company's biomarker-based systems and methods to assess progression risk in Barrett's esophagus and esophageal adenocarcinoma.

Continued refining the BE-Smart test algorithm with new data analysis, enhancing its accuracy in predicting Barrett's Esophagus risk.

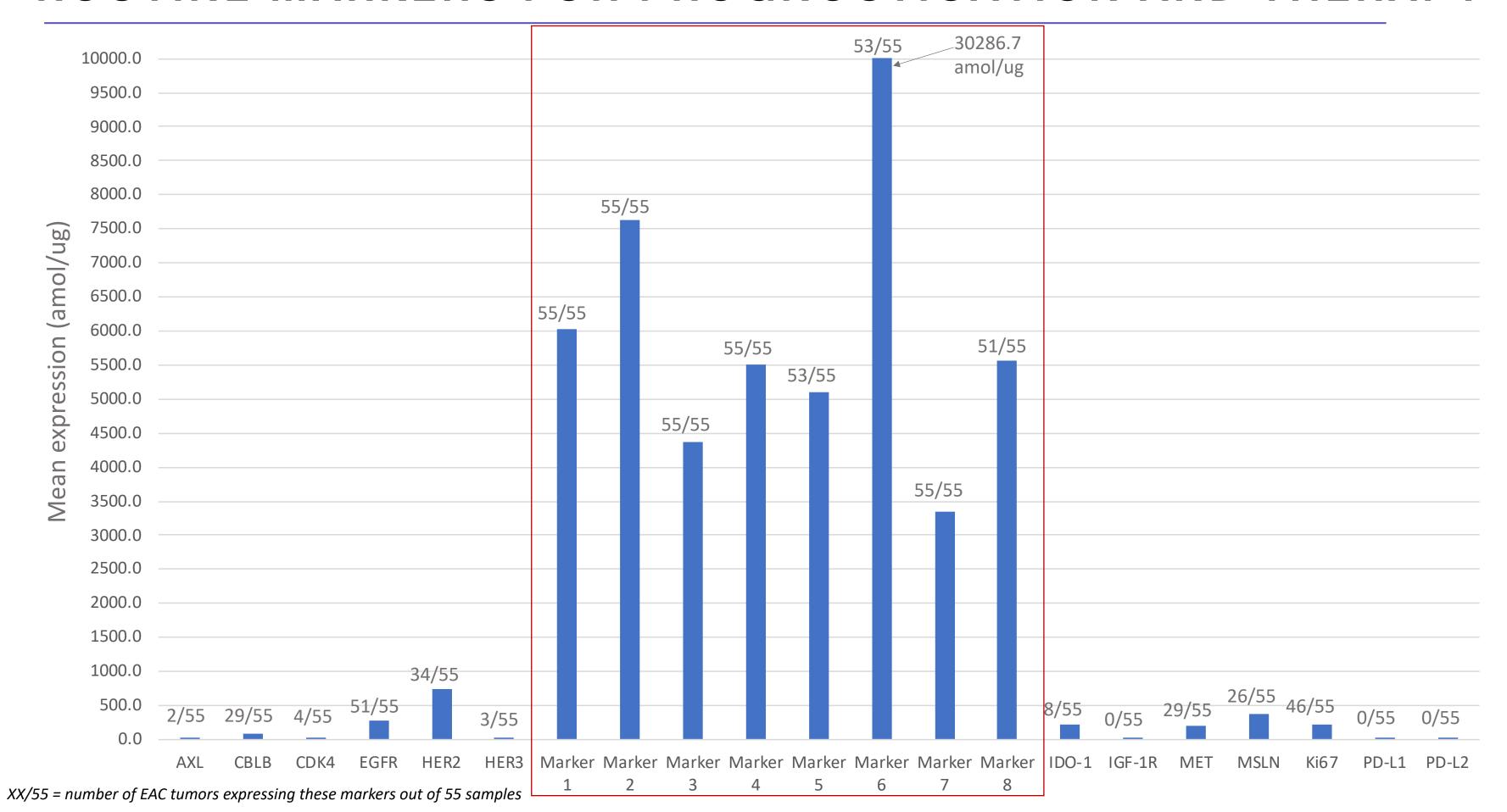
Collaborating with Mayo Clinic and other experts to further validate the test through additional samples, studies and peer-reviewed publications, including the recent publication of a pivotal validation study in *Clinical and Translational Gastroenterology*, which confirms BE-Smart's clinical utility as a risk stratification tool.

