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# Codexis Announces Achievement of Gram-scale Synthesis with its ECO Synthesis™ Platform

*Milestone enables Codexis engineers to model the manufacturing process for RNAi therapeutics*

*Company remains on track to initiate pre-commercial customer testing in 2024*

REDWOOD CITY, Calif., Dec. 13, 2023 (GLOBE NEWSWIRE) -- Codexis, Inc. (NASDAQ: CDXS), a leading enzyme engineering company, today announced it has achieved gram-scale synthesis with its Enzyme-Catalyzed Oligonucleotide (ECO) Synthesis™ technology. This critical technical milestone demonstrates the preparative-scale manufacture of an oligonucleotide, composed of the modified nucleotide building blocks typically used in ribonucleic acid (RNA) therapeutics, under process-like conditions.

Successful completion of this milestone enables Codexis engineers to initiate a comprehensive assessment of the purity profile for small interference RNA (siRNA) developed with ECO Synthesis™ technology. Separately, data collected on process-related parameters provides foundational information for early models of the siRNA manufacturing process and allows the Company to open conversations with early access customers on their RNA interference (RNAi) therapeutics manufacturing processes. Early access customer testing is on track to initiate in 2024 ahead of an anticipated full commercial launch in 2026.

“Our scientists have done outstanding work to bring us to this critical milestone for the development of our ECO Synthesis™ technology so rapidly. We have increased production scale by four orders of magnitude since August to move into preparative scale of the oligonucleotide. This is significant because it allows our engineers to begin modeling and testing manufacturing methods with confidence, which will enable us to start sharing data-driven insights with potential customers on key metrics like purity profile,” said Stephen Dilly, MBBS, PhD, Chief Executive Officer of Codexis. “Furthermore, we have demonstrated the ability of our enzymes to include modified building blocks reliably and with high conversion efficiency in a timely fashion. This, together with our steady progress in the enzymatic synthesis of the nucleotide building blocks and starter oligonucleotide, gives us real excitement for the potential of the ECO Synthesis™ platform and we look forward to initiating pre-commercial testing next year.”

The need for an enzymatic route of synthesis for RNAi therapeutics was recently reinforced at the Company’s virtual KOL investor event featuring John Maraganore, PhD, Founder and Former Chief Executive Officer of Alnylam Pharmaceuticals and Codexis Strategic Advisory Board member, and David Butler, PhD, Chief Technology Officer of Hongene Biotech Company. These distinguished experts were joined by Codexis leadership and discussed the growth of RNAi therapeutics as a modality, the manufacturing landscape and the potential role for Codexis’ ECO Synthesis™ platform to enable commercial-scale production

of RNAi therapeutics. A replay of the virtual event is accessible on the Investor Relations section of the Company's website, <https://ir.codexis.com>.

## **About the ECO Synthesis™ Platform**

Ribonucleic acid (RNA) as a therapeutic modality has gained tremendous traction in recent years with the growing number of messenger RNA (mRNA) vaccines and small interfering RNA (siRNA) candidates advancing in clinical studies. However, large-scale production of RNA interference (RNAi) therapeutics using traditional chemical synthesis faces complex challenges in nucleic acid quality and quantity, as well as overall economics. With over 450 RNAi therapies currently in clinical development, including more than 40 assets in Phase 2 and Phase 3 clinical trials targeting disease indications impacting millions of patients, RNAi therapeutic demand is projected to outpace current production capabilities by the end of the decade. Codexis' proprietary ECO Synthesis™ technology platform is being designed to address these scalability and cost limitations by potentially enabling the commercial-scale manufacture of RNAi therapeutics through an enzymatic route. The Company achieved gram-scale synthesis in December 2023, where it demonstrated the preparative-scale manufacture of an oligonucleotide, composed of the modified nucleotide building blocks typically used in RNAi therapeutics, under process-like conditions. Codexis remains on track to initiate early access customer testing in 2024.

## **About Codexis**

Codexis is a leading enzyme engineering company leveraging its proprietary CodeEvolver® technology platform to discover, develop and enhance novel, high-performance enzymes and other classes of proteins. Codexis enzymes solve for real-world challenges associated with small molecule pharmaceuticals manufacturing and nucleic acid synthesis. The Company is currently developing its proprietary ECO Synthesis™ platform to enable the scaled manufacture of RNAi therapeutics through an enzymatic route. Codexis' unique enzymes can drive improvements such as higher yields, reduced energy usage and waste generation, improved efficiency in manufacturing and greater sensitivity in genomic and diagnostic applications. For more information, visit <https://www.codexis.com>.

## **Forward-Looking Statements**

This press release may contain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. In some cases, you can identify forward-looking statements by terminology such as "aim," "anticipate," "assume," "believe," "contemplate," "continue," "could," "design," "due," "estimate," "expect," "goal," "intend," "may," "objective," "plan," "positioned," "potential," "predict," "seek," "should," "suggest," "target," "on track," "will," "would" and other similar expressions that are predictions of or indicate future events and future trends, or the negative of these terms or other comparable terminology. To the extent that statements contained in this press release are not descriptions of historical facts, they are forward-looking statements reflecting the current beliefs and expectations of management, including but not limited to statements regarding whether Codexis will be able to initiate, and the timing of it initiating, pre-commercial customer testing of its ECO Synthesis™ technology in 2024 and a full commercial launch in 2026; the potential of the ECO Synthesis™ platform, including its ability to be broadly utilized and to enable commercial-scale manufacture of RNAi therapeutics through an enzymatic route; the potential of an enzymatic route of synthesis to drive improvements relative to traditional chemical synthesis related to, among other things, nucleic acid quantity and quality and

overall economics; and expectations regarding future demand for RNAi technologies. You should not place undue reliance on these forward-looking statements because they involve known and unknown risks, uncertainties and other factors that are, in some cases, beyond Codexis' control and that could materially affect actual results. Factors that could materially affect actual results include, among others: Codexis' dependence on its licensees and collaborators; if any of its collaborators terminate their development programs under their respective license agreements with Codexis; Codexis may need additional capital in the future in order to expand its business; if Codexis is unable to successfully develop new technology such as its ECO Synthesis™ platform and dsRNA; Codexis' dependence on a limited number of products and customers, and potential adverse effects to Codexis' business if its customers' products are not received well in the markets; if Codexis is unable to develop and commercialize new products for its target markets; if competitors and potential competitors who have greater resources and experience than Codexis develop products and technologies that make Codexis' products and technologies obsolete; if Codexis is unable to accurately forecast financial and operational performance; and market and economic conditions may negatively impact Codexis' business, financial condition and share price. Additional information about factors that could materially affect actual results can be found in Codexis' Annual Report on Form 10-K filed with the Securities and Exchange Commission ("SEC") on February 27, 2023 and in Codexis' Quarterly Report on Form 10-Q filed with the SEC on November 3, 2023, including under the caption "Risk Factors," and in Codexis' other periodic reports filed with the SEC. Codexis expressly disclaims any intent or obligation to update these forward-looking statements, except as required by law.

## **For More Information**

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