

Ebola vaccine to begin human trials

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The Ebola virus, isolated in November 2014 from patient blood samples obtained in Mali. The virus was isolated on Vero cells in a BSL-4 suite at Rocky Mountain Laboratories. Credit: NIAID

The University of Oxford have begun recruiting for a Phase I trial to test an Ebola vaccine in human volunteers—with the first vaccinations having already taken place.



The study will assess the <u>immune response</u> and safety of the new <u>vaccine</u> against the Zaire and Sudan species of Ebola.

A planned sample of 26 participants—who must be assessed as healthy and aged 18 to 55—will all receive one dose of the ChAdOx1 biEBOV vaccine at the University. Following vaccination, participants will be monitored through several visits over a six-month period, with results expected in the second quarter of 2022.

The vaccine is based on the ChAdOx1 <u>virus</u>, a weakened version of a common cold virus (adenovirus) that has been genetically modified so that it is impossible for it to replicate in humans. This vector has been previously used successfully in the ChAdOx1 nCoV-19 vaccine—or the Oxford-AstraZeneca vaccine.

Professor Teresa Lambe OBE, Associate Professor at the Jenner Institute and Lead Scientific Investigator, University of Oxford, said: "The 2014-2016 Ebola virus disease outbreak in West Africa cost more than 11,000 lives and had a catastrophic effect on healthcare systems.

"Sporadic Ebolavirus outbreaks still occur in affected countries, putting the lives of individuals—especially frontline health workers—at risk. We need more vaccines to tackle this devastating disease."

Dr. Daniel Jenkin, Principal Investigator of the trial at the Jenner Institute, University of Oxford, said: "Recent advances have led to the approval of vaccines against one of the viruses that causes Ebola virus disease. However, this disease can be caused by several different species of virus and each of these may require a targeted immune response to offer protection.

"We have designed our new vaccine to target the two species of virus that have caused nearly all Ebolavirus outbreaks and deaths, and now



look forward to testing this in phase I clinical trials."

Dr. Paola Cicconi, Chief Investigator of the trial at the Jenner Institute, University of Oxford, said: "The need for a multivalent vaccine, approved for use against multiple Ebolavirus species, remains unmet. Experience with ChAdOx1 nCoV-19 (Oxford-AstraZeneca COVID-19 vaccine) has shown the vaccine can be rapidly manufactured at high volume for low cost, with storage conditions amenable to use in the developing world.

"This study will provide valuable data on the safety and immunological aspects of a novel multivalent Ebolavirus ChAdOx1 vaccine."

Volunteers interested in enrolling on the study can do so online.

A further trial for the vaccine is planned to commence in Tanzania by the end of 2021.

Provided by University of Oxford

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