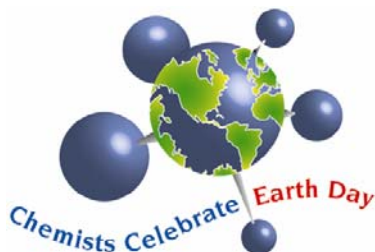


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American Chemical Society
Department of Chemistry
SUNY New Paltz
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**The Mid-Hudson Section of the American Chemical Society
and the Chemistry Department of Vassar College**

Announce

Mechanism of Oxidation of DNA by Pt(IV) Complexes

Dr. Sunhee Choi

Department of Chemistry and Biochemistry
Middlebury College

Friday, March 31, 2006

Vassar College

TIME CHANGE - Lecture: 1:00 PM

Mudd Chemistry Building
Science Visualization Lab, 3rd Floor

Contact Joe Tanski (Vassar) at 845-437-7503 or by e-mail at jotanski@vassar.edu.

About the lecture: Platinum complexes are biologically important for their anticancer activities. The interaction of DNA with Pt^{II} complexes has been extensively studied by many research groups. Pt^{IV} complexes are kinetically inert and their reaction with DNA was not generally expected. However, Dr. Choi's research has shown that Pt^{IV} complexes with highly electron-withdrawing and bulky ligands have high reduction potentials and high reactivity toward 5'-dGMP. Furthermore, a Pt^{IV} complex, *trans*-Pt(*d,l*)(1,2-(NH₂)₂C₆H₁₀)Cl₂, [Pt^{IV}Cl₄(dach)], which has a high reduction potential, oxidizes 5'-dGMP, 3'-dGMP and 5'-d[GTTTT]-3'. Kinetic studies and the proposed mechanism will be discussed.

About the speaker: Dr. Sunhee Choi is Professor of Chemistry and Biochemistry at Middlebury College in Vermont. Dr. Choi received a B.A. degree from Seoul National University in 1973 and went on to receive a master's degree in Physical Chemistry at the Korean Advanced Institute of Science in 1975. She earned her Ph.D. in Physical Chemistry at Princeton University in 1982 in the laboratory of Professor Thomas G. Spiro. After her Ph.D. she became an industrial chemist at Colgate-Palmolive where she was awarded the Colgate Presidential Award for Technical Excellence and obtained a U.S. Patent for cold water detergency. In the fall of 1987, she joined the faculty at Middlebury. Dr. Choi is active in research in metals in biological system with many of her undergraduate colleagues. Her research has been funded from a variety of sources such as the National Institutes of Health, National Science Foundation, Petroleum Research Fund, Research Corporation, and Vermont-EPSCOR.

Directions: Vassar College is located off Raymond Avenue in Poughkeepsie, NY. Refer to the following link for driving directions and campus map: <http://www.vassar.edu/directions/>. Enter the Main Entrance of the campus on Raymond Avenue and go right towards the Mudd Chemistry Building. The Security Guard at the Main Entrance will direct you to parking.

**The Mid-Hudson Section of the American Chemical Society
and the Chemistry Department of SUNY New Paltz**

Announce

Plants as a Source of Drugs

Dr. Ralph N. Blomster
University of Maryland at Baltimore

DATE CHANGE: Thursday, April 6, 2006

SUNY New Paltz

Refreshments: 6:15 PM

Lecture: 7:00 PM

Room: Coykendall Science Building 320

Contact Dan Freedman (SUNY New Paltz) at 845-257-3795 or by e-mail at freedmad@newpaltz.edu.

About the lecture: It is remarkable to what a large extent medicinal treatment for many centuries rested on the use of plants. Plants have given the field of medicine many useful drugs (pharmacological phenotypes such as digitalis, cinchona, ergot, and opium, to mention a few). Humankind's first investigation of the plant kingdom was prompted by a dependence on plants as a source of food. From varied observations of the effects of plants on themselves, human use of plants in arrow and weapon poisons, as hallucinogens, and medicaments slowly evolved. In the early days, witch doctors, apothecaries, and physicians used plants to treat disease, elevate mood, and relieve pain. As the art of chemistry evolved, humans learned to isolate the pure chemicals that caused the medicinal effect and to use them. Opium yielded codeine and morphine to relieve pain, and digitalis provided digitoxin for the heart. Ergot made available ergonovine and ergotamine for migraine and childbirth and, paradoxically, the synthetic LSD as a hallucinogen. The presence of such a wide and diversified group of compounds has prompted the search of plants for new narcotics, heart drugs, and psychoactive and anticancer compounds. Although many drugs are produced synthetically, natural products have served as the molecular model for their starting point. Today, some 40% of all prescriptions include compounds of natural origin. Many diseases still cannot be effectively treated with current therapy. How does one find effective agents for these diseases? Plants contain many more compounds than chemists can synthesize. The more than 250,000 uninvestigated higher plant species on the face of the Earth are a source of potential new and effective drugs. However, in the face of the destruction of the Amazon rain forest, time grows short.

