Goldwater Scholar aims high in research  
Jamie Birdwell/The Daily Wednesday, April 15, 2009

Erica Brown, chemical engineering junior, was recently named a Goldwater Scholar. Interested in biomedical engineering and research, Erica does research as an undergraduate and has presented her research at a biomedical conference in St. Louis. James Cornwell/ The Daily.

One OU student has taken tragedy in her own life and turned it into a passion and career, something that recently helped her gain national recognition.

Erica Brown, chemical engineering junior, was recently awarded the Barry M. Goldwater Scholarship, a prestigious research award given to students pursuing careers in science, mathematics and engineering.

At an early age, Brown began making hospital visits to friends and family facing problems ranging from cancer to blood clots. The constant visits, she said, helped her develop an interest in biomedical engineering.

“I was frustrated,” she said. “I just wanted to solve the problem and leave [the hospital].”

But Brown’s hospital visits didn’t end when she found a passion.

On March 31, one day after she found out she was named a Goldwater Scholar, she learned her mother had breast cancer. She now feels the urgent need to do biomedical research more than ever, she said.

She said her mother may undergo a mastectomy, the total removal of a breast. Brown had already explored different ways to solve the problem without being so invasive.

During her freshman year, Brown began working with Vassilios Sikavitsas, chemical, biological and materials engineering professor, to create a biodegradable nanofiber mesh for tissue engineering so patients needing operations like hip replacements could have an alternative to artificial parts being placed in their bodies. She said instead, the body’s own tissue would be used.

Sikavitsas said although it’s common for undergraduates to do research, it’s rare for a student to conduct research on Brown’s level. He said Brown’s largest asset is her organization and her careful experimentation, which makes for a great medical researcher.

Brown said she’s overly ambitious. In addition to her research, is a Chevron Phillips Scholar and mentors freshman and sophomore engineering students. She also is the exterior vice president of OU’s American Institute of Chemical Engineers chapter.

She said she hopes to attend graduate school at Rice University and eventually become a researcher and professor but wants students at OU to view her as a positive example.

“I want them to be passionate,” she said. “Keep chasing! I had to apply for everything. You can get what you want if you have a lot of initiative.