

CINTACS



Newsletter of the Cincinnati Section of the American Chemical Society

January, 2004
Vol. 41, No. 4

Meeting Calendar

Wed., Jan. 14	Isiah Warner, LSU at Embassy Suites
Wed., Feb. 25	Chemist of the Year at Givaudan Flavors
Wed., March 24	Don Tomalia at Miami University
Thurs., Apr. 22	Arthur Ford, USGS at NKU
Fri., May 21	Party Night! Melting Pot Restaurant

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January Monthly Meeting

Mentoring: A Novel Method for Knocking Down Brick Walls

Professor Isiah M. Warner
Department of Chemistry
Louisiana State University



Abstract

Mentoring has proven to be a powerful tool for guiding students through obstacles (symbolic brick walls) which stand in their way for success. I have long been a proponent of mentoring as a tool for successfully guiding disadvantaged students through obstacles in their path toward a career in science. In this talk, I will highlight my mentoring experiences with several select students throughout my career. In addition, it has been established that the relative number of minorities opting for careers in science, technology, engineering, and mathematics (STEM) has not changed substantially over the past few decades. However, the picture is not

(Continued on page 4)

About the Speaker

Isiah Warner received his B.S. degree in chemistry from Southern University in Baton Rouge, Louisiana, in 1968. He then worked as a research chemist with Battelle Northwest in Richland, Washington, for five years. He entered graduate school at the University of Washington in 1973 and received his Ph.D. in 1977. He was assistant professor of chemistry at Texas A&M University from 1977 to 1982. He was awarded tenure and promotion to associate professor effective September, 1982. However, he elected to join the faculty of Emory University as associate professor and was pro-

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THE CINTACS NEWSLETTER**Vol. 41, No. 4 Jan., 2004**Editor.....Bruce S. Ault
Advertising.....Ed Hunter

CINTACS is published eight times a year (October through May) by the Cincinnati Section of the American Chemical Society. The submission deadline will be approximately January 7 for the February, 2004 issue. Electronic submission is strongly preferred, except for original photos. All materials should be sent to:

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From the Chair

Our January meeting will be held at the Embassy Suites Hotel—Cincinnati Northeast, in Blue Ash. The meeting will be held jointly with the National Organization for the Professional Advancement of Black Chemists and Chemical Engineers (NOBCChE) and Iota Sigma Pi, the National Honor Society for Women in Chemistry. Sponsor for the meeting is the Procter & Gamble Company.

We are honored to have as our speaker Isiah Warner, Boyd Professor of Chemistry and Vice Chancellor for Strategic Initiatives at the Louisiana State University. Professor Warner has won multiple awards for his teaching and his mentoring, including the 1997 Presidential Award for Excellence in Science, Mathematics, and Engineering Mentoring from the President of the United States. He will tell us about the early successes of a recently initiated mentoring program at LSU, which has the goal of increasing the numbers of disadvantaged students heading toward careers in science and engineering.

Along these same lines, you will see elsewhere in this issue a note from Bill Connick, chair of the Section's Project SEED Committee. Project SEED is a program started by National ACS some 35 years ago, with the goal of encouraging economically disadvantaged high school students to pursue career opportunities in the chemical sciences by offering these students the unique opportunity of working in a chemistry lab over the summer. In 2003, in a revival of Project SEED in Cincinnati, the University of Cincinnati hosted three students for the summer. We hope to double this number in 2004. If you know of any students who might qualify for SEED, are interested in hosting a student, or have questions about the program, contact Bill (bill.connick@uc.edu).

I wanted to say a few words about the support by Cincinnati chemists for the Local Section. As you know, when you renew your National ACS membership, you are given the option of contributing an additional \$8 to the Cincinnati Section. I am happy to report that 77% of ACS members in the Cincinnati area choose to support the Section in this way, to the tune of \$12,504! For perspective, this income accounts for more than 13% of our annual budget. Thanks to all of you who support the Section with this voluntary contribution.

Finally, Al Pinhas, Chair of the Section's Nominating Committee, is looking for folks who are interested in running for office in our spring elections. If you want to serve the Section as an officer, contact Al at allan.pinhas@uc.edu.

See you at the meeting on January 14!

