Grit and resolve

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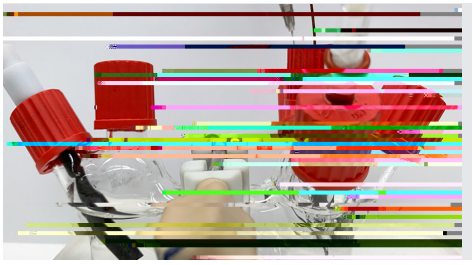
es to strengthen connections between engineering and medicine at the Jacobs School. In recognition of these gifts, we will seek to name a research collaboratory in our new building, Franklin Antonio Hall, the Chien-Farrell IEM Collaboratory. Thank you Shu, KC, and Peter for

Developing a COVID-19 vaccine patch from plant viruses

Nanoengineers at UC San Diego are working on a COVID-19 vaccine using an unconventional candidate: a plant virus. The team's goal is to use plants to create a stable, easy to manufacture vaccine that can be shipped around the globe. It will be packaged in slow-release microneedle patches that patients can wear on the arm to self-administer the vaccine in a single dose. The team is using a plant virus that infects legumes and engineering it to look like the novel Coronavirus, with molecular signatures called peptides woven onto the surface so it can stimulate the body's immune response. The beauty of this approach is that the plant virus is non-infectious in humans.

Learn more: bit.ly/COVIDPlantVirusVaccine



Enabling hospitals to produce hydrogen peroxide in house

A team of researchers has developed a portable, more environmentally friendly method to produce hydrogen peroxide. It could enable hospitals to make their own supply of the disinfectant on demand and at lower cost. Hydrogen peroxide has recently made headlines as researchers and medical centers around the country have been testing its viability in decontaminating N95 masks to deal with shortages amid the COVID-19 pandemic. This research originated as a way to make battery recycling processes greener, but the team quickly pivoted to meet this emergent COVID-19 need.

Learn more: bit.ly/H2O2production

'Flexoskeletons" make flexible soft robots faster and cheaper to make

Mechanical engineers at the Jacobs School have developed a new method to create soft, flexible, 3D-printed robots that doesn't require any special equipment and works in just minutes. The structures were inspired by insect exoskeletons, which have both soft and rigid parts--the researchers called their creations "flexoskeletons." The innovation comes from rethinking the way soft robots are built: instead of figuring out how to add soft materials to a rigid robot body, the researchers started with a soft body and added rigid features to key components.

Learn more: bit.ly/flexoskeletons

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