ProPhase announced the successful completion of a key validation study evaluating the performance of the BE-Smart™ molecular diagnostic test compatibility with samples obtained from esophageal brush cytology.** The study demonstrated BE-Smart achieved greater than a 95% technical success rate, confirming the BE-Smart's ability to reliably and accurately detect our panel of biomarkers, designed to assess progression risk in Barrett's esophagus and other distal esophageal conditions.

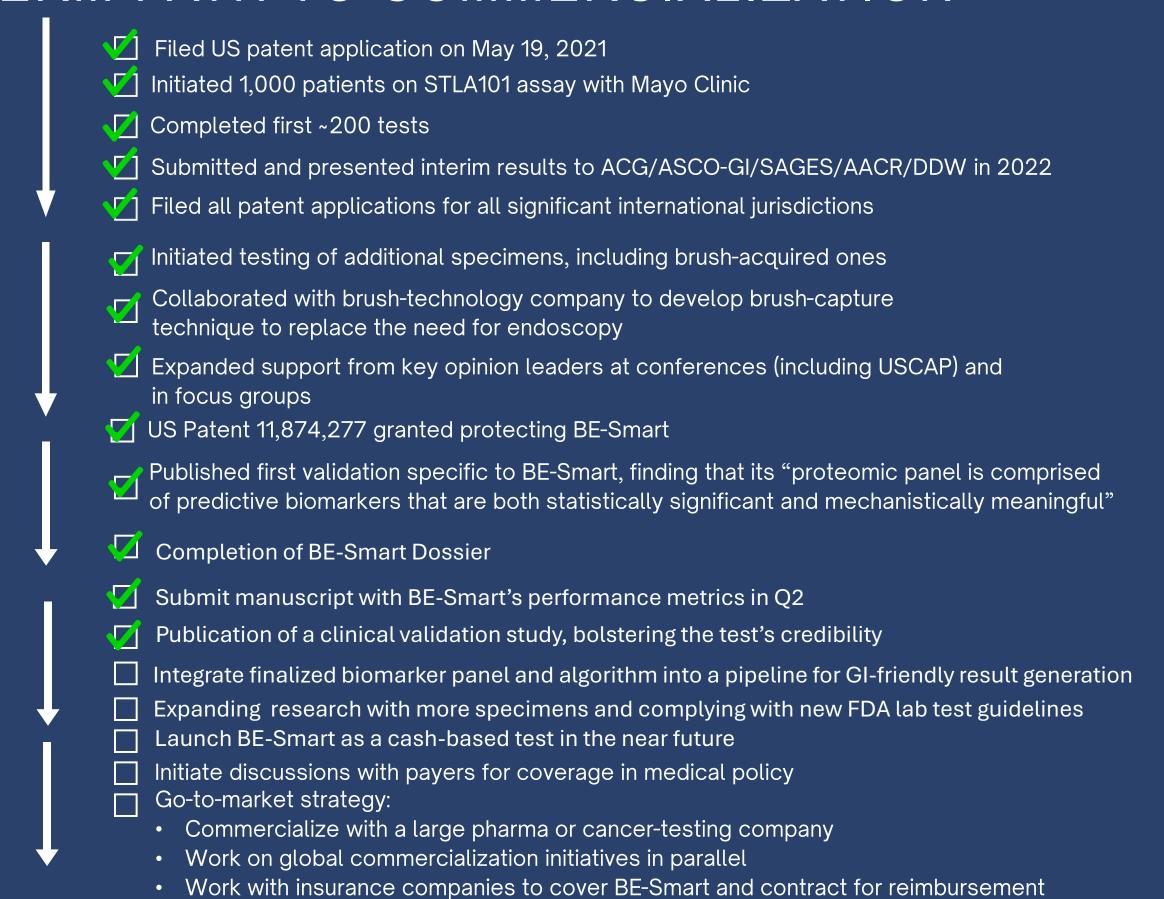
The dual capability of BE-Smart now validated to analyze both "pinch" and "brush" standard of care biopsies enables a powerful tool for comprehensive esophageal disease surveillance and clinical management.



