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**New Haven Section**  
**VOLUME 21, NUMBER 1, March 2004**

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**March 24, 2004 – NEW HAVEN SECTION MEETING**

**Dr. Virginia Maxwell**

will present

**"Analysis of Trace Evidence in Criminal Investigation"**

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**April 14, 2004 – NEW HAVEN SECTION MEETING**

**Dr. Ali R. Banijamali**

will present the 2004 Chamberland award lecture

**"Nuclear Magnetic Resonance Spectroscopy in Metabolism Studies:  
Application of  $^{13}\text{C}$  and  $^2\text{H}$  Labeling in Studying  
the Metabolism of Propargyl Alcohol"**

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- *2004 Chamberland Award presentation*
- *Section Officers for 2004*
- *Younger Chemists committee (YCC)*
- *Earth Day April 22, 2004*

## March Section Meeting

Wednesday March 24, 2004

### 500 Blake Street Cafe

Dr. Virginia Maxwell

will present

#### *Analysis of Trace Evidence in Criminal Investigations*

500 Blake Street Cafe  
500 Blake Street  
New Haven, CT 06515  
(203) 387-6653

Social Hour: 6:00 p.m.  
Dinner: 7:00 p.m.  
Service Awards 7:45 p.m.  
Lecture: 8:00 p.m.

**Abstract:** The Locard Exchange principle dictates that a criminal will leave evidence and remove evidence in the commission of a crime. Whilst interest often centers on DNA evidence, it is of relevance in only a small percentage of criminal cases. In cases where no probative DNA evidence exists, trace evidence is utilized to provide linkage between victim, suspect and crime scene. Trace evidence may be in the form of paint, glass, soil, tape, hairs and fibers, as well as other less common materials. Trace evidence examiners subject these usually microscopic materials to scientific analysis and comparison. The use of databases can lead to the development of suspects from a minute paint chip or fibre.

In this talk, the analysis of scientific evidence will be discussed. Case studies will be presented to illustrate the application of this work to criminal investigation and reconstruction of the crime. Specific cases highlighted will include the use of a fibre to link a suspect to the murder of a child; paint chips as a means to determine the make and model of a hit-and-run vehicle; soil to link a killer to a shallow grave; and the use of paint smears to reconstruct a fatal motor vehicle accident.

**Brief Biographical Sketch:** Dr. Virginia Maxwell is a criminalist with the State of Connecticut Department of Public Safety Forensic Laboratory. She earned a doctorate in physical chemistry from Oxford University in England and completed fellowships at the Royal Military College of Canada and Yale University School of Medicine before joining the forensic laboratory in 1993.

As an examiner in Trace Evidence, she works on a wide variety of cases from complex homicides to vandalism. Maxwell collects evidence at crime scenes, serves as an expert witness, lectures to police and analyzes evidence in the lab.

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Character consists of what you do on the third and fourth tries. --James A. Michener

Everybody is ignorant, only on different subjects. --Will Rogers

### Directions to 500 Blake Street Cafe

**From Route 91** - TAKE DOWNTOWN NEW HAVEN EXIT 1 (Route 34), (\*) follow to end of expressway onto North Frontage Road to end. Turn right onto Ella Grass Boulevard (Route 10). Follow for approximately one mile. Turn left onto Whalley Avenue for ~0.8 miles and turn right onto Blake Street. (1/2 block before the Hallock's Furniture Store building). 500 Blake Street Cafe will be on your right.

**From Route 95** - TAKE DOWNTOWN NEW HAVEN EXIT 47 (Route 34). Starting with (\*) continue with above directions.

**From Wilbur Cross Parkway** - TAKE EXIT 59, turn right at end of exit and follow onto Whalley Avenue to Westville Village, approximately 1.3 miles. Turn left onto Blake Street (1/2 block past the Hallock's Furniture Store Building). 500 Blake Street Cafe will be on your right.

**From Rt. 63 South** - Continue south for approximately one mile past the junction of Rt. 63 and Rt. 69. Turn left onto Blake Street (1/2 block past the Hallock's Furniture Store Building). 500 Blake Street Cafe will be on your right.

#### 500 Blake Street Café – Wednesday March 24, 2004

Dinner includes dessert and coffee or tea.

Entree choices: Breast of Chicken Francese  
Pot Roast Jardiniere

Price of \$24 includes tax and tip.

Please make your reservation by contacting **Susan Tomlinson** by **Tuesday, March 23, 2004**, at (203) 812-3912 or email to: [susan.tomlinson.b@bayer.com](mailto:susan.tomlinson.b@bayer.com). **High school and elementary school teachers (K-12), retired or unemployed chemists and students will be charged only \$19 for the dinner.** Please leave your name, telephone number, dinner choice and number of reservations desired. Cancellations must be made 24 hours prior to the meeting or you may be charged for dinner.

