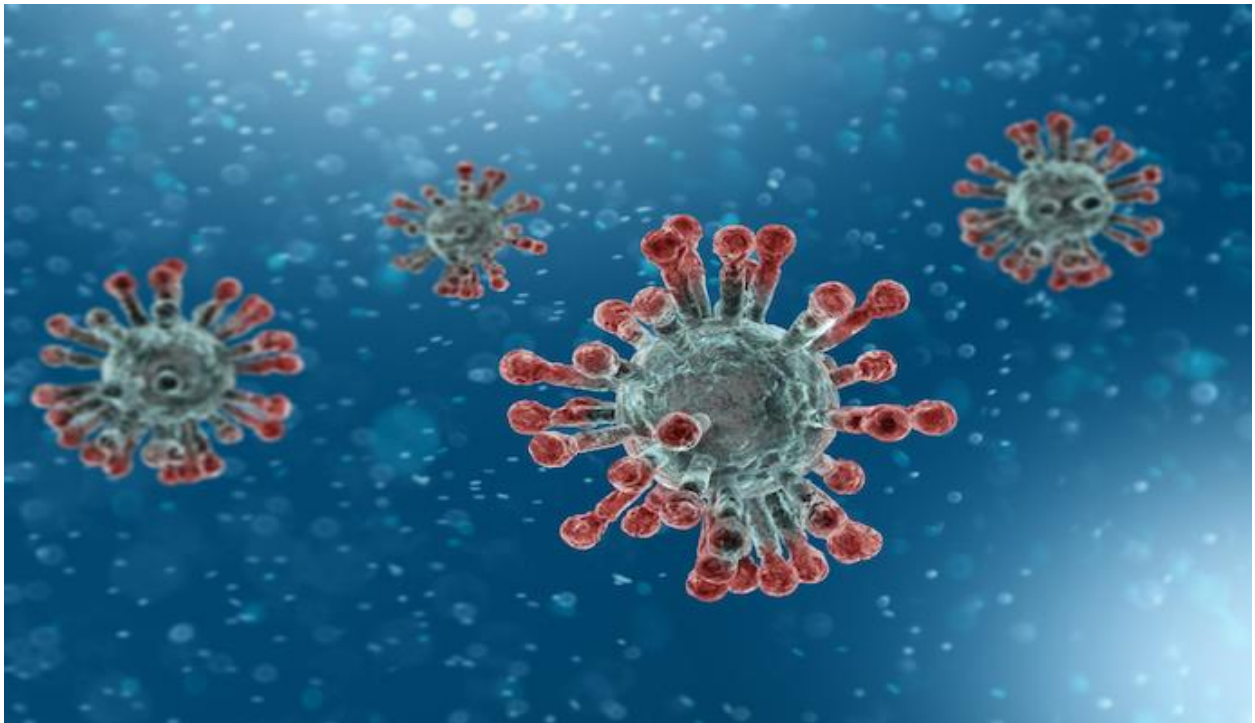


CEPI Pushes for Vaccine as Coronavirus Spreads

Inovio Pharmaceuticals, the University of Queensland and Moderna, Inc. and the National Institutes of Health will participate in CEPI's programs for a coronavirus vaccine.





By [Ana Mulero](#)

January 29, 2020 - The Coalition for Epidemic Preparedness Innovations [launched](#) three programs to develop vaccines for the coronavirus, including through partnerships with US-based biotechnology companies Inovio Pharmaceuticals and Moderna, Inc.

For more coronavirus updates, visit our [resource page](#), updated twice daily by Xtelligent Healthcare Media.

The novel coronavirus represents the first epidemic disease of note to emerge since the company launched at the 2017 World Economic Forum in Davos as an initiative to shorten response times to epidemics by creating vaccines to quickly release once an outbreak emerges.

Initiating the three programs on January 23 set the nCoV-2019 vaccine development efforts in motion to expedite vaccine candidates' entry into clinical testing. The efforts build on existing partnerships coupled with a new partnership with Moderna, Inc. and the US National Institute of Allergy and Infectious Diseases. These partnerships will ready up the rapid response platforms CEPI invests in, the company emphasized.

The efforts will leverage existing partnerships with Inovio Pharmaceuticals, which [joined](#) CEPI's efforts in April 2018, and with the University of Queensland, [announced](#) in January 2019.

