

Moderna Announces Funding Award from CEPI to Accelerate Development of Messenger RNA (mRNA) Vaccine Against Novel Coronavirus

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Collaboration includes the National Institutes of Health (NIH) and leverages flexibility of Moderna's mRNA vaccine technology

CAMBRIDGE, Mass.--(BUSINESS WIRE)--Jan. 23, 2020-- Moderna, Inc., (Nasdaq: MRNA) a clinical stage biotechnology company pioneering messenger RNA (mRNA) therapeutics and vaccines to create a new generation of transformative medicines for patients, and the Coalition for Epidemic Preparedness Innovations (CEPI), today announced a new collaboration to develop an mRNA vaccine against the novel coronavirus (2019-nCoV).

Under the terms of the agreement, Moderna will manufacture an mRNA vaccine against 2019-nCoV, which will be funded by CEPI. The Vaccine Research Center (VRC) of the National Institute of Allergy and Infectious Diseases (NIAID), part of NIH, collaborated with Moderna to design the vaccine. NIAID will conduct IND-enabling studies and a Phase 1 clinical study in the U.S.

Over the past four years Moderna has had six positive Phase 1 clinical readouts in its prophylactic vaccines modality and moved two additional programs into development. Moderna's technology platform, fully integrated manufacturing site and development experience, combined with a multi-year relationship with the NIH, including exploring ways to respond to public health threats, allows for the rapid identification and advancement of a vaccine candidate against 2019-nCoV.

"Moderna's commitment to global public health is aligned with CEPI's vision of creating a world in which epidemics are no longer a threat to humanity," said Richard Hatchett, M.D., CEO of CEPI. "We are pleased with the pace of our combined response to the emerging threat of the novel coronavirus. Through our partnership with Moderna and the NIH, we hope to speed the development of a vaccine against the coronavirus and help to alleviate the burden of disease."

"We believe our mRNA vaccine technology offers potential advantages in the speed of development and production scalability, which positions Moderna to potentially develop a vaccine against coronavirus, 2019-nCoV," said Stéphane Bancel, CEO of Moderna. "Advances in global public health require the collective effort of public-private partnerships – no organization can act alone. We are honored to be supporting NIH and CEPI in their mission to identify a potential vaccine to prevent infection. It is impressive that CEPI was able to commit to this grant in a matter of days. We are thankful for the financial support from CEPI and the multi-year scientific collaboration we have with the NIH."

About Coronavirus

Coronaviruses are a family of viruses that can lead to respiratory illness, including Middle East Respiratory Syndrome (MERS-CoV) and Severe Acute Respiratory Syndrome (SARS-CoV). Coronaviruses are transmitted between animals and people and can evolve into strains not previously identified in humans. On January 7, 2020, a novel coronavirus (2019-nCoV) was identified as the cause of pneumonia cases in Wuhan City, Hubei Province of China, and additional cases have been found in a growing number of countries.^{1,2}

About Moderna's Prophylactic Vaccines Modality

Moderna scientists designed the Company's prophylactic vaccines modality to prevent or control infectious diseases. This modality now includes five programs, all of which are vaccines against viruses. More than 1,000 participants have been enrolled in Moderna's infectious disease vaccine clinical studies under health authorities in the U.S., Europe and Australia.

The potential advantages of an mRNA approach to prophylactic vaccines include the ability to mimic natural infection to stimulate a more potent immune response, combining multiple mRNAs into a single vaccine, rapid discovery to respond to emerging pandemic threats and manufacturing agility derived from the platform nature of mRNA vaccine design and production.

