



### THE EMERGENCE OF NEW VARIANTS

Alpha variant (GenBank: NC\_023021.1)

Beta variant (GenBank: NC\_023021.1)

Gamma variant (GenBank: NC\_023021.1)

Delta variant (GenBank: NC\_023021.1)

This section discusses the emergence of new COVID-19 variants, including Alpha, Beta, Gamma, and Delta. It details the genetic mutations in the spike protein that affect transmissibility and immune evasion. The Alpha variant is noted for its increased transmissibility and ability to evade antibodies. The Delta variant is highlighted for its rapid spread and potential for higher viral loads.

### COVID-19 VACCINES

#### DISEASE OVERVIEW

COVID-19 is caused by the SARS-CoV-2 virus. It is a respiratory virus that spreads through the air. Symptoms include fever, cough, and fatigue. The disease can be severe, especially in older adults and those with underlying health conditions.

#### DISEASE PROGRESSION

COVID-19 can be asymptomatic, mild, or severe. The disease progresses through several stages, from initial infection to the development of antibodies and the resolution of symptoms.

### MAP LEGEND

This map is a compilation of the biotech industry's effort to rid the world of COVID-19. Our visualization aims to survey not only individual innovations from specific companies but also the collective effort and sheer hustle of the entire industry.

The legacy of COVID-19 will inevitably include not only new treatments for an acute viral illness but also a greater appreciation of what society can accomplish when we unite against a common foe. We've already achieved remarkable innovations in many diseases: hepatitis C, HIV, malaria, breast cancer, and cystic fibrosis. To name a few. What we need now is a sustained, collective effort to make medical advances available to everyone instead of overburdened patients with exorbitant out-of-pocket costs that discourage them from receiving appropriate care. This will require fundamentally reforming America's insurance system, building on the recent patches put in place after patients initially refused to cover COVID-19 testing and the uninsured were overwhelmed by the cost of hospitalization.

The Biotech Social Contract, as described in *The Great American Drug Deal*, affirms that we do not have to choose between innovation and affordability. We as a society can rise to the challenge of tackling all human diseases just as we have COVID-19, making investments that will permanently upgrade our health and that of future generations.



# This version of RA Capital's COVID-19 Vaccines map is out of date.

Please visit:

[WWW.RACAP.COM/COVID-19](http://WWW.RACAP.COM/COVID-19)

to view the latest version of the map

