



\$10M NSF-funded institute gets to the core of data science

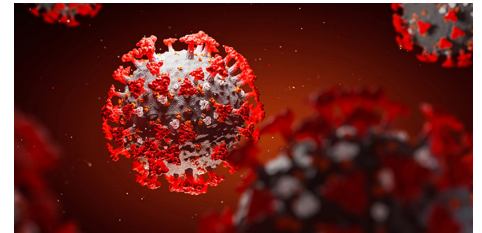
Computer and data scientists at UC San Diego are leading a new \$10 million institute that aims to transform the core fundamentals of the field of data science. The Institute for Emerging CORE Methods in Data Science (EnCORE), is housed in the Department of Computer Science and Engineering, in collaboration with the Halicioglu Data Science Institute (HDSI). The Institute will tackle a set of important problems in theoretical foundations of data science. UC San Diego team members will work with researchers from U Penn, UT Austin and UCLA.

Learn more: bit.ly/EnCOREUCSD

Coronavirus jumped to humans at least twice at Wuhan Market

In a pair of related studies published in *Science*, researchers at UC San Diego, with colleagues on four continents, show that the origin of the COVID-19 pandemic in 2019 was at the Huanan Seafood Wholesale Market in Wuhan, China, and resulted from at least two instances of the SARS-CoV-2 virus jumping from live animal hosts to humans working or shopping there. The findings, first reported in February after the papers were posted online as preprints awaiting peer review, garnered international attention, primarily focusing on identifying the market as the early epicenter of the COVID-19 pandemic. Computer scientists and bioinformaticians at UC San Diego are co-authors of the studies.

Learn more: bit.ly/ScienceCovidOrigin



Mechanical engineers win 2 out of 10 Young Investigator awards

UC San Diego mechanical engineering faculty brought home two of the 10 Beckman Young Investigator awards bestowed nationwide this year by the Beckman Foundation. Awardees Lisa Poulidakos and Tania Morimoto are both part of the UC San Diego Department of Mechanical and Aerospace Engineering. It's the first time the award goes to two researchers from the same department at the same institution. Poulidakos and Morimoto both focus on engineering in medicine. Poulidakos develops imaging methods to visualize the fibrous properties of tissue with nanoscale optics. Morimoto builds soft, flexible robots that can snake their way through the body during surgery.

Learn more: bit.ly/ucsdbeckmanfoundation

\$3.14M NIH grant for better imaging during pediatric heart procedures

Bioengineers and physicians at UC San Diego have received a \$3.14 million, five-year grant from the NIH to help make MRIs a viable option for imaging during heart procedures in children. Cardiac procedures often rely on X-ray imaging to guide the physician, but this delivers radiation to the patient, which is a particular concern when treating young children. The researchers developed a new data processing technique that makes the use of MRI a more promising alternative. They are collaborating with Rady Children's Hospital to accelerate real-world impact.

Learn more: bit.ly/PediatricHeartImaging



Problem-solving like an expert

Learning to become better problem solvers is how San Diego high school students, as well as high school teachers, spent part of the summer here at the Jacobs School. The engineering problem-solving course they participated in is part of a larger UC San Diego project to better prepare more San Diegans for technical careers. The approach involves teaching practical problem-solving skills that have been extracted out of the practice of engineering. The new "Problem-solve like an Expert" course, offered by the UC San Diego Jacobs School of Engineering in collaboration with UC San Diego Extension, is designed to help students develop critical thinking skills to better analyze the challenges that arise in a variety of situations, and work toward clever solutions. This project is made possible thanks to the generosity of Buzz Woolley.

Learn more: bit.ly/ProblemSolvingUCSD



Joel Holliday and the Charles Lee Powell Foundation

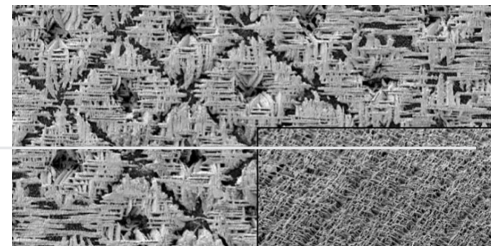
The UC San Diego Jacobs School of Engineering is mourning the loss of Joel Holliday, former director, president and CEO of the Charles Lee Powell Foundation, and ardent supporter of the Jacobs School's mission to pursue engineering for the public good. Over the past three decades, the Charles Lee Powell Foundation has provided critical philanthropic support to the Jacobs School. The generous San Diego-based foundation has funded research all across UC San Diego's Department of Structural Engineering, including the Department's Charles Lee Powell Laboratories. The Charles Lee Powell Foundation has also funded fellowships, scholarships and endowed chairs; and supported development of Powell-Focht Bioengineering Hall and, most recently, Franklin Antonio Hall.

Learn more: bit.ly/RememberingJoelHolliday

Perovskite material might surpass efficiency of 'perfect' solar cell

A perovskite solar cell developed by engineers at UC San Diego brings researchers closer to breaking the ceiling on solar cell efficiency. This new solar cell "may have the potential to break the theoretical efficiency limit of current solar cells," said study senior author Sheng Xu, a professor of nanoengineering at UC San Diego. "This might one day allow us to achieve higher efficiency with more electricity from existing solar panels, or generate the same amount of electricity from smaller solar panels at lower costs." This work appears in the journal Nature.

Learn more: bit.ly/RecordBreakingPerovskite



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Contact newsletter editor, Daniel Kane: dbkane@ucsd.edu

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