

The Dow/Karabatsos Distinguished Lectureship

The Dow/Karabatsos Lecture Series in the Chemical Sciences has enriched the experience of workers in the chemical sciences at MSU for over two decades. As is evident from the list of distinguished speakers, this lectureship has provided opportunities for students and faculty to interact with outstanding researchers from all areas of chemistry. We are grateful to Dow for their ongoing support that permits us to continue this tradition of extending invitations to outstanding scholars and teachers such as Professor Sidney M. Hecht. The Department has started an endowment for this lecture series in honor of Professor Gerasimos J. Karabatsos.

Previous Dow/Karabatsos Lecturers

1981	George A. Olah*
1982	Gabor A. Somorjai
1983	Allen J. Bard
1984	John H. Sinfelt
1985	Robert G. Bergman
1986	Paul von R. Schleyer
1987	Robert H. Grubbs*
1988	F. Albert Cotton
1989	Julius Rebek
1990	Tobin J. Marks
1991	Nicholas J. Turro
1992	Marye Anne Fox
1993	Richard H. Holm
1994	John I. Brauman
1995	Josef Michl
1996	JoAnne Stubbe
1997	Dale L. Boger
1998	Fred W. McLafferty
1999	Daniel G. Nocera
2000	K. C. Nicolaou
2001	Richard R. Schrock*
2002	Jean M.J. Fréchet
2003	Robert H. Grubbs*
2004	Galen D. Stucky
2005	Donald A. Tomalia Emmanuel P. Gianneli Andrew Ellington Joseph A. Caruso Larry R. Dalton
2006	Sidney M. Hecht

*Nobel Prize Winner



Dow/Karabatsos Distinguished Lectureship in the Chemical Sciences

Presents

Professor Sidney M. Hecht

J.W. Mallet Professor of Chemistry and Professor of Biology University of Virginia

Sponsored by:
The Dow Chemical Company
and the Department of Chemistry

4:10 pm
November 1, 2, and 3, 2006
Room 138 Chemistry

MICHIGAN STATE UNIVERSITY



MSU is an Affirmative Action-Equal Opportunity Institution

Lecture Topics

Wed. November 1, 2006

“Protein Synthesis Using Tandemly Activated tRNAs”

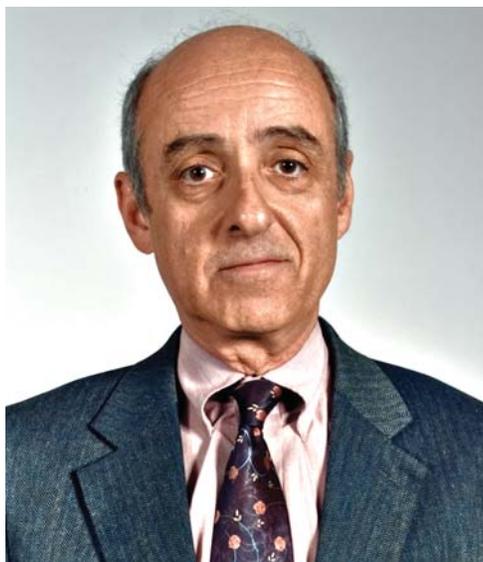
Thurs. November 2, 2006

“Antitumor Drug Discovery Using Natural Products and Novel Targets”

Fri. November 3, 2006

“Bleomycin Mechanism of Action: Lessons from a Combinatorial Library”

All lectures at 4:10 pm,
Room 138
Chemistry Building – MSU



Sidney Hecht obtained his Ph.D. in Chemistry at the University of Illinois under the direction of Professor Nelson Leonard. Following studies as an NIH Postdoctoral Fellow in Molecular Biology at the University of Wisconsin, he accepted a position on the MIT Chemistry faculty in 1971. In 1979 he moved to his current position at the University of Virginia, where he is the John W. Mallet Professor of Chemistry and Professor of Biology. From 1981-87 he held concurrent appointments at Smith Kline & French Laboratories, first as Vice President Preclinical R&D, then as Vice President Chemical R&D. He has been an Alfred P. Sloan Fellow, and a John Simon Guggenheim Fellow at the Max Planck Institut für Experimentelle Medizin at Göttingen. During 1991 he was a Professor Associé at the Muséum National d’Histoire Naturelle in Paris and Gastprofessor at the Eidgenössische Technische Hochschule in Zürich; he studied at the Muséum again for six months during 2000. He has held numerous lectureships at other universities. He received the 1996 Cope Scholar Award of the American Chemical Society and was selected as Virginia’s Outstanding Scientist for 1996. More recently he received the 1998 Research Achievement Award of the American Society of Pharmacognosy, and was elected a Fellow of the American Association for the Advancement of Science in 2004.

He serves as a member of the Scientific Advisory Boards of Caliper Life Sciences, Anacor Pharmaceuticals and Palumed, and as a consultant for Edison Pharmaceuticals and Isis Pharmaceuticals. He is President of Pinnacle Pharmaceuticals and a member of the Board of Directors. He is also a member of the Board of Directors of Orchid Cellmark and Edison Pharmaceuticals. He is an Associate Editor of the Journal of the American Chemical Society and serves on the Editorial Advisory Boards of Bioconjugate Chemistry, Molecular Cancer Therapeutics, Oncology Research/Anticancer Drug Design and Current Medicinal Chemistry-Anticancer Agents.

His research interests include the synthesis and mechanism of action of bleomycin group antibiotics; accomplishments include a total synthesis of bleomycin, and a detailed description of the way in which bleomycin is activated, binds to DNA and destroys this macromolecule. More recently, the Hecht laboratory has described the site-selective destruction of RNA by bleomycin, and has employed NMR methods and molecular modeling to analyze the solution structure of metallobleomycin binding to DNA. He has also identified DNA topoisomerase I as the cellular locus for the action of the alkaloid camptothecin and participated in the discovery and development of the camptothecin analogue topotecan, which is now marketed under the tradename Hycamtin for the treatment of ovarian cancer and small cell lung cancer. He has also identified other structural classes of topoisomerase I inhibitors that are of interest as potential antitumor agents.

Other research interests have included the use of misacylated transfer RNA’s in cell free protein biosynthesizing systems for the elaboration *in vitro* of peptides and proteins containing synthetic amino acids at defined positions. Proteins being studied at present include dihydrofolate reductase, HIV-1 reverse transcriptase, ERK2 and firefly luciferase. He has published more than 350 papers describing his research and has supervised more than 200 graduate students and postdoctoral associates.