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Pennsylvania-based Inovio was first awarded up to \$56 million in funding from CEPI in support of developing vaccine candidates against two of its priority diseases, including the Middle East Respiratory Syndrome coronavirus and the Lassa virus. The University of Queensland then snagged an agreement for up to \$10.6 million to develop a "molecular clamp" vaccine platform.

Inovio was selected to participate in the coordinated nCoV-2019 effort partly based on the suitability of its DNA medicine platform for rapid vaccine development. A grant of up to \$9 million in initial CEPI funding will support Inovio's preclinical and clinical development through Phase 1 human testing of its new coronavirus vaccine matched to

the nCoV-2019. Positive results from Inovios' first-in-human trial of its MERS-CoV vaccine were [published](#) in July 2019.

Inovio intends to improve on its faster vaccine development time for its 2019-nCoV vaccine. It developed “a vaccine that went from bench to human testing in just seven months – the fastest vaccine development on record in recent decades” after the Zika virus outbreak of 2015, said J. Joseph Kim, president and CEO at Inovio. “We believe we can further improve upon this accelerated timeline to meet the current challenge of the emerging Chinese coronavirus.”

Massachusetts-based Moderna will also manufacture an mRNA vaccine for the nCoV-2019 with CEPI's funding as part of the terms of the new partnership. The biotech firm collaborated with the Vaccine Research Center of the National Institutes of Health's NIAID on the mRNA vaccine.

Moderna's technology platform enables its pursuit of a robust pipeline of new vaccine candidates to respond to public health threats. It has demonstrated positive Phase 1 data readouts for six prophylactic vaccines and its investigational Zika vaccine, which is currently in a Phase 1 study, was [granted](#) US Food and Drug Administration Fast Track designation last November.

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Details on the grant CEPI awarded to Moderna were scant. CEO Stéphane Bancel said in a statement: “It is impressive that CEPI was able to commit to this grant in a matter of days.”

The University of Queensland's molecular clamp technology has been used in the laboratory to target a range of animal and human viruses, including Ebola and MERS CoV, among others. It [intends](#) to use this technology to develop the vaccine for nCoV-2019 in just the next six months.

At the heart of addressing the coronavirus outbreak lies the desire to learn from similar outbreaks, including the severe acute respiratory syndrome-CoV in 2002 and MERS-CoV in 2012. NIAID Director Anthony S. Fauci draws on the learning experience with prior zoonotic CoV outbreaks to discuss steps to contain the current one in a new JAMA Viewpoint article. "The emergence of yet another outbreak of human disease caused by a pathogen from a viral family formerly thought to be relatively benign underscores the perpetual challenge of emerging infectious diseases and the importance of sustained preparedness," Fauci [writes](#).

The move by CEPI and its partners coincide with how the coronavirus has been spreading to multiple countries worldwide. Inovio will advance its MERS vaccine candidate into Phase 2 in the Middle East, where most infections are occurring so far. The NIAID will provide investigational new drug application-enabling studies and a Phase 1 clinical study in the US.

“Our intention with this work is to leverage our work on the MERS coronavirus and rapid response platforms to speed up vaccine development,” Richard Hatchett, CEO of CEPI, said in a statement. “Our aspiration with these technologies is to bring a new pathogen from gene sequence to clinical testing in 16 weeks – which is significantly shorter than where we are now.”

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Just as CEPI announced the developing effort, the World Health Organization decided against declaring the coronavirus outbreak a public health emergency of international concern. WHO director-general Tedros Adhanom Ghebreyesus took to Twitter to **explain** that the outbreak “is an emergency in China, but it has not yet become a global health emergency.” He clarified that he “will not hesitate” to reconvene the Emergency Committee “at a moment’s notice” if need be.

The outbreak dates back to authorities in Wuhan, China first recognizing the 2019-nCoV in December 2019. China reportedly confirmed a death toll surpassing 100 from viral pneumonia cases and more than 4,000 people affected by the virus, which jumps from animals to humans.

The Centers for Disease Control and Prevention **confirmed** additional nCoV-2019 cases in the US earlier this month. Some of the affected states include Arizona, California, Illinois, and Washington. There have been certain other suspected cases in states such as Virginia.

More recent **updates** clarify that some additional precautions are not necessary. The Australian Government Department of Health was among those on Tuesday **addressing** media reports about people wearing masks, saying that “there is no need for the Australian public to wear masks.” A CDC **warning**, however, advised travelers to avoid all nonessential travel to China.

Other countries with new monitoring updates on the outbreak include France and Germany, which **confirmed** the first human transmission, pending information on the source.