

Best of Last Week: Counting sound particles, drones that might fly for days, and doubts about safety of aspartame

July 29 2019, by Bob Yirka

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It was a good week for physics, as a team led by UCLA's Andrea Ghez reported that though [Einstein's general relativity theory has been questioned, it still stands for now](#); they conducted what they described as

the most detailed study of supermassive black holes and general relativity to date.

A team of physicists at Stanford University [counted sound particles with a special microphone](#), another step in the development of a true quantum computer.

Team members Rahil Valani and Anja Slim with Monash University, and Tapio Simula from Swinburne University of Technology carried out experiments to better understand what happens [when droplets walk across a liquid surface](#)—when dropped onto a shaken container of silicone oil.

A combined team of researchers from Michigan State University and the University of Maryland reported evidence that [white police officers are not more likely to shoot minorities](#).

Researchers Sebastian Leuzinger and Martin Bader with Auckland University of Technology reported on their study of [a tree stump that should be dead, but is still alive](#)—it managed to graft its roots with other nearby trees.

In other news, a team at UC Berkeley found a way to increase the efficiency of photovoltaic cells to the point that they envision [drones that will fly for days](#).

A team led by Tony Jia at the Tokyo Institute of Technology and Kuhan Chandru of the National University of Malaysia reported on their discovery of [new chemistry that may explain the origins of cellular life](#) by showing that simple α -hydroxy acids could spontaneously polymerize and self-assemble into polyester microdroplets under the right conditions.

A team at the Bloomberg-Kimmel Institute for Cancer Immunotherapy at the Johns Hopkins Kimmel Cancer Center reported [a favorable five-year survival rate for patients with advanced cancer treated with the immunotherapy.](#)

Pang-Hu Zhou and a team at the Renmin Hospital of Wuhan University and Xian-Zheng Zhang at Wuhan University found that [cuttlefish ink has promise for cancer treatment](#)—it contains nanoparticles that strongly inhibit the growth of cancerous tumors in mice.

And finally, if you are one of the millions of people the world over hoping to lose weight by consuming less sugar, you might want to check out a report by a team at the University of Sussex. Their [new research casts doubts on the safety of the world's most popular artificial sweetener](#), aspartame.

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