# Sanofi-Aventis and Regulus Therapeutics Form Major Strategic Alliance on microRNA Therapeutics

- Collaboration starting with a specific lead in Fibrosis -

**Paris, France - June 22, 2010 -** Sanofi-Aventis (EURONEXT: SAN and NYSE: SNY) and Regulus Therapeutics Inc announced today that they have entered into a global strategic alliance to discover, develop, and commercialize microRNA therapeutics. The alliance will initially focus on the therapeutic area of fibrosis.

MicroRNAs (micro-RiboNucleic Acid) are a new class of small non-coding RNAs that regulate gene expression by interfering with translation or stability of target messenger RNA transcripts. Endogenous microRNAs regulate the expression of over one-third of all human genes. The association of microRNA dysfunction with disease phenotypes has given rise to an entirely new class of pharmaceutically relevant targets.

Sanofi-aventis and Regulus will collaborate on microRNA drug discovery and preclinical development for up to four microRNA targets, including the lead fibrosis program targeting microRNA-21. Sanofi-Aventis also received an option, which if exercised, provides access to the technology to develop and commercialize other micro-RNA based therapeutics, beyond the first four targets.

"Regulus is very pleased to form this new major alliance with sanofi-aventis, a leading visionary company developing important new medicines bringing value to patients," said Kleanthis G. Xanthopoulos, Ph.D., President and Chief Executive Officer of Regulus. "The significant support from sanofi-aventis in this new alliance will strengthen our efforts as we continue to build the leading micro-RNA therapeutics company based on a commitment to scientific excellence and advancement of a pipeline of innovative new medicines. Indeed, we are confident that this new alliance will significantly extend our capabilities and resources to lead the discovery and development of micro-RNA therapeutics."

"This new partnership continues to illustrate sanofi-aventis' commitment to develop innovative therapies", declared Marc Cluzel, M.D., Ph.D, Executive Vice-President, Research & Development, sanofi-aventis. "Micro-RNAs are believed to be extremely important in human development and physiology. Together with Regulus we will develop therapeutics which could potentially open a new paradigm in the treatment of major diseases and could offer an attractive new therapeutic approach for patients".

Regulus will receive a \$25 million upfront fee and a future \$10 million equity investment subject to mutual agreement on company valuation. The alliance could be valued at over \$750 million when taking into account upfront payments, equity investment, research funding, and potential near-term preclinical, clinical and commercial milestone payments for multiple products.

Regulus was formed in 2007 and is jointly owned by Alnylam Pharmaceuticals (Nasdaq: ALNY) and Isis Pharmaceuticals (Nasdaq: ISIS).



## **About microRNAs**

The discovery of microRNA in humans is one of the most exciting scientific breakthroughs in the last decade. MicroRNAs are small RNA molecules, typically 20 to 25 nucleotides in length, that do not encode proteins but instead regulate gene expression. Nearly 700 microRNAs have been identified in the human genome, and more than one-third of all human genes are believed to be regulated by microRNAs. As a single microRNA can regulate entire networks of genes, these new molecules are considered the master regulators of the 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 the possibility of a novel class of the appendix and 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 new medicines based on microRNAs. Regulus is targeting microRNAs as a new class of therapeutics by working with a broad network of academic collaborators and leveraging oligonucleotide drug discovery and development expertise from its founding companies Alnylam Pharmaceuticals (*Nasdaq:ALNY*) and Isis Pharmaceuticals (*Nasdaq:ISIS*). Regulus is advancing microRNA therapeutics towards the clinic in several areas including hepatitis C infection, cardiovascular disease, fibrosis, oncology, immuno-inflammatory diseases, and metabolic diseases. 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. For more information, visit http://www.regulusrx.com.

### **About sanofi-aventis**

Sanofi-aventis, a leading global pharmaceutical company, discovers, develops and distributes therapeutic solutions to improve the lives of everyone. Sanofi-aventis is listed in Paris (EURONEXT: SAN) and in New York (NYSE: SNY). For more information, please visit: www.sanofi-aventis.com.

### **Forward-Looking Statement**

This press release contains forward-looking statements as defined in the Private Securities Litigation Reform Act of 1995, as amended, Forward-looking statements are statements that are not historical facts. These statements include projections and estimates and their underlying assumptions, statements regarding plans, objectives, intentions and expectations with respect to future financial results, events, operations, services, product development and potential and statements regarding future performance. Forward-looking statements are generally identified by the words "expects," "anticipates," "believes," "intends," "estimates," "plans" and similar expressions. Although sanofi-aventis' management believes that the expectations reflected in such forward-looking statements are reasonable, investors are cautioned that forward-looking information and statements are subject to various risks and uncertainties, many of which are difficult to predict and generally beyond the control of sanofi-aventis, that could cause actual results and developments to differ materially from those expressed in, or implied or projected by, the forward-looking information and statements. These risks and uncertainties include among other things, the uncertainties inherent in research and development, future clinical data and analysis, including post marketing, decisions by regulatory authorities, such as the FDA or the EMA, regarding whether and when to approve any drug, device or biological application that may be filed for any such product candidates as well as their decisions regarding labelling and other matters that could affect the availability or commercial potential of such products candidates, the absence of guarantee that the products candidates if approved will be commercially successful, the future approval and commercial success of therapeutic alternatives, the Group's ability to benefit from external growth opportunities as well as those discussed or identified in the public filings with the SEC and the AMF made by sanofi-aventis, including those listed under "Risk Factors" and "Cautionary Statement Regarding Forward-Looking Statements" in sanofi-aventis' annual report on Form 20-F for the year ended December 31, 2009. Other than as required by applicable law, sanofi-aventis does not undertake any obligation to update or revise any forward-looking information or statements.