BE-Smart™ - OVEREXPRESSION IN EAC COMPARED TO ROUTINE MARKERS FOR PROGNOSTICATION AND THERAPY



BE-Smart™ - ESOPHAGEAL CANCER DIAGNOSTIC NEAR TERM PATH TO COMMERCIALIZATION









MEET GEORGE CHURCH, FOUNDER OF NEBULA GENOMICS AND SCIENTIFIC ADVISOR

Mission: To usher in the era of personal genomics by providing access to affordable and secure Whole Genome Sequencing.

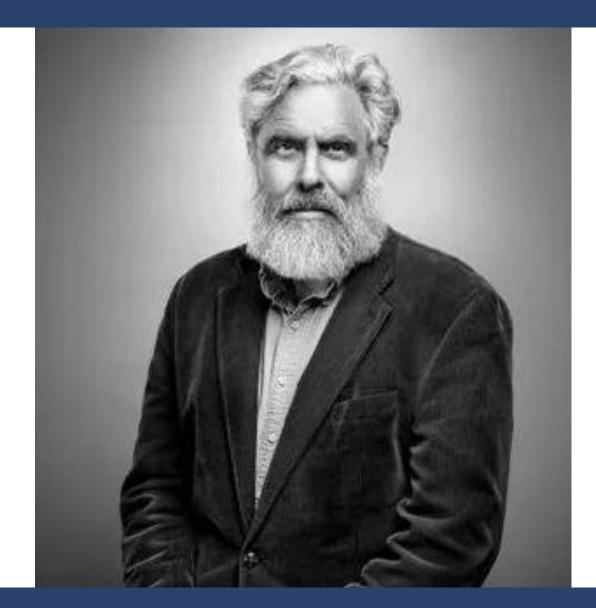
Nebula Genomics turns these breakthrough technologies into B2C and B2B products available around the globe.

Prof. George Church, co-founder of Nebula Genomics; Professor of Genetics at Harvard Medical School and Professor of Health Sciences and Technology at Harvard University and the Massachusetts Institute of Technology (MIT).

Contributed to the development of multiple DNA sequencing methods. In particular, molecular multiplexing approaches that enabled next-generation DNA sequencing as well as long-read nanopore sequencing.

Initiated the Personal Genome Project whose pioneering work contributed to the development of DNA sequencing and genome engineering technologies for which he received multiple awards including the 2011 Bower Award and Prize for Achievement in Science from the Franklin Institute and election to the National Academy of Sciences and Engineering.

Co-authored over 550 publications; more than 150 patents; authored the book, "Regenesis: How Synthetic Biology Will Reinvent Nature and Ourselves"; started over 20 companies.



George M. Church
Professor - Harvard and MIT
Co-founder - Nebula Genomics

NEBULA GENOMICS

- The Company believes that Nebula is a compelling acquisition candidate, offering a uniquely diverse 16-petabyte DNA dataset (equivalent to roughly 150 million ancestry SNP-based tests), with samples spanning 130 countries. We believe that Nebula's dataset is one of the largest and most diverse genomic datasets in the world.
- Nebula delivers full WGS coverage and proprietary bioinformatics, generating over 350 personalized health, wellness and advanced ancestry reports.
- Its scalable, subscription-based revenue model, with strong margins on renewals, further enhances its commercial appeal.
- Recent transactions in the genomics sector, such as the recently announced sale of substantially all of 23andMe's assets to Regeneron for \$256 million (source: Bloomberg, May 5, 2025), highlight the value of large genomic datasets.

DNA COMPLETE® - LAUNCHED NOVEMBER 4, 2024

DNA Complete is a world-class Whole Genome Sequencing and Bioinformatics direct to consumer test offering.

