



Contact:

Scout Investor Relations
Breanna Burkart
T: (303) 907-5162
breanna@scoutir.com

miRagen Therapeutics Announces Identification of a microRNA as Key Regulator of Blood Cell Development

Findings illustrate crucial role of miR-451 in the process of blood cell maturation and offer promising avenue for therapeutic intervention in myeloproliferative diseases

Data published in the latest issue of Genes & Development

BOULDER, Colo., July 31, 2010 – miRagen Therapeutics, Inc., a biopharmaceutical company focused on improving patients' lives by developing innovative microRNA-based therapeutics for cardiovascular and muscle disease, announced today the publication of data demonstrating the essential role of microRNA-451 (miR-451) in the regulation of erythropoiesis, the process of red blood cell production in the body. Published in the August 1 issue of the journal *Genes & Development*, the findings highlight miR-451 as a promising target in the development of therapies for the treatment of myeloproliferative diseases, diseases of the blood characterized by an overabundance of blood cells. The study was conducted by researchers led by Eric N. Olson, Ph.D., at the University of Texas Southwestern Medical Center. miRagen is the exclusive licensee of intellectual property rights related to this discovery.

"This discovery adds to a growing body of literature demonstrating the profoundly important role that microRNAs play in the development and progression of a host of disease states," said William S. Marshall, Ph.D., President and CEO of miRagen Therapeutics, Inc. "miR-451 is an exciting target for the development of therapeutic agents in an area of unmet medical need, and we are committed to further exploring that potential."

"Myeloproliferative diseases are life-threatening disorders implicated in a variety of adverse cardiovascular, vascular, and pulmonary events," said Eric N. Olson, Ph.D., Chief Scientific Advisor of miRagen Therapeutics and Chairman of Molecular Biology at the University of Texas Southwestern Medical Center. "Currently there are limited therapeutic options available to patients who suffer from these diseases, and we are very hopeful that this discovery may be translated into meaningful treatments."

About microRNAs: MicroRNAs have emerged as an important class of small RNAs encoded in the genome. They act to control the expression of sets of genes and entire pathways and are thus thought of as master regulators of gene expression. Recent studies have demonstrated that microRNAs are responsible for many diseases. Because they are single molecular entities that dictate the expression of fundamental regulatory pathways, microRNAs represent potential drug targets of unprecedented power.

About miRagen Therapeutics: miRagen Therapeutics, Inc., was founded in 2007 to develop innovative microRNA-based therapeutics for cardiovascular and muscle disease. Only recently discovered, microRNAs



are short, single-stranded RNA molecules encoded in the genome that regulate gene expression and play a vital role in influencing cardiovascular and muscle disease. Cardiovascular disease is the leading cause of death globally and represents an enormous burden on global healthcare systems. Principally funded through venture capital investments, miRagen combines world recognized leadership in cardiovascular medicine with unprecedented in-house expertise in microRNA biology and chemistry. For more information, please visit www.miragentherapeutics.com.

- ENDS -