Dear UCLA Health Community and Supporters,

These unprecedented times have called for unprecedented innovation. It has been thrilling tackling challenging opportunities that have arisen in the past few months: If there have been scarcities, we have resourced solutions; if the world has been out of products; we have made them ourselves; if there are drugs that need testing, we get up and running in days. If we need experts to join a team, they are ready, willing and able.

Thank you all for your contributions. Although there is no way to capture the volume of work undertaken by our researchers and frontline workers, please allow me to highlight a few of them and continue to send them to me to post on social media and as a contributor to #TeamLA.

We are very grateful to all of you helping to support our patients, each other and global efforts around the world. The UCLA Health system and the David Geffen School of Medicine quickly and thoughtfully came up with strategies, guidelines, and solutions that kept us a national leader during such a crucial time. I hope many of you will consider ideating over our latest innovation challenge – Sports PPE— and will take the time to offer solutions as we pave the road back to a new normal.

UCLA Biodesign is a pillar of our innovation programming. Jennifer McCaney, Nirav Kamdar and I are excited to announce the launch of an expansion program.

Enjoy and please be in touch.

Desert Horse-Grant
Sr. Director, UCLA Health Research & Innovation
Co-Executive Director, UCLA Biodesign

UCLA Health Innovation Challenge – Sports PPE

The UCLA Health Innovation Challenge is excited to announce a new track for Sports PPE. We are currently holding a two week Turnaround for early prototypes. In the face of COVID-19, a new defensive strategy is needed to arm collegiate and professional athletes with a form of equipment that protects them from droplet transmission that could potentially occur in close-contact competitive sports.

UCLA Biodesign teams win Case Competition

The Easton Technology Management Center and the Healthcare Business Association (HBA) at the UCLA Anderson School of Management hosted a Health Care Business Case Competition as part of the Think in the Next Innovation Challenge. Eleven teams participated in this inaugural event, and UCLA Biodesign teams came in first and third.
The winning team presented a product called Cranioview, a non-invasive solution for measuring intracranial pressure in patients who suffer from traumatic brain injury, aneurysms, brain tumors, or a stroke. Cranioview went on to win the final round of the Think in the Next Innovation Challenge and was awarded $3,000.

In third place was team SigmaSense, which proposed wearable sensors combined with machine learning to identify potential patterns that can identify the onset of a potential stroke.

The UCLA Biodesign Program is pleased to announce a new Accelerator Track for entrepreneurs seeking advanced training in health care technology innovation.

The goal of the program is to provide participants with a stepwise process for identifying, assessing and de-risking meaningful health care technology opportunities, such that the development timeline is accelerated. The cornerstone of the Accelerator Track is a series of monthly workshops with peers and industry mentors across the medical technology ecosystem. Over 10 months, the topics will span the lifecycle of product development, from concept to commercialization, and include selected reading and recorded materials.

There will be opportunities throughout the year to attend special functions with the UCLA Biodesign Fellows in the Discovery Track (which is now the name of the track that represents the weekly yearlong program that runs tandem to the monthly Accelerator Track).

The 2020-2021 UCLA Biodesign Fellows – Accelerator Track are:

- Yalda Afshar, MD, PhD, Obstetrics & Gynecology
- Geoffrey P. Colby, MD, PhD, Neurosurgery
- Michael Delong, MD, Plastic Surgery
- Timothy Deming, PhD, Chemistry & Biochemistry
- Tamara Grisales, MD, Obstetrics & Gynecology
- Ashley Kita, MD, Head & Neck Surgery
- Berkeley Limketkai, MD, PhD, Boot Camp Participant, Medicine, Gastroenterology
- Leena Nathan, MD, Obstetrics & Gynecology
- Ali Nsair, MD, Medicine, Cardiology
- Rushi Parikh, MD, Medicine, Cardiology

COVID-19 research and innovation

Innovation in COVID-19 clinical research
UCLA's approach to COVID-19 clinical research is defined by the COVID-19 Clinical Research Task Force, co-chaired by Judith Currier, MD, division chief for infectious disease, and Arash Naeim, MD, PhD, chief medical officer for clinical research. With very significant support of the UCLA Clinical Translational Science Institute, UCLA has rapidly activated more than 15 clinical trials which will afford innovative therapy for hundreds of patients, both in the outpatient and inpatient setting. UCLA was one of the earliest academic medical centers in California to (a) participate in the clinical trial of remdesivir that demonstrated a benefit to patients; (b) develop a convalescent plasma program so recovering patients could help hospitalized COVID+ patients; and (c) start a surveillance program for healthcare providers at high risk for COVID transmission. In close collaboration with Los Angeles County, UCLA is engaging in community-wide symptom surveillance. In partnership with California state officials and UCSF, UCLA is leading statewide contact tracing efforts. Lastly, in partnership with the engineering program, UCLA is testing 3-D printed nasal swabs, protective equipment and ventilator equipment to stay ahead of national shortages.

In order to deal with social distancing while providing the best treatment options for our patients, UCLA implemented innovative approaches to clinical research including electronic consenting, remote monitoring, research video visits, mailing of oral investigational drugs, and patient portal recruitment. To accelerate research at UCLA and in collaboration with others in the state, nationally and internationally, a robust biobanking approach was developed to utilize remnant tissue, nasopharyngeal swabs and blood for both acutely ill and recovered patients. Moreover, a data registry was created for COVID+ patients and matched negative controls that served as the foundation for a UC-wide collaboration to pool data on patients in a data warehouse.

