

## Freedman elected in American Academy of Arts and Sciences

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### TWO UCSD SCIENTISTS HONORED

A biochemist and a mathematician at the University of California, San Diego were recently elected as fellows of the American Academy of Arts and Sciences.

They are Dr. Russell L. Doolittle, professor of chemistry, and Dr. Michael Freedman, professor of mathematics. They are two of 85 new fellows from throughout the United States elected by the Academy at its recent annual meeting.

Founded in 1780 by John Adams and other leaders of the American Revolution, the Academy today is a national honorary society based in Cambridge, Massachusetts, with a membership of 2,300 scholars, artists and public figures.

Doolittle, 54, is a leading authority on protein evolution. He's chiefly interested in the structure and functions of proteins, especially those involved in animal defense systems like blood clotting and the immune response.

In 1983, he developed a data base that stores the chemical codes, or sequences, of proteins, enabling scientists around the world to utilize this information in their research. Doolittle made scientific headlines that year when he used his data bank to uncover a link between growth hormones and a cancer-causing gene.

Other honors he has received include the Outstanding Educator of America Award in 1972, the UCSD Revelle College Excellence in Teaching Award in 1973 and election to the membership of the National Academy of Sciences, one of the highest honors for any American scientist, last year.

Doolittle received his doctorate in biochemistry from Harvard University in 1961 and joined the faculty at UCSD in 1965. He lives in La Jolla.

Freedman's major research interest is in the field of topology, a branch of mathematics that involves the study of shapes, and is currently centered on the global structure of four-dimensional spaces.

Two years ago, Freedman, 34, achieved international recognition among his colleagues by solving an 82-year old mathematical riddle known as the four-dimensional Poincare conjecture. The hypothesis, named after its author, the famed French mathematician Henri Poincare, is one of a handful of intellectual labyrinths that have exhausted mathematicians for decades.

His work could eventually affect our understanding of the universe since most models of the universe are based on four dimensional manifolds.

In recognition of his achievements, Freedman was named a 1984 winner of a \$176,000 prize by the John D. and Catherine T. MacArthur Foundation. The prestigious tax-free award, which goes each year to "a small number of exceptionally talented individuals," has allowed him to begin pursuing new avenues in his research.

In April of 1984, Freedman was named "California Scientist of the Year" by the California Museum of Science and Industry in Los Angeles, and the following month he was selected for membership in the National Academy of Sciences.

Freedman, a resident of La Jolla, joined the UCSD Department of Mathematics in 1976 after serving for a year at the Institute for Advanced Study in Princeton, New Jersey. He earned his Ph.D. in mathematics from Princeton University in 1973.

Doolittle and Freedman's recent election to the American Academy of Arts and Sciences brings to 52 the total number of UCSD faculty members in that organization.

(May 23, 1985) For more information contact: Susan Pollock, 452-3120