

Promising Research Is CAREER-building

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Scott Grayson, an assistant professor of chemistry in the Tulane School of Science and Engineering, has received the National Science Foundation's Faculty Early Career Development (CAREER) Award ? a recognition of his contributions to student understanding of fundamental science, and of his talents as a teacher and researcher.

Grayson's [CAREER award](#) for nearly \$475,000 began in August and will last for five years. The award, which is part of the 2009 American Recovery and Reinvestment Act, funds basic science [research](#) into how polymers ? large chains of molecules ? can be manipulated in different ways.

In this video produced by Kathryn Hobgood, Scott Grayson, a National Science Foundation CAREER Award winner, explains how controlling the size and shape of polymers could be used in applications for cancer therapy.

"In our research labs, we're essentially looking at ways of controlling the size and shape of polymers," says Grayson. "Why we're interested in this is that there are a number of applications that we can investigate if we can manipulate polymers correctly."

The CAREER Award is considered one of the most prestigious awards for junior faculty members. It supports the early career-development activities of teacher-scholars who most effectively integrate research and education. Grayson, who works with undergraduates, graduates and research assistants, also helped create a service-learning course with fellow Tulane faculty member Hank Ashbaugh in which undergraduates give demonstrations of everyday uses of the scientific method to high school students. Ashbaugh is assistant professor in chemical and biomolecular engineering.

With students of all ages, Grayson tries to demonstrate how science is intuitive ? and how if you understand it, it's not a matter of memorizing facts.

"There are no great applications of science that didn't first come from an understanding of the fundamentals of science," he says. "The more you understand the basic rules of how things work, the more you can use that knowledge to make the world a better place. Bringing my students along to help them understand this is inspiring. I think it's beautiful."