United Therapeutics And MannKind Announce Collaboration For Pulmonary Hypertension Products

September 4, 2018

Exclusive license agreement for Treprostinil Technosphere®; $95 million in upfront and milestone payments
Research agreement for additional products for additional $10 million

SILVER SPRING, Md. and WESTLAKE VILLAGE, Calif., Sept. 4, 2018 /PRNewswire/ -- United Therapeutics Corporation (Nasdaq: UTHR) and MannKind Corporation (Nasdaq: MNKD) today announced that they have entered into a worldwide exclusive licensing and collaboration agreement for the development and commercialization of a dry powder formulation of treprostinil, an investigational product currently being evaluated in clinical trials for the treatment of pulmonary arterial hypertension.

Under the agreement, United Therapeutics will be responsible for global development, regulatory and commercial activities. MannKind will manufacture clinical supplies and initial commercial supplies of the product at its manufacturing facility in Danbury, Connecticut. Long-term commercial supplies will be manufactured by United Therapeutics.

Under the terms of the agreement, MannKind Corporation will receive an upfront payment of $45 million and potential milestone payments of up to $50 million, dependent upon the achievement of specific development targets. MannKind will also be entitled to receive low double-digit royalties on net sales of the product. In addition, MannKind granted United Therapeutics an option to expand the license to include other active ingredients for the treatment of pulmonary hypertension. Each optioned product would be subject to the payment to MannKind of up to $40 million in additional option exercise and development milestone payments as well as a low double-digit royalty on net sales of any such product.

The effectiveness of the licensing and collaboration agreement is conditioned on expiration or termination of the required waiting period under the Hart-Scott-Rodino Antitrust Improvements Act.

The parties also entered into a research agreement for the conduct of research by MannKind on behalf of United Therapeutics for products outside the scope of the licensing and collaboration agreement. MannKind will receive an immediate payment of $10 million in consideration for its performance under the research agreement.

"We are excited to partner with United Therapeutics, a company that shares our passionate focus on changing patients' lives," stated Michael Castagna, Pharm.D., Chief Executive Officer of MannKind. "We are pleased with this new opportunity to demonstrate the value of our drug and device combination platform for delivering therapeutic products. We believe this collaboration will have the potential to significantly improve the lives of people living with pulmonary arterial hypertension."

"On the very same day 21 years ago, we enabled the development of treprostinil into a practical treatment thanks to an invention of the late Al Mann – the discrete, ambulatory, programmable, parenteral infusion pump called the MiniMed 407c," said Martine Rothblatt, Ph.D., Chairman and Chief Executive Officer of United Therapeutics. "By marrying our molecule and MiniMed's device, Remodulin® was born. As we now move into the second generation of United Therapeutics products, we are proud to once again team with Al Mann's brilliance, this time with his Dreamboat®, Bluhale® and Cricket® devices for inhalation. I believe these revolutionary new inhalation devices will accomplish for Tyvaso® what our recently-approved Implantable System for Remodulin, pending RemUnity™ system and recently-acquired Trevyent® product represent for Remodulin – a further step toward a next generation of treprostinil drug-device systems that enhance options for patients, their families and their prescribers."

About MannKind Corporation

MannKind Corporation (NASDAQ: MNKD) focuses on the development and commercialization of inhaled therapeutic products for patients with diseases such as diabetes and pulmonary arterial hypertension. MannKind is currently commercializing Afrezza® (insulin human) Inhalation Powder, the Company's first FDA-approved product and the only inhaled rapid-acting mealtime insulin in the United States, where it is available by prescription from pharmacies nationwide. MannKind is headquartered in Westlake Village, California, and has a state-of-the art manufacturing facility in Danbury, Connecticut. The Company also employs field sales and medical representatives across the U.S. For further information, visit www.mannkindcorp.com.

About United Therapeutics

United Therapeutics is a biotechnology company focused on the development and commercialization of innovative products to address the unmet medical needs of patients with chronic and life-threatening conditions. [uthr-g]

Forward-looking Statements

This press release contains forward-looking statements as defined in the Private Securities Litigation Reform Act of 1995, as amended. Forward-looking statements are statements that are not historical facts. These statements include projections and estimates and their underlying assumptions, statements regarding plans, objectives, intentions and expectations with respect to future financial results, events, operations, services, product development and potential, and statements regarding future performance. Forward-looking statements are generally identified by the words "expects", "anticipates", "believes", "intends", "estimates", "plans" and similar expressions. Although United Therapeutics' and MannKind's management teams believe that the expectations reflected in such forward-looking statements are reasonable, investors are cautioned that forward-looking information and statements are subject to various risks and uncertainties, many of which are difficult to predict and generally beyond the control of United Therapeutics and MannKind, that could cause actual results and developments to differ materially from those expressed in, or implied or projected by, the forward-looking information and statements. These risks and uncertainties include among other things, the uncertainties inherent in research and development, future clinical data and analysis, including post marketing, decisions by regulatory authorities, such as the FDA, regarding whether and when to approve any drug or device application that may be filed for any such product candidates as well as their decisions regarding labelling and

other matters that could affect the availability or commercial potential of such product candidates, the absence of any guarantee that the product candidates if approved will be commercially successful, the future approval and commercial success of therapeutic alternatives as well as those discussed or identified in the public filings with the Securities and Exchange Commission made by United Therapeutics and MannKind, including those risks and uncertainties listed in United Therapeutics' and MannKind's annual reports on Form 10-K for the year ended December 31, 2017, and listed or described in subsequent reports filed by United Therapeutics and MannKind with the Securities and Exchange Commission. We are providing this information as of September 4, 2018, and neither United Therapeutics nor MannKind undertake any obligation to update or revise the information contained in this press release whether as a result of new information, future events or any other reason.

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