About the speaker: Dr. Blomster received a B.S. degree in 1953 from Massachusetts College of Pharmacy and a master's degree in 1958 from the University of Pittsburgh. He earned his Ph.D. in 1963 from the University of Connecticut and was a member of the faculty at the University of Pittsburgh until 1968. Dr. Blomster then joined the faculty at the University of Maryland at Baltimore, where he was Professor and Chairman of the Department of Pharmacognosy (1968 – 1979), Professor and Chairman of the Department of Medicinal Chemistry/Pharmacognosy (1979-1989), and Professor in the Department of Biomedical Chemistry (1989 – 1996). Dr. Blomster is presently professor emeritus in the Department of Pharmaceutical Sciences. Areas of research interest include phytochemistry, medicinal folklore evaluation, phytochemical screening, collection and extraction of native plants for biological testing, indexing, storage and retrieval of phytochemical literature, drug plant exploration in primitive geographic areas, plant tissue culture and biotransformations.

Directions: Take I-87 to Exit 18 and turn left at the traffic light after the toll plaza (Rte. 299). From Rte. 299, turn left at the third traffic light onto S. Manheim Blvd. (Rte. 32 South). Turn right onto Mohonk Ave. East. For complete directions and campus map, visit <http://www.newpaltz.edu/about/directions.html>.

7th Annual ACS Undergraduate Chemistry Research Symposium

Wednesday, April 19, 2006

4:00 - 8:30 PM

Student Center, 2nd Floor of All-Campus Dining Center Vassar College

Poster Session: 4:00 – 5:15 PM

(Poster set-up starts at 3:30)

Talk: 5:30 – 6:30 PM (open to all)

Dinner: 7:00 PM (reservations required)

Guest Speaker: Dr. Jenny Glusker

Fox Chase Cancer Center

Philadelphia, PA

“How Three-Dimensional Structures Of Molecules Are Determined: A Historical Survey “

The Mid-Hudson Section of the American Chemical Society is pleased to announce the seventh annual Undergraduate Chemistry Research Symposium to be held at Vassar College on Wednesday, April 19, from 4:00 PM to 8:30 PM. The symposium provides a chance for area undergraduate students in the chemical sciences to present their research. All areas of chemistry, environmental science, molecular biology, and related fields are welcome. The poster presentations will be held from 4:00-5:15 PM, followed by a guest speaker at 5:30 PM.

The Symposium: The symposium will be held from 4:00 PM to 8:30 PM in the Student Center on the second floor of the All-Campus Dining Center (ACDC) at Vassar College. Set-up must be completed by 4:00 PM. As in previous years, all research will be presented as posters. To present a poster, please submit an abstract of 200 words or less. The format for the abstract should adhere as closely as possible to the following guidelines: 1) 12 point Times-Roman font, 2) One inch margins, 3) MS Word document, 4) The abstract title should be typed in capital letters, followed by the authors' names and institution name, institution address, and telephone number in lower case letters. Advisor's name should be followed by an asterisk (*). **Please submit the abstract no later than Friday, April 7 by e-mail or diskette to Dr. Joe Tanski.** If you are unable to meet this deadline, please contact Dr. Tanski by phone or e-mail. Poster easels will be available for the first 35 participants; tables will also be available. Your poster should be self-supported on cardboard or posterboard backing. The standard size for ACS posters is 48 inches wide by 36 inches high. You will be contacted before the symposium to confirm acceptance of your abstract. Please note: there will be a \$25 conference fee per poster up to \$100 maximum per school.

