



miRagen Therapeutics Completes Merger with Signal Genetics and Concurrent \$40.7 Million Equity Financing

February 13, 2017

Merger creates a clinical-stage biopharmaceutical company focused on the discovery and development of select microRNA-targeted therapies

Combined company, renamed Miragen Therapeutics, Inc., to commence trading on Nasdaq under the symbol "MGEN" on February 14

Capitalized with approximately \$60 million in cash, including \$40.7 million equity financing, to advance miRagen's portfolio

BOULDER, Colo., Feb. 13, 2017 (GLOBE NEWSWIRE) -- Miragen Therapeutics, Inc. (Nasdaq:MGEN), a clinical-stage biopharmaceutical company focused on the discovery and development of microRNA-targeted therapies, today announced the completion of its merger with Signal Genetics, Inc., effective February 13, 2017. Concurrent with the closing of the merger, miRagen received gross proceeds of \$40.7 million in new equity investment from a combination of current and new miRagen investors, including Fidelity Management and Research Company, Brace Pharma Capital, Atlas Venture, Boulder Ventures, JAFCO Co., Ltd., MP Healthcare Venture Management, MRL Ventures (a venture fund of Merck, known as MSD outside the United States and Canada), Remedix Ventures, and others. Together with pre-merger cash on miRagen's balance sheet, the combined company has approximately \$60 million in cash and short-term investments.

Upon completion of the merger today, Signal was renamed Miragen Therapeutics, Inc. The combined company will commence trading on The NASDAQ Capital Market under the symbol "MGEN" on February 14, 2017.

"The completion of this merger marks a significant step forward for miRagen, our investors and potentially thousands of patients awaiting a therapeutic option for their conditions," said miRagen President and CEO William S. Marshall, Ph.D. "The equity investment aligns the company's cash resources with our plan to advance the first two clinical programs into additional trials and to develop a compelling pipeline of targeted product candidates, each focused on patient populations with few clinical options. We believe these transactions will help us create a more focused and well financed organization as we build an exciting enterprise, an innovative culture and value for current and future stockholders."

Following the completion of the financing and merger, the combined company has approximately 21.3 million shares of common stock outstanding.

miRagen's stockholders, including those who invested in the concurrent financing, received common stock, representing approximately 95.2% of the outstanding shares. Signal's stockholders retained approximately 4.8% of the combined company.

The combined company will operate under the leadership of Dr. Marshall, and the board of directors of the combined company is comprised of seven members: Bruce Booth, John Creecy, Thomas Hughes, Kevin Koch, Kyle Lefkoff, Joseph Turner and Dr. Marshall.

Wedbush PacGrow acted as placement agent for miRagen in the financing.

About Miragen Therapeutics, Inc.

Miragen Therapeutics, Inc. is a clinical-stage biopharmaceutical company discovering and developing proprietary RNA-targeted therapeutics with a specific focus on microRNAs and their role in diseases where there is a high unmet medical need. miRagen's two lead product candidates, MRG-106 and MRG-201, are currently in Phase 1 clinical trials. miRagen's clinical product candidate for the treatment of certain cancers, MRG-106, is an inhibitor of microRNA-155, which is found at abnormally high levels in several blood cancers. miRagen's clinical product candidate for the treatment of pathological fibrosis, MRG-201, is a replacement for miR-29, which is found at abnormally low levels in a number of pathological fibrotic conditions, including cardiac, renal, hepatic, and pulmonary fibrosis, as well as systemic sclerosis. In addition to miRagen's clinical programs, it is developing a pipeline of pre-clinical product candidates. The goal of miRagen's translational medicine strategy is to progress rapidly to first in human studies once it has established the pharmacokinetics, pharmacodynamics and safety of the product candidate in pre-clinical studies. For more information, please visit www.miragentherapeutics.com.

For information on clinical trials please visit www.clinicaltrials.gov.

Note Regarding Forward-Looking Statements

This press release contains "forward-looking statements" by miRagen that involve substantial risks and uncertainties for purposes of the safe harbor provided by the Private Securities Litigation Reform Act of 1995. All statements, other than statements of historical facts, included in this press release regarding strategy, future operations, future financial position, future revenue, projected expenses, prospects, plans and objectives of management are forward-looking statements. Examples of such statements include, but are not limited to, statements relating to miRagen's listing on the NASDAQ Capital Market; expectations regarding the capitalization, resources and ownership structure of miRagen; the role of microRNAs in disease processes and as potential drug products; the potential for MRG-106 and MRG-201 to target diseases; the adequacy of miRagen's capital to support its future operations and its ability to successfully initiate and complete clinical trials; the nature, strategy and focus of miRagen; the development and commercial potential of any product candidates of miRagen; miRagen's ability to obtain and maintain regulatory approvals for its product candidates; and miRagen's intellectual property portfolio. miRagen may not actually achieve the plans, carry out the intentions or meet the expectations or projections disclosed in the forward-looking statements and you should not place undue reliance on these forward-looking statements. Such statements are based on management's current expectations and involve risks and uncertainties. Actual results and performance could differ materially from those projected in the forward-looking statements as a result of many factors, including, without limitation, risks and uncertainties associated with the ability to project future cash utilization and reserves needed for contingent future liabilities and business operations, the availability of sufficient resources of miRagen to meet its business objectives and operational requirements, the fact that the results of earlier studies and trials may not be predictive of future clinical results, the protection and market exclusivity provided by miRagen's intellectual property, risks related to the drug discovery and the regulatory approval process and the impact of competitive products and technological changes and the risks detailed in

miRagen's Registration Statement on Form S-4 (File No. 333-214893) and miRagen's periodic reports filed with the Securities and Exchange Commission. miRagen disclaims any intent or obligation to update these forward-looking statements to reflect events or circumstances that exist after the date on which they were made.

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