UC COVID-19 Newsletter: December 2020

The University of California is playing a crucial role in ensuring the safety, efficacy and effective distribution of the COVID-19 vaccine. Below are just a few examples of the instrumental ways UC is helping to accomplish this goal.

- UC is playing a significant role in California’s COVID-19 Scientific Safety Review Workgroup. The workgroup, which includes four UC faculty members and is chaired by UC Berkeley’s Dr. Arthur Reingold, will independently assess the safety and efficacy of any vaccine that receives FDA approval.
- University of California Health is currently participating in clinical trials for multiple COVID-19 vaccine candidates. But what’s it like to participate in a trial? Kristen Choi, a UCLA assistant professor of nursing, recently shared her insights about stepping out of her usual role of conducting research and volunteering to become a study subject.
- UCSF Medical Center and Zuckerberg San Francisco General Hospital are among seven hospitals in California approved for early distribution of the Pfizer vaccine. UCSF has assembled a COVID-19 vaccine task force that is working with federal and state officials to develop an ethical and equitable framework for vaccine distribution.
- To help slow the spread of COVID-19 and save lives, UCLA public health and urban planning experts have developed a predictive model that pinpoints which populations in which neighborhoods of Los Angeles County are most at risk of becoming infected. Researchers hope the new model will assist decision makers, public health officials and scientists in effectively and equitably implementing vaccine distribution, testing, closures and reopenings, and other virus-mitigation measures.

Preparedness and Response
Critical operations continue at all UC campus and system locations, and our health centers continue to provide vital services to their communities.

- In partnership with UC, the state of California launched CA Notify, a COVID-19 exposure notification system originally developed at UC San Diego Health and tested on seven of UC’s campuses.
- Scientists from Berkeley Lab and UC Berkeley are working to make more efficient masks by developing an N95 quality-assessment test; a rechargeable, reusable, anti-COVID N95 mask; and a 3D-printable silicon-cast mask mold.
- With the creation of a highly accurate, portable COVID-19 and flu rapid test, UC Davis Health can test a high volume of patients and return results in as quickly as 20 minutes.

Student and Campus Life
UC is committed to ensuring continuity and providing resources for its campus and lab communities.

- Thanks to modern-day technology, this fall, the University of California Washington Program (UCDC) welcomed 75 students from UC’s nine undergraduate campuses to the world of remote UCDC.
• Because the COVID-19 pandemic is a historical event, UC Riverside is now building an archive to capture life at this point in time. The COVID-19 Collecting Initiative is an archive of memorabilia capturing the university community’s daily life during the pandemic.

• UC Santa Cruz Athletics and Recreation has scored wins in many of the challenges of the pandemic by supporting students remotely, pivoting to online programming and developing innovative ways to empower student-athletes and student support staff.

Research
UC researchers continue to advance understanding and develop new tools to address and respond to the COVID-19 pandemic. Below are highlights of some of the efforts taking place.

• UC Irvine researchers are developing a noninvasive, at-home test to detect the spike of COVID-19 proteins in saliva.

• While UC Merced Professor Michael Thompson doesn’t usually work in immunology or drug development, his use of X-ray crystallography — research that visualizes the structures of protein molecules to better understand how they function — has taken him in a new direction, one in which he applies his expertise to the COVID-19 challenge.

• UC Santa Barbara archaeologists are examining the enduring human costs of epidemics and what we might learn from COVID-19: In a recently published paper, the authors note that one of the most pervasive effects of epidemics is inequality, which holds true today with the groups most affected by the pandemic being descendants of Indigenous and Black communities.

• Lawrence Livermore National Laboratory recently deployed its newest supercomputer Ruby, which will be used to help develop therapeutic drugs and designer antibodies for COVID-19.

• Los Alamos National Laboratory continues its work to better understand and mitigate the impacts of the pandemic and recently shared an update on the research that is underway, including research related to saliva testing, effective ventilators and the spread of the virus through droplet plumes.

If you have any questions about this update or other issues, please contact Chris Harrington with UC’s Office of Federal Governmental Relations.