News Release

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Dicerna Co-Founder and Scientific Advisory Board Chair to Present at American Association of Pharmaceutical Scientists 2008 Meeting and Exposition

WATERTOWN, Mass., November 17, 2008 – Dicerna Pharmaceuticals, Inc. (www.dicerna.com), a second generation RNA interference company developing novel therapeutics utilizing its proprietary Dicer Substrate Technology™, today announced that John Rossi, Ph.D., scientific co-founder of and scientific advisory board chair for Dicerna, as well as professor in the Division of Molecular Biology and dean, Graduate School of Biological Sciences at City of Hope's Beckman Research Institute, will speak at the American Association of Pharmaceutical Scientists (AAPS) 2008 Annual Meeting and Exposition in Atlanta, GA.

Dr. Rossi will speak in a symposium titled "siRNA's as Pharmacological Tools and Therapeutic Agents: Challenges and Opportunities" at 2:00 p.m. EST on November 17, 2008. Small-interfering RNAi (siRNA) is an emerging therapeutic area which represents a new way to treat previously "undruggable"diseases. This symposium will discuss the current approaches for siRNA use, outline the potential delivery methods and the pharmacokinetics, metabolism and biodistribution of siRNAs. Dr. Rossi will also address the activity of Dicer, a key enzyme involved in the processing of double-stranded RNA into siRNA. In humans, Dicer optimally processes double-stranded RNA oligonucleotides of longer length - 25 to 30 base pairs Dicer Substrate siRNAs (DsiRNA) - than earlier-generation 21 base pair siRNAs. These DsiRNAs have demonstrated a 5-to-10-fold more potent activity and longer duration of action.

"I look forward to discussing the exciting opportunities for the development of siRNA and DsiRNA therapeutics with my peers at the AAPS Annual Meeting," commented Dr. Rossi. "To effectively realize the full potential of these gene-silencing compounds, it is crucial for the scientific, research and drug development community to discuss important matters, like drug delivery and regulatory issues, so that these therapies may deliver real therapeutic advances."

"Dicerna is utilizing its proprietary Dicer Substrate Technology™ to develop DsiRNAi-therapeutics that can knock down the expression of a targeted gene in a way that is highly selective, specific and more potent than other RNAi approaches," said James Jenson, Ph.D., chief

executive officer of Dicerna. “We are also developing drug delivery methods for maximizing the therapeutic benefit of these compounds. The AAPS Annual Meeting is an excellent forum to discuss the opportunities for siRNA and DsiRNA therapeutics, and the progress companies like Dicerna are making to bring RNAi therapies to patients.”

About RNAi

First described in plants and then in worms, flies and higher organisms, RNAi works differently in mammals because of the activity of Dicer, a key enzyme involved in the processing of double-stranded RNA into siRNA. In humans, Dicer optimally processes double-stranded RNA oligonucleotides of 25 to 30 base pairs, resulting in a five-to-10-fold more potent activity and longer duration of action.

About Dicerna

Dicerna Pharmaceuticals is a private, venture-backed RNAi-focused biopharmaceutical company developing novel therapeutic agents in multiple disease areas based on its proprietary Dicer Substrate Technology platform. Dicerna is developing novel RNAi-based therapies, and related drug delivery systems, that use an earlier step in the gene silencing process, namely the engagement of the enzyme Dicer, which is a natural initiation point for the RNAi cascade. This approach results in the knockdown of expression of a targeted gene in a way that is highly selective and specific, and demonstrates greater potency and longer duration of action than other RNAi approaches. The Dicer Substrate Technology is based on intellectual property that is both broadly enabling and distinct from other IP in the field. Dicerna is based in Watertown, Massachusetts. For more information, please visit www.dicerna.com.

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