# SOJTHWESTERN NEWS

Contact: Bridgette Rose McNeill (214) 648-3404 or e-mail: bmcnei@mednet.swmed.edu

## **\$9.2 MILLION NIH GRANT TO FUND** EXERCISE RESEARCH INTO ITS 4TH DECADE

DALLAS — September 15, 1997 — You could say one of the longest-running research projects at UT Southwestern Medical Center at Dallas is about just that — running.

The National Institutes of Health (NIH) has renewed funding for a comprehensive exercise study in its 37th year, making it the longest-running program project grant on the UT Southwestern campus. Nationwide, only one other program project grant has been funded by the National Heart, Lung, and Blood Institute (NHLBI) division of NIH as long.

The five-year, \$9.2 million program project grant, titled "Response and Adaptation to Exercise," is a multidisciplinary investigation by five teams of researchers at UT Southwestern and one team at the University of Illinois College of Medicine at Urbana-Champaign. The grant will support the work of 20 researchers into the year 2002, extending its life to 41 years.

Researchers are exploring the basic molecular mechanisms and signaling pathways for regulation of blood flow in muscles, the molecular mechanisms controlling skeletal muscle mass and the neural mechanisms determining the cardiovascular response to exercise.

"If we can better understand the physiological and biochemical processes occurring in skeletal muscle, the heart and blood vessels during exercise, we may be able to better understand some important pathological conditions of the cardiovascular, metabolic and musculoskeletal systems such as hypertension and congestive heart failure," said program project director Dr. Jere Mitchell.

NIH program project grants support broadly based, multidisciplinary, long-term projects that have specific major objectives directed toward a common goal, in contrast to project grants that support specific projects by a researcher or groups of researchers.

The exercise program project has been funded continuously through six consecutive

### (MORE)

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 Public Information • 5323 Harry Hines Blvd., Dallas TX 75235-9060 • Telephone (214) 648-3404 • FAX (214) 648-9119

### NIH GRANT - 2

competitive renewals, and has regularly been expanded in scope. Two initial research units were established in 1961 by Dr. Carleton Chapman, who was then chief of UT Southwestern cardiology and later dean of Dartmouth Medical School. He received a total of \$180,000 to study "circulatory and pulmonary reaction to stress." The specific research themes have evolved to reflect current frontiers of biological science at both the integrated and molecular levels and now goes into much greater depth than was envisioned with the initial application, said Mitchell.

In an assessment of the grant, NIH officials lauded the research program as "an outstanding program that should yield crucial information and increase understanding of the effects of exercise."

"The research supported by this grant has been a strongly focused effort to gain a better understanding of the effects of exercise on the heart, blood vessels and skeletal muscle," said Dr. Christine A. Kelley, a scientific program officer with NHLBI. "The information they have gained is providing a foundation for the development of clinical efforts to enhance exercise capacity and quality of life in patients afflicted with cardiovascular and musculoskeletal disease. Their long history of funding is due to the importance of the subject, the productivity of the investigators and the innovativeness of the research."

Nearly 700 journal articles have been published on the program project research.

Part of the success of the program project was attributed to Mitchell, praised in NIH reports as an outstanding leader and acknowledged authority in the fields of exercise physiology and neural control of the cardiovascular system.

Mitchell, a professor of internal medicine and physiology at UT Southwestern, has been an investigator on the project since 1962 and program project leader for 31 years. He is also director of both the Harry S. Moss Heart Center and the Pauline and Adolph Weinberger Laboratories for Cardiopulmonary Research. He holds the Frank M. Ryburn Jr. Chair in Heart Research and the S. Roger and Carolyn P. Horchow Chair in Cardiac Research, in honor of Jere H. Mitchell, M.D.

Associate directors of the program project are Dr. James Stull, chairman of

#### NIH GRANT - 3

physiology and holder of the Fouad A. Bashour Chair in Physiology; and Dr. R. Sanders Williams, chief of cardiology, director of the Frank M. Ryburn Jr. Cardiac Center and holder of the James T. Willerson, M.D., Distinguished Chair in Cardiovascular Diseases. Principal investigators on the program project are Dr. George DeMartino, the Robert W. Lackey Professor in Physiology; Dr. Ronald Victor, professor of internal medicine; and Dr. Tony Waldrop, professor of physiology, biophysics and internal medicine at the University of Illinois. Dr. George Ordway, associate professor of physiology, and Dr. James Richardson, associate professor of pathology, are core lab directors.

In its 37-year history several other faculty members have served at one time or another as principal investigators of research units funded by the grant, including both Dr. Charles Mullins, now executive vice chancellor for health affairs of the UT System, and Dr. Kern Wildenthal, now president of UT Southwestern.

#### ###

This news release is available on our World Wide Web home page at http://www.swmed.edu/news/newspubs.htm/