PhaseBio Highlights Real-World Bleeding and Surgery Data Featured at The American College of Cardiology's 70th Annual Scientific Session

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Study leveraging the IBM® MarketScan® claims database examined bleeding events and rates of surgical procedures in patients initiating $P2Y_{12}$ inhibitors, FXa inhibitors or dabigatran

Analyses revealed that patients receiving $P2Y_{12}$ inhibitors had a higher burden of significant comorbid conditions at baseline than patients receiving FXa inhibitors or dabigatran

Results demonstrate patients prescribed $P2Y_{12}$ inhibitors presented bleeding and surgery rates that often exceeded rates observed among patients receiving FXa inhibitors and dabigatran

MALVERN, Pa. & SAN DIEGO--(BUSINESS WIRE)--May 17, 2021-- PhaseBio Pharmaceuticals, Inc. (Nasdaq: PHAS), a clinical-stage biopharmaceutical company focused on the development and commercialization of novel therapies for cardiopulmonary diseases, today highlighted real-world evidence presented over the weekend at The American College of Cardiology's 70th Annual Scientific Session.

The poster presentation summarized an analysis of the IBM® MarketScan® Commercial and Medicare Supplemental claims databases and focused on patients newly initiating a $P2Y_{12}$ inhibitor, factor Xa inhibitor or dabigatran between 2014 and 2018. All patients were required to present ≥1 year of continuous insurance coverage prior to initiating their therapy, and outcomes were measured while patients remained on therapy. Bleeding events were identified utilizing diagnosis codes on emergency room (ER) or inpatient insurance claims. All surgical and invasive diagnostic procedures were classified as urgent if filed as an ER claim or as an inpatient claim with ambulance service. All other surgical and invasive diagnostic procedures were classified as non-urgent. Patient clinical characteristics and demographics were assessed during the baseline period, while outcome measures were assessed during baseline and while patients persistent on their medication.

The results of the analysis demonstrated that patients receiving $P2Y_{12}$ inhibitors presented a significantly higher burden of baseline comorbid conditions than factor Xa and dabigatran patients. Additionally, the results indicate that bleeding complications and medical procedures are common in patients taking antithrombotic medications. Patients prescribed $P2Y_{12}$ inhibitors are at least equally as likely as patients using factor Xa inhibitors or dabigatran to experience a bleeding event while persistent on their medication; in some populations, including the Medicare population, $P2Y_{12}$ inhibitor patients are potentially more likely to experience a bleeding event. Further, compared to the baseline period, lower rates of urgent and non-urgent procedures were observed across most study populations while patients were persistent on their medication, and may indicate the delay of surgical procedures while taking these medications. This possible delay or avoidance of potentially important surgeries and diagnostic procedures could be driven by the bleeding risk that is associated with all of these medications. Reversal agents that have the potential to mitigate bleeding risk exist for factor Xa inhibitors and dabigatran; however, no such agent currently exists for $P2Y_{12}$ inhibitors. As patients treated with $P2Y_{12}$ inhibitors had bleeding and surgery rates that often exceed the rates seen in patients treated with factor Xa inhibitors or dabigatran, PhaseBio and the authors believe this study demonstrates an unmet need for an effective reversal agent for patients prescribed $P2Y_{12}$ inhibitors.

“This analysis of real-world data highlights that the bleeding risk associated with the $P2Y_{12}$ inhibitor class of medications is as significant as what we see with the factor Xa class of anticoagulants and dabigatran,” said Dr. Deepak L. Bhatt, M.D., M.P.H., Executive Director of Interventional Cardiovascular Programs, Brigham and Women’s Hospital Heart & Vascular Center and Professor of Medicine, Harvard Medical School.

Dr. John Lee, M.D., Ph.D., Chief Medical Officer of PhaseBio stated, “With no effective reversal agents currently approved for the $P2Y_{12}$ inhibitor class of therapies, the extent of the bleeding risk and the subsequent impact on potentially important surgeries and procedures may be underappreciated by cardiologists, surgeons and hospital systems. Seeing this side-by-side comparison of these commonly prescribed classes of therapies, and the patients they are prescribed to, helps to contextualize bleeding risk and the potential benefit of specific reversal agents.”

About PhaseBio

PhaseBio Pharmaceuticals, Inc. is a clinical-stage biopharmaceutical company focused on the development and commercialization of novel therapies for cardiovascular and cardiopulmonary diseases. The company’s pipeline includes: bentracimab (PB2452), a novel reversal agent for the antiplatelet therapy ticagrelor; pemziviptadil (PB1046), a once-weekly VIP receptor agonist for the treatment of pulmonary arterial hypertension; and PB6440, an oral agent for the treatment of resistant hypertension. PhaseBio’s proprietary elastin-like polypeptide technology platform enables the development of therapies with potential for less-frequent dosing and improved pharmacokinetics, including pemziviptadil, and drives both internal and partnership drug-development opportunities.

PhaseBio is located in Malvern, PA, and San Diego, CA. For more information, please visit www.phasebio.com, and follow us on Twitter @PhaseBio and LinkedIn.

Dr. Bhatt has received funding paid to Brigham and Women’s Hospital from PhaseBio for his role as the study Chair of REVERSE-IT.

Forward-Looking Statements

This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Words such as “anticipates,” “believes,” “expects,” “intends,” “projects,” and “future” or similar expressions are intended to identify forward-looking statements.

Forward-looking statements include statements concerning or implying the conduct or timing of our clinical trials and our research, development and regulatory plans for our product candidates, the potential for these product candidates to receive regulatory approval from the FDA or equivalent foreign regulatory agencies, and whether, if

approved, these product candidates will be successfully distributed and marketed. Forward-looking statements are based on management's current expectations and are subject to various risks and uncertainties that could cause actual results to differ materially and adversely from those expressed or implied by such forward-looking statements. Accordingly, these forward-looking statements do not constitute guarantees of future performance, and you are cautioned not to place undue reliance on these forward-looking statements.

Risks regarding our business are described in detail in our Securities and Exchange Commission ("SEC") filings, including in our Quarterly Report on Form 10-Q for the quarter ended March 31, 2021. These forward-looking statements speak only as of the date hereof, and PhaseBio Pharmaceuticals, Inc. disclaims any obligation to update these statements except as may be required by law.

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