Summer experience opens doors to lifelong pursuits

photos by Frank Wojciechowski

Raquel Mejia-Ariza of the University of Puerto Rico conducted research on hydrogen fuel cells in the lab of Jay Benziger. “In only two months, I learned very much. I want to continue. I want to apply here at Princeton,” Mejia-Ariza said.

Penn State student Uche Honnah worked in the labs of Craig Arnold and Claire Gmachl last summer, which fueled his desire to attend graduate school in engineering.

Uche Honnah, a junior at Coppin State College in Maryland, quite simply summed up his experience working in two Princeton engineering labs last summer.

“If I hadn’t come, I would be oblivious to the general process of research. I really wouldn’t know what to expect,” said Honnah, who has now transferred to Penn State University and is committed to going on to graduate school.

Honnah was among nearly 40 students from small colleges and universities from around the country who spent the summer at Princeton as part of the engineering school’s Research Experience for Undergraduates (REU) program. The students, many of whom came from schools with little opportunity for hands-on research, worked with graduate students and faculty members on projects ranging from the design of hydrogen fuel cells to the genetic programming of bacteria cells.

Exposure to real research is a critical step toward attracting a broader population of students to careers in science and engineering, said Daniel Steinberg, director for educational outreach at the Princeton Institute for the Science and Technology of Materials (PRISM). The program required a significant time commitment from more than two dozen faculty members, but the investment usually pays off, said Steinberg.

“Uche has really been a great student this summer,” said Craig Arnold, assistant professor of mechanical and aerospace engineering. “He’s definitely got it; he’s a scientist.”