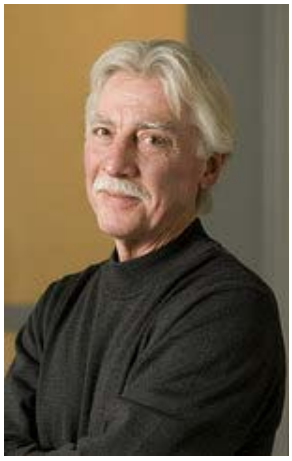
The Mathias P. Mertes Memorial Lecture Series
Mertes Memorial Lecturer for 2001

Paul A. Wender

Bergstrom Professor of Chemistry, Stanford University



Paul Wender was born in Pennsylvania and received his undergraduate training at Wilkes College, graduating as the Outstanding Graduate in 1969. He obtained his Ph.D. under the direction of Frederick Ziegler at Yale University and then served as a National Institutes of Health Postdoctoral Fellow at Columbia University with Gilbert Stork. In 1974, he joined the faculty at Harvard University and received early promotion to Associate Professor. He subsequently moved to Stanford University where he is currently the Bergstrom Professor of Chemistry and a member of the Program for Molecular and Genetic Medicine. He is also a cofounder of CellGate, a biotech company that is pioneering new strategies for molecular delivery of drugs into cells.

Professor Wender's research involves a broad range of studies in chemistry, biology, and medicine. A special emphasis is placed on synthesis and on the utilization of structural, mechanistic, and synthetic studies to address problems of biochemical and medicinal significance. Driven by the goal of an "ideal synthesis," his coworkers have pioneered numerous methods, strategies, reagents, and reactions for the concise synthesis of molecules of biological, medicinal and theoretical interest. Representative of these studies are his pioneering investigations on arene-alkene photocycloadditions and a growing list of new transition metal catalyzed reactions including the first intramolecular metal catalyzed [4+4] cycloadditions**,** intramolecular metal catalyzed [4+2] cycloadditions, and more recently two entirely new classes of reactions, transition metal catalyzed [5+2] cycloadditions and [6+2] cycloadditions.

His group has produced syntheses of over 50 different structural classes including the only or shortest syntheses of phorbol, the world's most potent tumor promoter; resiniferatoxin, the most potent irritant known and a clinical candidate for treating pain; taxol, a molecule of exceptional value in treating cancer; and bryostatin analogues, now moving toward clinical evaluation.

His work in many areas has crossed the boundaries of chemistry to include drug design, biochemical mode of action studies and clinical studies. His group has developed theories for the structural basis of tumor promotion involving protein kinase C (PKC), leading to the first rationally designed PKC modulators and methodology for the preparation of all PKC binding sites. His work on bryostatin, a novel anticancer agent in human clinical trials, has led to an agent that in evaluation to date is more potent than bryostatin. Recently he has initiated another program directed at the development of new strategies for the molecular delivery of drugs and probes into cells and tissues, work of profound consequence in medicine that has led to the creation of a new biotech company, CellGate.

Professor Wender's work has been recognized by numerous awards. Among these, he is recipient of a Camille and Henry Dreyfus Teacher Scholar Award, an A. P. Sloan Fellowship Award, an Eli Lilly Grantee Award, the Ernest Guenther Award of the American Chemical Society, The Pfizer Research Award for Synthetic Organic Chemistry, the American Chemical Society Award for Creative Work in Synthetic Organic Chemistry, the ICI Pharmaceutical Group's Stuart Award for Excellence in Chemistry, The Arthur C. Cope Scholar Award, the National Science Foundation (NSF) Award for Special Creativity, The National Institutes of Health (NIH) Merit Award, and the Alexander von Humboldt Stiftung Award. He has been recognized for his teaching as well with the first Associated Stanford Students Union Teaching Award, the Hoagland Prize for Undergraduate Teaching, the Bing Teaching Award, and the Dean's Distinguished Teaching Award from Stanford University. He is a fellow of the American Academy of Arts and Sciences. Professor Wender has served as a consultant to various pharmaceutical companies and on various editorial and science advisory boards. He is a past editor of Synthesis and has served as a member of the Chemistry Advisory Board to the NSF and as Chairman of the NIH Medicinal Chemistry Study Section.