Joel Shulman

January Meeting
Wednesday, Jan. 14, 2004
Embassy Suites Hotel - Cincinnati Northeast
4554 Lake Forest Dr., Blue Ash

Sponsored by The Procter and Gamble Company

Hosted Jointly With NOBCChE and Iota Sigma Pi

Speaker: Professor Isiah M. Warner

Mentoring: A Novel Method for Knocking Down Brick Walls

Time	Function	Location
6:00-7:00 pm	Registration	
6:00-7:00 pm	Social Hour	Promenade Area
7:00-8:00 pm	Dinner	Blue Ash Ballroom
	Menu: Boneless chicken breast topped with crabmeat and toasted almonds (Bernaise sauce on the side) or linguini primavera. Mixed green salad, rolls and butter, fresh vegetables, rice pilaf. Chocolate cake, coffee, or tea.	
	Cost: \$25.00 (retirees, students, K-12 teachers \$12.00)	
8:00	Meeting and Featured Speaker	

Dinner Reservations: The meeting reservation form is online at <http://www.che.uc.edu/acs/cinacs.html>. This is the best and easiest way to register. As a lesser alternative, you may send your reservations by email to kim.carey@uc.edu. If it is absolutely impossible for you to make reservations via the internet, call 513-556-0293 (please leave name, affiliation, a contact phone number, dinner entrée choice, and state if you are in one of the ½ -price categories). Deadline for reservations is 12:00 noon on Friday, Jan. 9, 2004. **If you must miss the meeting after you have made reservations, please call to cancel.**

Directions:

From I-71, take Exit 15 (Pfeiffer Road), head west on Pfeiffer Road two blocks to Reed Hartman Highway. Turn right (north) on Reed Hartman, turn left on to Lake Forest Dr.

From I-275, take the Reed Hartman Exit, head south on Reed Hartman about two miles, take a right onto Lake Forest Dr.

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entirely bleak. By use of a recent award (\$1MM over four years) from the Howard Hughes Medical Institute, we have begun to explore a combination of mentoring and learning strategies as a mechanism for rapidly getting students on track for careers in the STEM areas. This program has been in effect for about a year. The early results will be presented and the significant role of mentoring in this study will be highlighted and discussed.

(Continued from page 1)

moted to full professor in 1986. Dr. Warner was named to an endowed chair at Emory University in September, 1987, and was the Samuel Candler Dobbs Professor of Chemistry until he left in August, 1992. During the 1988/89 academic year, he was on leave to the National Science Foundation as Program Officer for Analytical and Surface Chemistry. In August, 1992, Dr. Warner joined Louisiana State University as Philip W. West Professor of Analytical and Environmental Chemistry. He was Chair of the Chemistry Department from July 1994-97. He was appointed Boyd Professor of the LSU System in July, 2000, and Vice Chancellor for Strategic Initiatives in April, 2001.

The primary research emphasis of Dr. Warner's research group is the development and application of improved methodology (chemical, mathematical, and instrumental) for studies of complex chemical systems. His research interests include (1) fluorescence spectroscopy, (2) guest/host interactions, (3) studies in organized media, (4) spectroscopic applications of multichannel detectors, (5) chromatography, (6) environmental analyses, and (7) mathematical analyses and interpretation of chemical data using chemometrics (chemical data analysis techniques).

Dr. Warner has more than 230 published or in-press articles in refereed journals since 1975. He has given more than 400 invited talks since 1979. He has been issued five patents for his work and has one other patent pending. He has chaired thirty-one doctoral theses since 1982 and is currently supervising thirteen other Ph.D. theses. He has received numerous honors for his accomplishments in research, teaching, and service. Included in these honors are the 1997 Presidential Award for Excellence in Science, Mathematics, and

Engineering Mentoring from the President of the United States, the ACS Award for Encouraging Disadvantaged Students into Careers in the Chemical Sciences, and the Council for Chemical Research Diversity Award. In 2003, Dr. Warner was made a Fellow of the American Association for the Advancement of Science.

Section Sponsors Project SEED Summer Program for High School Students

The Cincinnati Section will participate in the 2004 Project SEED Program, an ACS sponsored program that places economically disadvantaged high school students in academic, industrial, and governmental research laboratories for eight-to-ten weeks during the summer.

The program will build on its success from last summer, during which three local students from Jacobs, Withrow International, and Purcell Marian high schools worked with three University of Cincinnati chemistry faculty. This year will involve as many as six students who each will receive \$1,750 while working for 8-10 weeks in local research laboratories under the direct supervision of a mentor.

