

The Coronavirus Vaccines Research and Development (R&D) Roadmap (CVR) outlines a coordinated plan for new vaccines that provide effective and long lasting protection against future variants and viruses.

## The persistent threat of coronaviruses





Over the past 20 years, three dangerous coronaviruses have jumped from animals to humans.

- 2003** SARS, one in ten infections fatal
- 2012** MERS, three in ten infections fatal
- 2019** COVID-19 (SARS-CoV-2), lower fatality risk but easier to spread resulting in over 6.6 million deaths worldwide by the end of 2022

Thousands of coronaviruses circulate in animals, with continual risk of spillover to humans.

New coronavirus in the future could be both highly transmissible *and* highly lethal.

## Challenges with existing vaccines

-  New variants evade immunity
-  Inequities in global availability and access
-  Diminished benefit against new variants
-  Inadequate vaccine uptake, particularly with new boosters

The roadmap provides a clear strategy that encompasses the multiple areas of research needed for long lasting and broadly protective vaccines.

A coordinated strategy will galvanize research and investments to accelerate vaccine development.

## The Coronavirus Vaccines R&D Roadmap

- ▲ Energizes and organizes a global agenda for next-generation coronavirus vaccines.
- ▲ Builds on scientific advances and partnerships that produced the first COVID-19 vaccines.



### Roadmap goals



**Durable vaccines that protect against new variants**

Long-lasting protection against severe disease and death from a wide range of coronaviruses.



**Vaccines for future coronavirus threats**

Prepare vaccines now with broad protection against new variants and future coronaviruses.



**Globally accessible**

Easier to manufacture, store, and use anywhere.

### How the Roadmap sets goals with timelines:

Identifies challenges, sets goals and timelines for progress.

Addresses R&D in five key areas:



**Virology**



**Immunology**



**Vaccinology**



**Animal and human infection models**



**Policy and financing**