

# THE Central Arkansas CHEMIST



The Newsletter of the Central Arkansas Local Section of the American Chemical Society

March 2004

## General Meeting

Thursday, March 18, 2004

Location: Lyon College  
Room 16, Derby Science Center  
Batesville, AR

5:30 pm Dinner  
The Italian Grill

7:30 pm Program  
Dr. Joe Vinson.  
The University of Scranton

**“Chemistry and Biochemistry of  
Chocolate: A Guilt-Free Food?”**

*To obtain driving directions, visit  
[membership.acs.org/c/centralarkansas](http://membership.acs.org/c/centralarkansas)*

are wide-ranging and include drug analysis in physiological fluids and the effect of vitamins, minerals, and antioxidants on nutrition and health.

### **“Chemistry and Biochemistry of Chocolate: A Guilt-Free Food?”**

Food and beverages derived from cocoa beans have been consumed by humans for 1500 years, and the beverage was originally used as currency and in religious rites by the Mayans and Aztecs. A short history of chocolate will give some perspective to the science of chocolate. Cocoa pods from the cacao tree *Theobroma cacao* are harvested and the beans removed from the pods and fermented. Dried and roasted beans contain about 300 chemicals including unique fats, alkaloids, and simple and complex polyphenols. The manufacturing process results in the production of the various types of chocolate including white chocolate, milk chocolate, dark chocolate, and cocoa powder. Chocolate is purported to have aphrodisiac properties and one ingredient acts on the cannabinoid (marijuana) receptor. Chocolate's antioxidant properties will be outlined and compared with other foods. How chocolate's fat and antioxidants are related to heart disease will be discussed in terms of epidemiological, animal, human supplementation, and mechanistic studies. Recent animal and human studies will be described to determine whether chocolate should be considered a guilt-free food.

Dr. Joe Vinson was born in Arkansas and grew up in the San Francisco Bay area. He attended college at the University of California at Berkley, where he received his B.S. in chemistry in 1963. He received a M.S. degree (in physical organic chemistry) at Iowa State University in 1966. He received a research assistantship at the Ames Lab of the Atomic Energy Commission at Iowa State and received a Ph.D. in organic and analytical chemistry in 1967 under the direction of Dr. James Fritz. After several teaching positions in Pennsylvania and a two-year stint in industry at J. T. Baker Chemical Company, he returned to academe and is now a professor of chemistry at the University of Scranton in Northeastern Pennsylvania. His research interests

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## From The Chair:

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Greetings to all of you! I wanted to take this opportunity to thank all of you for electing me to serve as Chair of the Central Arkansas Section this year. The year is already off to a fast start. With your help we can make it a great year!

We had a great meeting last month at Hendrix College. Our speaker, Dr. Mike Brannon, gave a very informative and entertaining talk about safety issues associated with process development chemistry. Thanks very much to the folks at Hendrix College for their work in hosting us – especially Shelly Bradley, who spent the afternoon in the kitchen preparing snacks for our meeting. Attendance was really good at the meeting, so we will probably try again in the future to have a 6:30 meeting time when our meeting is in a central location.

Our next meeting is at our usual time (5:30 supper, 7:30 seminar) at Lyon College. Our speaker this month, Dr. Joe Vinson, has spoken to our section before. I hope that many of you in the Batesville area will be able to attend the meeting. Sample of chocolate will be provided!

In April we will hold our annual Awards Banquet. As usual, we will be presenting certificates of recognition to senior chemistry majors from the colleges and universities within our section. In addition, we will be recognizing state science fair winners in the chemistry division and Chemistry Olympiad winners. Teachers will not be left out; the student-nominated Teacher and Professor of the Year awards will also be presented. Please come and help us recognize the future of our profession.

I am currently arranging meetings for the fall semester. If anyone has ideas for programs or would like to host a meeting, please contact me at [lichticheryl@uams.edu](mailto:lichticheryl@uams.edu), or call at (501) 526-6924.

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## Looking Ahead

**Tuesday, April 20, 2004, 6:30 p.m.,**  
Central Arkansas Local Section Annual  
Awards Banquet, UALR, Donaghey Student

Center (rooms A&B) Tickets are  
\$12/person.

