How to use our technology and knowledge to respond quickly to Disease X

Sarah Gilbert February 28, 2021 Fifth Rally of Hope for the Realization of a Heavenly Unified World



For twenty-five years I have worked on the development of vaccines against infectious diseases and particularly on vaccines for which there is little money available to fund their development. To make it possible to develop safe and effective vaccines at low cost, my team works with technologies that we can adapt to make many different vaccines, but without having to start the research from scratch every time. I had been using these platform technologies, as we call them, for some years, working on the development of vaccines against viruses that can cause outbreaks -- viruses such as Lassa Fever, which is found in West Africa, Nipah virus, in Bangladesh, and MERS coronavirus in Saudi Arabia.

We had also begun to plan for making a vaccine very quickly if a new virus emerged and started to cause disease in people. This is what the World Health Organization (WHO) referred to as Disease X, and we had been thinking about how to use our technology and knowledge to respond quickly if we ever needed to. At the very beginning of 2020, we had not completed our preparations, but the virus we now know as SARS-CoV-2 had started to cause infections in people. Even before we knew if the new virus could spread from person to person, we started the work to produce a vaccine. By the time we had made the first small batch of the vaccine, we knew we needed to move as quickly as we could. The work moved into our vaccine manufacturing facility, where we can make vaccine to use in clinical trials. We worked with other vaccine manufacturers, in Italy, and then in the UK and the Netherlands, to expand our vaccine manufacturing.

At the same time, we worked with other partners in the US to test the vaccine in animals. By late March,

only a few months after the outbreak first began, the UK was in lockdown. The vaccine was needed more urgently than ever, but we had to adapt how we worked. Even as our team grew, we needed to keep our distance. We had to wear masks in the clinic and lab and all our meetings moved online.

Clinical trials started on April 23, with our selfless volunteers willing not only to be vaccinated, but to be photographed and to talk to the press about it. Our clinical trials started with a group of young adult volunteers, then extended into older people, and now also into children. As our trials expanded, so did our team, bringing in nurses, doctors, receptionists, administrators and statisticians to work with the group of scientists who had started the project.

Colleagues and students who normally worked on other research joined us in this essential project putting their own work on hold. We grew out of our vaccine center and added two temporary vaccination clinics, as well as working with nineteen other sites in the UK and then collaborated with experienced investigators in Brazil, South Africa and Kenya.

As a University, we cannot manufacture and supply billions of doses of vaccine. We formed a partnership with AstraZeneca to expand the manufacturing network that we had set up, to add to the clinical trials, prepare for the regulatory approvals that are needed for the vaccine to be used, and finish the work that we had started.

It was important to us that we were making a vaccine for the world, and that it should be made widely available, with no profit during the pandemic, or at any time for vaccine used in low and middle-income countries (LMICs). AstraZeneca shared our vision.

As our team continued to expand, so did the work that needed to be done, and we supported each other through many long and challenging days, at a time when the pandemic was having a devastating effect. Now, in February 2021, there are clinical trials of our vaccine underway in ten countries.

Vaccine manufacturing is taking place in over a dozen parallel supply chains working with twenty-five contract manufacturing operations (CMOs) across the world, with three billion doses planned for by the end of this year. The vaccine has been shown to be safe and effective. It is approved for use in almost sixty countries, and the very recent WHO approval means that it can be supplied via the WHO's COVID-19 Vaccine Global Access (COVAX) facility, which is making it possible for many countries to access vaccine supplies.

This is a vaccine for the world. Safe and highly effective, easy to store and transport, low cost and available in large quantities. The values that resulted in this vaccine being made available align with those of the Universal Peace Federation. This vaccine was made for all of us, to protect each other and ourselves.

We still have more to do, but the work of our international team has paid off, and the vaccine we made is already saving lives. I wish you a good day.