



## **Mirna Therapeutics Presents New Data on microRNA Replacement Therapy Approach at CPRIT's Innovations in Cancer Prevention & Research Conference**

**Austin, Texas – Date: November 16, 2010** – Mirna Therapeutics, Inc., a leading developer of microRNA (miRNA)-based therapeutics, announced today that it will present new data at the inaugural CPRIT Innovations in Cancer Prevention and Research Conference, November 17-19, 2010 in Austin, TX. The Conference is organized by the Cancer Prevention Research Institute of Texas (CPRIT), an organization founded to expedite innovation and commercialization in the area of cancer research and to enhance access to evidence-based prevention programs and services throughout the state of Texas. Four posters will be presented highlighting Mirna's efforts in developing miRNA Replacement Therapies for cancer.

Earlier this year, Mirna published data demonstrating proof-of-concept for "miRNA Replacement Therapy" (Wiggins *et al.*, Cancer Research 2010). This approach is based on the premise that many cancers fail to express endogenous tumor suppressor miRNAs and that re-introducing mimics of these miRNAs into cancer cells induces cancer cell death and leads to inhibition of tumor growth and dissemination. Mirna's broad pipeline features mimics for eight key miRNAs in cancer, including mimics of let-7 and miR-34, two of the most widely published and recognized suppressor miRNAs.

The four posters will disclose new data showing significant advances in the development of clinically-relevant miRNA mimics and formulations. The data will focus on novel miRNA chemistries, efficacy, pharmacokinetics, pharmacodynamics, and toxicity parameters upon systemic administration in the animal. The posters are entitled "Therapeutic Applications of Tumor Suppressor miRNAs", "Systemic Delivery of a miR-34 mimic Inhibits Tumor Growth in Mouse Models of Non-small Cell Lung Cancer", "Chemical Modifications Enhance the Activities, Stabilities and Pharmacokinetic Properties of miRNA Mimics", and "Systemic Delivery of Tumor Suppressor miRNAs to Mouse Tumor and Peripheral Tissues".

According to David Brown, Ph.D., Director of Research at Mirna Therapeutics, "the data presented at the Conference reflect our focused research and discovery efforts during the past year on increasing our understanding of the mechanism of action of our miRNA mimics and optimization of their potency in cancer."

Mirna Therapeutics is the recipient of a \$10.3 million commercialization award from the Cancer Prevention Research Institute of Texas.

### **About microRNA**

miRNAs are approximately 21 nucleotides long and affect gene expression by interacting with messenger RNAs. Unlike siRNAs, miRNAs are encoded in the human genome and are used as natural regulators of global gene expression. More than 900 miRNAs are encoded in the human genome and comprise approximately 2% of all mammalian genes. Since each miRNA appears to regulate the expression of tens to hundreds of different genes, miRNAs can function as "master-switches," efficiently regulating and coordinating multiple cellular pathways and processes. By coordinating the expression of multiple genes, miRNAs are responsible for guiding proper embryonic development, immunity, inflammation, as well as cellular growth and proliferation. Misregulation of miRNAs appears to play a fundamental role in many cancers and replacement of down regulated miRNAs in tumor cells results in a positive therapeutic response.

### **About Mirna Therapeutics**

Mirna Therapeutics, Inc. (Mirna) is a biotechnology company founded in late 2007 as a spin-off from Asuragen Inc. and is located in Austin, Texas. Mirna is focused on the development of miRNA-directed therapeutics for the treatment of cancer and other diseases. Mirna is developing "MicroRNA Replacement Therapy" which involves introducing microRNAs back into tumors to boost cellular tumor suppressor abilities, ultimately leading to cancer cell death and tumor shrinkage. For more information, visit [www.mirnarx.com](http://www.mirnarx.com).

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