Ever at a loss as to what's going on in the section?  
Simply visit the section's website:

<http://membership.acs.org/c/centralarkansas>

You'll find the section's meeting schedule, announcements, and information about services provided by the section, along with other useful links.

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## Local Section News

### **Attention Student Affiliate Chapter and Chemistry Club Advisors: Call for Nominations for 2<sup>nd</sup> Annual Professor of the Year Award**

For the second consecutive year, the Central AR Section will honor a college or university chemistry professor. We are inviting each Student Affiliate chapter or chemistry club in the Central Arkansas Section to nominate a faculty member from their college or university for this award. As a chapter, you can decide whom to nominate and assemble supporting material for your nomination. The supporting material should include a cover letter explaining why you are nominating your chosen faculty member and supporting letters of recommendation (three to five) from current and former students. In addition, you can include one or more letters of support from other faculty members. The cover letter should highlight the faculty member's accomplishments at your academic institution – for example, you can discuss items such as teaching awards, participation in research with undergraduates, and involvement with your ACS Student Affiliates chapter.

Please submit three copies of your completed nomination to Dr. Cheryl Lichti, Department of Biochemistry and Molecular Biology, University of Arkansas for Medical Sciences, 4301 W. Markham Street # 516, Little Rock, AR 72205 by Friday, April 9, 2003. The local section officers will judge the nominations (unless there is a conflict of

interest), and the winner of the award will be announced at the Awards Banquet. You may contact Dr. Lichti at (501) 526-6924 or [lichticherylf@uams.edu](mailto:lichticherylf@uams.edu) if you have any questions.

Last year's recipient, Dr. Don England of Harding University, did not know that he had received the award until he arrived at the ceremony. In fact, he was not even aware that he had been nominated! I think that those persons who were present at the awards ceremony will agree with me that the presentation of the award by the president of the Harding University Chemistry Club was truly touching. If those of you who are submitting nominations for this year would also like your nominee to be kept in the dark, we are more than willing to assist you in this endeavor

### **Student Recognition at the Annual Awards Banquet**

ATTENTION FACULTY MEMBERS! The Central Arkansas Local Section Annual Awards Banquet will be held in Rooms A & B of the Donaghey Student Center, UALR, on Tuesday, April 20, 2004, at 6:30 p.m. As is our tradition, we will present certificates of recognition to outstanding chemistry students from each of the colleges and universities within the Central Arkansas local section. The dinner will cost approximately \$12 per person, and we are asking the college/university chemistry departments to cover the cost for the students they wish to honor. Faculty members should submit the names of students for recognition to Cheryl Lichti ([lichticherylf@uams.edu](mailto:lichticherylf@uams.edu)) by Tuesday, April 6, so that certificates can be printed in a timely fashion. In addition, Marian Douglas ([msdouglas@ualr.edu](mailto:msdouglas@ualr.edu)) needs an accurate count of the number of people planning to attend the banquet before Tuesday, April 13 so that the caterers will know how much food to prepare (last year we ended up paying for food that was not eaten because we did not have an accurate head count).

### **Calling all high school chemistry students: Chemistry Olympiad is coming!**

The Central AR section sponsors a regional competition for high school chemistry students called the Chemistry Olympiad. All high school chemistry students are invited to participate. The

local section exam will be administered at UALR on April 3. The student with the top score on this multiple choice exam will receive a \$50 cash award at the awards banquet, and the top 8 students will be invited back on April 16-17 to take the national exam. This exam consists of two sections: a multiple choice test and an experimental design exercise. The top 20 students nationally will be invited to compete for 4 spots on the National Chemistry Olympiad team that will be competing in Kiel, Germany, on July 18-27. For more information on Chemistry Olympiad, contact Marian Douglas at UALR ([msdouglas@ualr.edu](mailto:msdouglas@ualr.edu)), 501-569-8826.

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## **Attention Educators**



Interested in working with students? Hoping to involve more teachers in section activities? We are seeking people with connections to high school chemistry teachers and/or an interest in motivating high school students in the field of chemistry to be part of a Chemagination committee and to run a contest in the area.

Chemagination is a chemistry essay and poster contest for students in grades 9-12. Students look 25 years into the future and write an article that they believe could appear in "ChemMatters" magazine about an innovation or breakthrough in the field of chemistry that they think will be important in the lives of teenagers at that time. Student articles focus in one of four categories: Biotechnology, Medicine/Healthcare, New Materials or Transportation/Environment.