The Cincinnati Section encourages high school chemistry teachers to identify eligible students who might be interested in participation. Applicant evaluation will begin in February. Student eligibility and application information are available at <http://www.che.uc.edu/kim/SEED/description.htm>. Participating research sites are expected to contribute \$750 of the stipend for each hosted student. Prospective mentors are encouraged to consult the web site and contact Bill Connick at the University of Cincinnati, bill.connick@uc.edu, 513-556-0148.

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Teachers Kick Off Second Semester at NKU

Exams have been given; first semester grades have been calculated. It is time for teachers to gather with their colleagues and recharge their batteries. The chemical educators' discussion group will gather at Northern Kentucky University on Tuesday, January 27 to learn about Spartan molecular modeling software. This software, now available in a high school version, can be used for the visualization of molecules (including those of biochemical interest), visualization of orbitals, geometry calculations, and vibrational frequency calculations. Molecules are easily constructed and can be viewed in several modes including wire, ball and wire, ball and spoke, tube, and space-filling. Vernon Hicks uses this software in his NKU classes and will be our guide. He will show us how to copy and paste the images into word documents and give us glasses for a three-dimensional view. Vernon will highlight applications to VSEPR rules, greenhouse gases, and molecular orbital diagrams.

We will gather in room 404/405 of the Science Building at 6:30 PM for light refreshments, social time, announcements, and sharing. Teachers have requested that we specifically share quality videos; bring a list of the ones that you use frequently in class. Remember to include the purchasing information. At 7 PM, Vern will begin his software presentation. This is a non-commercial presentation; Vern is not associated with the software company. Here are directions to the meeting:

The NKU campus is located in Highland Heights, Kentucky about 7 miles southeast of downtown Cincinnati. The easiest way to get to NKU is on either I-275 or I-471. From I-275, take exit 74A, toward Alexandria, leading to south I471. Once on I-471 south, go to the traffic light at the intersection of I-471 and US Highway 27. Continue straight on US 27 and turn right at the next traffic light onto Nunn Drive. Turn right at the stop light onto University Drive. Take the first left onto Kenton Drive. Continue on Kenton past the dorms on the right and the parking lots on the left. The first building on the left is the new Science Building. There are parking lots on the right and a faculty parking lot on the second

left past the building. Find the meeting up on the fourth floor – Room 404.

Directions and a link to a campus map can be found at <http://www.nku.edu/directions.php>

Heineman Wins EAS Award

Professor Bill Heineman, from the Chemistry Department at the University of Cincinnati, received the 2003 Eastern Analytical Society Award for Outstanding Achievements in the Fields of Analytical Chemistry, at a symposium in his honor on Nov. 19, 2003. Heineman's research activities have spanned many areas within analytical chemistry, including spectroelectrochemistry, polymer modified electrodes, the analytical chemistry of radiopharmaceuticals, microfluidic systems for chemical analysis and chemical sensors. He has published over 300 papers, made over 500 presentations, and authored several books.

After receiving his B.S. degree in chemistry from Texas Tech University, Heineman earned a Ph.D. degree at the University of North Carolina, Chapel Hill, under the supervision of Professor Royce Murray (2002 Oesper Award winner). After a short stint in industry and a postdoctoral position with Ted Kuwana, he joined the faculty at the University of Cincinnati in 1972. He now holds the title of Distinguished Research Professor, one of only a few at the University. He has won major awards at the local, regional and national levels, and serves or has served on the advisory boards of many journals and organizations. He has also served as Chair, Trustee and Councilor of the Cincinnati Section of the ACS. Congratulations!

Cincinnati Section Meeting Sponsors 2003-2004 Program Year

- October 10: University of Cincinnati, Department of Chemistry
November 12: Advanced Testing Laboratory
December 10: Procter and Gamble Pharmaceuticals
January 14: The Procter and Gamble Company
February 25: Givaudan Flavors
March 24: Marshall Wilson
April 22: Robert Laughlin
May 21: Rick Fayter

Nominations for Officers Sought

The time for the election of officers for the Cincinnati Section is rapidly approaching. The Nominating Committee will meet in only a few weeks. Thus, if you would like to run for any of the Section's offices (Chair-elect, Second Vice-Chair, Secretary, Treasurer, Auditor, Councilor, and Alternate Councilor), please contact Allan Pinhas, who is Chair of the Nominating Committee, by E-mail (allan.pinhas@uc.edu) or by telephone (513-556-9255). The Cincinnati Section is one of the best because it has great members who are willing to become officers, so please consider running.

