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MIRAGEN THERAPEUTICS ESTABLISHES PREMIER SCIENTIFIC ADVISORY BOARD

Nobel Laureate Thomas R. Cech, Ph.D. among prestigious Board Members

BOULDER, Colo., January 11, 2010 – miRagen Therapeutics, Inc., a biopharmaceutical company focused on improving patients' lives by developing innovative microRNA (miRNA)-based therapeutics for cardiovascular and muscle disease, announced today the formation of the company's world renowned Scientific Advisory Board (SAB). The SAB was established to provide miRagen with valuable guidance in developing an extensive pipeline of microRNA-based drugs and is comprised of leaders who are internationally recognized experts in their respective fields. The SAB is lead by miRagen's Chief Scientific Advisor and Co-Founder, Eric N. Olson, Ph.D. The first appointed members include Nobel Prize in Chemistry winner Thomas R. Cech, Ph.D., Distinguished Professor at the University of Colorado-Boulder, Investigator of the Howard Hughes Medical Institute and Director of the Colorado Initiative in Molecular Biotechnology.

"We are delighted to have assembled such a distinguished team to help advise the company on its research and development pipeline," said William S. Marshall, Ph.D., President and Chief Executive Officer of miRagen Therapeutics, Inc. "To have an SAB of this caliber intimately involved in miRagen's drug discovery programs will be vital not only to the company's success but also, and more importantly, to the millions of patients suffering from cardiovascular and muscle disease."

"The science underlying miRagen's therapies is highly innovative and represents a significant advancement in RNA research," said Dr. Cech. "I look forward to working closely with my esteemed colleagues and miRagen's team to translate breakthrough discoveries into therapies for patients who suffer from these debilitating diseases."

"To collaborate with this team of thought leaders is an honor," added Dr. Olson. "Each member brings unparalleled knowledge and experience to the table. Together, I believe we have an opportunity to create some truly unique RNA-based therapeutics. The SAB will be instrumental to the success of miRagen's research and development pipeline."

The members of miRagen's Scientific Advisory Board are:

- Eric N. Olson, Ph.D, Chief Scientific Advisor and Co-Founder of miRagen Therapeutics; Professor and Chairman of Molecular Biology, Robert A. Welch Distinguished Chair in Science, Annie and Willie Nelson Professor in Stem Cell Research and Pogue Distinguished Chair in Research on Cardiac Birth Defects at the University of Texas Southwestern Medical Center



Dr. Olson has received numerous awards for his pioneering research on the mechanisms of gene regulation in muscle development with particular emphasis on congenital and acquired cardiovascular disease and the subsequent creation of new therapeutic approaches for their treatment.

- Victor R. Ambros, Ph.D., Silverman Professor of Natural Sciences, Program in Molecular Medicine, University of Massachusetts Medical School
Dr. Ambros and his co-workers were the first to discover microRNAs. Their seminal work has spawned an entirely new field of scientific investigation that promises to alter our understanding of gene regulatory pathways.
- Michael R. Bristow, M.D., Ph.D., Co-Founder of miRagen Therapeutics; Professor of Medicine and Co-Director of the University of Colorado Cardiovascular Institute at UC Denver School of Medicine
Dr. Bristow's research has resulted in significant breakthroughs in the treatment of cardiovascular disease. His findings were instrumental in the development of β -blocking agents as a therapeutic strategy for the treatment of chronic heart failure.
- Thomas R. Cech, Ph.D., Distinguished Professor at the University of Colorado-Boulder, Director of the Colorado Initiative in Molecular Biotechnology and Investigator of the Howard Hughes Medical Institute
Dr. Cech most notably received the Nobel Prize in Chemistry for his groundbreaking work on the "catalytic properties of RNA." His revolutionary findings demonstrated that RNA was not restricted to being a passive carrier of genetic information but could play an active role in cellular metabolism.
- Stephanie Dimmeler, Ph.D., Professor of Experimental Medicine and Director of the Institute of Cardiovascular Regeneration, Center for Molecular Medicine at the University of Frankfurt (Germany)
Dr. Dimmeler's award-winning research predominantly is focused on endothelial cell biology, including signal transduction, apoptosis and renewal by circulating endothelial progenitor cells in health and disease. Her scientific discoveries have culminated in current clinical trials of human progenitor cells for cardiovascular repair.
- Douglas L. Mann, M.D., Lewin Professor and Chief of the Cardiovascular Division at Washington University School of Medicine; Cardiologist-in-Chief at Barnes-Jewish Hospital
Dr. Mann is an internationally renowned basic and clinical scientist whose work has garnered numerous awards. His research has centered on the basic cellular and molecular mechanisms that lead to cardiac decompensation, including the role that inflammatory mediators play in regulating cardiac structure and function.
- Jeffery D. Molkenin, Ph.D., Professor at the Cincinnati Children's Hospital Medical Center of the University of Cincinnati and Investigator of the Howard Hughes Medical Institute



Dr. Molkentin's cutting-edge research program focuses on the identification of genes and signaling pathways involved in cardiac hypertrophy, contractility, cell death and heart failure. His work has been recognized with multiple awards.

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: Cardiovascular disease is the leading cause of death globally. Astonishingly, in the United States, every 37 seconds a person dies from cardiovascular disease. For survivors, life changes dramatically after an adverse heart event. Because of the significant toll that cardiovascular and muscle disease takes on patients, miRagen Therapeutics was founded in 2007 to develop innovative microRNA-based therapeutics for cardiovascular and muscle disease. Only recently discovered, miRNAs 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. Principally funded through venture capital investments, miRagen combines world recognized leadership in cardiovascular medicine with unparalleled in-house expertise in microRNA biology and chemistry. For more information, please visit: www.miRagenTherapeutics.com.

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