

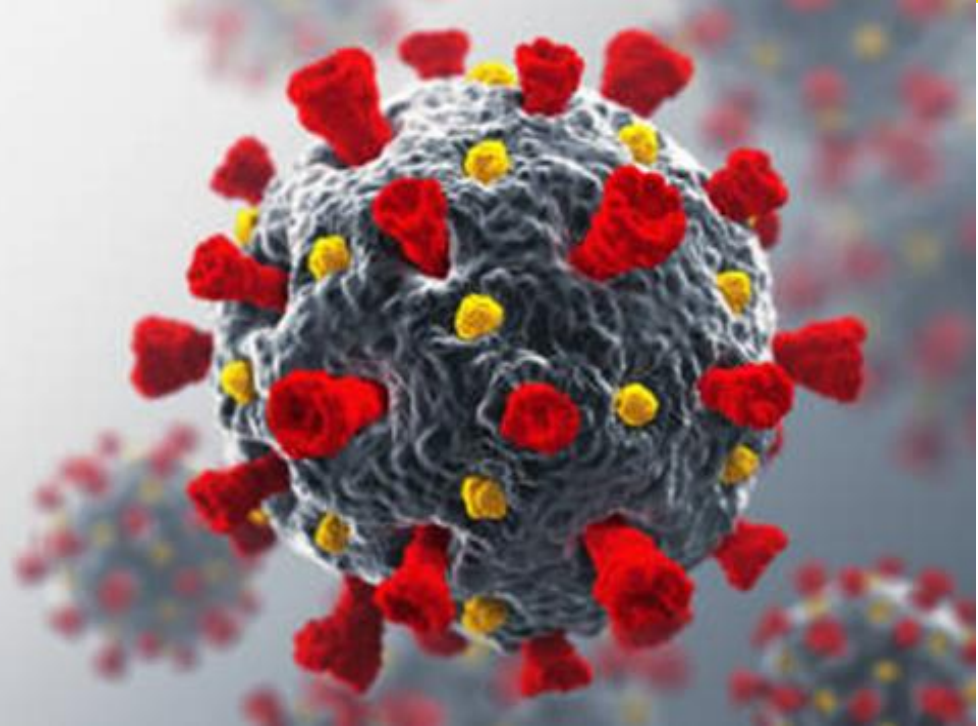
# CVD·GLOBAL HEALTH

CENTER FOR VACCINE DEVELOPMENT AND GLOBAL HEALTH

## COVID Vaccines: A Brief Overview

Kathleen Neuzil, MD, MPH

January 19, 2021



# COVID Cases, Globally, January 19, 2021

## 93 million+ cases and 2.0+ million deaths

Americas



**41,680,773**  
confirmed

Europe



**30,488,064**  
confirmed