For information about the contest, visit [www.chemagination.com](http://www.chemagination.com). To help coordinate a contest in this area, contact Cheryl Lichti at [lichticherylf@uams.edu](mailto:lichticherylf@uams.edu).

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## National News

### REGIONAL MEETINGS FOR 2004

MEETING *	DATE	LOCATION
36th Central Regional Meeting 2004	June 24	Indianapolis, IN
60th Southwest Regional Meeting 2004	September 29 – October 2	Fort Worth, TX
39th Midwest Regional Meeting 2004	October 19 - 22	Manhattan, KS

Visit the ACS Office of Regional Meetings website to link with all the 2004 meetings for more details at [www.chemistry.org/meetings/regional/](http://www.chemistry.org/meetings/regional/). Some very exciting programming has been planned; so plan to be part of it.

### LEADERSHIP DEVELOPMENT WORKSHOPS: APPLY NOW FOR 2004!

ACS members who would like to apply for an YCC Leadership Development Award in order to attend one of these workshops, should submit their applications to the Younger Chemists Committee, c/o Stephanie Allen, American Chemical Society, 1155 16th Street, NW, Washington, DC 20036 by April 1, 2004. Applications in both electronic and printable format and are available online at [www.chemistry.org/ycc](http://www.chemistry.org/ycc).

Since participation is limited, YCC will be extending invitations for each workshop only to 15 interested ACS members who have external support. ACS members who would like to attend unifying event, local sections are asked to participate in "Testing Rain Water" an activity designed to measure the acidity of rainwater in area communities and to compare results online to national findings. The web activity is made available through ACS collaboration with members of the National Atmospheric Deposition Program

one of the workshops with the support of their employers or ACS local sections, divisions or committees, should contact Stephanie Allen at [s\\_allen@acs.org](mailto:s_allen@acs.org).

Recipients will be honored during their respective ACS regional meeting, which includes a symposium that features 20-minute presentations by the honoree(s) and the presentation of an official ACS certificate at a special awards banquet. Furthermore, the Regional Industrial Innovation Awards Program presents several other opportunities

### “What do you know about H<sub>2</sub>O?”

#### April 22, 2004

Members of the American Chemical Society's Committee on Community Activities invite you to participate in Chemists Celebrate Earth Day on April 22, 2004. The program is a joint effort between the ACS Committee on Community Activities, the Committee on Environmental Improvement, and the Green Chemistry Institute. Chemists Celebrate Earth Day provides volunteers with an opportunity to showcase chemistry's contributions to sustaining a healthy planet and environment as part of the annual Earth Day celebration.

The 2004 theme for Chemists Celebrate Earth Day is "What do you know about H<sub>2</sub>O?" As part of the celebration, the American Chemical Society is sponsoring a music video competition for students in grades K-12. The contest encourages students to produce a music video best illustrating the theme "What Do You Know About H<sub>2</sub>O?" As the

(NADP) and the ACS East Central Illinois Section. Hands-on activities, as well as a sample press release and templates, are available at <http://chemistry.org/earthday>. For additional information, contact the ACS Office of Community Activities at 1-800-227-5558, ext. 6078.

If you have an article or job posting that you would like to have considered for publication in our newsletter, send it to [hendricksonhowardp@uams.edu](mailto:hendricksonhowardp@uams.edu) for review.

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The *Central Arkansas Chemist* is published as needed by the Central Arkansas Local Section of the American Chemical Society. Section Chair, Cheryl Lichti, University of Arkansas for Medical Sciences, 501-526-6924, [lichticheryl@uams.edu](mailto:lichticheryl@uams.edu). Chair-Elect, Steve Zimmer Arkansas Tech University Russellville, AR 72801-2222, 479-964-0825 Address all correspondence to the Section Secretary, Howard Hendrickson, University of Arkansas for Medical Sciences #611, 501-603-1547, [hendricksonhowardp@uams.edu](mailto:hendricksonhowardp@uams.edu). Newsletter contributions should be sent directly to the Section Secretary in electronic form. The Central Arkansas Local Section Web site is <http://membership.acs.org/c/centralarkansas>

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