You may also attend the lecture without the dinner. Please notify Ms. Tomlinson so she can keep the count of number of attendees, and arrive at the restaurant by 8:00 PM when the lecture will normally begin.

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#### Situations Wanted

POLYMER CHEMIST, PhD, with 22 years experience and awards in industrial and electronic coatings (including 15 years at IBM Research). Willing to start at BS level salary (or contract) to prove my worth. Please contact John, 203-575-9170 or [JLL11@aol.com](mailto:JLL11@aol.com).

The Ad Guidelines are as follows: Situations-wanted by New Haven Section member - **No Charge**. Non-members **\$20 for four lines**. Want Ads are **\$40 for a 4-line ad** or **\$75 for a full-page (4 x 8 inch)**.

## April Section Meeting

Wednesday April 14, 2004

## 95 Gathering Place

Dr. Ali R. Banijamali

will present the 2004 Maurice R. Chamberland Award Lecture

### *"Nuclear Magnetic Resonance Spectroscopy in Metabolism Studies: Application of $^{13}\text{C}$ and $^2\text{H}$ Labeling in Studying the Metabolism of Propargyl Alcohol"*

95 Gathering Place  
865 No. Colony Road  
Wallingford, CT 06492  
(203) 265-1552

Social Hour: 6:00 p.m.  
Dinner: 7:00 p.m.  
Lecture: 8:00 p.m.

**Abstract:** Limited literature exists regarding the metabolism of acetylenic ( $\text{C}\equiv\text{C}$ ) compounds commonly used in the formulation of pesticides and pharmaceuticals. To better understand the *in vitro* reactivity of this bond, we examined the metabolism of propargyl alcohol, 2-propyn-1-ol, used extensively in the chemical industry. Because metabolites of propargyl alcohol might be volatile and/or have a low molecular weight and be highly polar giving them physical and chemical properties very similar to those of many natural products, a direct method of metabolite characterization in the whole urine was desired. NMR spectroscopy, together with the use of carbon-13 enriched compounds, has allowed us detection and structural assignment of novel metabolites resulting from multiple glutathione addition to the carbon-carbon triple bond of propargyl alcohol. With the aid of deuterium labeled propargyl alcohol, the precise pathway involved in the formation of glutathione conjugates was determined.

**Brief Biographical Sketch:** Dr. Ali R. Banijamali, Ph.D. is a Research Fellow in Crop Protection Research and Development at Crompton Corporation in Middlebury, Connecticut. Dr. Banijamali joined the Metabolism Chemistry Group of Crompton Corporation (formerly Uniroyal Chemical Company) as a Research Chemist in 1987. He was promoted to Research Scientist in 1990, Senior Research Scientist in 1995 and Research Fellow in 2002. Ali's current technical interests include application of isotopic labeling, NMR and Mass Spectrometry in determining the metabolic pathway of pesticides.



Dr. Banijamali earned a B.S. in Chemistry from the University of Sciences in Iran, an M.S. in Medicinal Chemistry from Northeastern University and a Ph.D. in Medicinal Chemistry from Massachusetts College of Pharmacy and Allied Health Services. Following graduation, Ali completed two years of Postdoctoral studies in Medicinal Chemistry at Professor Alexandros Makriyannis' research laboratory at the School of

Pharmacy, University of Connecticut.

As a member of ACS since 1981, Dr. Banijamali has served our society and the profession with distinction. His accomplishments include serving as the 2002 Program Chair and 2003 Chair of the New Haven Section. He is the author of over 50 publications and presentations and is also an Adjunct Associate Professor at the School of Pharmacy, University of Connecticut.

### Directions to 95 Gathering Place

**Merritt Pkwy:** Exit 66 – Take a left off Parkway. Go about 1.5 miles. Restaurant is on the right next to Wallingford Toyota.

**91 North/South:** Exit 13, take a right at end of ramp. Travel 5-6 miles. After you reach Super Kmart, restaurant is 1/8 mile on left (next to Wallingford Toyota).

**From Waterbury:** Take I-84 to I-691 to Rt. 15 south (Merritt Parkway). Follow Parkway instructions.

**From Danbury/Southbury:** I-84 East to Exit 17 – Naugatuck. Right at exit onto Rt. 63 south. Restaurant is approximately 1.5 miles south, on the left.

### 95 Gathering Place -Wednesday April 14, 2004

Dinner includes dessert, and coffee, tea or decaf.

Entrée Choices: NY Sirloin Steak Dinner  
Baked Stuffed Sole (seafood stuffing)  
Boneless Stuffed Chicken (sausage stuffing)  
Chicken Marsala

Price of \$24.00 includes tax and tip

Please make reservations by calling **Susan Tomlinson by Tuesday, April 13, 2004**, at (203) 812-3912 or email to: [susan.tomlinson.b@bayer.com](mailto:susan.tomlinson.b@bayer.com). **High school and elementary school teachers (K-12), retired or unemployed chemists and students will be charged only \$19 for the dinner.** Please leave your name, telephone number, entrée choice and number of reservations. Cancellations must be made 24 hours prior to the meeting or you may be charged for dinner.