South-East Asia



**12,489,866**  
confirmed

Eastern Mediterranean



**5,360,504**  
confirmed

Africa

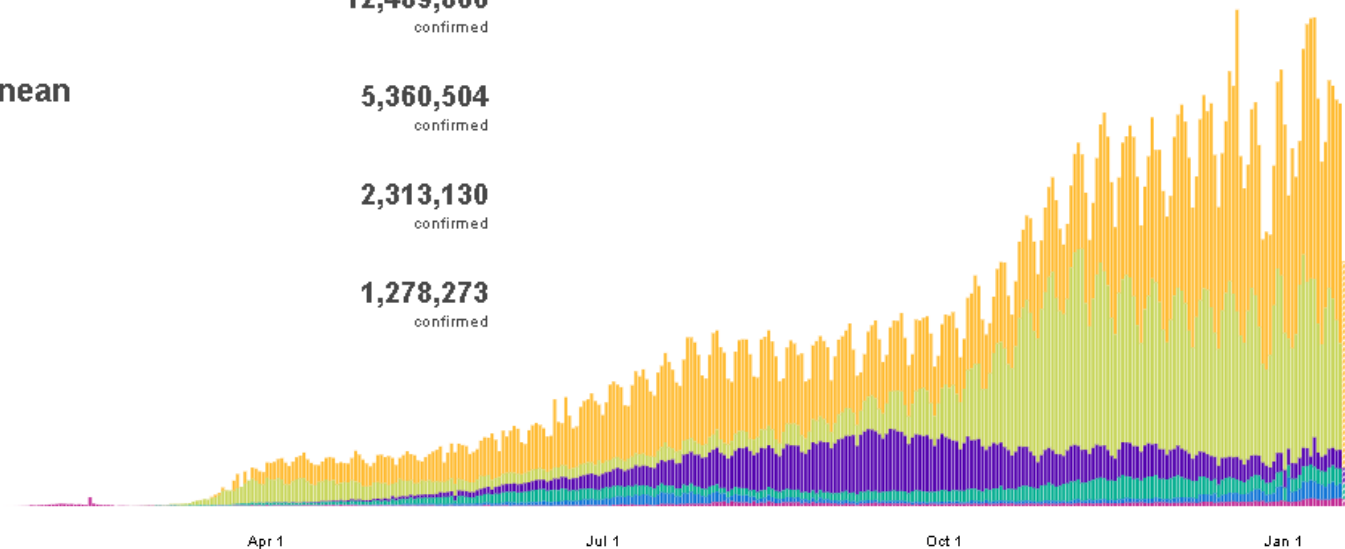


**2,313,130**  
confirmed

Western Pacific



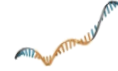
**1,278,273**  
confirmed



# COVID-19 Vaccines in Operation Warp Speed Development

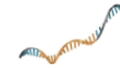
