Data from Codiak's exoASO™-STAT6 Preclinical Development Program for the Treatment of Primary and Metastatic Hepatic Cancers Published in Science Advances

February 18, 2022

– Unprecedented monotherapy activity via macrophage reprogramming in preclinical models –

– Phase 1 study expected to begin in 1H 2022 –

CAMBRIDGE, Mass., Feb. 18, 2022 (GLOBE NEWSWIRE) -- Codiak BioSciences, Inc. (NASDAQ: CDAK), a clinical-stage biopharmaceutical company pioneering the development of exosome-based therapeutics as a new class of medicines, today announced the online publication of a new manuscript, *Exosome mediated genetic reprogramming of tumor associated macrophages by exoASO-STAT6 leads to potent monotherapy anti-tumor efficacy*, in the American Association for the Advancement of Science's journal, *Science Advances*.

exoASO™-STAT6 is a novel, engineered exosome precision medicine candidate in development for the treatment of macrophage-rich tumors. This publication details the findings from the preclinical development program and highlights the ability of exoASO-STAT6 to selectively target tumor associated immune-suppressive macrophages (TAMs) and precisely disrupt STAT6 signaling to generate impressive monotherapy anti-tumor activity in cancer models.

"Based on our preclinical observations, we believe exoASO-STAT6 is the first macrophage targeting candidate to show single agent anti-tumor activity of this magnitude, thus offering the potential to overcome significant barriers to prior drug development efforts aimed at transcription factors," said Sriram Sathyanarayanan, Ph.D., Chief Scientific Officer, Codiak. "This publication describes the unique attributes and anti-tumor activity of exoASO-STAT6 in several preclinical cancer models, including colorectal and hepatocellular carcinomas, the latter of which we intend to be the focus of our initial clinical investigations of this candidate."

TAMs promote tumor growth by exhibiting an immune suppressive M2 phenotype. Reprogramming TAMs toward a pro-inflammatory M1 phenotype is a novel approach to induce anti-tumor immunity. The M2 phenotype is controlled by key transcription factors such as STAT6, which have proven difficult to drug selectively in TAMs by prior approaches. Codiak has demonstrated that exosomes – naturally occurring, extracellular nanoparticle vesicles – can be engineered using its proprietary engEx™ Platform to preferentially deliver STAT6 targeted antisense oligonucleotides to TAMs.

STAT6 pathway activation is associated with poor prognosis in multiple cancers including hepatocellular carcinomas (HCC) and patients with high STAT6 activation may potentially benefit from exoASO-STAT6 therapy.

Codiak plans to initiate in the first half of 2022 a Phase 1 clinical trial to evaluate the safety, tolerability, biomarkers and preliminary anti-tumor activity of exoASO-STAT6 in HCC. With this trial, exoASO-STAT6 will become Codiak's third engineered exosome candidate in clinical development. Additionally, exoASO-STAT6 will be the company's first systemically administered drug candidate, first antisense oligonucleotide payload and first candidate to target a transcription factor, highlighting the highly innovative nature of the engEx Platform.

About exoASO™-STAT6
exoASO-STAT6 is an engineered exosome therapeutic candidate which selectively delivers antisense oligonucleotides to down-modulate STAT6 mRNA expression in TAMs. Precise targeting of STAT6 promotes the switch of TAMs to an M1, T cell attractive, anti-tumor phenotype. Codiak plans to initially develop exoASO-STAT6 for primary cancers of the liver, where STAT6 expression has been correlated with poor survival.

About the engEx™ Platform
Codiak's proprietary engEx Platform is designed to enable the development of engineered exosome therapeutics for a wide spectrum of diseases and to manufacture them reproducibly and at scale to pharmaceutical standards. By leveraging the inherent biology, function and tolerability profile of exosomes, Codiak is developing engEx exosomes designed to carry and protect potent drug molecules, provide selective delivery and elicit the desired pharmacology at the desired tissue and cellular sites. Through its engEx Platform, Codiak seeks to direct tropism and distribution by engineering exosomes to carry on their surface specific targeting drug moieties, such as proteins, antibodies/fragments, and peptides, individually or in combination. Codiak scientists have identified two exosomal proteins that serve as surface and luminal scaffolds. By engineering the exosome surface or lumen and optimizing the route of administration, Codiak aims to deliver engEx exosomes to the desired cell and tissue to more selectively engage the drug target, potentially enhancing the therapeutic index by improving potency and reducing toxicity.

About Codiak BioSciences
Codiak is a clinical-stage biopharmaceutical company pioneering the development of exosome-based therapeutics, a new class of medicines with the potential to transform the treatment of a wide spectrum of diseases with high unmet medical need. By leveraging the biology of exosomes as natural intercellular transfer mechanisms, Codiak has developed its proprietary engEx Platform to expand upon the innate properties of exosomes to design, engineer and manufacture novel exosome therapeutic candidates. Codiak has utilized its engEx Platform to generate a deep pipeline of engineered exosomes aimed at treating a broad range of diseases, spanning oncology, neuro-oncology, infectious disease and rare disease. For more information, visit http://www.codiakbio.com and follow @CodiakBio.

Forward-Looking Statements
This press release contains "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995, including, among other things, statements concerning the development and therapeutic potential of exoASO-STAT6, exoSTING and exoIL-12, including timing of release of data, and statements regarding the capabilities and potential of Codiak's engEx Platform and engineered exosomes generally. Any forward-looking statements in this press release are based on management's current expectations of future events and are subject to a number of risks and

uncertainties that could cause actual results to differ materially and adversely from those set forth in or implied by such forward-looking statements. For a discussion of these risks and uncertainties, and other important factors, any of which could cause our actual results to differ from those contained in the forward-looking statements, see the section entitled “Risk Factors” in Codiak’s Annual Report on Form 10-K for the year ended December 31, 2020, and in subsequent filings with the Securities and Exchange Commission, as well as discussions of potential risks, uncertainties and other important factors in Codiak’s subsequent filings with the Securities and Exchange Commission. All information in this press release is current as of the date of this report, and Codiak undertakes no duty to update this information unless required by law.

Investor Contact: Christopher Taylor VP, Investor Relations and Corporate Communications T: 617-949-4220 E: investor@codiakbio.com Media Contact: Lindy Devereux Scient PR T: 646-515-5730 E: media@codiakbio.com