

SOUTHWESTERN NEWS

Media Contact: Ann Harrell

214-648-3404

ann.harrell@utsouthwestern.edu

PSYCHIATRY RECEIVES GRANT ESTABLISHING CONTE CENTER TO STUDY MOLECULAR AND CELLULAR MOOD MECHANISMS

DALLAS – Dec. 10, 2002 – UT Southwestern Medical Center at Dallas has received a \$9 million, five-year grant from the National Institutes of Health to establish a Silvio O. Conte Center for the Neuroscience of Mental Illness.

The prestigious Conte Centers are home to investigative teams from various scientific disciplines pursuing highly focused research at major institutions around the United States, said Dr. Eric Nestler, chairman of psychiatry and principal investigator for the grant. There are only 12 Conte Centers in operation, according to NIH officials.

Researchers in the new center will study the cellular and molecular mechanisms involved in mood regulation. They will specifically evaluate the hypothesis that brain structures controlling responses to rewarding stimuli such as food, alcohol and drugs of abuse also are part of the neural circuitry controlling mood.

Nestler said he hopes analysis of these brain circuits will eventually provide targets for medications to treat mood disorders, which affect 20 percent of Americans.

“The type of information we obtain from these studies could prove invaluable in locating precise brain changes to target for treatment of depression and other major mental illnesses,” said Nestler.

“While most research in the depression field has focused on the hippocampus and the cerebral cortex – more recently evolved regions of the brain – there is the increasing realization that several substructures beneath the brain’s surface, called the nucleus accumbens, the amygdala, and the hypothalamus, are also involved. We are looking at them as well to learn more about reward, mood and motivation,” he said.

Nestler is directing research aimed at developing new genetically modified mice and rats that will be used to study molecular mechanisms of mood and motivation. He is also investigating the role of CREB, a transcription factor in the brain’s nucleus accumbens that is

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

CONTE CENTER - 2

a key control point for mood motivation.

Working with Nestler in the Conte Center will be a team of UT Southwestern scientists from psychiatry as well as other departments involved in molecular and cellular research:

- Dr. David Self, associate professor of psychiatry, is directing efforts to develop a broad battery of behavioral tests for depression-like symptoms in rats and mice.
- Dr. Luis Parada, director of the Center for Developmental Biology and the Kent Waldrep Center for Basic Research on Nerve Growth and Regeneration, is investigating the role of tissue nutrition and metabolism in the regulation of mood and motivation.
- Dr. Masashi Yanagisawa, professor of molecular genetics, is conducting research into the role of appetitive peptides in mood and motivation. The work concentrates on three peptides – melanocortin (a-MHS), orexin (hypocretin) and melamin-concentrating hormone (MCH) – known to control feeding behavior.
- Drs. Steven McKnight and Joseph Garcia, chairman of biochemistry and assistant professor of internal medicine, respectively, are working on the role certain genes play in circadian variations involving mood, psychomotor activity and mental states often seen in depressed patients.
- Dr. Tom Wilkie, associate professor of pharmacology, is focusing on the ability of regulators of G protein signaling (RGS) proteins in regulating mood and motivation.

Scientists from Harvard University and Yale University will collaborate on some of the projects.

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>