Good afternoon, Chairwoman, Ranking Member, and Members of the Committee. Thank you for the opportunity to be part of this briefing.

My name is Gigi Gronvall, and I am a Senior Scholar at the Johns Hopkins Center for Health Security, part of the Johns Hopkins Bloomberg School of Public Health. Our Center aims to develop policies to protect people’s health from epidemics and disasters and to promote community resilience. My background is in the biological sciences, specifically immunology. I am a member of the Threat Reduction Advisory Committee (TRAC), which will be absorbed into the Defense Science Board. Early in my career I was a postdoctoral fellow at the US Army Research Institute for Infectious Diseases (USAMRIID). The opinions expressed herein are my own and do not necessarily reflect the views of The Johns Hopkins University.

I am honored to offer my views on how the Department of Defense (DoD) is responding to COVID-19.

1. Operations during COVID-19: On a practical level, mission-related laboratory operations are picking up, with public health measures in place. As with other research institutions,
DoD laboratories had to adjust to reduce the risk of COVID-19 transmission, which is complicated because for scientific work, there is a limited amount that can be done from home. DoD also had the same challenges as the rest of the country in developing public health measures for their movie theaters, grocery stores, gas stations, and other services, but with the added responsibility of fulfilling its national security mission. Public health and mission critical operations may sometimes conflict. Without planning and preparation, what happened on the USS Theodore Roosevelt will happen again. It will be an important task for the DoD in the future to reduce risks where possible and develop plans to better operate even during a pandemic. This will need to be exercised.

2. **Expertise deficits:** The DoD had recently made great strides in addressing its deficits in biotechnology—it is now a modernization priority, and there will be a manufacturing institute dedicated to synthetic biology. Synthetic biology is an exciting area of biological engineering that is critical to the American bioeconomy of the future, and an area of heavy investment by nations around the world. The ability for the DoD to make materials they need using biological processes allows for distributed manufacturing that will not be as affected by supply chain disruptions, and can allow for manufacturing in austere environments. This pivot to exploiting what biotechnology can do for our national security is necessary. However, COVID has reinforced the importance of preparing for biological threats, natural or deliberate, and force health protection. This is often seen as a tension regarding the DoD’s mission—is biotechnology an opportunity or a threat? This is an inappropriate framing of the issues, however, because clearly the DoD needs to be working on building its capacity to exploit biology and prepare for biological threats. Achieving that will require increasing the biological expertise and understanding at all levels of the military and ensuring that there are possibilities for promotion for servicemembers who have biological expertise.

3. **Role of DoD in the broader COVID response.** The DoD is part of Operation Warp Speed and may assist in the distribution of COVID-19 vaccine, when one becomes available. What that specific role will be is likely to be limited, but it would be detrimental to vaccine confidence if the DoD had a large public-facing role in vaccination—this is a much better role for traditional public health. However, the DoD, specifically the Army Corps of Engineers, has done important COVID response work for the American people in setting up well-ventilated hospitals, such as in the Javits Center. Why have they not been tasked with doing more in this time of crisis, such as building outdoor classrooms so that students could be going back to in-person instruction in a safe manner? COVID-19 is not a short-term crisis, or a few months blip that will be easily made up, and it is hard to overestimate the impact it will have on American students. Many will be lost
from the education system from this point forward. The United States was already facing a crisis in science education, particularly in comparison to other peer competitor nations. As this crisis continues, creative ways that the services can help the nation should be explored.

Thank you to the Committee for including me in this briefing. I look forward to your questions.