miRagen Enters into License Agreement with Xencor for use of Xtend™ Antibody Technology for Investigational Antibodies to Treat Thyroid Eye Disease

December 17, 2020

Company obtains exclusive rights to develop and commercialize antibody therapeutics targeting insulin-like growth factor-1 receptor (IGF-1R) using Xencor's Xtend™ half-life extension technology

miRagen expects to file an Investigational New Drug (IND) application for VRDN-002, including half-life extension, by the end of 2021

BOULDER, Colo., Dec. 17, 2020 (GLOBE NEWSWIRE) -- miRagen Therapeutics, Inc. (NASDAQ: MGEN), a development-stage biotechnology company, today announced an agreement under which miRagen gains exclusive rights to develop and commercialize therapeutic antibodies targeting IGF-1R incorporating Xtend™ Fc technology from Xencor, Inc. This clinically validated technology provides for improved antibody half-life, which miRagen intends to leverage in its product candidate VRDN-002 to reduce dose and/or dosing frequency. The Company expects to file an IND for VRDN-002 by the end of 2021.

"We are excited to leverage the Xtend technology in our next-generation IGF1R antibody program VRDN-002." said Jonathan Violin, Ph.D., President and Chief Operating Officer of miRagen. "We believe that Xtend-enabled half-life extension will facilitate our efforts to reduce dose and/or dose frequency of VRDN-002 to achieve a convenient subcutaneous injection product, and that these features will provide a valuable new option for patients suffering from Thyroid Eye Disease."

miRagen is developing multiple product candidates to treat patients who suffer from thyroid eye disease (TED). The Company's most advanced product candidate is intravenous VRDN-001, which pending feedback from the Food and Drug Administration, may be able to proceed directly to a phase 2 trial. VRDN-002 is a second-generation product candidate, distinct from VRDN-001, which incorporates half-life extension technology and is intended for subcutaneous administration. The Company expects in 2021 to file Investigational New Drug (IND) applications for both VRDN-001 and VRDN-002 and to initiate a Phase 2 clinical trial of VRDN-001.

Under the terms of the exclusive license agreement, miRagen will be solely responsible for the activities and costs related to research, development, and if successful, the potential commercialization of product candidates incorporating technologies licensed from Xencor. Xencor will receive an upfront payment, payable in shares of common stock of miRagen, and is eligible to receive certain development and commercial milestone payments, as well as royalties.

About Xencor's Xtend™ Fc Technology

Xtend™ Fc technology is part of Xencor's proprietary XmAb® protein engineering platform. Xtend™ Fc domains increase circulating half-life by increasing binding affinity to the receptor FcRn. FcRn is present inside lysosomes in endothelial cells lining the blood vessels and functions to rescue antibodies from the degradation that makes most proteins short-lived in circulation. Half-life extension can be exploited to potentially improve therapeutic antibody performance in several ways, such as increasing dosing interval or decreasing drug quantities at the same dosing interval compared to a parent antibody. Xtend technology is currently in multiple clinical-stage programs and one approved therapy, Alexion's Ultomiris® (ravulizumab-cwvz). For more information, please visit www.xencor.com. XmAb® is a registered trademark of Xencor, Inc.

About miRagen Therapeutics

miRagen Therapeutics is a biotechnology company advancing new treatments for patients with diseases that are underserved by today's therapies. miRagen's most advanced program, VRDN-001, is a clinical-stage anti-IGF-1R monoclonal antibody in development for thyroid eye disease (TED). miRagen is headquartered in Boulder, Colo., with research and development operations in Waltham, Mass.

Follow miRagen Therapeutics on social media: @miRagenRx and LinkedIn. Additional details are available at www.miragen.com.

Forward Looking Statements

This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, including, but not limited to, statements regarding: half-life extension and expected IND filings release of clinical data. The use of words such as, but not limited to, "anticipate," "believe," "continue," "could," "estimate," "expect," "intend," "may," "might," "plan," "potential," "predict," "project," "should," "target," "will," or "would" and similar words expressions are intended to identify forward-looking statements. Forward-looking statements are neither historical facts nor assurances of future performance. Instead, they are based on our current beliefs, expectations and assumptions regarding the future of our business, future plans and strategies, our clinical results and other future conditions. New risks and uncertainties may emerge from time to time, and it is not possible to predict all risks and uncertainties. No representations or warranties (expressed or implied) are made about the accuracy of any such forward-looking statements. We may not actually achieve the forecasts disclosed in our forward-looking statements, and you should not place undue reliance on our forward-looking statements. Such forward-looking statements are subject to a number of material risks and uncertainties including but not limited to those set forth under the caption "Risk Factors" in miRagen's most recent Annual Report on Form 10-K filed with the SEC, as well as discussions of potential risks, uncertainties, and other important factors in our subsequent filings with the SEC. Any forward-looking statement speaks only as of the date on which it was made. Neither we, nor our affiliates, advisors or representatives, undertake any obligation to publicly update or revise any forward-looking statement, whether as result of new information, future events or otherwise, except as required by law. These forward-looking statements should not be relied upon as representing our views as of any date subsequent to the date hereof.

Investor Relations contact:
Dan Ferry
LifeSci Advisors

daniel@lifesciadvisors.com
617.430.7576

Media contact:
Darby Pearson
Verge Scientific Communications
dpearson@vergescientific.com
703.587.0831

Source: miRagen Therapeutics, Inc.