Younger Chemists Committee: Distillery Tour a Success!

The Younger Chemists Committee sponsored a tour of the Pernod-Ricard (Seagrams) distillery in Lawrenceburg last month, and many new faces attended. The tour was open to all interested, which made for an diverse and fun group of people: several high school chemistry teachers and UC graduate students as well as chemists from pharmaceuticals, flavorings, and even two from Seagrams competitor, Jim Beam! During the tour we saw parts of the distilling, fermenting, and processing steps required to make a variety of Seagrams products. We were introduced to the sensory aspect of quality analysis and got to see the newest instrumentation used to ensure a first-rate beverage. After the tour, some met at Whisky's for dinner and socializing with the tour guides. It was an informative and enjoyable event, especially for the YCC chair, who was concerned about possibly being the only one in attendance!

Our next Happy Hour is tentatively planned for Wednesday, January 21, from 6-8 PM at The Pub at Rookwood Mews in Rookwood Commons. Happy Hours are a great way for YCC types (age 35 and under) to socialize, network, and enjoy FREE FOOD AND DRINKS together. If you fit the category, you'll definitely want to attend. If you don't

fit the category, you'll probably want to hang out with the younger chemists too, but will settle for passing along the invitation to a younger chemist you know! For more info or questions, please contact YCC Chair, Joy Henderson, Barr Laboratories, 513-731-9900, x 87227, henderj@barrlabs.com or check out the YCC web page, <http://www.che.uc.edu/ycc/index.html>.

36th Central Regional Meeting, 2004

The **Central Regional Meeting (CRM)** will be held June 2 – 4 at the University Place Executive Conference Center & Hotel on the campus of IUPUI. Featured symposia include the Chemistry of Auto Racing, Proteomics, Nanotechnology, Forensics, Chemistry and Art, and Chemistry in Interstellar space. The meeting will also offer an ambitious 3-day program for precollege teachers. Visit their website to get more details on the exciting programming they have in store: <http://membership.acs.org/c/cerm2004/> or contact **General Chair David Malik** at malik@chem.iupui.edu or **Program Chair Robert Pribush** at rpribush@butler.edu. Online abstracts are open from January 14 through March 31, 2004 for the Central regional meeting taking place this spring. Advance registration will also take place during that period. The last Central Regional Meeting held in Indianapolis at IUPUI was a joint meeting with the Great Lakes Region in 1991, which attracted over 1500 scientists from across the country.

Retired Engineers and Scientists of Cincinnati

Are you retired? Would you like to meet with other scientifically minded retirees? The Retired Engineers and Scientists of Cincinnati meet on the third Tuesday of each month between September and May for lunch and an informative, educational, and often entertaining presentation. Often they gather for a tour of some Cincinnati facility followed by lunch at a local eatery.

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Younger Chemists Committee: Career/Job Event

YCC's next big effort will be a career/job event to assist those in the local area who are seeking to maximize the interviewing, resume writing, and other related employment search skills needed to succeed in the job market. The location will be confirmed soon, but mark your calendars for ***Saturday, February 28***. The event will feature a speaker from ACS National Career Services, presenting 3 1-hour workshops (Resume Preparation, Interviewing Techniques, and Targeting the Job Market), a panel discussion about job searching in the Cincinnati area, and optional one-on-one practice interviews conducted by local employers. Even if you are stable in your current position, the information offered may be useful down the road, should your situation change. Or, you may know of someone who would benefit from this event. It is open to anyone in the local area- not just YCC-types! We are also hoping that, A) some of our local members who have recently completed a job search will be willing to participate in the panel discussion, and B) some of our local members will be willing to help with conducting the practice interviews. If you want to volunteer, have suggestions or questions, or are interested and/or know of someone who would be interested in this event, please contact YCC Chair, Joy Henderson, Barr Laboratories, 513-731-9900, x 87227, henderj@barrlabs.com. Information will also be available on the YCC web page, <http://www.che.uc.edu/ycc/index.html>.

Thoughts to Ponder.....

