

REU Summer Research: Welcome to the Real World

“That is research. It is 99 percent repetition, sweat, hard work, and then there’s that one percent of glory. But that’s what research is and that’s what this program is all about,” said University of Wisconsin-Parkside biological sciences professor Dr. Carmel Ruffolo.

Ruffolo understands the rewards and frustrations of research from years spent in laboratories. This summer, she passed along her wisdom—and eight students learned these research truths for themselves—during the Research Experiences for Undergraduates (REU) program.

In the second year of a three-year grant from the National Science Foundation, REU allowed the students, Rebecca Watson, Michael Fischer, Victor Perez, and Jose Henriquez from UW-Parkside; Angela Heinekamp and Valerie Gappa from Carroll College; Marquette University’s Maribel Cabral; and Erica Wensink of Carthage College, to spend nine 40-hour work weeks in the university’s laboratories. Their jobs: learn research with an eye toward making it a career.

“(Our goal was) to expose students to hands-on research and bioinformatics,” said Ruffolo, the REU grant administrator. “REU is intended to help them understand how you can use bioinformatics tools in research.”

Bioinformatics is the use of computers to speed up biological research. Watson admitted she was initially anxious about how she would compare to other REU students. However, she also was anxious to get into a laboratory and try her hand at research.

“I was apprehensive at first, worrying ‘Is everyone else going to be at the same level as me or am I going to be behind everyone?’ Otherwise, I came into it with an open mind,” Watson recalled. “I want to see if this is what I want to do (for a career).”

Each student worked with UW-Parkside professors and graduate students doing intensive research. Even with this help close by, REU students learned that much of a researcher’s work is solitary.

“It’s really getting in there and doing your own stuff,” said Carroll College’s Heinekamp. “You’ve got to make your

own solutions, make your own protocols, and find out where the problems are. You’re really working on your own.”

REU students also learned the difficulties researchers face.

“It’s frustrating having to do things over and over again,” said Gappa. “It’s perseverance, I guess. You really need to keep trying and keep your head up.”

Ultimately, despite all of the apprehension and frustration, REU students had to answer for themselves the career question.

“It’s either yes or no,” Fischer said. “Am I interested (in a research career), do I want to keep pursuing this, or am I going to just finish my bachelor’s degree and find a job?”

After his summer spent in the laboratory, Fischer said he was leaning toward a research-related career.

Ruffolo said a sure sign of the program’s success is the fact that four REU students from 2002 entered graduate research programs this fall, with one, Nathaniel Jeanson, going to Harvard University. She hopes for similar success when REU students from 2003 graduate.