Read more about For all COVID-19 clinical trials at UCLA.

UCLA Health researches effects of remdesivir on COVID-19

UCLA Health is one of 75 sites around the globe participating in a clinical trial sponsored by the National Institutes of Health to test the effectiveness of a candidate anti-viral drug against COVID-19. The drug, called remdesivir, has shown promise to work against the SARS-CoV-2, which causes COVID-19, raising hope for its efficacy against this new, novel virus that has swept the globe, sickening and killing hundreds of thousands.

UCLA scientists receive grants for COVID-19 research

Three researchers at the Eli and Edythe Broad Center of Regenerative Medicine and Stem Cell Research at UCLA have received awards to pursue treatments and vaccines for COVID-19 from the California Institute for Regenerative Medicine, the state’s stem cell agency. The recipients are Gay Crooks, MD, MBBS, a professor of pathology and laboratory medicine and of pediatrics and co-director of the UCLA Broad Stem Cell Research Center; Christopher Seet, MD, PhD, an assistant professor of hematology-oncology; and Brigitte Gomperts, MD, a professor of pediatrics and pulmonary medicine.

UCLA Biodesign fellow focuses biomedical engineering insights on swabs shortage

When the COVID-19 outbreak became a pandemic, and the scarcity of testing supplies became a crisis, the leaders of UCLA Biodesign saw the experience and background of Gabriel Oland, MD, as the ideal combination to help reinforce one link in the strained supply chain: the nasopharyngeal swabs used to collect patient specimens for testing.
UCLA Biodesign fellow rapidly builds low-cost ventilator prototype in less than a week with parts from Home Depot

In less than one week, UCLA Biodesign Fellow Glen Meyerowitz developed a working, low-cost ventilator prototype built from parts purchased at Home Depot. If additional development with medical-grade materials, further testing and clinical studies yield positive results, the device could have the potential to provide much-needed support in treating patients at scale during the COVID-19 pandemic.

National registry formed to understand COVID-19 risks to pregnant women and newborns

UCLA Health has launched a national registry with UCSF to determine possible effects of COVID-19 on pregnant women and newborns. Within two weeks of going live, it received more than 400 patient referrals from around the country.

UCLA web app enlists public’s help in slowing the spread of COVID-19

A team of UCLA researchers has launched Stop COVID-19 Together, a web-based app that enables the public to help fight the spread of the coronavirus. Through the site, anybody can take a brief survey that covers basic demographics, whether they have symptoms and their possible exposure to COVID-19. The system aggregates users’ responses to help the UCLA team find ways to reduce the spread of the virus, and to try to protect the health system from being overloaded.

XPRIZE launches Pandemic Alliance to accelerate coronavirus research

XPRIZE, the world’s leader in designing and operating incentive competitions to solve humanity’s grand challenges, revealed the XPRIZE Pandemic Alliance, a global coalition that combines the power of collaboration, competition, shared innovation and radical thinking to accelerate solutions that can be applied to COVID-19 and future pandemics. UCLA Health is a proud member of this Alliance.

CVS Health works with UCLA Health to create bed capacity

CVS Health is working with hospitals and providers, including UCLA Health, to support solutions for creating much-needed hospital bed capacity during the pandemic. Coram, the CVS infusion care service, has enhanced its capabilities to transition eligible IV-therapy patients to home-based care. This includes enhanced clinical monitoring, virtual support and oversight through telemedicine to complement existing personalized in-home support, coordination and administration of medications and supplies.

UCLA leads CDC-funded project to reduce COVID-19 infection among ED workers

The David Geffen School of Medicine at UCLA is leading a CDC-funded project in collaboration with the University of Iowa Carver College of Medicine to study ways to reduce the risk of COVID-19 infection among emergency department workers.
A bold, collective vision and roadmap for success
DGSOM has implemented a new COVID-19 research governance structure to facilitate strategic, prioritized allocation of financial resources, biospecimens, PPE and research facilities. It is led by a central Oversight COVID-19 Research Committee (OCRC), chaired by Owen Witte, MD, director of the UCLA Broad Stem Cell Research Center. The OCRC comprises six task forces with deep expertise in specific domains: 1) clinical research, 2) basic science research, 3) scientific prioritization and feasibility, 4) high-containment use, 5) health data oversight, and 6) health equity.

COVID-19 funding opportunities and resources
Please see below for a list of sites where you can find funding opportunities and resources for research.

COVID-19 funding opportunities:
- National Institutes of Health (NIH)
- National Science Foundation (NSF)
- UCLA Technology Development Group
- David Geffen School of Medicine

COVID-19 resources for UCLA researchers:
- UCLA sponsored research
- UCLA research operations
- UCLA Clinical and Translational Science Institute (CTSI)
- Trial Innovation Network at CTSI

Upcoming event
UCLA Biodesign Webinar – Graduation and Pitch Day Event June 26, 10 a.m. PST
The event will feature three 15-minute Health Tech Pitches (one from each Biodesign Team). Keynote speakers: Johnese Spisso, president of UCLA Health and CEO of UCLA Hospital System; Antonio Bernardo, dean of UCLA Anderson School of Management; and Beth Seidenberg, Managing Director, Westlake BioPartners. If you are interested in attending, please email: biodesign@mednet.ucla.edu and Zoom information will be provided.