

## ~140 incredible faculty in 8 years

I finally got to meet (in person!) many of the 27 faculty we hired into the UC San Diego Jacobs School of Engineering in '20/21.

At the outdoor event to celebrate their arrival, as I exhorted them to be bold, I could see they were already engaged. I didn't need to encourage them at all, they were raring to go.

I was pleased to sense the camaraderie among them. Despite the pandemic, the new faculty have already started to self assemble into a productive ecosystem. This truly thrills me. I am firmly convinced that these young faculty will succeed: when problems arise, they will draw upon the interpersonal energy that flows among them. Imagine the second wave of energy that will pulse through the Jacobs School when this group of faculty, with its unity of purpose, gets fully integrated in our community.

This energy will have a wonderful home in Franklin Antonio Hall. Despite the pandemic, following strict safety measures, we managed to build this powerful new node for the Jacobs School's education, research and innovation ecosystem. I can't wait to see the dynamism our wonderful new faculty bring to it.

Just before the pandemic hit, we broke into the top 9 engineering schools in the nation. And twelve months later, despite the headwinds, we held that position. Indeed, just a couple of weeks ago, we celebrated that our bioinformatics undergraduate program jumped from #2 to #1 in the nation.

In my close out remarks at the new faculty celebration, I shared that I see them as an integral part of the nearly 140 faculty we've hired into the Jacobs School over the last 8 years. We are a young, powerful school because we have added cohort after cohort of energetic, imaginative, bold new faculty.

I am very much looking forward to this new academic year, focused ever more on engineering and computer science for the public good.

As always, I can be reached at [DeanPisano@eng.ucsd.edu](mailto:DeanPisano@eng.ucsd.edu)

Sincerely,

Al

Albert ("Al") P. Pisano, Dean

UC San Diego Jacobs School of Engineering



## Welcoming 27 new faculty to the Jacobs School

The Jacobs School of Engineering is proud to introduce the 27 new professors hired in 2020 and 2021. These professors are among the nearly 140 faculty who have joined the UC San Diego Jacobs School of Engineering in the last eight years. These new faculty and the bold research they pursue will further the Jacobs School's mission of leveraging engineering and computer science for the public good.

Learn more: [bit.ly/JacobsNewFaculty2021](https://bit.ly/JacobsNewFaculty2021)

## Three undergraduate programs rank in top 10

Three undergraduate academic programs at the Jacobs School of Engineering were ranked in the top 10 programs in the nation in rankings released by U.S. News and World Report. The biocomputing, bioinformatics and biotechnology program, a multidisciplinary undergraduate offering supported by three UC San Diego divisions including the Jacobs School of Engineering, was ranked first in the nation. The mobile and web applications undergraduate program housed in the Department of Computer Science and Engineering, was ranked number 7. The bioengineering and biomedical undergraduate program was number 8.

Learn more: [bit.ly/BioinformaticsNo1](https://bit.ly/BioinformaticsNo1)



## New type of solid-state battery shows promise for EVs, grid storage

Engineers at UC San Diego and LG Energy Solution created a new type of battery that weaves together two promising battery sub-fields. Called a silicon all-solid-state battery, it uses both a solid state electrolyte and an all-silicon anode. The initial rounds of tests show that the new battery is safe, long lasting, and energy dense. It holds promise for a wide range of applications from grid storage to electric vehicles. A startup founded by Jacobs School chemical engineering PhD alumnus Darren Tan has licensed this technology.

Learn more: [bit.ly/ScienceSept2021](https://bit.ly/ScienceSept2021)



## A plant virus could protect your lungs from metastatic cancer

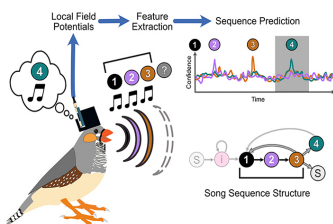
Using a virus that grows in black-eyed pea plants, nanoengineers at UC San Diego developed a new treatment that could keep metastatic cancers at bay from the lungs. The treatment not only slowed tumor growth in the lungs of mice with either metastatic breast cancer or melanoma, it also prevented or drastically minimized the spread of these cancers to the lungs of healthy mice that were challenged with the disease.

Learn more: [bit.ly/PlantVirusLungTumors](https://bit.ly/PlantVirusLungTumors)

## \$5 million NSF grant supports data-friendly research platform

The San Diego Supercomputer Center at UC San Diego received a \$5 million grant from the National Science Foundation's Office of Advanced Cyberinfrastructure to prototype the National Research Platform, an actual information superhighway. The NRP will give research collaborators new opportunities to share data and work simultaneously on complex projects. Several members of the UC San Diego Department of Computer Science and Engineering will lend their expertise to the project, building a high-performance platform, optimizing equipment, configurations and security to support data-intensive science projects.

Learn more: [bit.ly/NationalResearchPlatform](https://bit.ly/NationalResearchPlatform)



## Decoding birds' brain signals into syllables of song

Researchers at UC San Diego have demonstrated that they can predict what syllables a bird will sing—and when it will sing them—by reading electrical signals in its brain. Having the ability to predict a bird's vocal behavior from its brain activity is an early step toward building vocal prostheses for humans who have lost the ability to speak.

Learn more: [bit.ly/BirdSyllables](https://bit.ly/BirdSyllables)

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Contact newsletter editor, Daniel Kane: [dbkane@ucsd.edu](mailto:dbkane@ucsd.edu)

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