



## Dicerna™ Announces Closing of Agreement With Novo Nordisk for Discovery and Development of RNAi Therapies for Liver-Related Cardio-Metabolic Diseases

January 2, 2020

LEXINGTON, Mass.--(BUSINESS WIRE)--Jan. 2, 2020-- [Dicerna™Pharmaceuticals, Inc.](#) (Nasdaq: DRNA) (the "Company" or "Dicerna"), a leading developer of investigational ribonucleic acid interference (RNAi) therapeutics, today announced the closing of the discovery and development agreement between Dicerna and Novo Nordisk A/S (Novo Nordisk) following expiration of the waiting period under the Hart-Scott-Rodino Antitrust Improvements Act of 1976, as amended.

As previously announced on Nov. 18, 2019, Dicerna and Novo Nordisk entered into an agreement to discover and develop novel therapies for the treatment of liver-related cardio-metabolic diseases using Dicerna's proprietary GalXC™ RNAi platform technology. The collaboration will explore more than 30 liver cell targets and may deliver multiple clinical candidates for disorders including chronic liver disease, non-alcoholic steatohepatitis (NASH), type 2 diabetes, obesity and rare diseases. Dicerna will conduct and fund discovery and preclinical development to clinical candidate selection for each liver cell target, and Novo Nordisk will be responsible for all further development. Dicerna retains the right to opt into two clinical-stage programs to be derived from the discovery collaboration.

Dicerna will receive an upfront payment of \$175.0 million, following delivery of a program start-up package to Novo Nordisk, expected early in the first quarter of 2020. Under the terms of the agreement, Dicerna will receive \$25.0 million annually for each of the first three years of the collaboration subject to delivery of RNAi molecules for a defined number of targets to Novo Nordisk, and up to \$357.5 million per target in development, regulatory and commercialization milestone payments, plus tiered royalties on product sales ranging from the mid-single-digits to mid-teens. As part of the agreement, the Company issued to Novo Nordisk 2,279,982 shares of Dicerna common stock in connection with Novo Nordisk's \$50.0 million equity investment in Dicerna.

The agreement enables each company to co-develop and co-commercialize product candidates discovered under the collaboration. Novo Nordisk will lead programs targeting cardio-metabolic disorders and other indications with Dicerna having the option to opt into two programs during clinical development. Dicerna retains rights to initiate two new orphan liver disease programs for which Novo Nordisk can opt in. For all co-development programs, the companies will share in the profit/loss of net sales of products consistent with each company's contribution to co-development costs.

### About Dicerna's GalXC™ RNAi Technology Platform

Dicerna's proprietary ribonucleic acid interference (RNAi) technology platform, called GalXC™, aims to advance the development of next-generation RNAi-based therapies designed to silence disease-driving genes in the liver and other tissues. Liver-targeted GalXC-based compounds enable subcutaneous delivery of RNAi therapies that are designed to bind specifically to receptors on liver cells, leading to internalization and access to the RNAi machinery within the cells. The GalXC approach seeks to optimize the activity of the RNAi pathway so that it operates in the most specific and potent fashion. Compounds produced via GalXC are intended to be broadly applicable across multiple therapeutic areas, including both liver and non-liver indications.

### About Dicerna™Pharmaceuticals, Inc.

Dicerna™Pharmaceuticals, Inc., is a biopharmaceutical company using ribonucleic acid interference (RNAi) to develop medicines that silence genes that cause disease. The Company's proprietary GalXC™ technology is being applied to develop potent, selective and safe RNAi therapies to treat diseases involving the liver, including rare diseases, chronic liver diseases, cardiovascular diseases and viral infectious diseases. Dicerna aims to treat disease by addressing the underlying causes of illness with capabilities that extend beyond the liver to address a broad range of diseases, focusing on target genes where connections between gene and disease are well understood and documented. Dicerna intends to discover, develop and commercialize novel therapeutics either on its own or in collaboration with pharmaceutical partners. Dicerna has strategic collaborations with Novo Nordisk A/S, Roche, Eli Lilly and Company, Alexion Pharmaceuticals, Inc. and Boehringer Ingelheim International GmbH. For more information, please visit [www.dicerna.com](http://www.dicerna.com).

### Cautionary Note on Forward-Looking Statements

This press release includes forward-looking statements. Such forward-looking statements are subject to risks and uncertainties that could cause actual results to differ materially from those expressed or implied in such statements. Examples of forward-looking statements include, among others, statements we make regarding: (i) the full potential to leverage our GalXC platform to target and silence specific genes that contribute to cardio-metabolic diseases; (ii) the potential to earn revenue from milestone payments and royalties under the collaboration with Novo Nordisk; (iii) research and development plans related to GalXC and its utility in silencing genes that contribute to cardio-metabolic diseases; (iv) the potential of RNAi therapies for the treatment of cardio-metabolic diseases; and (v) the potential for the collaboration and co-commercialization of products by Novo Nordisk and Dicerna. The process by which an early-stage platform such as GalXC could potentially lead to an approved product is long and subject to highly significant risks, particularly with respect to a preclinical research collaboration. Applicable risks and uncertainties include those relating to preclinical research and other risks identified under the heading "Risk Factors" included in Dicerna's most recent quarterly report on Form 10-Q and in other filings made by the Company with the Securities and Exchange Commission. The forward-looking statements contained in this press release reflect Dicerna's current views with respect to future events, and Dicerna does not undertake and specifically disclaims any obligation to update any forward-looking statements, except as required by law.

Dicerna™ and GalXC™ are trademarks of Dicerna Pharmaceuticals, Inc.

Source: Dicerna™Pharmaceuticals, Inc.

Media:

Amy Trevvett, Dicerna Pharmaceuticals, Inc.

+1 617-612-6253

[atrevett@dicerna.com](mailto:atrevett@dicerna.com)

Alex Van Rees, SmithSolve

+1 973-442-1555 ext. 111

[alex.vanrees@smithsolve.com](mailto:alex.vanrees@smithsolve.com)

Investors:

Lauren Stival, Stern Investor Relations, Inc.

+1 212-362-1200

[lauren.stival@sternir.com](mailto:lauren.stival@sternir.com)