

SOUTHWESTERN NEWS

Contact: Morgan Lyons
or Jennifer Donovan
(214) 648-3404

WHY DOES UT SOUTHWESTERN WIN ALL THOSE NOBEL PRIZES?

DALLAS — October 20, 1994 — "In sports they call it 3-peat."

That's what Nobel laureate Dr. Michael Brown said when UT Southwestern colleague Dr. Alfred Gilman won the 1994 Nobel Prize in physiology or medicine last week for his work on G proteins. Gilman's award is the third Nobel Prize won by faculty of the medical center in the past nine years, giving The University of Texas Southwestern Medical Center at Dallas more active Nobel laureates on its faculty than any other medical school in the world.

Brown shared the 1985 Nobel Prize in physiology or medicine with Dr. Joseph Goldstein at UT Southwestern for their discovery of the underlying mechanism of cholesterol metabolism. In 1988 Dr. Johann Deisenhofer won the Nobel Prize in chemistry for work in X-ray crystallography that revealed the three-dimensional structure of the membrane proteins of a cell, atom by atom.

This has enabled UT Southwestern to attract some of the top medical scientists in the world. The faculty includes these four Nobel laureates and 11 members of the National Academy of Sciences. And all four of UT Southwestern's Nobel Prize winners are under the age of 55, in the prime of their research careers.

While most Nobel Prizes for science are awarded after researchers have retired, to Brown and Goldstein, Deisenhofer and Gilman, the prize is, in Brown's words, "simply the beginning, and we expect to go upward, not just in external recognition, but in the really solid achievements that earn that recognition."

Gilman said, "The scientific environment here is extraordinary." Brown described a "kind of electric excitement that is generated here."

Gilman said the environment "that people like Mike (Brown), Joe (Goldstein)

(MORE)

NOBELS — 2

and Hans (Deisenhofer) create gave me the support, the intellectual interaction I needed, and this place has an abundance of such interaction."

Brown and Goldstein would walk by his office, stick their heads in and chat, Gilman recalled. Eventually they even lent the pharmacologist one of the leading researchers in their molecular genetics department, to help Gilman learn the vital molecular biology technology of cloning.

"I had a lot of confidence when I came to UT Southwestern, but I really didn't know how good it was going to be," Gilman said.

Gilman, 53, won UT Southwestern's latest Nobel Prize for his discovery of G proteins, proteins within cells that act as signal transducers, receiving signals from outside the cell and activating a variety of cellular responses. He discovered the missing link in the communications system that allows cells to react to the chemical messages they receive from outside themselves. His work has led to a more complete understanding of how cells receive signals and the processes that regulate their responses to those signals.

Gilman is chairman of pharmacology and holder of the Raymond Willie Jr. Distinguished Chair in Molecular Neuropharmacology, in Honor of Harold B. Crasilneck, Ph.D. Deisenhofer, 51, is a professor of biochemistry, an investigator in the Howard Hughes Medical Institute at UT Southwestern and holder of the Virginia and Edward Linthicum Distinguished Chair in Biomolecular Science. Goldstein, 54, is chairman of molecular genetics and holds the Distinguished Chair in Biomedical Science and the Paul J. Thomas Chair in Medicine. Brown, 53, directs UT Southwestern's Erik Jonsson Center for Research in Molecular Genetics and Human Disease. He holds the W.A. (Monty) Moncrief Distinguished Chair in Cholesterol and Arteriosclerosis Research and the Paul J. Thomas Chair in Medicine.

In the past few years, growing numbers of other leading researchers have joined UT Southwestern's faculty. They've been drawn by the Nobel laureates already here, the outstanding research facilities on the medical center's new 40-acre North Campus — where one new research tower has been completed and occupied

(MORE)

NOBELS — 3

and two more are under construction — and by what Dr. Glen Evans calls "the synergistic working environment," where basic scientists interact on a daily basis with physicians treating referral patients, where the focus is on translational research, applying the discoveries of basic science to the practice of clinical medicine.

"UT Southwestern is a dynamic, remarkably rich intellectual community where great minds attract and excite other great minds," said Dr. Kern Wildenthal, UT Southwestern president.

Evans left the Salk Institute in California to head UT Southwestern's Human Genome Project research, bringing with him 10 members of his research team and a federal grant approaching \$16 million. Evans directs the Eugene McDermott Center for Human Growth and Development and holds the Eugene McDermott Distinguished Chair for the Study of Human Growth and Development.

Dr. Luis Parada, one of the world's most cited scientists, came to UT Southwestern from the National Cancer Institute, as did Dr. John Minna, internationally known for his lung cancer research. Minna, holder of the Lisa K. Simmons Distinguished Chair in Comprehensive Oncology, is director of the Harold C. Simmons Comprehensive Cancer Center and the W.A. "Tex" and Deborah Moncrief Jr. Center for Cancer Genetics. Parada — recruited by Nobel laureate Brown — is a professor of cell biology and neuroscience and directs the new Center for Developmental Biology.

Another factor enabling UT Southwestern to attract and hold world-class scientists is financial support of research.

"I've been blessed with support from the National Institutes of Health, and the American Cancer Society has given me enormous support," said Gilman. "The University of Texas support has been superb. And the local support from the community has made an enormous difference, allowing me to recruit wonderful people."

###