Whole Genome Sequencing ("WGS") Technology

Our WGS DNA technology analyzes virtually 100% of your DNA compared to typical DNA Ancestry tests that analyze less than 1% of your DNA, at a competitive price. This provides more accurate and in-depth health and ancestry reports.

Proprietary Bioinformatics Platform

340+ personalized health pre-disposition reports covering Longevity, Mental Health, Cancer & more.

New Advanced Ancestry platform

Comprehensive ancestry analysis that provides personalized ancestry reports, such as Regional ancestry, Ancestry timeline, Comparison with ancient populations & more.

Data Security

No Third-Party Access to Genomic Data:

DNA Complete ensures that no third parties have access to back-end raw genomic data. All genomic information is securely stored within our infrastructure and is not shared with external entities.

Data Storage and Encryption:

All genomic data is securely stored on AWS (Amazon Web Services) and is encrypted both at rest and in transit, using industry-leading encryption protocols to ensure the highest level of security and privacy.

No Data Sharing for Research or Monetization:

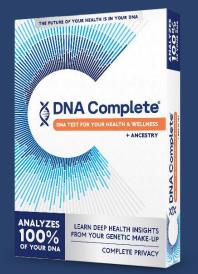
DNA Complete does not share raw genomic data with third parties research companies, for studies or any other purpose. We maintain full control of the data, ensuring it is used solely for the benefit of our users, with no external monetization or unauthorized access.

DNA COMPLETE®

Direct To Consumer Launch of DNA Complete

Shape The Future of Your Health and Explore Your Ancestry with DNA Complete

- Built a comprehensive marketing campaign featuring top influencers, managed by an experienced marketing leader with a proven track record in building global brands. Launched Q4 2024.
- The new offering is designed to deliver a robust genetic user platform, industry-leading pricing and faster turnaround times.
- This new product harnesses our cutting-edge bioinformatics platform and the launch of our proprietary advanced Ancestry platform, offering customers deep analysis of their genomic data.
- Offering genetic counseling services, enhancing the value proposition for customers.





	Essential DNA Test \$195	Pro DNA Test \$495	Elite DNA Test \$1,495
Amount of DNA Analyzed	1X WGS	30X WGS	100X WGS
Accuracy	High accuracy	Higher accuracy	Maximum accuracy
First year of membership included			\
New Reports + Existing Report Updates			
Essential Ancestry Reports	✓	✓	✓
Advanced Ancestry Reports			✓
New Reports Per Month	Up to 3	Up to 5	Up to 10
Total Personalized Health Reports Provided	175+ and counting	250+ and counting	Up to 350+ and counting



DNA EXPAND™

DNA Upload, Expansion and Analysis

- Consumers effortlessly upload their DNA data from other DNA Ancestry tests to unlock our proprietary reports and advanced features.
 - Low cost offering for consumers, makes it a highly attractive offer.
 - Significant gross profit margins presents enormous profit opportunity.
- Expands your DNA data: user's file is boosted with 50x more data after upload, to provide them with significantly more in-depth health and wellness reports compared to typical DNA ancestry tests.
- No need to be tested again. Millions of consumers can easily upload their DNA Ancestry test data from their previous testing. No additional lab sequencing is required. Therefore, DNA Expand can offer low prices while still achieving highly attractive margins.

	DNA Expand Powered by Nebula Genomics	Most Other DNA Data Upload Services
DNA data expansion. Expands raw DNA data more than 50 times to over 35 million genetic variants.		No DNA data expansion.
Superior trait reports. More comprehensive trait reports enabled by DNA data expansion.		Limited trait reports.
New Dynamic Reports. Receive frequent new reports that are based on the latest scientific discoveries.		Reports are updated very rarely.
Privacy First DNA Testing. Technology that enables users to have full ownership and control over their genomic data.		Sell customer genomic data.
Diverse, Extensive Database. Built over the last 6 years from whole genome sequencing tests spanning more than 130 countries, and equivalent to roughly 150 million ancestry SNP-based tests.		Not nearly as extensive.



COMPETENT AND PROVEN EXECUTIVE MANAGEMENT TEAM



Ted KarkusChairman & CEO
ProPhase Labs, Inc.

