

New blood test rapidly detects signs of pancreatic cancer

A new proof-of-concept diagnostic test developed by researchers at UC San Diego can rapidly screen a drop of blood for biomarkers of pancreatic cancer. The test can provide results in less than an hour, and shows promise for detecting pancreatic cancer in its early stages. The technology for the chip-based system was initially developed by Jacobs School of Engineering alumnus Raj Krishnan during his bioengineering doctoral research on identifying cancer biomarkers from blood using alternating electric currents. Krishnan co-founded and is the CEO of San Diego-based Biological Dynamics.



Learn more: bit.ly/PCbloodtest

Gordon Engineering Leadership Center honors student leaders

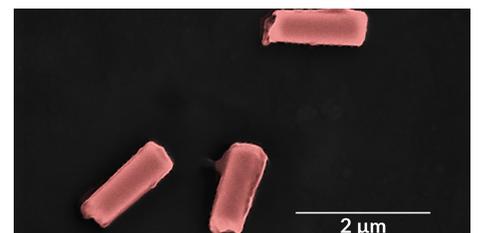


The Gordon Engineering Leadership Center at UC San Diego identifies and trains effective engineering leaders who will create jobs and products that benefit society. The Center recently honored top performing engineering student leaders at the 9th annual Engineering Leadership Awards celebration. Five undergraduate and three graduate students were recognized for demonstrating extraordinary leadership through their communication skills, teamwork abilities and implementation of technical solutions. Jacobs School of Engineering alumnus Greg Papadopoulos, a venture partner at NEA, was honored with the Professional Gordon Fellow award.

Learn more: bit.ly/GordonFellows18

Cell-like nanorobots clear bacteria and toxins from blood

Engineers at UC San Diego have developed tiny ultrasound-powered robots that can swim through blood, removing harmful bacteria and the toxins they produce. These proof-of-concept nanorobots could one day offer a safe and efficient way to detoxify and decontaminate biological fluids. Researchers built the nanorobots by coating gold nanowires with a hybrid of platelet and red blood cell membranes. This allows the nanorobots to perform the tasks of two different cells at once—platelets, which bind pathogens like MRSA bacteria, and red blood cells, which absorb and neutralize the toxins produced by these bacteria.



Learn more: bit.ly/CellNanorobots

What's in your gut?

The American Gut Project, the largest microbiome study ever undertaken, celebrated its first publication with data from more than 10,000 participants from around the world. Rob Knight, UC San Diego professor of pediatrics and computer science and engineering, leads the project out of the UC San Diego Center for Microbiome Innovation. The data from the study reveal how factors such as diet, antibiotics and mental health status can influence the microbial and molecular makeup of your gut.

Learn more: bit.ly/GutProject



Growing computer science tutor community reunites at UC San Diego



More than 170 current and alumni computer science tutors reunited at UC San Diego to celebrate a program that has become a hallmark of the department and a model for the rest of campus. There are now more than 3,000 tutor alumni in high-profile industry and academia positions across the country and the world, one of whom—Taner Halicioglu—recently donated \$75M to establish the Halicioglu Data Science Institute (HDSI) at UC San Diego. “Because of the creation of the Halicioglu Data Science Institute, you’re going to see that the world’s perception of what UC San Diego does in computer science is going to be much bigger than strictly computer science,” said UC San Diego Chancellor Pradeep Khosla.

Learn more: bit.ly/CS TUTORS18

Artificial muscles, robotic grippers, health care robotics at ICRA

From a gripper equipped with gecko-inspired adhesives, to artificial muscles and robotic joints, to talks on human-robot interaction and health care robotics, UC San Diego had a strong presence at the 2018 International Conference on Robotics and Automation in Brisbane, Australia. The event is the flagship conference of the IEEE Robotics and Automation Society and a premier international forum for robotics researchers.

Learn more: bit.ly/ICRA18





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