Moderna currently has five development candidates for potential commercial uses in this modality, including: respiratory syncytial virus (RSV) vaccine (mRNA-1777 and mRNA-1172 or V172 with Merck), cytomegalovirus (CMV) vaccine (mRNA-1647), human metapneumovirus and parainfluenza virus type 3 (hMPV/PIV3) vaccine (mRNA-1653) and Zika vaccine (mRNA-1893) with the Biomedical Advanced Research and Development Authority (BARDA). Three development candidates in this modality are available for potential global health uses including: influenza H10N8 vaccine (mRNA-1440), influenza H7N9 vaccine (mRNA-1851) and chikungunya vaccine (mRNA-1388), which was developed with the Defense Advanced Research Projects Agency (DARPA).

To date, Moderna has demonstrated positive Phase 1 data readouts for six prophylactic vaccines (H10N8, H7N9, RSV, chikungunya virus, hMPV/PIV3 and CMV). Moderna's CMV vaccine is currently in a Phase 2 dose-selection study. Moderna's investigational Zika vaccine (mRNA-1893), currently in a Phase 1 study, was granted FDA Fast Track designation.

Moderna has built a fully integrated, highly digitalized manufacturing plant in Norwood, MA which enables the promise of the technology platform.

About Moderna

Moderna is advancing messenger RNA (mRNA) science to create a new class of transformative medicines for patients. mRNA medicines are designed to direct the body's cells to produce intracellular, membrane or secreted proteins that have a therapeutic or preventive benefit with the potential to address a broad spectrum of diseases. Moderna's platform builds on continuous advances in basic and applied mRNA science, delivery technology and manufacturing, providing the Company the capability to pursue in parallel a robust pipeline of new development candidates. Moderna is developing therapeutics and vaccines for infectious diseases, immuno-oncology, rare diseases, cardiovascular diseases, and autoimmune and inflammatory diseases, independently and with strategic collaborators.

Headquartered in Cambridge, Mass., Moderna currently has strategic alliances for development programs with AstraZeneca, Plc. (NASDAQ: AZN) and Merck, Inc. (NASDAQ: MRK), as well as the Defense Advanced Research Projects Agency (NASDAQ: DARPA), an agency of the U.S. Department of Defense and the Biomedical Advanced Research and Development Authority (BARDA), a division of the Office of the Assistant Secretary for Preparedness and Response (ASPR) within the U.S. Department of Health and Human Services (HHS). Moderna has been named a top biopharmaceutical employer by *Science* for the past five years. To learn more, visit www.modernatx.com.

Special Note Regarding Forward-Looking Statements

This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, as amended including, the Company's intention to develop a potential vaccine for novel Coronavirus; the intent to obtain funding from CEPI for such development; and the time expected for such development In some cases, forward-looking statements can be identified by terminology such as "will," "may," "should," "expects," "intends," "plans," "anticipates," "believes," "estimates," "predicts," "potential," "continue," or the negative of these terms or other comparable terminology, although not all forward-looking statements contain these words. The forward-looking statements in this press release are neither promises nor guarantees, and you should not place undue reliance on these forward-looking statements because they involve known and unknown risks, uncertainties, and other factors, many of which are beyond Moderna's control and which could cause actual results to differ materially from those expressed or implied by these forward-looking statements. These risks, uncertainties, and other factors include, among others: the execution of final definitive agreements between the Company and CEPI; the fact that there has never been a commercial product utilizing mRNA technology approved for use; the fact that the rapid response technology in use by Moderna is being developed and implemented; the fact that funding for such project has not yet been received by the Company and those risks and uncertainties described under the heading "Risk Factors" in Moderna's most recent Annual Report on Form 10-K filed with the U.S. Securities and Exchange Commission (SEC) and in subsequent filings made by Moderna with the SEC, which are available on the SEC's website at www.sec.gov. Except as required by law, Moderna disclaims any intention or responsibility for updating or revising any forward-looking statements contained in this press release in the event of new inform

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¹ "Coronavirus." World Health Organization, https://www.who.int/health-topics/coronavirus.

² "2019 Novel Coronavirus, Wuhan, China." *Centers for Disease Control and Prevention*, https://www.cdc.gov/coronavirus/2019-nCoV/index.html.