

ProPhase Labs Announces Full USPTO Approval for Issuance of U.S. Patent Protecting Esophageal Adenocarcinoma Risk Assessment

U.S. Patent No. 12379378-B2 protects biomarker-driven systems and methods to assess progression risk in Barrett's esophagus and esophageal adenocarcinoma; issuance follows the successful BE-Smart $^{\text{TM}}$ test validation (>95% technical success) and, together with BE-Smart's demonstrated compatibility with both brush and forceps biopsies, supports earlier detection.

UNIONDALE, NY, Aug. 12, 2025 (GLOBE NEWSWIRE) -- ProPhase Labs, Inc. (Nasdaq: PRPH) (the "Company" or "ProPhase") today announced that the United States Patent and Trademark Office has 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. The patent issuance closely follows ProPhase's June 17, 2025 announcement validating its BE-Smart[™] molecular diagnostic, which achieved greater than a 95% technical success rate in detecting our patented panel of biomarkers, making it suitable for both esophageal brush cytology and forceps biopsies, advancing the early detection and management of esophageal disease. This patent builds on that momentum by protecting the core biomarker methods underlying BE-Smart[™].

Brush biopsies can capture a broader, more representative epithelial cell population, while forceps biopsies provide targeted tissue sampling; by working with both, BE-Smart is designed to enhance early detection and risk stratification in patients with GERD, Barrett's esophagus, and other distal esophageal disorders.

U.S. Patent No. 12379378-B2, originally filed on December 7, 2023, was developed by inventors Joe Abdo, Sumeet K. Mittal, and Devendra K. Agrawal. The patent covers systems and methods for assessing the risk of Barrett's esophagus pathogenesis and esophageal adenocarcinoma progression by detecting key biomarkers such as ISG15, LTF, CNDP2, DAD1, SET, UBE2N, S100P, and GPI, and it underpins the Company's BE-Smart $^{\text{TM}}$ test platform.

Issuance of this patent underscores the strong scientific foundation and clinical relevance of ProPhase Labs' technology. Beyond risk assessment, these patented methods also enable novel treatment approaches - including inhibiting cancer cell proliferation and migration and enhancing tumor susceptibility to cytotoxic therapies - and support more accurate, earlier identification of patients at elevated risk.

"This achievement, coming on the heels of our BE-Smart[™] validation demonstrating greater

than a 95% technical success rate and dual compatibility with both brush and forceps biopsies, solidifies our leadership in medical innovation and brings us one step closer to transforming early detection and treatment strategies for this serious condition," said Ted Karkus, Chief Executive Officer of the Company. Mr. Karkus continued, "With this newly issued patent, we believe we are well positioned to accelerate commercialization and broaden clinical access to BE-Smart."

About ProPhase Labs, Inc.

ProPhase Labs Inc. (Nasdaq: PRPH) is a next-generation biotech, genomics and consumer products company. Our mission is to build a healthier world through bold innovation and actionable insight. We deliver industry-leading Whole Genome Sequencing solutions, develop groundbreaking diagnostics - including BE-Smart[™], a potentially life-saving test for the early detection of esophageal cancer - and operate a world-class direct-to-consumer platform for cutting-edge OTC dietary supplements. We are committed to executional excellence, smart diversification, and a synergistic, omni-channel approach that we believe positions ProPhase for long-term value creation. For more information, please visit www.ProPhaseLabs.com.

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 forwardlooking 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.

No Offer or Solicitation

The information contained in this press release is for informational purposes only and does not constitute an offer to sell or a solicitation of an offer to buy any securities. The statements made herein reflect the Company's current views with respect to potential business opportunities and are based on currently available information, assumptions, and expectations. These statements are not guarantees of future performance or outcomes and are subject to risks and uncertainties. Comparisons to other companies or transactions, if

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