

SOUTHWESTERN NEWS

Media Contact: Amy Shields
214-648-3404
amy.shields@utsouthwestern.edu

NIH RENEWS LONGEST-RUNNING RESEARCH GRANT TO UT SOUTHWESTERN WITH \$10.7 MILLION AWARD

DALLAS – Nov. 7, 2002 – The National Institutes of Health has renewed the longest-running research project grant – now in its 42nd year – to UT Southwestern Medical Center at Dallas with a five-year, \$10.7 million award. Researchers will explore the physiological, biochemical and molecular processes that cause acute responses and chronic adaptations of the cardiovascular and skeletal muscle systems to exercise.

The grant is the second-longest program project grant in the United States funded by the NIH's National Heart, Lung and Blood Institute.

"The unusual longevity of this grant is based on a record of continuous productivity and innovation, fostered by the involvement of senior investigators for periods of 10 to 20 years and fresh perspectives provided by other scientists who have joined the program more recently," said Dr. James Stull, chairman of physiology and director of the renewed grant.

The project consists of four individual research units involving:

- Regulation of skeletal muscle contraction by protein phosphorylations
- Regulation of skeletal muscle protein degradation
- Skeletal muscle-derived nitric oxide and vascular regulation
- Transcriptional control of muscle growth and remodeling

"Our aim is to extend the knowledge of the biological limitations to human performance in health and disease," Stull said. "This research will lay a foundation on which clinical efforts to enhance exercise capacity and quality of life in patients afflicted with cardiovascular, metabolic or musculoskeletal diseases may be based."

The program project was initiated in 1961 by Dr. Charleton Chapman, who was then chief of cardiology at UT Southwestern and later dean of Dartmouth Medical School. The first studies involved circulatory and pulmonary reactions to stress.

(MORE)

RESEARCH GRANT - 2

Since then, the overall focus of the grant has shifted from human adaptation to environmental and exercise stress to the molecular and cellular processes involved in the response and adaptation to exercise, said Dr. Jere Mitchell, who served as program project leader for 35 years.

“Although the researchers are conducting different experiments, the general theme of the research remains the same,” said Mitchell, professor of internal medicine and physiology.

“Our primary goal is to study adaptive mechanisms that during exercise affect muscle performance,” said Stull. “Findings from the studies should provide a better understanding of the determinants of human physical performance and insights into disorders affecting the cardiovascular and skeletal muscle.”

NIH program project grants support broadly based, multidisciplinary, long-term projects that have specific major objectives directed toward a common goal.

Other researchers involved in the study include Dr. George DeMartino, professor of physiology; Dr. Eric Olson, chairman of molecular biology and director of the Nancy B. and Jake L. Hamon Center for Basic Research in Cancer and the Nearburg Family Center for Basic Research in Pediatric Oncology; and Dr. Ronald Victor, chief of hypertension.

###

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

To automatically receive news releases from UT Southwestern via e-mail,
subscribe at <http://lists.utsouthwestern.edu/mailman/listinfo/utswnews>