The true test of character is not how much we know how to do, but how we behave when we don't know what to do.--**John Holt**

If you think you can, you can. If you think you can't, you're right.--**Mary Kay Ash**

When your work speaks for itself, don't interrupt.--**Henry John Kaiser**

Call for Travel Award Applications

Sponsored by the Eli Lilly & Co., the ACS Matching Gift Fund, and the ACS Women Chemists Committee, funding is available for undergraduate, graduate, and postdoctoral women chemists to travel to scientific meetings in 2004 to present their research.

Awards will be given with preference to the following order: (1) any applicant who will be making her **first** presentation (regardless of format) at a major scientific meeting; and, (2) graduate or postdoctoral applicants who have not presented at a national or major meeting since leaving undergraduate school. Grants may be applied only for registration, travel, and accommodations, and are restricted to travel to meetings within the United States. Application deadline is February 15 for meetings between July 1 and December 31, 2004. For more information, check the WCC website: <http://membership.acs.org/W/WCC/> or e-mail: wcc@acs.org.

ACS Scholars Program

The American Chemical Society Scholars Program is now accepting applications for the 2004-2005 academic year. This program, targeted at minority groups considered to be under-represented in the sciences, is for students majoring in and planning careers in the chemical sciences. Graduating high school seniors, college freshmen, sophomores and juniors are eligible to apply as well as students in two-year chemical technology programs. For more information, contact the American Chemical Society Scholars Program at 1155 16th Street, NW, Washington, DC 20036. Call toll-free 1-800-227-5558, extension 6250, by e-mail at scholars@acs.org, or on our web site <http://chemistry.org/scholars>. The deadline is **February 15, 2004**.

Visit the
Section's Home Page

<http://www.che.uc.edu/acs>

Mark your Calendars...coming this Spring (May 26-28, 2004, Location TBA)

Pharmacology for Chemists

Joseph G. Cannon, Emeritus Professor of Medicinal Chemistry, University of Iowa

The acclaimed course that teaches how chemistry is used in this dynamic field

Who Should Attend

Chemical scientists who have little or no formal training in physiology, pharmacology, or medicinal chemistry. Registrants should have a firm grasp of organic chemistry and the equivalent of an introductory course in physical chemistry and biochemistry.

Key Topics You'll Learn About

- Key concepts and principles of pharmacology
- Basics and specifics of the nervous system
- Effects of drugs and other substances on human cellular and physiologic functions
- Various central nervous system drugs; autonomic nervous system drugs; analgesics
- Major cardiovascular agents

How You'll Benefit from This Course

- Consult with a leading authority about your research concerns
- Master the language and terminology of pharmacology
- Learn how chemistry can be used to study a drug's mechanisms of action
- Understand the chemistry behind the drugs used for therapy
- Understand pharmacological principles and how the chemical sciences impinge upon pharmacology research
- Improve your ability as a chemical scientist to interact with pharmacologists in research pursuits
- Be exposed to the status of contemporary pharmacologic thought and drug therapy -where progress is being made and where advances will likely be made

About the Instructor

Joseph G. Cannon, Emeritus Professor of Medicinal Chemistry, University of Iowa, is the author or co-author of more than 200 articles in organic chemistry, medicinal chemistry, and pharmacology. He is one of the highest rated instructors in the ACS Continuing Education program and is the recipient of the Smissman-Bristol-Myers-Squibb Award sponsored by the ACS Division of Medicinal Chemistry.

To Be Covered:

General Concepts and Principles of Pharmacology

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Nerve impulse transmission

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Central nervous system drugs

Analgesics and related agents

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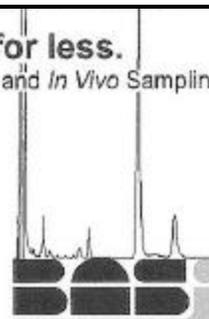


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Meetings which are scheduled in the near future are

20 January 2004, "South America" by: Alexander Bereskin

28 January 2004, Tour of the Cincinnati Art Museum, including "back of the scenes tour of the facilities used to preserve and restore art and artifacts"

17 February 2004 "Education Center for the Cheetah Conservation Fund (CCF) in Namibia, Africa"

The meetings are usually held 11:30 AM,

at the Unity Center, 1401 E. McMillan, Walnut Hills. For more information see the web site <http://www.resc-online.org/> or contact Art Kupferle, 513-922-0385, or Jack Clock, timely@starband.net

Thoughts To Ponder

Think of many things. Do one.--**Portuguese proverb**

You don't drown by falling in the water; you drown by staying there.--**Edwin Louis Cole**

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