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June 25, 2020

Dear Chairman Alexander:

The University of California (UC) System's ten campuses and within them, six nationally-recognized academic health centers located at campuses in Davis, Irvine, Los Angeles, Riverside, San Diego, and San Francisco, collectively referred to as "UC Health," appreciates the opportunity to respond to the U.S Senate Committee on Health, Education, Labor, and Pensions' (HELP) call for feedback to its white paper titled *Preparing for the Next Pandemic*.

In response to the committee's solicitation, the UC system convened experts in infectious disease, diagnostic testing development, public health, and engineering who have been confronting the COVID-19 pandemic. The recommendations put forth by our experts, outlined below, seek to ensure that as the federal government continues addressing the current pandemic, and prepares for the next, that it can reap all of the benefits of a full partnership with leading research universities – as well as their component academic health centers and research laboratories – and state and local public health agencies.

UC's six recommendations are as follows:

- 1. Create a standing task force with congressionally-appointed and administration-appointed governmental and non-governmental members – including Academic Health Centers -- who can plan for a pandemic and mobilize to coordinate a national pandemic response.** After COVID-19 was detected in the United States, the Trump administration created a Coronavirus task force to inform and advise state and federal policymakers, including President Trump. UC recommends the formalization of such a pandemic task force, which should be comprised of key National Institutes of Health and other U.S. Health and Human Services advisors, as well as representatives of the Academic Health Center (AHC) community.

AHCs, such as those that make up UC Health, are *uniquely qualified* to offer the highest-quality patient care, research, testing and diagnostic advice during a pandemic given their cutting-edge research capacity, which pioneers innovation in the areas of diagnostics, treatments and vaccine; their long-standing partnerships with public health officials and private business leaders in their communities and states; their proven track record acting as a bridge between the Centers for Disease Control (CDC) tests and commercial labs; the engagement they have with underserved patient populations and underserved communities, their expertise studying and addressing healthcare disparities; and the presence of highly specialized infectious disease expertise on their faculty/staff.

One example of the unique value of AHCs is the fact that UC Davis identified the first known case of COVID-19 community spread case. This milestone discovery was only able to be made because

an infectious disease specialist at UC Davis insisted for days that this patient receive a test, even though she

had not traveled to Wuhan province of China, the one known area of the world at that time that had been experiencing a COVID-19 outbreak.

- 2. Develop a national network of university-based pandemic testing and research centers.** If there is a key lesson to be learned from the COVID-19 pandemic that we are currently experiencing, it is that the nation should never again be at a loss for a pervasive testing capability. The university-based scaled up testing facilities that emerged during this pandemic offer the foundation for a unique operational and scientific national capability. They are based on the most modern robotic systems, instrumentation, and data acquisition/ processing systems, and they are embedded in the nation's premier university-based research laboratories, which are geographically located in urban and rural settings. The equipment can do testing at scale, and the researchers can innovate in terms of new tests and tests of better quality and accuracy. We propose building on this newly emergent national capability.

Currently these facilities are operating as single nodes, albeit very powerful ones. Imagine what could be achieved if these centers were connected as an *intellectual network*, sharing know-how and best practices, to accelerate capabilities faster than any individual center could possibly achieve on its own. In addition, a network would have immediate benefit to geographic regions located in "medical deserts," where access to testing and treatment is virtually nonexistent. By analogy, the current testing industry is focused on developing excellent but standalone personal computers, when what the nation needs is the equivalent of the Internet and Cloud Computing that can be accessed anytime, anywhere. Beyond more and better testing across the nation, we would be laying the foundation for effective pandemic response and better scientific understanding well into the future.

