



CEPI and Codiak BioSciences partner to develop broadly protective Betacoronavirus vaccine

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OSLO, Norway and CAMBRIDGE, Mass., July 05, 2022 (GLOBE NEWSWIRE) -- CEPI, the Coalition for Epidemic Preparedness Innovations, and Codiak BioSciences (NASDAQ: CDAK) today announced the latest funding award under CEPI's [US \\$200m programme](#) to advance the development of vaccines that provide broad protection against SARS-CoV-2 (including its variants) and other *Betacoronaviruses*. CEPI will provide seed funding of up to US \$2.5 million to Codiak BioSciences—a clinical-stage biopharmaceutical company based in Cambridge, MA, USA—to continue the advancement of vaccine candidates from its pan *Betacoronavirus* program through preclinical studies.

Codiak's proprietary exoVACC™ platform leverages engineered exosomes—naturally occurring, extracellular nanoparticle vesicles—to precisely control antigen display on the surface or in the lumen, in order to deliver antigens, adjuvants and immunomodulators selectively to antigen-presenting cells to maximize immune response. Codiak's pan *Betacoronavirus* vaccine construct carries the receptor-binding domain (RBD) protein of both SARS-CoV-1 and SARS-CoV-2 at high density on the surface of the exosome, combined with structurally constrained, highly conserved T-cell antigens expressed in the lumen, and stable loading of a STING agonist. This design closely resembles the natural viral structures, and these engineered exosomes stimulate a broad immune response comprising both antibody and T-cell-mediated immunity.

Codiak has previously presented preclinical data showing its vaccine candidate stimulates a comprehensive and durable immune response against multiple SARS-CoV-2 variants and the ability to produce antigen-specific T-cell responses against known coronavirus variants of concern. CEPI's funding will enable Codiak to further validate its program in preclinical studies, assessing the immune response against known *Betacoronaviruses* that already pose a significant epidemic or pandemic risk, such as SARS-CoV-1, SARS-CoV-2, and MERS-CoV, and the potential of the immune response to protect against infection and disease caused by these viruses.

Potential applications against Disease X

If this innovative approach is proven to be successful, it could also be applicable for developing vaccines against other pathogens in the CEPI portfolio, including 'Disease X'—unknown pathogens with pandemic potential that have yet to emerge.

Enabling equitable access

CEPI is committed to the principle of equitable access to the vaccines it funds. Under the terms of the funding agreement, Codiak BioSciences has committed to achieving equitable access to the outputs of this project, in line with CEPI's [Equitable Access Policy](#).

Dr Richard Hatchett, CEO of CEPI said: "The COVID pandemic is not over and the R&D job is not done. We've seen extraordinary advances in vaccinology over the past couple of years. Now we need to build on these advances, so we can strengthen our defenses against the SARS-CoV-2 and stay one step ahead of it, and other coronavirus threats. Initiating the development of broadly protective coronavirus vaccines should be an integral part of the world's long-term strategy out of this pandemic. Their development will ensure that we're ready for future SARS-CoV-2 mutations before they emerge and enable us to neutralize the threat posed by other more deadly *Betacoronaviruses*, like SARS-CoV-1 and MERS-CoV, once and for all."

Sriram Sathyanarayanan, Ph.D., Chief Scientific Officer, Codiak said: "We are incredibly honored to be recognized by an organization as well-respected as CEPI and grateful for their partnership, which we anticipate will fund the completion of preclinical development and identification of a clinical candidate for our pan *Betacoronavirus* program. We realize that collaboration is essential to meet the challenge of coronaviruses, current and future, and are thrilled to be working with both CEPI and the Ragon Institute, whom we partnered with to identify and source optimal T-cell epitopes that are highly conserved and invariant across all *Betacoronaviruses* to engineer into our vaccine candidates. It's our hope these and future alliances yield a vaccine approach that can forge a path out of the current coronavirus pandemic, while also buttressing future outbreaks."

About CEPI

CEPI is an innovative partnership between public, private, philanthropic, and civil organisations, launched at Davos in 2017, to develop vaccines against future epidemics. Prior to COVID-19, CEPI's work focused on developing vaccines against Ebola virus, Lassa virus, Middle East Respiratory Syndrome coronavirus, Nipah virus, Rift Valley Fever virus and Chikungunya virus—it has over 20 vaccine candidates against these pathogens in development. CEPI has also invested in new platform technologies for rapid vaccine development against unknown pathogens (Disease X).

During the current pandemic, CEPI initiated multiple programmes to develop vaccines against SARS-CoV-2 and its variants with a focus on speed, scale and access. These programmes leverage the rapid response platforms developed by CEPI's partners prior to the emergence of COVID-19 as well as new collaborations. The aim is to advance clinical development of a diverse portfolio of safe and effective COVID-19 candidates and to enable fair allocation to these vaccines worldwide through COVAX.

CEPI's 5-year plan lays out a \$3.5 billion roadmap to compress vaccine development timelines to 100 days, develop a universal vaccine against COVID-19 and other *Betacoronaviruses*, and create a "library" of vaccine candidates for use against known and unknown pathogens. The plan is available at <https://endpandemics.cepi.net/>.

Follow our [news page](#) for the latest updates. Follow us at [@CEPIvaccines](#), [@DrRHatchett](#), and [LinkedIn](#).

About Codiak's exoVACC™ Platform

exoVACC is Codiak's proprietary and modular vaccine system that utilizes the unique properties of exosomes to deliver antigens and adjuvants simultaneously and selectively to the same antigen presenting cells (APCs), driving an integrated innate, cellular and/or antibody-mediated immune response. Utilizing its engEx® engineering platform, Codiak can incorporate within a single exosome multiple complex antigens and adjuvants, as well

as cell-targeting ligands and immune co-stimulatory molecules to potentially enhance and shape an immune response. Codiak is developing this platform for potential applications in infectious disease and oncology.

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 for Codiak BioSciences

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 Codiak’s development of exosome-based vaccines, as well as statements concerning the development and therapeutic potential of the Company’s engEx Platform, engEx product candidates and engineered exosomes generally, including future development plans, regulatory filings, releases of data and timing with respect thereto. 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, 2021, and in Codiak’s 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.

Contacts:

CEPI:

Email: press@cepi.net

Phone: +44 7387 055214

Codiak:

Investor Contact:

Christopher Taylor

VP, Investor Relations and Corporate Communications

T: 617-949-4220

E: investor@codiakbio.com

Media Contact:

Cory Tromblee

Scient PR

E: media@codiakbio.com