

San Diego chemist K.C. Nicolaou elected to the American Academy of Arts and Sciences

July 19, 1993

Media Contact: Warren R. Froelich, (619) 534-8564

SAN DIEGO CHEMIST ELECTED

TO THE AMERICAN ACADEMY OF ARTS AND SCIENCES

K.C. Nicolaou, a professor of chemistry at the University of California, San Diego and chairman of the chemistry department at The Scripps Research Institute (TSRI), has been elected to the prestigious American Academy of Arts and Sciences.

Nicolaou, who also is TSRI's Darlene Shiley Professor, is known for his work on the synthesis of medically important compounds.

Last year, for example, he and a team of San Diego researchers designed and synthesized a new class of molecules that represents some of the most potent anti-cancer agents ever tested. The molecules, called enediynes, have shown "remarkable selectivity" in their ability to destroy cancer cells while leaving certain healthy cells intact.

Earlier this year, another team of researchers led by Nicolaou announced they had synthesized a biologically significant molecule being studied for its ability to suppress the immune system for organ transplantation. The molecule, called rapamycin, is being viewed by some as a potential rival to cyclosporin--the only immunosuppressant drug available today to prevent rejection from transplantation.

Another of Nicolaou's research interests involves marine natural products, including the "red tide" toxins and potential anticancer drugs from sea-dwelling organisms. His team also has focused on the synthesis of oligosaccharides, which are chains of sugar molecules found on the surface of antibodies, plant hormones and a wide variety of other biologically active molecules. These oligosaccharides are important in cell-cell recognition and immune reactions.

Nicolaou also is working on the synthesis of taxol, a natural product extracted from the bark of the Pacific yew tree that has shown early promise in combatting tumors of the ovary, breast and other cancers. The shortage of taxol has sparked widespread interest among researchers in academia and industry to increase the drug's availability.

Nicolaou came to San Diego in 1989 from the University of Pennsylvania, where he was the Rhodes-Thompson Professor of Chemistry. A native of Cyprus, Nicolaou earned his bachelor's degree in 1969 at Bedford College and his Ph.D. in 1972 at University College, both part of the University of London. From 1972 to 1976, he held research associate positions at Columbia and Harvard universities, until joining the University of Pennsylvania. While at Penn, he was awarded an A.P. Sloan Fellowship and a J.S. Guggenheim Fellowship.

Nicolaou has received the Alexander von Humboldt Foundation U.S. Senior Scientist Award, the Arthur C. Cope Scholar Award and the Japan Society for the Promotion of Science Award. Earlier this year, he was named the recipient of the American Chemical Society Award for Creative Work in Synthetic Organic Chemistry, sponsored by the Aldrich Chemical Company, Inc.

The American Academy of Arts and Sciences was founded in 1780 and is the second oldest honorary society in the nation. The organization honors achievement in science, scholarship, arts and humanities, and public affairs.

(July 19, 1993)