moderna

mRNA



BIONTECH Pfizer

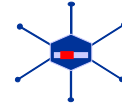
mRNA



AstraZeneca



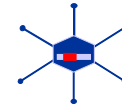
Adenovirus Vector



Janssen



Adenovirus Vector



NOVAVAX  
Creating Tomorrow's Vaccines Today

Recombinant  
Protein+adjuvant

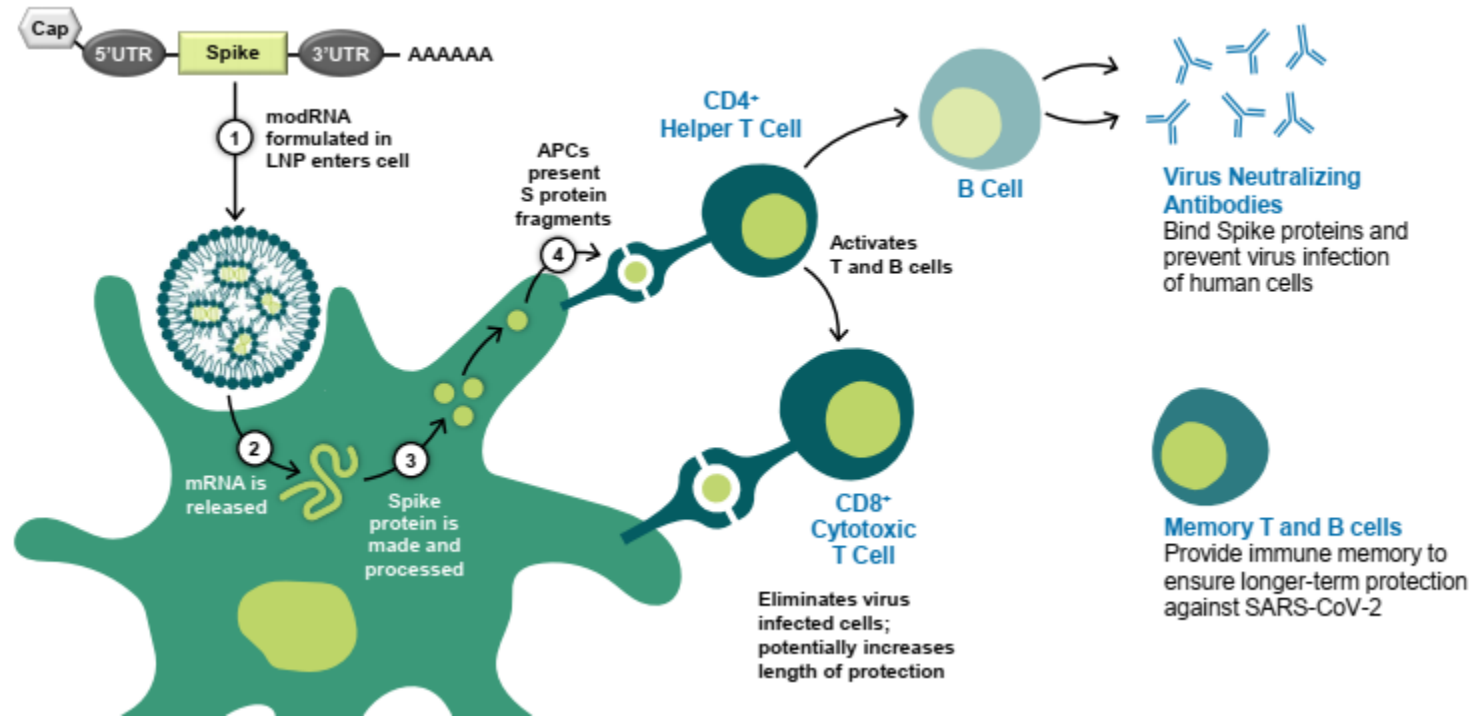


gsk SANOFI

Recombinant  
Protein+adjuvant

