

SOUTHWESTERN NEWS

Media Contact: Aline McKenzie

214-648-3404

aline.mckenzie@utsouthwestern.edu

Undergraduate research program at UT Southwestern gets physical

DALLAS – June 28, 2005 – A program for undergraduate research at UT Southwestern Medical Center has taken a new twist this year – bringing in some students who have backgrounds in the physical sciences to complement the biological research of their mentors.

“We try to give them an overview of some of the hottest stuff that’s going on,” said Dr. Nancy Street, associate dean of the UT Southwestern Graduate School of Biomedical Sciences.

“What a computer science major might be able to bring to the field of immunology is a technique to analyze vast quantities of data,” she said.

Nine college students with backgrounds in physics, computer sciences, math and similar fields will join 33 others from around the country participating in this year’s Summer Undergraduate Research Fellowship program, or SURF. The physical sciences program is called Quantitative and Physical-SURF, or QP-SURF.

The students – who attend schools ranging from a community college to the Massachusetts Institute of Technology – will work in the laboratories of 40 faculty members, assisting with ongoing research. At the end of the 10-week program, they’ll create posters of their projects for an Aug. 11 display.

“I think their main contribution is just their enthusiasm,” said Dr. David Corey, a professor of pharmacology and biochemistry who has had SURF students in his lab for a decade. “It becomes one of those things you do to contribute to UT Southwestern being a lively place, because it’s good to have young people around.”

Some faculty members have taken more than one student at a time. Dr. Harold “Skip” Garner, professor in the Eugene McDermott Center for Human Growth and Development and biochemistry and internal medicine, has two in his lab this year, one from SURF and one from QP-SURF.

David Engfer from Baylor University, Dr. Garner’s QP-SURF student, is looking for ways to improve analysis of DNA, as well as increasing efficiency of software that handles large amounts of data.

THE UNIVERSITY OF TEXAS SOUTHWESTERN MEDICAL CENTER AT DALLAS

Southwestern Medical School • Southwestern Graduate School of Biomedical Sciences • Southwestern Allied Health Sciences School
Affiliated teaching hospitals and outpatient clinics

Office of News and Publications • 5323 Harry Hines Blvd., Dallas TX 75390-9060 • Telephone (214) 648-3404 • FAX (214) 648-9119

"It's really a blessing," Mr. Engfer said of the program. "You only get to read about all these new techniques in textbooks. Now I get real practical experience."

Fellow student Cyril Varghese of UT Arlington is working with a graduate student in Dr. Garner's lab to improve a lab-made machine that reads how short proteins bind to other molecules.

"I've seen pictures of these, but to operate it hands-on, it's really amazing," he said. "I'm trying to understand the machine first, so I can contribute to improving it."

"We're a teaching institution, and I think it's interesting and valuable to give these aspiring young students a peek at what research is like," said Dr. Garner, holder of the Philip O'Bryan Montgomery, Jr., M.D., Distinguished Chair in Developmental Biology.

SURF mentor Dr. Kevin Gardner, associate professor of biochemistry and pharmacology and a W.W. Caruth Jr. Scholar in Biomedical Research, said the program lets him pay back in a small way the assistance he got as a college student.

"People provided opportunities like this for me when I was an undergraduate, and these were tremendously important for me to clearly see that a career in basic research was right for me," he said. "The most memorable thing is seeing them grow and develop. By the time they leave 10 or 12 weeks later, they've made tremendous progress."

The SURF program started in 1984 by Dr. Elliott Ross, professor of pharmacology, with fewer than a dozen students. In the late 1990s, it was expanded to nearly 50 students.

"One of the things that prompted us in expanding SURF is that it's an excellent recruiting tool," Dr. Street said. On average, 50 percent of SURF participants apply to UT Southwestern for postgraduate education. For fall of 2005, six of the 50 U.S. students matriculating into the Ph.D. program at UT Southwestern are SURF alumni.

QP-SURF is supported by the National Institute of General Medical Sciences, through a four-year training grant and also by the Edna McConnell Clark Foundation.

###

This news release is available on our World Wide Web home page at
<http://www.utsouthwestern.edu/home/news/index.html>

To automatically receive news releases from UT Southwestern via e-mail,
subscribe at www.utsouthwestern.edu/receivenews