GREETINGS FROM IUPUI

August 2010

Extraordinary student success—is one area where impact is made at IUPUI.

Even during the summer months, IUPUI is focused on teaching and learning—in the classroom, in the labs, and in the community. For high school students, summer is a time to come to IUPUI to learn and discover through special programs. For IUPUI students, summer is a time to learn and discover through internships.

"Charting the Path from Engagement to Achievement: A Report on the 2009 High School Survey of Student Engagement," conducted by the Indiana University Center for Evaluation and Education asked more than 42,000 high school students in 27 states about their perceptions of school. Nearly half reported a lack of engagement with school. They didn't see the value in the work they were asked to do. More than 80 percent said they wanted more opportunities to be creative at school.

This research on high school students bears out what we know with college students—engagement is key to academic success. This summer, IUPUI is putting that knowledge to work in a variety of ways.

Rachel Hawn, a junior at Warren Central High School, spent her summer contributing to laboratory research on targeted gene therapy for colorectal and cervical cancer. She worked in the lab of Hiremagalur Jayaram, professor emeritus of biochemistry and molecular biology at the IU School of Medicine and senior scientist at the Richard Roudebush VA Medical Center.

Rachel's laboratory activities included performing cytotoxicity tests to reveal precisely the absolute minimum amount of a drug that would be required to kill cancer cells. Praveen Kusumanchi, a postdoctoral fellow in hematology/oncology was Rachel's primary mentor.

The summer program gets students excited about science and motivates them to get good grades in high school in preparation for college enrollment. Rachel's participation was made possible by the support of the Indiana Clinical and Translational Sciences Institute, in partnership with Project SEED, a scholarship program funded by corporate and private donations.

Linda Monroe, a chemistry teacher at Warren Central High School, suggested Rachel for the program, which pairs high school students interested in science and medicine with local research scientists.

Getting inspiring science teachers like Linda Monroe in the classroom is the goal of the National Science Foundation's Robert Noyce

Scholarship Program.

Through the new Noyce Summer Internship program, our Purdue School of Science is challenging science majors to transfer their enthusiasm and knowledge to middle school and high school students in the hope that the interns will embrace science teaching as a career.

The interns spend eight weeks sharing their passion for science at places like the Children's Museum of Indianapolis and the Diabetes Youth Foundation Camp. The program is part of a new strategy to overcome the challenge of filling the science teacher pipeline by helping science majors recognize their interest in science education early enough in their IUPUI studies so that they still have time to take education courses while majoring in demanding fields like chemistry, physics, or engineering.

Noyce summer intern Derrick Andry of Mooresville is just the type of student we hope will pursue an interest in science education.

A chemistry major at IUPUI, Derrick is spending the summer at the Children's Museum, where he dons a tie-dyed lab coat and presents hands-on chemistry experiments to enthusiastic visitors of all ages. One involves making biodiesel fuel from plant oils.

Through a competitive process, the Noyce Interns can become Noyce Scholars so that, as juniors and seniors, they receive scholarship assistance to add rigorous courses from IUPUI's School of Education to their academic workload. Noyce Scholars commit to two years of service as science or math teachers at high-need public schools anywhere in the U.S.

Michele Schilten, school programs manager at the Children's Museum, says the Noyce interns have a spark for science that makes science fun.

Our hope is that the interns' experience of imparting enthusiasm for science to others will, in turn, spark a desire in them to make teaching science an inspiring choice of career.

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