Please submit your abstract, via e-mail or diskette, to:

Dr. Joe Tanski
Department of Chemistry
Vassar College, Box 601
124 Raymond Avenue
Poughkeepsie, NY 12604
Phone: 845-437-7503
E-mail: jotanski@vassar.edu

The Keynote Speaker: Dr. Jenny Pickworth Glusker, The Fox Chase Cancer Center, Philadelphia PA

Dr. Glusker received her Doctor of Philosophy in Chemistry (D. Phil.) at Oxford University with Dorothy Hodgkin in 1957. The research she did for her D. Phil. helped in clarifying the most difficult crystallographic problem attempted up to that time - the structure of vitamin B12 – and contributed to the research that led to the selection of Dorothy Hodgkin for the Nobel Prize in 1964. Subsequently, she has worked on the structures of small molecules and macromolecules; she is the author of several books and hundreds of articles. Dr. Glusker has made many contributions to the American Crystallographic Association, being elected its President in 1979 and awarded the Fankuchen Award in 1995. From the American Chemical Society, she received the Garvan Medal in 1979.

Dinner: Please make reservations with Dr. Joe Tanski by **Friday, April 7**. Dinner will be directly after the guest lecture at 7:00 PM in the same location, the Student Center (second floor) in the All-Campus Dining Center.

Directions: Vassar College is located off Raymond Avenue in Poughkeepsie, NY. Refer to the following link for driving directions and campus map: <http://www.vassar.edu/directions/>. Enter the Main Entrance of the campus on Raymond Avenue and go left to find the North Parking lot. The All-Campus Dining Center is adjacent to this lot. The Security Guard at the Main Entrance will direct you to parking. The Student Center is on the second floor of the All-Campus Dining Center.

Call for Applications for 2006 Undergraduate Student Research Awards

The Mid-Hudson Section of the American Chemical Society invites applications for 2006 Undergraduate Research Awards from student researchers who plan to present their work at the 2006 undergraduate poster symposium. Three students will be selected to receive \$200 in awards. *Applications for research awards are not a requirement for attending and presenting at the poster symposium.*

Rationale

The Mid-Hudson Section wishes to reward undergraduates who participate in good quality research and plan to present at the poster symposium by providing small grants to allow students to present at a regional or national conference.

Criteria

Research work should be completed by a student currently enrolled (2005-2006 academic year) as an undergraduate at one of colleges in the Mid-Hudson ACS area. Students must plan to present their work at the 2006 Mid-Hudson ACS Undergraduate Research Poster Symposium.

Application Procedure

Applicants must submit a short (2 page maximum) summary of their research work aimed at an audience with college level chemistry knowledge. Applicants should include a brief background, relevant results, and possible significance of the research to the wider community. The summary should be written in normal scientific format and divided into appropriate sections (Introduction, Experimental, Results and Discussion, Conclusion, Acknowledgements, and References). Applications should be sent along with the poster abstract to Dr. Joe Tanski (Vassar College, Box 601, 124 Raymond Ave, Poughkeepsie, NY 12604, e-mail: jotanski@vassar.edu) by April 7, 2006, preferably in electronic format (as a WORD document).



American Chemical Society Mid-Hudson Section College Recognition Awards

The Mid-Hudson Section of the American Chemical Society is once again sponsoring the College Recognition Awards. The purpose of this award is to recognize achievement in the field of chemistry and to encourage further study in chemistry. One student from each college in the Mid-Hudson Section will be presented a certificate and cash award at the Undergraduate Research Symposium in April.

The chemistry faculty at each college should select one award winner on the basis of general excellence in chemistry. Four-year degree-granting colleges may wish to recognize a junior year student, while a community college may select a second-year student.

Winner selections from the faculty should be submitted by April 1. Please send the student's name, as well as the faculty advisor's name to Patti Cusatis by e-mail (patti.cusatis@cibasc.com).

**The Mid-Hudson Section of the American Chemical Society
and the Chemistry Department of Mount Saint Mary College**

Announce

What You Always Wanted to Know About Chemicals in Foods but Were Afraid to Eat

Dr. Robert P. Bates
University of Florida

Tuesday, May 9, 2006
Mount Saint Mary College
Refreshments: 6:15 PM
Lecture: 7:00 PM
(Room TBA)*

* Room to be announced on the Mid-Hudson ACS listserv and at www.midhudsonacs.org.
Contact Lynn Maelia (Mount Saint Mary) at 845-569-3131 or by e-mail at maelia@msmc.edu.

