

Yudhi Nugraha, Head of the Center for Regenerative Studies FK UPNVJ: If the Corona Vaccine Has Not Been Found

Friday, 29 May 2020 16:45 WIB



HumasUPNVJ - Reporting from detiknews.com, based on WHO data on May 15 2020 with the title Draft landscape of Covid-19 candidate vaccines, there are at least eight vaccine candidates for Covid-19 that have the most potential to be successfully developed at this time. The eight vaccines originate in the United States, China, Germany and the United Kingdom. In addition, approximately 110 vaccine candidates are entering the pre-clinical trial stage from various countries.

The United States through NIH as the world's best research center has poured out research funds of up to 42 billion US dollars or the equivalent of Rp. 618.4 trillion for developing vaccines that the world needs right now. One of these funds has disbursed \$500 million to pharmaceutical giant Moderna Inc.

Moderna succeeded in developing the Covid-19 vaccine, which was tested for the first time in the first phase of clinical trials on eight volunteers in the United States in March 2020. This vaccine will then be tested in Phase 2 to see further effectiveness and determine the working dose and is then scheduled to be tried in Phase 3 in July 2020.

Apart from Moderna, NIH is also working with a pharmaceutical company from France, Sanofi with the same big goal against Covid-19. Even though this cooperation gave rise to controversy based on a sense of research nationalism in the United States.

China, through its Sinovac Biotech, claims to have successfully tested the Covid-19 vaccine on monkeys as test animals and plans to continue testing on humans. Sinovac Biotech is even seriously planning to build an expansion of its company, specifically for this vaccine, on an area of 70 thousand square meters in Beijing.

Apart from Sinovac, other Chinese companies such as CanSino Biologics are also developing a Covid-19 vaccine based on the same experience and type of vaccine as the vaccine developed to eradicate the world's deadliest virus before, Ebola.

German pharmaceutical company Biontech is collaborating with US pharmaceutical giant Pfizer to develop an RNA vaccine for Covid-19. This research was supported by the German government regulations which passed the rules for human clinical trials which are planned to be given to 200 volunteers with an age range of 18-55 years.

Meanwhile, the vaccine developed by the University of Oxford, England, had doubtful results and was said to only provide partial protection. However, the development of this vaccine will continue to be carried out in humans with a target of 10,260 volunteers.

Indonesia itself through the Eijkmen Molecular Biology Institute plans to develop a Covid-19 vaccine with a recombinant vaccine type. The institution led by Prof. Amin Subandrio has also succeeded in mapping the SARS-CoV2 Genome, one of which is for vaccine development.

Various countries have implemented restrictions on public activities with the potential for transmission of Covid-19. Countries that already have a sloping pandemic curve must also be careful about the second wave. A vaccine is the only hope for ending the pandemic that was discovered at the end of December 2019 and has been spreading since early 2020.

At least it takes 12-18 months to find a vaccine, starting from the discovery of a new virus. Vaccine development, as well as other research, no one can guarantee it will be successful and effective. In mathematical calculations, to stop the spread of a pandemic, a minimum of 60-70% of the human community is required to be vaccinated.

However, what will happen if a vaccine is not found? If this bad situation occurs, it will take a lot of people to be exposed to Covid-19 to have immunity. It is these affected people who will later suppress the spread of the 19 virus -- this understanding is known as herd immunity. It is a brutal idea for this scheme to be deliberately implemented by the state. This is because it will sacrifice many lives of its own people to form a communal immunity system.

In addition, herd immunity is also considered not necessarily successful, because SARS-CoV2 is a new virus whose characteristics are not widely known, including in the formation of the communal immune system. Another reason is because there is no research that confirms that people with a second infection with SARS-CoV2 have specific antibody protection in their immune system.

What is currently in vogue being heard is the term "new normal". This term was originally used for post-crisis economic and financial conditions such as in 2007-2008 or the 2008-2012 global recession, and is currently used for the Covid-19 pandemic. New normal is defined as a clean and healthy life according to health protocols to suppress the spread of Covid-19 --without any other choice. Indeed, keeping your distance, washing your hands, and wearing a mask are simple things that can be done right now.

Even if a Covid-19 vaccine is indeed found, virus mutation will become a new problem in the future because it will eliminate the effectiveness of the vaccine that has been made. For this reason, vaccine research should be carried out continuously and continuously to keep pace with the genetic changes that occur in viruses. Also, to prepare for future pandemics by predicting possible genetic changes.

The evolution of the universe will indeed continue through the cruel process of natural selection. The world always adjusts its needs through non-negotiable adaptations.

(source: <https://news.detik.com/kolom/d-5033558/jika-vaksin-corona-tak-kunjung-ditemukan> (https://news.detik.com/kolom/d-5033558/jika-vaksin-corona-tak-kunjung-ditemukan))

Export tanggal : Monday, 15 December 2025 Pukul 15:57:24 WIB.

Exported dari [<https://www.upnvj.ac.id/en/berita/2020/05/yudhi-nugraha-head-of-the-center-for-regenerative-studies-fk-upnvj-if-the-corona-vaccine-has-not-been-found.html> (https://www.upnvj.ac.id/en/berita/2020/05/yudhi-nugraha-head-of-the-center-for-regenerative-studies-fk-upnvj-if-the-corona-vaccine-has-not-been-found.html)]
