



Marina Biotech and Mirna Therapeutics Amend License Agreement for the Development of microRNA-based Therapeutics

Mirna Broadens Rights to Its Lead Cancer Therapeutic Candidate MRX34

Boston, MA and Austin, TX, January 2, 2014– Marina Biotech, Inc. (OTC Pink: MRNA), a leading oligonucleotide-based drug discovery and development company, and Mirna Therapeutics, Inc. (Mirna), a privately-held biotechnology company pioneering microRNA (miRNA) replacement therapy for cancer, announced today that they have amended their license agreement regarding the development and commercialization of microRNA-based therapeutics utilizing Mirna’s proprietary microRNAs and Marina Biotech’s novel SMARTICLES liposomal delivery technology. Under terms of the amendment, Mirna paid certain pre-payments to Marina Biotech and now has additional rights to its lead program, MRX34, currently in Phase I clinical development for patients with unresectable primary liver cancer or metastatic cancer with liver involvement. In addition, under the terms of the license agreement, Mirna has optioned exclusivity on several additional miRNA targets. Further terms of the Agreement were not disclosed.

“Mirna and Marina Biotech have enjoyed a successful, durable collaboration by leveraging the systemic delivery of our proprietary, double-stranded, miRNA mimics with the SMARTICLES delivery technology,” said Paul Lammers, President and CEO of Mirna Therapeutics. “Amendment of the license agreement strengthens the potential medical and commercial value of MRX34 as the first miRNA mimic to enter the clinic in cancer, and provides exclusivity for the use of SMARTICLES with other highly promising tumor suppressor miRNAs.”

“We are extremely pleased with our on-going relationship with Mirna as a forerunner in the human clinical development of microRNA-based therapeutics,” stated J. Michael French, President and CEO of Marina Biotech. “We are also pleased about our ability to successfully close licensing transactions during the past year and a half, which has allowed us to keep the company moving forward during a difficult stretch. Although this transaction will not allow us to resume normal operations, I believe it will be sufficient to achieve certain tactical and strategic objectives over the next quarter. We have witnessed over the past several months increasing interest across the broader pharmaceutical sector in the application of our drug discovery engine to the development of nucleic acid-based therapeutics for rare and orphan diseases. We are excited about this increased awareness of our capabilities and hope to capitalize on these developments in the future.”

About Mirna Therapeutics, Inc.

Mirna Therapeutics, Inc. (Mirna) is a biotechnology company focused on the development and commercialization of miRNA therapeutics. The Company has an intellectual property portfolio on the therapeutic use of miRNAs developed by its own scientists, as well as in-licensed from

other institutions. Mirna's IP portfolio contains more than 300 miRNAs with applications in oncology and other diseases. Oncology-directed miRNAs include those that are key tumor suppressors in cancer, such as miR-34 and let-7, which have been shown to block tumor growth in a number of different preclinical animal studies. The Company, founded in 2007 and located in Austin, Texas, has received significant funding from Sofinnova Ventures, New Enterprise Associates, Pfizer Venture Investments and other private investors, as well as the State of Texas, both through the State's Emerging Technology Fund and from the Cancer Prevention and Research Institute of Texas (CPRIT). For more information, visit www.mirnarx.com.

About Marina Biotech, Inc.

Marina Biotech is an oligonucleotide therapeutics company with the broadest drug discovery platform in the sector providing the ability to develop proprietary single and double-stranded nucleic acid therapeutics including siRNAs, microRNA mimics, antagomirs, and antisense compounds, including messengerRNA therapeutics. The platform was built via a roll-up strategy to discover and develop any number of different types of nucleic acid therapeutics in order to modulate (up or down) a specific protein(s) which is either being produced too much or too little causing a particular disease. We believe that Marina Biotech is the only company in the sector with this breadth of capability, and as a result the platform has unique strengths as a drug discovery engine for the development of nucleic acid-based therapeutics for rare and orphan diseases. Further, we believe Marina is the only company in the sector that has a delivery technology in human clinical trials with differentiated classes of payloads, through licensees ProNAi Therapeutics and Mirna Therapeutics, delivering single-stranded and double-stranded nucleic acid payloads, respectively. Our novel chemistries and other delivery technologies have been validated through license agreements with Roche, Novartis, Monsanto, and Tekmira. The Marina Biotech pipeline currently includes a clinical program in Familial Adenomatous Polyposis (a precancerous syndrome) and two preclinical programs -- in bladder cancer and myotonic dystrophy. Marina Biotech's goal is to improve human health through the development of RNAi- and oligonucleotide-based compounds and drug delivery technologies that together provide superior therapeutic options for patients. Additional information about Marina Biotech is available at www.marinabio.com.

Forward-Looking Statements

Statements made in this news release may be forward-looking statements within the meaning of Federal Securities laws that are subject to certain risks and uncertainties and involve factors that may cause actual results to differ materially from those projected or suggested. Factors that could cause actual results to differ materially from those in forward-looking statements include, but are not limited to: (i) the ability of Marina Biotech to obtain additional funding; (ii) the ability of Marina Biotech to attract and/or maintain manufacturing, research, development and commercialization partners; (iii) the ability of Marina Biotech and/or a partner to successfully complete product research and development, including preclinical and clinical studies and commercialization; (iv) the ability of Marina Biotech and/or a partner to obtain required governmental approvals; and (v) the ability of Marina Biotech and/or a partner to develop and commercialize products prior to, and that can compete favorably with those of, competitors.

Additional factors that could cause actual results to differ materially from those projected or suggested in any forward-looking statements are contained in Marina Biotech's most recent filings with the Securities and Exchange Commission. Marina Biotech assumes no obligation to update and supplement forward-looking statements because of subsequent events.

Marina Biotech, Inc.
J. Michael French
President and Chief Executive Officer
(425) 892-4322
admin@marinabio.com

Mirna Therapeutics, Inc.
Paul Lammers, M.D., M.Sc.
President and Chief Executive Officer
(512) 901-0900
plammers@mirnarx.com