

SOUTHWESTERN NEWS

Media contact: Heather Stieglitz
(214) 648-3404
or e-mail: heather.stieglitz@email.swmed.edu

UT SOUTHWESTERN YOUNG INVESTIGATOR HONORED FOR STUDIES ON AGING

DALLAS — June 1, 1999 — In recognition of his innovative research on aging, Dr. Makoto Kuro-o has received the 1999 Distinguished Young Researcher Award from the President's Research Council at UT Southwestern Medical Center at Dallas.

Kuro-o, assistant professor of pathology and one of the first five young medical researchers recruited through UT Southwestern's new Endowed Scholars Program in Medical Science, previously identified and cloned a gene that has profound effects on aging and on age-related diseases.

The discovery of the *Klotho* gene—named after the Greek goddess who spins the threads of life—was serendipitous, said Kuro-o, a cardiologist who trained in Tokyo. He was studying the molecular cause of essential hypertension, a major risk factor for cardiac disease, when he discovered *Klotho*. One of his genetically altered mice, when bred to have two altered copies of the gene, showed signs of premature aging.

These homozygous mice have a shortened life span and a variety of age-associated diseases that include arteriosclerosis, osteoporosis, emphysema, infertility, and skin, thymus and genital organ atrophy. Kuro-o cloned the gene, which resides on chromosome 5, and showed that he could eliminate the aging symptoms by inserting into the mutant mice a normal unaltered *Klotho* gene.

"I met Dr. Kuro-o when he visited here a few years ago to present his research. I was so intrigued with his work that I began trying to recruit him on the spot," said Dr. Errol Friedberg, chairman of pathology, who played an important role in Kuro-o's decision to come to the United States. "We are of course delighted to have him in the UT Southwestern community."

(MORE)

Award—Page 2

Kuro-o, the Southwestern Medical Foundation Scholar in Biomedical Research, had never thought about leaving Japan until two years ago. But he was surprised and delighted when he learned of UT Southwestern's Endowed Scholars Program, which devotes funds specifically to promising young researchers.

"Every young Japanese scientist wants to study in the United States someday," he said. "It is kind of a dream to come and do research here. It is a very big chance for me."

Kuro-o, who now considers Dallas his second hometown, is investigating how the protein made from the *Klotho* gene works. He believes it is a secreted protein and may function as a hormone. His laboratory is involved in identifying molecules that interact with the Klotho protein and elucidating the secretory pathway. In addition he and his colleagues want to look at protein variations and mutations in humans. They are now developing an antibody to the Klotho protein to have a means of measuring its concentration.

"We are very happy that Dr. Kuro-o has come to UT Southwestern to continue these exciting studies," said Dr. Kern Wildenthal, president of UT Southwestern. "He represents the quality and excellence that the President's Research Council seeks to honor."

The President's Research Council is an organization of community leaders who are interested in learning about and advancing medical research at UT Southwestern. Members are invited to four lectures annually given by the medical center's leading researchers. Membership fees support research by new faculty investigators at the center.

###