Professor Joe Patterson receives NSF CAREER award

The award will stimulate the Patterson lab’s research into sustainable plastics as well as its education efforts.

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The award comes on the heels of an "impossible" discovery by one of Patterson's graduate students, Paul Hurst.

Picture Credit:
Rakia Dhaoui

Each year, the National Science Foundation's CAREER: The Faculty Early Career Development Program awards go to 500 U.S. science faculty who demonstrate remarkable promise to not only push the frontiers of their field to new horizons, but to work to share the fruits of their research through educational efforts at their home institution and beyond.

On Friday, November 18, Professor Joe Patterson of the UCI Department of Chemistry found out that he would receive a roughly-$600,000 CAREER award funded through NSF's Division of Materials Research Polymers Program.

"It felt amazing," said Patterson, who explained that faculty can only apply for a CAREER award three times and that this was his third time applying.

The funding will support Patterson and his lab's research into developing materials that are sustainable replacements for things like plastics; the lab already demonstrated that you can combine two chemical processes in a way that's energy-efficient and which generates plastics that are biodegradable. "It's very scalable and very efficient," said Patterson. The award will also help Patterson's lab develop new graduate-level course curricula in analytical chemistry as well as stimulate their education outreach efforts at local K-12 schools.

A bulk of the credit for the development of the science that helped win the award, Patterson explained, goes to his soon-to-graduate Ph.D. student Paul Hurst, who discovered an energy-saving method that's key to the work during his first year of graduate school. "Paul worked out the chemistry of how to do it," said Patterson. "I thought it might be impossible, but he did it."

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