The key is to provide adequate funding, programmatic, regulatory, and standards development support to evolve and extend these emerging centers into a network of interconnected dual-use operational and research facilities. To that end, we make the following specific recommendations:

- Fund *operational* use now to provide scaled-up testing in the immediate term.
- Fund extension of the architecture and duplication of best designs of these facilities, across the nation, to provide a *leading edge national-scale testing and research capability*.
- Streamline regulatory processes (e.g., CLIA-certification) to eliminate bottlenecks for establishing new university-based testing nodes.
- Develop software standards, such that different testing platforms can share data efficiently and accurately while maintaining privacy.
- Use the operational and scientific infrastructure thus established as a national facility for immediate and future testing when it will inevitably be needed again. Use it to advance scientific research, when the current emergency is over, but support the operational capability in a standby mode for when it will be needed for the next emergency.
- Fund its use to accelerate research into *new and better testing regimes*, as well as use it as an essential research infrastructure to deepen our understanding of the *fundamental science of viruses* and possible *scientific responses to future pandemics*.

We believe that executing the steps above will provide the fastest transfer path from research breakthroughs in testing and automation to test subject-facing operations. While traditional healthcare organizations excel at performing clinical operations at a scale that dwarfs what a university can typically do, they are not the engines of discovery that are essential for developing entirely new approaches to dramatically scaled-up testing and pandemic response, especially to emerging novel viruses. (Scientists are still trying to understand the novel coronavirus.) Furthermore, as researchers make new discoveries, traditional healthcare organizations cannot easily absorb new testing and response breakthroughs into their operations. Finally, creating a national network of these facilities will ensure immediate service to both urban and rural communities, thus our reaching our most vulnerable populations effectively. Should we face the challenge of a new pandemic outbreak in the near-term future, we need the expertise of research universities to play a major role to find a cure and slow down the spread of disease.

3. **Clarify government health experts' official guidance and ensure consistency in how it is expressed.** We realize that in a dynamic political climate and when communicating in a pandemic in real time, it can be difficult to control the expression of individual opinions and the distribution of information when a whole of government is engaged. However, discordant information from federal, state, and local public health officials at different points in time has resulted in ambiguous and at times conflicting messages about what public health experts recommend Americans do to protect themselves and their families from contracting and/or spreading COVID-19. We are concerned that inconsistent information reported by federal and local leaders exacerbated the spread of the pandemic. Leaders must develop a communication strategy for the future that provides a clear and distinct message and is offered as the nation's best scientific and authoritative recommendations. Should there be dissenting opinions among public health officials, federal leaders should clarify that the federal government, after careful consideration, has come to conclusions that were determined after examination of the most complete body of evidence available at that time, and that the guidance provided is free of political influence.
3. **Intensive vaccine research must continue after the COVID-19 pandemic concludes,** so that in the future the United States has in place a vaccine strategy that will inform how it manufactures and distributes further vaccines.
4. **Establish a systematic reporting system for detailing pandemic cases across the United States.** When comparing data among the many states, it becomes clear individual states are utilizing different systems to identify and report pandemic cases. To truly understand the magnitude of a pandemic, it is essential to have a standardized system.
5. **Develop a robust and effective contact tracing system.** Research into cures and a vaccine is extremely important, but there are other steps we can take to reduce the spread of COVID-19. One such step is the development of a robust and effective contact tracing system. South Korea, for example, developed a unique system by using telephone and credit card tracing to notify individuals of a potential exposure and to urge the individuals to seek out testing and quarantine. The United States should be developing and investing in our own contact tracing systems for the future, along with investment in mass testing, so that asymptomatic individuals could be found and quarantined.

Universities have been at the front lines of responding to the COVID-19 pandemic, and we have much to offer our nation as we struggle to contain the virus. Since early March, the UC system has developed and administered tens of thousands of diagnostic and serology tests, prepared for a surge of COVID-19 patients needing ICU beds, treated numerous COVID-19 patients, provided infectious disease expertise to myriad

local, state, and federal officials, and been at the precipice of innovating COVID-19 treatments and vaccines.

As Congress writes legislation to prepare for the next pandemic, we ask that you ensure that top research universities, including their AHCs and laboratories, are full partners with the federal government as it prepares for -- and responds to -- a crisis. Please be in touch with UC Federal Governmental Relations Associate Vice President, Chris Harrington (Chris.Harrington@ucdc.edu/(202)-907-6300) if you have any questions about the recommendations we have provided in response to the Committee on HELP's white paper.

Sincerely,

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