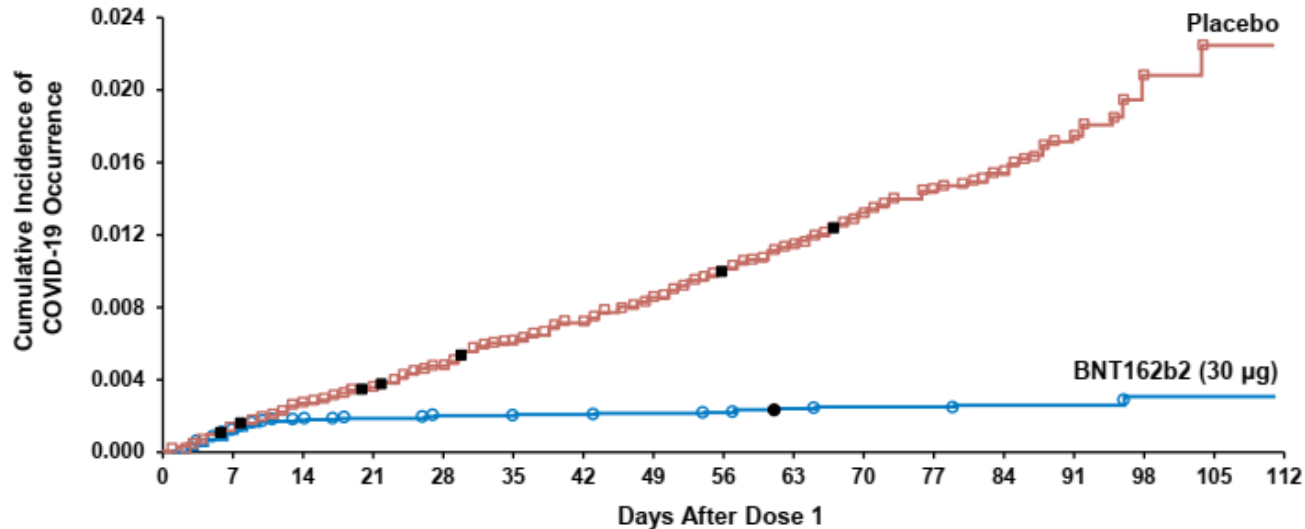


# How do mRNA vaccines work?



CC-8

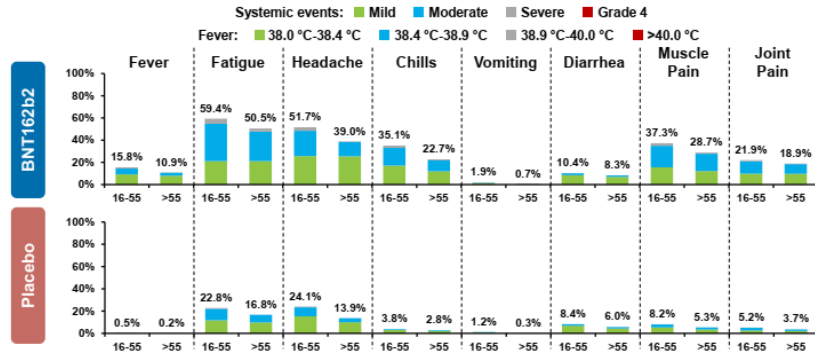
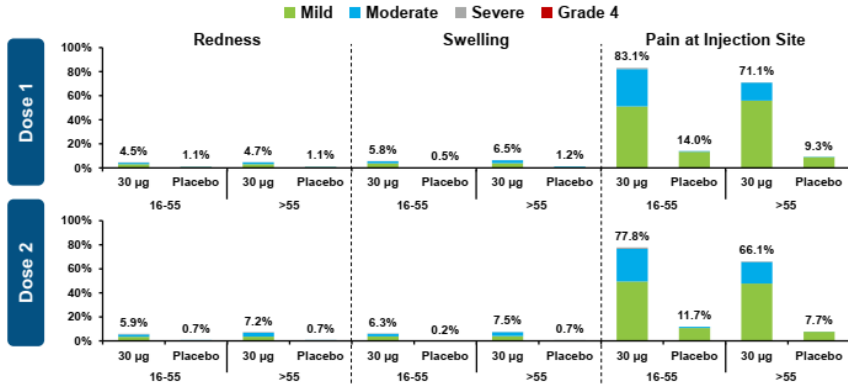
# mRNA vaccines against COVID-19 are highly effective



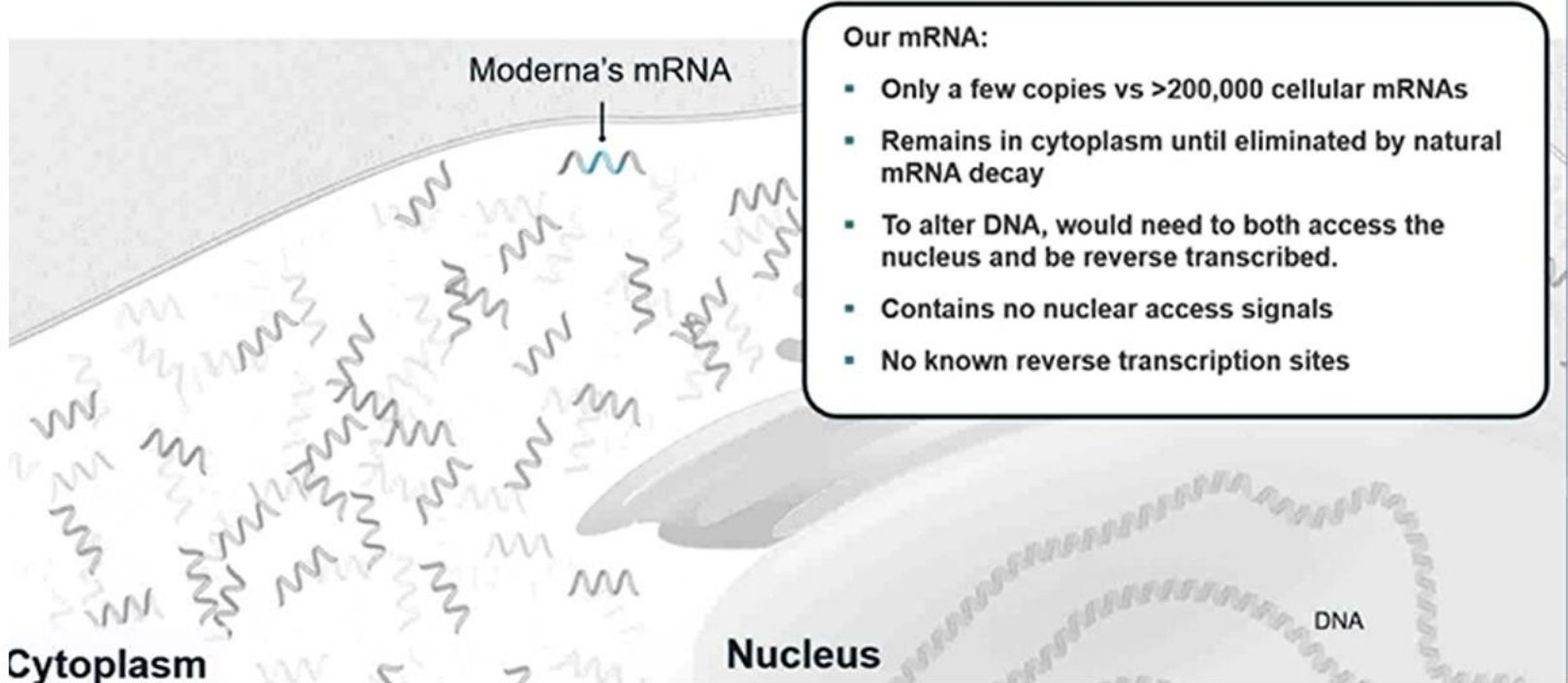
Vaccines are 95% effective against any disease and 90-100% effective against severe disease.



