

Michael Freedman, Lawrence Kromer, Mark Ellisman, and Thomas Jordan winners of Sloan Foundation Fellowships for Basic Research

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Four young researchers at the University of California, San Diego are among the 78 national winners of Sloan Foundation Fellowships for Basic Research, it was announced recently.

The San Diego winners are: Michael H. Freedman, mathematics; Lawrence F. Kromer, and Mark H. Ellisman, both neuroscience, and Thomas H. Jordan, physics.

Each received a grant of \$20,000 "as a means of stimulating advances in fundamental research by young faculty scientists at a time in their careers when government and other support is difficult to obtain," according to the Sloan Foundation.

The fellowship funds may be used in virtually any way the recipient sees fit including technical assistance, professional travel, computer time, equipment purchase or release from teaching time to pursue research interests.

Freedman, 28, is an associate professor of mathematics whose major research interests are in the field of topology and geometry. He earned his doctorate at Princeton University and has been at UC San Diego since 1976. He is currently studying the global structure of four-dimensional spaces,

"I have much to learn if I hope to follow some earlier leads," he said. "The Sloan Fellowship has come to the rescue in the nick of time."

Kromer, 29, is an assistant research neuroscientist who earned his Ph.D. in anatomy at the University of Chicago. He is presently studying brain development in mammals.

"I am exploring the possibility that regeneration can occur in the adult mammalian central nervous system," Kromer said. "As a model system for my research, embryonic brain tissue from fetal rats is transplanted into the central nervous system of adult rats.

"I have observed that nervous tissue from all regions of the fetal brain can survive within the brain of the adult recipient rats," he continued. "The implanted tissue is able to mature and form connections with the host brain. The host brain is also able to form connections with the implanted brain tissue. This technique can serve as a tool to help identify factors which are necessary for normal brain development."

Ellisman, 31, went to the University of California, Berkeley, and the University of Colorado, where he earned his doctorate in molecular, cellular and developmental biology.

Ellisman is presently Director of the Neurosciences Electron Microscopy Laboratory at the School of Medicine where he is continuing research into cell membranes.

Jordan, 31, is an associate professor of geophysics at Scripps Institution of Oceanography where he is studying earth structure, seismology and plate tectonics.

Jordan earned his Ph.D. from the California Institute of Technology in 1972 and was named an assistant professor of Geophysics at Princeton at the age of 23. He came to Scripps in 1975 where his primary interest has been the study of the dynamical processes within the Earth using seismological data about the planet's structure.

In it's 25-year history, the Sloan Foundation has assisted 1,641 young researchers with funding totalling \$32,754,800. Among the recipients are six who went on to win the Nobel Prize.

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