## J SOUTHWESTERN NEWS

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## International prize for lipid research awarded to UT Southwestern researcher

DALLAS – Nov. 8, 2007 – Dr. Joachim Herz, professor of molecular genetics and neuroscience at UT Southwestern Medical Center, has been awarded Germany's highly respected Heinrich Wieland Prize for his research related to lipid and cholesterol regulation.

The prestigious international science prize, first awarded in 1964, is given annually to an individual who has conducted outstanding research on the biochemistry, chemistry, physiology and clinical importance of lipids and related substances.

Dr. Herz's recognition brings the number of current UT Southwestern faculty members so honored to six, the largest representation from any one institution in the world.

Dr. Herz, who holds the Thomas O. and Cinda Hicks Family Distinguished Chair in Alzheimer's Disease Research, was cited for his discovery of novel and essential functions of lipoprotein receptors in the transmission of signals between cells. His research team identified important signaling pathways that control not only critical steps during embryonic organ development, but also in the brain, where they are required for memory processes and for protecting nerve cells from premature death during aging.

In the course of their work, Dr. Herz and his lab members further identified a specific protein, called low-density lipoprotein receptor-related protein, that plays a key role in determining whether fatty substances and cholesterol build up inside arteries. Accumulation of cholesterol in the walls of blood vessels is a leading cause of heart attacks and stroke.

"In a technical tour de force, Dr. Herz discovered a large family of giant receptors that control processes as diverse as cholesterol metabolism and brain development. His work has elucidated large areas of biology and medicine," said Dr. Michael Brown, director of the Erik Jonsson Center for Research in Molecular Genetics and Human Disease at UT Southwestern.

Dr. Herz joined the lab of UT Southwestern Nobel laureates Dr. Brown and Dr. Joseph Goldstein as an assistant instructor in 1989.

"Dr. Herz joins a long tradition of now six UT Southwestern scientists who have been honored with the Wieland Prize over the last 30 years," said Dr. Goldstein, chairman of molecular (MORE)

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genetics at UT Southwestern. "His pioneering work on the various lipoprotein receptors has shed new light on how signals in the body are transmitted from the outside of the cell to the inside."

Dr. Brown, who holds the W.A. (Monty) Moncrief Distinguished Chair in Cholesterol and Arteriosclerosis Research, and Dr. Goldstein, who holds the Julie and Louis A. Beecherl Jr. Distinguished Chair in Biomedical Science, won the Wieland Prize in 1974 – the first Americans so honored – for their research on lipoprotein receptors and the genetic control of cholesterol metabolism. They shared the Nobel Prize in physiology or medicine in 1985 for their discovery of the underlying mechanisms of cholesterol metabolism, which led to the development of statin drugs to treat high cholesterol.

Dr. John Dietschy, professor of internal medicine at UT Southwestern and holder of the H. Ben and Isabelle T. Decherd Chair in Internal Medicine, in Honor of Henry M. Winans Sr., M.D., received the 1983 Wieland Prize for his research into the regulation of cholesterol balance in tissues.

Dr. David Mangelsdorf, chairman of pharmacology, an investigator in the Howard Hughes Medical Institute and holder of the Doris and Bryan Wildenthal Distinguished Chair in Medical Science, won the award in 2003 for his research focusing on the mechanisms of nuclear receptor proteins, which serve as sensors in protecting human cells against unusually high and possibly toxic levels of lipids, such as cholesterol and fatty acids.

Dr. Helen Hobbs, director of the Eugene McDermott Center for Human Growth and Development and the Donald W. Reynolds Cardiovascular Clinical Research Center, an HHMI investigator, and holder of the Eugene McDermott Distinguished Chair for the Study of Human Growth and Development and the Dallas Heart Ball Chair in Cardiology Research, received the 2005 Wieland Prize for her research on the genetics of lipid metabolism, such as inherited factors that play a role in determining the level of dangerous LDL cholesterol in the blood.

In all, 58 researchers from 11 countries have won the Wieland Prize over its 43-year history. Members of the UT Southwestern faculty represent more than 33 percent of the 18 selected from the U.S. Seven researchers have been chosen from Texas institutions, with UT Southwestern faculty representing 86 percent of that total.

Dr. Kern Wildenthal, president of UT Southwestern, said, "The outstanding UT Southwestern researchers who have been honored with the Heinrich Wieland Prize epitomize our institution's

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international leadership in research related to cholesterol and cardiovascular disease. Dr. Herz's work is of exceptional quality and this recognition is extremely well-deserved."

The award is named for German chemist Dr. Heinrich Otto Wieland (1877-1957), who won the Nobel Prize in 1927 for his work on bile acids. Dr. Herz received the prize at a ceremony on Oct. 26 in Munich.

"The rich history of the Heinrich Wieland award and the impact of the scientific achievements for which it has traditionally been awarded make this perhaps the most important recognition in the field of lipid metabolism. It foremost honors the dedication and effort of all those members of my laboratory who have contributed to this work," said Dr. Herz, who earned his medical degree from the University of Heidelberg in Germany.

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