## SOJTHWESTERN NEWS

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## CENTER TO ENCOURAGE BIOMEDICAL INVENTIONS

DALLAS – April 3, 1998 – UT Southwestern Medical Center at Dallas has established the Center for Biomedical Inventions to encourage innovative research and support the development of new technologies.

"When I look around the Southwestern campus, I see this huge amount of inventive capability," said Dr. Stephen Johnston, professor of internal medicine and biochemistry. "All these people have great ideas, but most of them never come to fruition. They don't have a chance to try out the inventions, because they lack funding and a place to develop the ideas to a useable level. This is a tremendous waste of potential."

Johnston, director of the new center, said money generated from licensing inventions will be reinvested in the center to allow further harvesting of UT Southwestern's wealth of ingenuity. This research will take an invention from the bench to the bedside right here on campus and provide a biotechnology epicenter for the Dallas area. The ultimate goal is development of technologies that will revolutionize basic biomedical research and clinical care, including rapid vaccine development, array (many experiments done in a small area) technologies and novel peptides — proteins that can be used for drugs.

"Most inventions die because they never cross the chasm from idea to the point where it can be taken to a company for commercialization," Johnston said. "The Center for Biomedical Inventions will take good ideas from faculty members campus-wide, then push them far enough to find out if they are worth pursuing to practical application."

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UT Southwestern would realize greater financial gain if the inventions are licensed to commercial business, he said. "If an invention is close to or ready for practical use, we can get much more money for it than we can for just an idea."

Five senior researchers with expertise in physics, chemistry, molecular biology, biochemistry, immunology, computers and clinical medicine will head the invention center's core laboratory. The investigators are Johnston, holder of the Dr. Eugene Tragus Chair in Molecular Cardiology; Dr. R. Sanders Williams, director of the Frank M. Rayburn Jr. Cardiac Center and holder of the James T. Willerson, M.D., Distinguished Chair in Cardiovascular Diseases; Dr. H.R. "Skip" Garner Jr., professor of biochemistry and holder of the Philip O'Bryan Montgomery Jr., M.D., Distinguished Chair in Developmental Biology; Dr. Tom Kodadek, professor of internal medicine and biochemistry; and Dr. Robert Meidell, professor of internal medicine. Kodadek, a chemist, recently joined UT Southwestern from UT Austin to round out the center's expertise.

The first invention to generate seed money for the center is ELI, a technology Johnston and his investigative team developed to produce vaccines by using the genome of a pathogen. This innovation, patented in December, was the basis upon which Dr. Daniel Foster, chairman of internal medicine and holder of the Donald A. Seldin Distinguished Chair in Internal Medicine, provided seed money and moral support for the center.

Now the invention-center scientists are combining their research specialties to develop more vaccines and a system for a rapid assembly-line-like system for genomic vaccine production. Kodadek is developing new techniques for using peptides to target certain areas of molecules for gene regulation. Meidell is working with gene therapy, particularly as it relates to molecular cardiology. Williams is developing methods to change how a cell divides and whether it lives or dies.

Garner, a physicist, also is an expert in computational biology and robotics. He will begin moving existing technology developed at UT Southwestern, including a new DNA synthesizer, a DNA sequencer, software and other instrumentation technologies, to other institutions. He will

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supply the Department of Energy with rapid DNA-synthesis technology for its Los Alamos, N.M., and Walnut Creek, Calif., laboratories. These technologies also are being used by the UT Southwestern invention center to accelerate gene identification, vaccine development and drug discovery for the treatment of many human diseases.

"The five core researchers are knowledgeable about translational research and have a history of inventorship," Garner said. "We'll be seeking participation from everyone on campus who has similar interests."

The scientists said the center will be a focal point for technology in three ways: 1) to test new equipment, 2) to advance inventions and 3) to disseminate information on new technology. To further its efforts to serve as a technology information source, the center will present the Emerging Technology Seminar series, featuring speakers from outside UT Southwestern who can discuss cutting-edge biomedical advances.

The center will benefit UT Southwestern, the community and the biotechnology industry by training graduate students and postdoctoral fellows in translational research; facilitating technological collaboration among faculty; and encouraging development of local biotechnology companies.

"We want the center to be a catalyst for more of these types of companies to start here or to move here instead of researchers having to go to one of the coasts," Johnston said.

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