# mRNA Vaccine Reactions

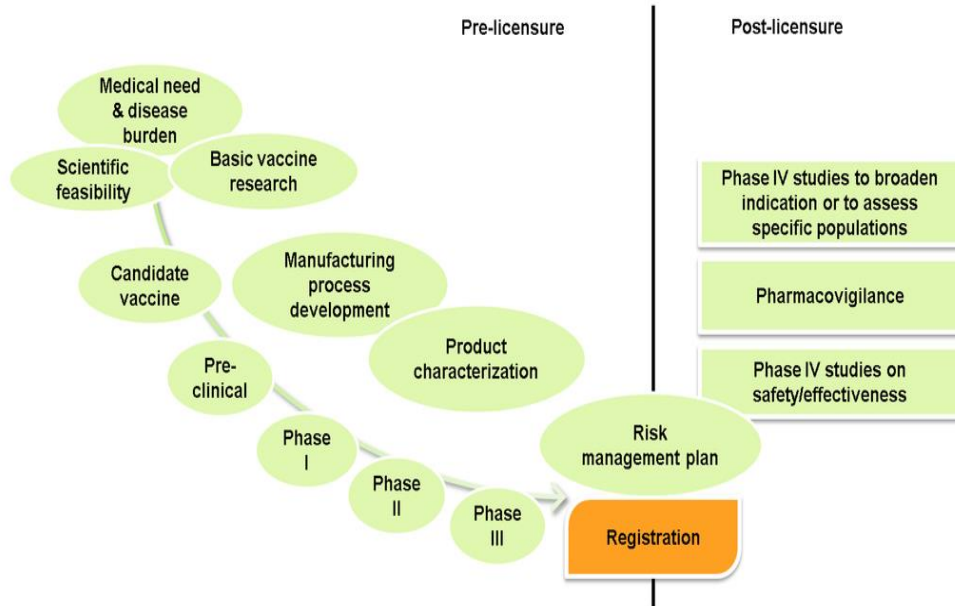


# mRNA Vaccines Cannot Alter DNA



# Confidence in the Vaccine Development Process

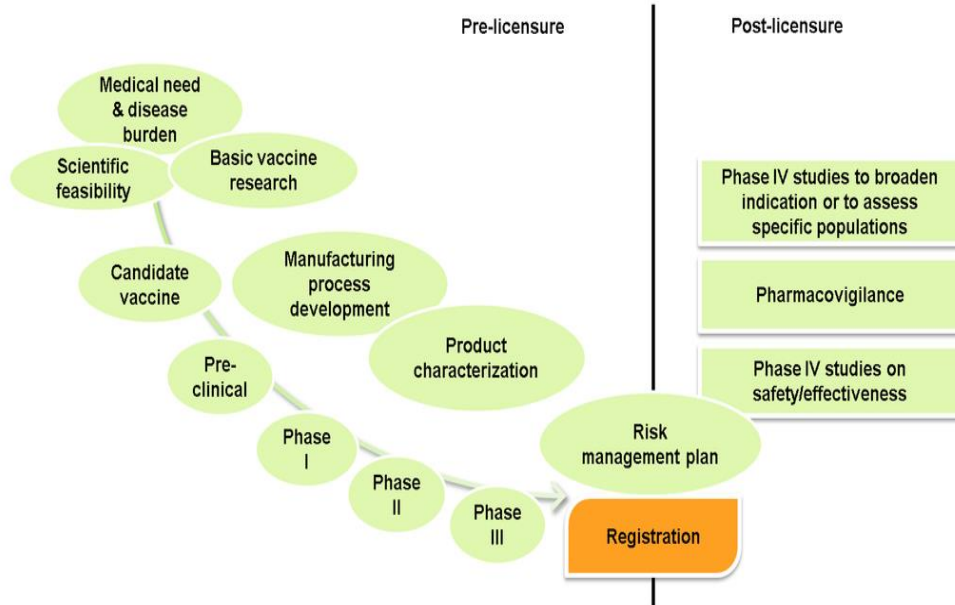
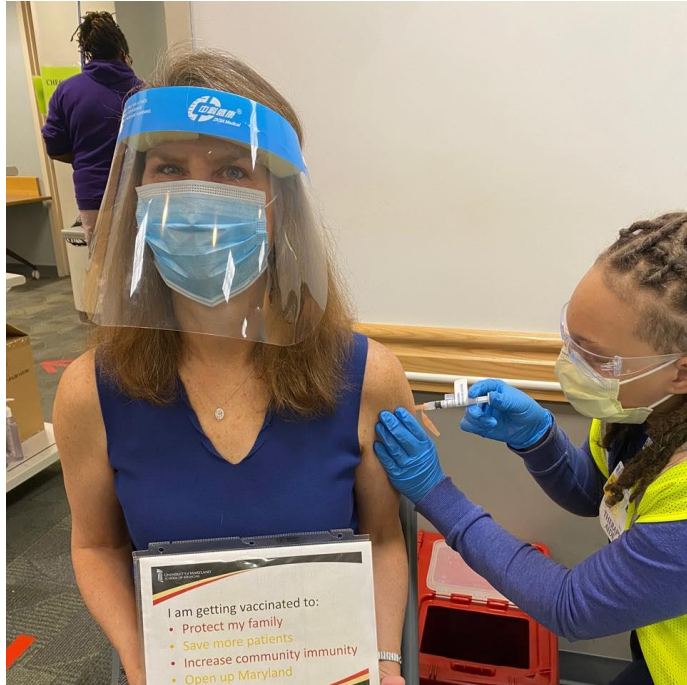
- Strong Science is a Necessary Starting Point
- Trust in the Process is Paramount
- No short cuts on safety



<http://www.mdpi.com/2076-393X/1/3/204/htm>



# Confidence in the Vaccine Development Process

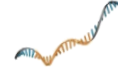


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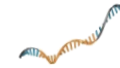
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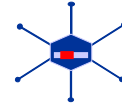
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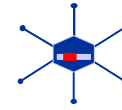
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# CVD involved in vaccine and treatment trials

*“As you grow older, you will discover that you have two hands — one for helping yourself, the other for helping others.”*

— Audrey Hepburn



## COVID-19 Vaccine Study

### Participants Needed for COVID-19 Vaccine

The University of Maryland School of Medicine is seeking participants 18 and older for an investigational [COVID-19 Vaccine](#).

You may qualify for this study even if you have underlying health conditions. Compensation provided.

### Ready to get started?

To volunteer:

- Call: 410-706-7926 (8 am - 4 pm)
- Email: [clintrial@som.umaryland.edu](mailto:clintrial@som.umaryland.edu)
- Complete our [CVD Clinical Trials Contact Form](#) ([en español](#))

