

Regulus Therapeutics Appoints Gregory Hannon, Ph.D. to Scientific Advisory Board

- Professor and Howard Hughes Medical Institute Investigator at Cold Spring Harbor Laboratory known for the molecular elucidation of small regulatory RNAs -

LA JOLLA, Calif., July 14, 2011 /PRNewswire/ -- [Regulus Therapeutics Inc.](#), a biopharmaceutical company leading the discovery and development of innovative medicines targeting microRNAs, today announced that it has added Gregory Hannon, Ph.D. to its Scientific Advisory Board (SAB). The addition of Dr. Hannon, a researcher whose work has involved the molecular identification and characterization of the microRNA pathway, increases SAB membership to six pioneers in this area of scientific research.

"We are delighted to add Greg to our SAB as he brings new insights to the already outstanding group of scientific advisors aiding us in the understanding of microRNA biology," said Neil W. Gibson, Ph.D., chief scientific officer of Regulus. "Greg is a world-renowned researcher with expertise in small regulatory RNAs and an understanding of the molecular mechanisms by which they operate."

"The Regulus SAB includes many of the world's thought leaders in the field of microRNA," said David Baltimore, Ph.D., professor of biology at the California Institute of Technology and Director of Regulus as well as Chairman of Regulus' SAB. "Greg's seminal discoveries in the field of non-coding RNAs include the identification of the enzyme Dicer which cleaves double stranded RNA to produce small RNAs like microRNA. This discovery contributed to *Science* magazine naming small RNAs the 2002 Breakthrough of the Year."

Dr. Hannon's laboratory has identified and characterized many of the major biogenesis and effector complexes for microRNAs and small interfering RNAs. In addition, the Hannon lab strives to understand the biology of cancer cells, with a focus on the roles of small RNAs as oncogenes and tumor suppressors.

In addition to Dr. Hannon, Regulus' SAB members are:

- David Baltimore, Ph.D., professor of biology at the California Institute of Technology, member of the National Academy of Sciences, and the recipient of the 1975 Nobel Prize in Physiology or Medicine. Dr. Baltimore is highly regarded as a pioneer in virology and immunology and current research includes investigating the role of microRNAs in immunity.
- David Bartel, Ph.D., professor of biology at MIT and the Whitehead Institute for Biomedical Research as well as an investigator at the Howard Hughes Medical Institute and newly elected member of the National Academy of Sciences. Dr. Bartel studies microRNA genomics, target recognition and regulatory functions.
- Markus Stoffel, M.D., Ph.D., professor for metabolic diseases at the Institute of Molecular Systems Biology at the ETH Zurich. Dr. Stoffel's research is focused on microRNAs and the regulation of glucose and lipid metabolism.
- Thomas Tuschl, Ph.D., professor and head of the laboratory for RNA molecular biology at the Rockefeller University as well as an investigator at the Howard Hughes Medical Institute. Considered a leader in nucleic acid biochemistry and regulatory RNAs, Dr. Tuschl discovered most of the mammalian microRNA genes and has developed methods for the characterization of small RNAs and their regulatory targets.
- Phillip D. Zamore, Ph.D., Gretchen Stone Cook Chair of Biomedical Sciences, co-director RNA therapeutics institute, and professor of biochemistry at the University of Massachusetts Medical School as well as an investigator at the Howard Hughes Medical Institute. Dr. Zamore is regarded as a leader in the field of RNA interference and microRNA pathways.

About microRNAs

The discovery of [microRNA](#) in humans during the last decade is one of the most exciting scientific breakthroughs in recent history. microRNAs are small RNA molecules, typically 20 to 25 nucleotides in length, that do not encode proteins but instead regulate gene expression. More than 700 microRNAs have been identified in the human genome, and over one-third of all human genes are believed to be regulated by microRNAs. A single microRNA can regulate entire networks of genes. As such, these molecules are considered master regulators of the human genome. microRNAs have been shown to play an integral role in numerous biological processes, including the immune response, cell-cycle control, metabolism, viral replication, stem cell differentiation and human development. Most microRNAs are conserved across multiple species, indicating the evolutionary importance of these molecules as modulators of critical biological pathways. Indeed, microRNA expression, or function, has been shown to be significantly altered in many disease states, including cancer, heart failure and viral infections. Targeting microRNAs with anti-miRs, antisense oligonucleotide inhibitors of

microRNAs, or miR-mimics, double-stranded oligonucleotides to replace microRNA function opens potential for a novel class of therapeutics and offers a unique approach to treating disease by modulating entire biological pathways. To learn more about microRNAs, please visit <http://www.regulusrx.com/microrna/microrna-explained.php>.

About Regulus Therapeutics Inc.

Regulus Therapeutics is a biopharmaceutical company leading the discovery and development of innovative medicines targeting microRNAs. Regulus is using a mature therapeutic platform based on technology that has been developed over 20 years and tested in more than 5,000 humans. In addition, Regulus works with a broad network of academic collaborators and leverages the oligonucleotide drug discovery and development expertise of its founding companies, Alnylam Pharmaceuticals (*NASDAQ:ALNY*) and Isis Pharmaceuticals (*NASDAQ:ISIS*). Regulus is advancing microRNA therapeutics towards the clinic in several key areas including fibrosis, HCV, immuno-inflammatory diseases, metabolic diseases, and oncology. Regulus' intellectual property estate contains both the fundamental and core patents in the field and includes over 600 patents and more than 300 pending patent applications pertaining primarily to chemical modifications of oligonucleotides targeting microRNAs for therapeutic applications. In April 2008, Regulus formed a major alliance with GlaxoSmithKline to discover and develop microRNA therapeutics for immuno-inflammatory diseases. In February 2010, Regulus and GlaxoSmithKline entered into a new collaboration to develop and commercialize microRNA therapeutics targeting microRNA-122 for the treatment of hepatitis C infection. In June 2010, Regulus and sanofi-aventis entered into the largest-to-date strategic alliance for the development of microRNA therapeutics. This alliance is focused initially on fibrosis. For more information, please visit <http://www.regulusrx.com>.

Forward-Looking Statements

This press release includes forward-looking statements regarding the future therapeutic and commercial potential of Regulus' business plans, technologies and intellectual property related to microRNA therapeutics being discovered and developed by Regulus. Any statement describing Regulus' goals, expectations, financial or other projections, intentions or beliefs is a forward-looking statement and should be considered an at-risk statement. Such statements are subject to certain risks and uncertainties, particularly those inherent in the process of discovering, developing and commercializing drugs that are safe and effective for use as human therapeutics, and in the endeavor of building a business around such products. Such forward-looking statements also involve assumptions that, if they never materialize or prove correct, could cause the results to differ materially from those expressed or implied by such forward-looking statements. Although these forward-looking statements reflect the good faith judgment of Regulus' management, these statements are based only on facts and factors currently known by Regulus. As a result, you are cautioned not to rely on these forward-looking statements. These and other risks concerning Regulus', Alnylam's, and Isis' programs are described in additional detail in Alnylam's and Isis' annual reports on Form 10-K for the year ended December 31, 2010, and its most recent quarterly report on Form 10-Q. Copies of these and other documents are available from Alnylam or Isis.

SOURCE Regulus Therapeutics Inc.

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