Professor Jenny Yang wins Beall Innovation Award in the Physical Sciences

The award honors work Yang and her lab are doing to help remove carbon dioxide from Earth’s atmosphere.

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Professor Jenny Yang's lab works on numerous projects related to climate change and taking planet-warming carbon dioxide out of Earth's atmosphere.

Picture Credit:
Steve Zylius

Professor Jenny Yang of the UC Irvine Department of Chemistry was awarded the tenth annual Beall Innovation Award in the Physical Sciences. Yang received the award after presenting a winning talk titled “Exhale: CO2 Capture and Concentration from Indoor Air,” which she presented during the School of Physical Science’s Shark Tank event on Wednesday, November 15. During her presentation, Yang detailed her lab’s work to remove the greenhouse gas carbon dioxide from Earth’s atmosphere by incorporating her CO2-capture methods with heating, ventilation and air conditions (HVAC) systems in buildings across the world. “Because CO2 in the air is fairly dilute, it takes a lot of energy to move enough air to capture significant amounts of CO2,” said Yang. “However, commercial HVAC systems are regularly moving large quantities of air, especially in high occupancy places. We thought if we coupled our CO2 capture with HVAC systems, we could operate with much less energy.” Yang’s lab is currently working on a prototype, and she is in conversation with Beall about what it entails to transfer the technology to the HVAC industry. The award comes with a cash prize of $65,000 from the Beall family, which Yang will use to support the commercialization of her technology.

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