PhaseRx Commences Voluntary Chapter 11 Bankruptcy Protection Proceeding

SEATTLE, December 11, 2017 - PhaseRx, Inc. (NASDAQ: PZRX), a biopharmaceutical company developing mRNA treatments for life-threatening inherited liver diseases in children, today announced that it has elected to file a voluntary petition under Chapter 11 of the Bankruptcy Code in the U.S. Bankruptcy Court for the District of Delaware.

PhaseRx intends to continue to manage and operate its business under the jurisdiction of the Bankruptcy Court and in accordance with the applicable provisions of the Bankruptcy Code and the orders of the Bankruptcy Court. The company is working with Cowen and Company to review financial and strategic alternatives with the goal of maximizing stockholder value. Potential alternatives, to be explored further and evaluated during the review process, may include a strategic collaboration with one or more parties, or the licensing, sale or divestiture of some, or all, of the company's proprietary technologies.

"The board and management team believe that the decision to voluntarily file for Chapter 11 bankruptcy protection is in the best interests of PhaseRx and its shareholders," said Robert W. Overell, Ph.D., president and chief executive officer of PhaseRx. "The protection afforded under a Chapter 11 filing enables us to continue to explore strategic alternatives, including a potential merger transaction. During this time we expect to continue to operate normally, and are thankful to our dedicated employees whom we expect to remain focused on the advancement of our programs."

About PhaseRx

PhaseRx is a biopharmaceutical company dedicated to developing mRNA products for the treatment of children with inherited enzyme deficiencies in the liver using intracellular enzyme

replacement therapy (i-ERT). PhaseRx's initial product development focus is on urea cycle disorders, a group of rare genetic diseases that generally present before the age of twelve and are characterized by the body's inability to remove ammonia from the blood with potentially devastating consequences for patients. The company's i-ERT approach is enabled by its proprietary Hybrid mRNA Technology™ platform. PhaseRx is headquartered in Seattle. For more information, please visit www.phaserx.com.

Safe Harbor Statement

This press release contains "forward-looking statements." Such statements may be preceded by the words "intends," "may," "will," "plans," "expects," "anticipates," "projects," "predicts," "estimates," "aims," "believes," "hopes," "potential" or similar words. Forward-looking statements are not guarantees of future performance, are based on certain assumptions and are subject to various known and unknown risks and uncertainties, many of which are beyond the company's control, and cannot be predicted or quantified and consequently, actual results may differ materially from those expressed or implied by such forward-looking statements. Such risks and uncertainties include, without limitation, risks and uncertainties associated with (i) the fact that the company may not be successful in consummating any of the strategic alternatives it is exploring; (ii) orders and decisions of the Bankruptcy Court; (iii) any default on the company's credit facility, which could impact its ability to continue as a going concern; (iv) the fact that the company has incurred significant losses since its inception and anticipates that it will continue to incur significant losses for the foreseeable future, (v) the fact that Nasdaq is seeking to delist our common stock from the Nasdaq stock market (although the Company is appealing this decision), (vi) the Company's recent decision to delay the development of its product candidates, reduce its workforce and seek strategic alternatives, (vii) the company being dependent on technologies it has licensed and that it may need to license in the future, (viii) the fact that substantial additional funding will be required to develop the company's planned products, (ix) the fact that the company's Hybrid mRNA Technology has not previously been tested beyond company preclinical studies, and that mRNA-based drug development is unproven, (x) the fact that all of the company's programs are in preclinical studies or early-stage research and it is uncertain that any company product candidates will receive regulatory approval or be commercialized, and (xi) the company's ability to adequately protect its proprietary technology from legal challenges, infringement or alternative technologies and (xii) the biotechnology and pharmaceutical industries being intensely competitive. More detailed information about the company and the risk factors that may affect the realization of forward-

looking statements is set forth in the company's filings with the Securities and Exchange Commission (SEC), including the most recent annual report on Form 10-K and its' quarterly reports on Form 10-Q. Investors and security holders are urged to read these documents free of charge on the SEC's website at http://www.sec.gov. The company assumes no obligation to publicly update or revise its forward-looking statements as a result of new information, future events or otherwise.

Contacts:

Corporate Communications Contact:
Jason Spark
Canale Communications
Senior Vice President
jason@canalecomm.com
619.849.6005

Investor Contact:
Robert H. Uhl
Westwicke Partners, LLC
Managing Director
robert.uhl@westwicke.com
858.356.5932

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