Ted Karkus, CEO and Chairman of ProPhase Labs, drives the company's diverse and synergistic businesses with his successful track record in biomedical and health companies. He transformed ID Biomedical's strategy and valuation from \$25 million to \$1.4 billion sale to GlaxoSmithKline. As CEO of ProPhase Labs, he restructured the go-to-market strategy for the flagship product Cold-EEZE, turned around and significantly grew revenues, ultimately selling it for \$50 million to Mylan.

ProPhase Labs is a biotech, genomics and diagnostics company with a commitment of growth, innovation, and execution excellence outlined in Ted's high growth roadmap. He pivoted into industry leading CLIA labs, and then further diversified by acquiring genomics leader Nebula Genomics. Constantly innovating, Ted then created ProPhase BioPharma to deliver antivirals, cancer tests and therapeutic cancer compounds. The new acquisitions and legacy businesses work to drive synergistic growth with multi-billion-dollar potential.

He holds a BS in Psychology from Tufts University with Magna Cum Laude Honors and an MBA in Finance from Columbia University School of Business with Beta Gamma Sigma Honors.



Steven M. PlumbFractional CFO
ProPhase Labs, Inc.

Steven M. Plumb is an experienced CPA with over 30 years of experience with a wide range of companies: start up, early stage, mature, in a wide range of industries, both public and private, with a primary focus of helping these clients with their financial reporting responsibilities. Mr. Plumb has extensive experience advising on capital structure, capital raising strategies and SEC reporting.

Mr. Plumb is a former KPMG auditor who is an expert in preparing workpapers for auditors and interfacing with them on behalf of his clients.



Jason Karkus
President
Nebula Genomics &
DNA Complete

Jason was instrumental in the strong revenue growth at ProPhase Diagnostics, leading sales, business development, logistics operations, and account management. He oversaw the development of two CLIA-certified labs, generating approximately \$200 million in revenues since 2021. Jason developed and now oversees DNA Complete and DNA Expand.

Jason is a graduate of the University of Maryland.



Lance Bisesar
Corporate Controller
ProPhase Labs, Inc.

Lance is an accomplished finance leader experienced in all areas of finance and accounting. Lance has over 17 years of experience in working with large brands, both public and private, of varying industries and sizes.

Prior to ProPhase Labs, Lance served in finance leadership roles at multiple large brand companies including Colgate-Palmolive, Casper Sleep, Newmark and Forest Laboratories, where he was responsible for all accounting matters including financial reporting, general accounting, and related internal controls functions. He began his career with five years in public accounting with Marcum LLP. Lance earned a BBA in accounting from Hofstra University. He is a certified public accountant and is a member of the American Institute of Certified Public Accountants.



INVESTMENT HIGHLIGHTS

Completed restructuring and transition to significantly leaner company for H2 2025

- Sold Pharmaloz Manufacturing
- Shut down Nebula Genomics laboratory
- Dramatically reduced headcount
- Significantly reduced IT and related overhead

ProPhase has entered into an initiative with Crown Medical Collections targeting over \$50 million in net near-term cash recovery form COVID-19 receivables.

BE-Smart Esophageal Cancer Test: announced full USPTO approval for issuance of U.S. patent protecting esophageal adenocarcinoma risk assessment. Also announced the successful completion of a key validation study evaluating the performance of the BE-Smart™ molecular diagnostic test compatibility with samples obtained from esophageal brush cytology. The study demonstrated BE-Smart achieved greater than a 95% technical success rate, confirming the BE-Smart's ability to reliably and accurately detect our panel of biomarkers.

The recent publication in *Clinical and Translational Gastroenterology* further validates BE-Smart's clinical utility as a highly sensitive risk stratification tool, advancing its path to commercialization.

DNA Complete/Nebula Genomics is Well Positioned to Capitalize on the Future Growth of Genomics and Personalized Medicine.

Equivir (OTC): Clinically studied dietary supplement with significant potential. Commercialization is to be determined.

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ProPhaseLabs.com

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INSTITUTIONAL INVESTOR RELATIONS

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RETAIL INVESTOR RELATIONS

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