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United States Senate

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Anthony S. Fauci, M.D.
Director
National Institute of Allergy and Infectious Diseases
5601 Fishers Lane, MSC 9806
Bethesda, MD 20892

Dear Dr. Fauci,

I write to inquire about ongoing efforts at the National Institute of Allergy and Infectious Diseases (NIAID) to develop a universal vaccine, treatment, or preventive for existing and novel coronaviruses. When I initially wrote you on February 3, 2020 about this issue, COVID-19 had killed more than 360 people and infected more than 17,000 individuals across the globe.¹ To date, COVID-19 has killed more than five million people worldwide, more than 740,000 in the United States, and millions more are fighting this deadly disease every single day.² The magnitude of this global threat remains clear, and I encourage NIAID to continue taking all necessary steps to ensure our response to this global pandemic is as comprehensive as possible.

A universal coronavirus vaccine could benefit both our response to this pandemic and the next one. Thanks to the ingenuity of scientists across the globe, supported in part by NIAID funding, the Food and Drug Administration granted emergency use authorization for three COVID-19 vaccines within a year of the onset of the COVID-19 pandemic;³ to date, more than 191 million people have been vaccinated against COVID-19 in the United States.⁴ However, nearly 300,000 Americans died of COVID before these vaccines were initially authorized, and another 200,000

¹ Press Release, Senator Edward J. Markey, *Senator Markey Queries Trump Administration about Efforts on Coronavirus Vaccine* (Feb. 3, 2020), <https://www.markey.senate.gov/news/press-releases/senator-markey-queries-trump-administration-about-efforts-on-coronavirus-vaccine>.

²“Coronavirus World Map, Tracking the Global Outbreak,” New York Times, <https://www.nytimes.com/interactive/2021/world/covid-cases.html/> (last visited Nov. 12, 2021)

³ Food and Drug Administration, Comirnaty and Pfizer-BioNTech Covid-19 Vaccine, <https://www.fda.gov/emergency-preparedness-and-response/coronavirus-disease-2019-covid-19/comirnaty-and-pfizer-biontech-covid-19-vaccine>; <https://www.fda.gov/emergency-preparedness-and-response/coronavirus-disease-2019-covid-19/moderna-covid-19-vaccine>; <https://www.fda.gov/emergency-preparedness-and-response/coronavirus-disease-2019-covid-19/janssen-covid-19-vaccine>, (last updated Nov. 08, 2021)

⁴ See *How Vaccinations Are Going in Your Country and State*, N.Y. Times (last updated Nov. 11, 2021) <https://www.nytimes.com/interactive/2020/us/covid-19-vaccine-doses.html>

died before these vaccines became widely available in March 2021.⁵ Had a universal coronavirus vaccine existed at the onset of the pandemic, hundreds of thousands of American lives could have been saved. And we remain at risk of variants that have the potential to defeat the immunity provided by existing vaccines; a vaccine that targets coronaviruses as a class would likely be less susceptible to these variants. Further, COVID-19 is the third novel coronavirus outbreak in roughly 18 years;⁶ developing a universal coronavirus vaccine would help to prepare for the next potential pandemic.

To that end, I am pleased that NIAID recently announced awards to academic institutions totaling \$36.3 million for the purpose of conducting research that will help in the development of vaccines to protect against multiple types of coronaviruses.⁷ These investments will play an indispensable role in our continued national response to this deadly pandemic.

As Congress works to support NIAID in its efforts to prevent future pandemic, I respectfully request that you respond to the following questions in writing by December 14, 2021:

1. Please outline the scientific and resource challenges to achieving a universal coronavirus vaccine and ways in which Congress can work with NIAID to help in these efforts?
2. Based on NIAID's current funding levels for research on universal coronavirus vaccines, when do you anticipate we will have a universal vaccine or treatment?
3. Would additional funding accelerate this timeline?

Thank you for your attention to this request. We look forward to continuing to work with you to mitigate the health and economic toll of infectious diseases on American communities and families.

Sincerely,



Edward J. Markey

United States Senator

⁵ Our World in Data, *Coronavirus (COVID-19) Deaths* <https://ourworldindata.org/covid-deaths>. (last updated Nov. 11, 2021)

⁶ Rok Civičljak et al, *The third coronavirus epidemic in the third millennium: what's next?*, *Croat Med J.* (Feb. 2020), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7063555/>

⁷ *NIAID issues new awards to fund "pan-coronavirus" vaccines*, National Institutes of Health (Sept. 28, 2021) <https://www.nih.gov/news-events/news-releases/niaid-issues-new-awards-fund-pan-coronavirus-vaccines#:~:text=The%20National%20Institute%20of%20Allergy,of%20coronaviruses%20and%20viral%20variants>.