

CEPI Awards Contract Worth Up To USD\$36 million to Consortium led by IDT to Develop MERS Vaccine

OSLO (Norway), Dessau-Rosslau, (Germany), August 20, 2018

CEPI (the Coalition for Epidemic Preparedness Innovations) today announced a collaboration with IDT Biologika under which IDT will receive up to USD\$36 million to advance the development and manufacture of a vaccine against Middle East Respiratory Syndrome Coronavirus (MERS-CoV), a zoonotic disease that is spread to humans from dromedary camels..

Under the terms of the Framework Partnering Agreement for the collaboration, IDT will receive development funding from CEPI for advancing its MERS-CoV vaccine. CEPI will provide \$15.7 million to support the first stages of the development, with options to invest up to a total of \$36 million over 5 years (including clinical development, process development, manufacturing, and stockpile of the vaccine).

First identified in 2012, MERS-CoV is carried by camels and spread by droplet infection of the airways¹. Infection can cause respiratory disease including fever and cough that can progress into severe pneumonia². About 35% of reported patients with MERS-CoV have died³. No vaccine against MERS-CoV is currently available⁴.

Since 2012, 2229 laboratory-confirmed cases have occurred in 27 countries⁵. WHO has highlighted MERS-CoV as a priority disease for research and development in view of its epidemic potential.

The disease has caused a number of large outbreaks, principally in Saudi Arabia and other countries of the Middle East, although large outbreaks have also occurred outside the Middle East. In 2015, for example, one person infected with MERS-CoV returned to South Korea from the Middle East, subsequently spreading the virus to

186 people, resulting in the death of 36, and causing substantial socioeconomic disruption⁶.

Anja Karliczek, Federal Minister of Education and Research for the Government of Germany, said:

"The outbreak of diseases like MERS, Ebola, or Lassa fever will continue to pose a threat to many people's health as long as there are no effective vaccines. This is why we are involved in the CEPI initiative, whose objective is to prevent future epidemics by developing novel vaccines. I am particularly glad that German know-how is playing an important part in ensuring better health security worldwide. The IDT Biologika company in Dessau and its academic partners were selected by CEPI to develop a vaccine against the MERS virus. Congratulations and best of luck in your endeavours!"

Dr. Richard Hatchett, CEO of CEPI, said:

"We are extremely pleased to enter into this agreement with IDT to develop a vaccine against MERS. At CEPI, we envision a world in which epidemic risks like MERS are no longer a threat to humanity. The Government of Germany is a founding member of CEPI and—through the support of the Federal Ministry of Education and Research—has been instrumental in helping us achieve this mission.

CEPI's investment of up to \$36 million in our partnership with IDT reflects not only our commitment to accelerating development of a MERS vaccine but also our drive to improve our collective response to epidemics and prevent the devastation they can cause."

Andreas Kastenbauer, CEO of IDT said:

"We are pleased to contribute our knowledge and resources to develop such an innovative vaccine for prevention of this deadly disease. IDT is excited to support such an excellent consortium of esteemed scientific and clinical organizations for vaccine research and development.

We are very enthusiastic to support the CEPI mission on development of innovative vaccines for prevention of emerging infectious threats."

About the MERS vaccine development

The development activities will be performed by a MERS-CoV Vaccine Consortium of IDT Biologika, German Center for Infection Research (DZIF), Viroscience Department at the Erasmus Medical Center, and the clinical research organization CR2O.

The research organization DZIF includes the clinical and medical sites at the University Medical Center Hamburg-Eppendorf and Clinical Trial Centre North, the Philipps-University Marburg and the Institute for Infectious Diseases and Zoonoses at Ludwig-Maximilians University Munich.

The vaccine candidate under development by the MERS-CoV Vaccine Consortium was advanced by DZIF up to clinical phase 1 and is based on a recombinant Modified Vaccinia Ankara (MVA) vector. IDT Biologika developed a proprietary cell substrate for large-scale production of the MVA-based vaccine. The first generation of the MVA-MERS vaccine produced in primary chicken embryo fibroblasts is being assessed in an ongoing clinical trial.

