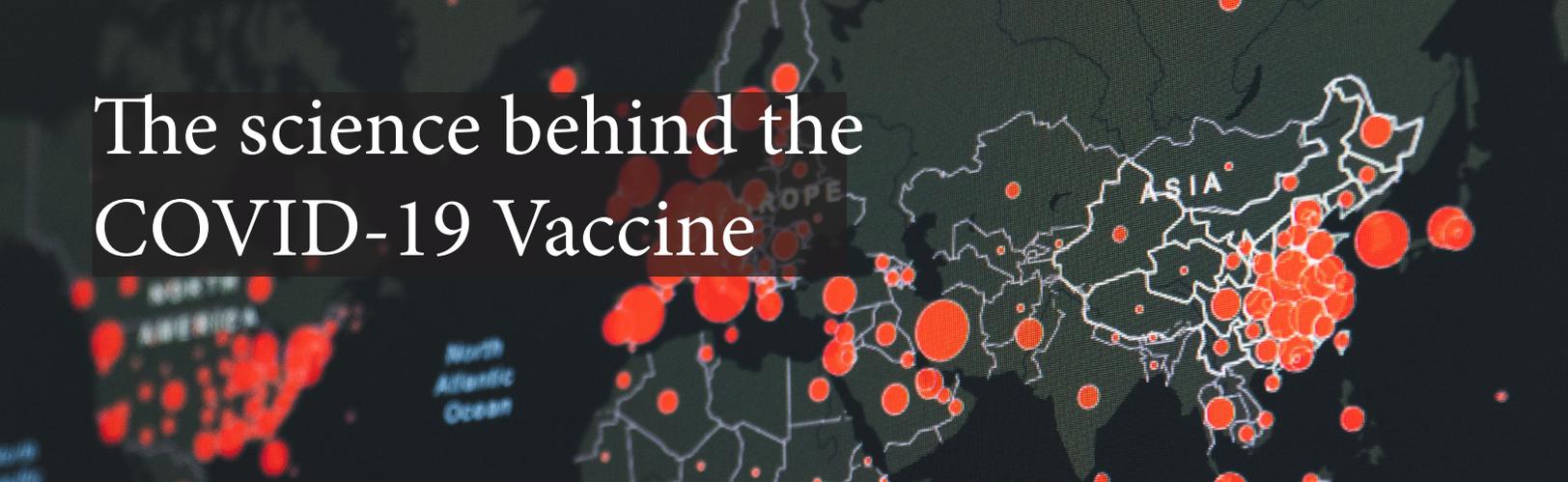


The science behind the COVID-19 Vaccine



Since COVID-19's arrival to the U.S., many people are wondering how soon a vaccine for this novel strand would be developed and distributed. The Center for Disease Control and Prevention reports that unlike medicine, vaccine prevents diseases

According to Merriam-Webster, a vaccine is a preparation of killed microorganisms, living attenuated organisms, or living fully virulent organisms that is administered to produce or artificially increase immunity to a particular disease. A vaccine would only be a preventive measure against viruses, but it does not get rid of a virus that is already there.

Physicians of a Philadelphia, vaccines work by mimicking viruses to stimulate the immune systems in our body to build up defenses against them. Vaccines are like imposters: it looks like a bacteria or virus but it does no harm to the body.

PKIDs says vaccines are made by taking viruses and bacteria and weakening them enough so that they can't reproduce. These bacterias and viruses would act as training dummies for our immune system to strengthen.

However, vaccines aren't easy to obtain. "Scientists say that developing a COVID-19 vaccine could take at least a year," says Danielle Dresden, a Medical News Today writer.

Dresden says that there are several steps to take before the vaccine is readily available to the public. All these steps are necessary for the health and well being of others.

After all, a vaccine is virus or bacteria being injected into our bodies.

““If the timeline for the production and distribution of a coronavirus vaccine seems long, that is because there are many steps in place to ensure that it is safe and effective.”

-Danielle Dresden

The origin of vaccines began with Edward Jenner trying to find protective measures against smallpox, a disease that had been devastating mankind for centuries. In 1796, Jenner found a method against the smallpox, and this method later became known as a vaccine. Although the exact date for the smallpox outbreak remains unknown, it took many centuries for the first vaccine to be developed.

In 1918, there was an outbreak of the Spanish Flu and later on in the 1940s, a vaccine was developed for the Spanish Flu. Later on in the 1950s, more vaccines were developed in protection against the measles and polio. Then in 2002, there was an outbreak of SARS and later on in the next year, a vaccine was developed to prevent any more cases of SARS.

As science and technology advances, so does the methods of creating a vaccine. While a vaccine does not cure someone of a disease, it can certainly stop the number of deaths by diseases.