About the lecture: Foods are complex mixtures of chemicals, but with difference. There is a very important legal distinction between naturally occurring food constituents and other chemicals that end up in food by design or default. Conversely, the much more important matter, chemical compatibility, dictated by human physiology and nutritional biochemistry and vital to well-being, health, performance, and survival -- is often ignored or misinterpreted by vocal yet chemically illiterate groups. Despite considerable progress in understanding the science and technology of foods, culture and perception have a far greater influence upon food acceptance and regulation than the reality of nutrition and toxicology. Paradoxically, as science uncovers more about the complex interactions of foods with the human body, the less confident and more confused the public becomes regarding the safety, value, and nutritional efficacy of the U.S. food supply. Food additives and now phytochemicals are examples of food consumption concerns that should also stress total diet, lifestyle, and common sense. This presentation will deal with both essential and trivial food constituents and emphasize some of the positive and negative aspects of each. Despite our imperfect and changing knowledge, a better appreciation of the chemistry and metabolism of foods has dramatic potential for improving health and well-being, while ignorance is sure to have the opposite effect.

About the speaker: Dr. Bates received his B.S. degree in Food Technology from MIT. After several years in the food industry, he obtained an M.S. degree in Food Science from the University of Hawaii and a Ph.D. in Food Science from MIT. After a year at the Institute of Nutrition of Central America and Panama in Guatemala, he joined the University of Florida where he has been for 3+ decades. He is presently professor emeritus of Food Science in the Food Science and Human Nutrition Department. Dr. Bates' areas of interest are food processing and utilization, small-scale process and equipment development, fermentation technology and byproduct recovery, food product development, and international technical assistance. His major responsibilities involve teaching graduate and undergraduate food processing, fermentation, and product development courses; and conducting research/extension activities in home, community, and small-scale industrial food processing operations. He has completed short and long-term international assignments in many countries in the Caribbean, Central and South America, and Asia. He fields frequent inquiries on food science and technology and related subjects from national, international, and industrial sources. Dr. Bates has developed and presented many short courses in the U.S. and overseas and has been an ACS tour speaker on various food science and technology topics for over 25 years.

Directions: Mount Saint Mary College is located at 330 Powell Avenue in Newburgh, NY. For additional information, visit <http://www.msmc.edu>. Take I-84E to Exit 10. At the bottom of the ramp take a right onto 9W South. (From the East, take I-84W to the second exit after the Newburgh-Beacon Bridge (Exit 10S). At the bottom of the ramp, turn right onto Rte. 32 and then another right at the first traffic light onto 9W South.) From 9W South, turn left onto North Plank Road (south of the I-84 overpass). Stay on North Plank Road 1/4 mile and turn right at the first traffic light onto Powell Avenue. The College is 1/4 mile on the left.

Announcement: X-ray Diffractometer

The Department of Chemistry at Vassar College has recently installed a state-of-the-art single crystal X-ray diffractometer for chemical crystallography. Funding for the instrument was obtained through a National Science Foundations Major Research Instrumentation proposal, "Acquisition of a CCD X-ray Diffractometer for Chemical Research and Education," NSF-0521237.

X-ray crystallography is a powerful technique for determining the molecular structure of materials, or the actual arrangement of atoms in molecules. X-ray diffraction techniques have enabled some of the most seminal discoveries in science, including the discovery of the double-helix structure of DNA and the elucidation of the structures of penicillin and hemoglobin.

The SMART APEX II platform diffractometer from Bruker Advanced X-ray Solutions is equipped with a MonoCap X-ray waveguide that increases the collimated X-ray intensity by a factor of 2.5, an APEX II charge-couple device (CCD) detector with ten-fold better sensitivity than first generation CCDs and an Oxford liquid nitrogen cryostream. These features make the instrument useful for a large variety of samples, including tiny, weakly diffracting and air-sensitive materials.

Science faculty members in the Hudson Valley who are interested in using the new instrument to obtain X-ray crystal structures in support of their research should contact Dr. Joe Tanski (845-437-7503, jotanski@vassar.edu) for more information.

~Join the Mid-Hudson ACS listserv~

The Mid-Hudson Section does not automatically subscribe members to its listserv. To add your e-mail address, you must send an e-mail message to listserv@acc.msmc.edu with a blank subject line and the following command in the body of your message:

subscribe acs-mh

You will then receive an e-mail message with more information about the listserv (posting, unsubscribing, etc.).

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