About CEPI

CEPI is an innovative partnership between public, private, philanthropic and civil organizations founded in Davos in 2017 to develop vaccines to stop future epidemics. To date, CEPI has received multi-year funding from Norway, Germany, Japan, the Bill & Melinda Gates Foundation, and Wellcome. CEPI has also received single-year investments from the governments of Australia, Belgium, and Canada. It has reached \$630 million of its \$1 billion funding target. The European Commission has announced a contribution in kind of €250 million that will support relevant projects through EC mechanisms. Since its launch in January 2017, CEPI has announced two Calls for Proposals. The first was for candidate vaccines against MERS-CoV, Nipah and Lassa viruses. The second was for the development of

platforms that can be used for rapid vaccine development against unknown pathogens. Learn more at CEPI.net. Follow us at @CEPIvaccines.

About IDT Biologika

IDT Biologika is an innovative, privately-held company with nearly 100 years of experience in researching, developing, manufacturing and marketing products for the global protection of human and animal health. The company produces vaccines and pharmaceuticals according to the highest quality standards, for its own animal health products and under contract.

Company sites in Germany include the BioPharmaPark in Dessau-Roßlau and Riems, in the district of Greifswald. In the United States IDT has a manufacturing site for clinical test samples in Rockville, Maryland. IDT also has subsidiaries and/or sites in the business field of animal health in Canada, UK, Denmark, Netherlands, France, Spain, Poland, and China.

In 2017 IDT registered sales of over €220 million. IDT currently employs approximately 2000 people worldwide.

IDT Biologika is a member of the Klocke Group, which is specialized in contract production and packaging of medications, vaccines, and cosmetic products. As a traditional family-owned company, the Klocke Group employs a workforce of more than 2500 people at 10 production sites and sales offices worldwide.

Further information can be found on the website of IDT Biologika at www.idt-biologika.com.

About the German Center for Infection Research (DZIF)

At DZIF, over 500 researchers from 35 institutions throughout Germany jointly develop new approaches for the prevention, diagnosis, and treatment of infectious diseases. The aim is to translate research results into clinical practice quickly and effectively. With this, the DZIF paves the way for developing new vaccines, diagnostic agents, and drugs to treat infections. More information can be found at www.dzif.de.

About the Viroscience Department at the Erasmus MC

Erasmus MC is the largest university medical centre in the Netherlands. The Department of Viroscience of the Erasmus MC is an international centre of excellence for multidisciplinary, basic, translational and clinical research of viruses and virus infections at the molecular, patient and population level. The research program focuses on viral infections of humans and animals with specific interests in viral zoonoses such as those caused by influenza viruses and MERS-CoV. The department houses the National Influenza Centre and the WHO Collaborating Centre for viral infections.

About CR²O

CR²O is a full service academic CRO, specialized in managing and operating clinical development activities towards infectious disease interventions. In the past decade, CR²O clinical experts contributed to >400 clinical trials in over 30 countries. Headquartered in Amsterdam, CR²O will continue to combine its scientific expertise and operational excellence to meet unmet medical needs in the virology field. More information can be found at www.cr2o.nl.

Contacts

CEPI Rachel Grant +44(0)7891249190 Rachel.Grant@cepi.net

Mario Christodoulou +44(0)2039174130 Mario.Christodoulou@cepi.net IDT Biologika Corporate Communications Christian Herschel

Am Pharmapark 06861 Dessau-Roßlau

Email: pressestelle@idt-biologika.de

Web: www.idt-biologika.com

¹Devi, S. Research needed to prevent MERS coronavirus outbreaks <u>https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(17)30998-4/fulltext</u>

²GOV.UK. Middle East respiratory syndrome coronavirus (MERS-CoV): clinical management and guidance. https://www.gov.uk/government/collections/middle-east-respiratory-syndrome-coronavirus-mers-cov-clinical-management-and-guidance

³WHO. Fact sheet: Middle East respiratory syndrome coronavirus (MERS-CoV) http://www.who.int/en/news-room/fact-sheets/detail/middle-east-respiratory-syndrome-coronavirus-(mers-cov)

⁴GOV.UK. Middle East respiratory syndrome coronavirus (MERS-CoV): clinical management and guidance. https://www.gov.uk/government/collections/middle-east-respiratory-syndrome-coronavirus-mers-cov-clinical-management-and-guidance

⁵WHO. Update on MERS-CoV regional assessment. http://www.who.int/emergencies/mers-cov/en/

⁶Jung H et al. The Impact of an Epidemic Outbreak on Consumer Expenditures: An Empirical Assessment for MERS Korea http://www.mdpi.com/2071-1050/8/5/454