You may also attend the lecture without the dinner. Please notify Ms. Tomlinson so she can keep a count of the number of attendees. Arrive at the restaurant by 8:00 PM. when the lecture begins.

### New from Career Services

Begin 2004 with a new online service to enhance your career. Explore Advanced Career Tools (ACT)! These career tools include a free searchable database of nearly 300 articles on topics such as résumé writing, interviewing, legal issues, stock, salary negotiations, and more. You can also take advantage of personal career coaching that will provide one-on-one assistance in areas such as learning to succeed in performance reviews, developing skills in negotiating salary, and obtaining a detailed analysis of your behavioral style. This component of ACT, while a cost item, is discounted for ACS members at below-market rates. Visit <http://chemistry.org/careers> to use ACT.

## Section Officers for 2004

Three new people assumed office in the Section in 2004.

**Susan Tomlinson** is the new Program Chair for 2004 and is responsible for local meeting arrangements and speakers during the year. Susan works at Bayer Healthcare in West Haven. She is very active in Bayer's Making Science Make Sense program, serving as chair of the New Haven Outreach Committee, which coordinates programs throughout the year to get New Haven Public School students and teachers excited about science. Susan will be a welcome addition to the Section's Executive Board.

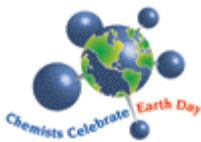
**Jennifer Burke** becomes the new Secretary, a two-year position. She is employed at Bayer Pharmaceuticals Corp. in West Haven, CT, where she is a medicinal chemist. Jennifer has also been involved with Bayer's Making Science Make Sense program and has participated in National Chemistry Week activities. As Secretary Jennifer will be involved in much of the direct communication with members.

**Bill Cesario** was elected Councilor, a three-year term. Bill has been a new products/new business consultant for 24 years and is now a Principal at Insights/Directions, providing consulting services in New Business/New Product, Acquisition and Technical Solution Projects. Bill's position as Councilor provides the liaison between the Local Section and our national ACS organization.

Continuing officers include Michael Gelbin, Chair; Dr. Ali Banijamali, past Chair; Dr. Irene Covey, Treasurer; Dr. William Harned, Councilor; Caroline Maselli, Alternate Councilor; David Smudin, Alternate Councilor.

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## Chemists Celebrate Earth Day, April 22, 2004 - What do you know about H<sub>2</sub>O?



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 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 (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.

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## A Periodic table of the Elephants?

The *Periodic Table of the Elephants* is currently on display at ACS Headquarters in Washington, DC. It was conceived and painted by students at Patapsco High School and Center for the Arts in Dundalk, MD. The fiberglass sculpture is illustrated with pictures of smaller elephants, each representing a different chemical element. A clever and creative way of showcasing chemistry, the elephant attracts visitors, inviting them to explore its pachydermal periodic playfulness.

The elephant is one of 200 "Party Animals" that were on display throughout Washington, DC, during 2002 as part of a campaign to promote tourism. It was sponsored by Crabtree & Company, a graphics and design firm. To learn more about this project, visit the Party Animals website: <http://www.partyanimalsdc.org/index.html>



Younger Chemists  
Committee

AMERICAN CHEMICAL SOCIETY

The New Haven Section is looking for enthusiastic young members to help start a Younger Chemists Committee. The mission of the YCC is to encourage, empower and connect younger chemists, involve them in local and national ACS programs and help them transition into professional careers. Usually 'younger chemists' are ACS members under 35, but they are also chemists not yet established in their careers. The criterion for being a member is not age, but experience. The YCC events will be directed towards career development, professional advancement, networking, panel discussions, community outreach and social gatherings. If you are interested in joining this group, please contact Susan Tomlinson via email at [susan.tomlinson.b@bayer.com](mailto:susan.tomlinson.b@bayer.com).

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## Dr. Robert A. Gregg - 2003 Chamberland Award Winner



American Chemical Society  
New Haven Section Award  
Committee Chair David  
Smudin (left) presents the  
2003 Maurice R.  
Chamberland Award to  
Dr. Robert A. Gregg. The  
presentation took place at  
the November 2003  
Section meeting where Dr.  
Gregg presented a lecture  
on the work for which he  
was given the award. The  
Chamberland award is  
presented for his  
outstanding work while a  
member of this Section.

New Haven Section Bulletin  
William H Harned, Editor  
199 Benson Road  
Middlebury, CT 06749

Words from Your Editor ...

Come to the first meeting of 2004 and meet the new Officers. Please note the guidelines for 'want ads' and 'situations wanted' to be put into the New Haven Section Bulletin.

-- Check out the Section's web site --

William Harned, Newsletter Editor

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*This Bulletin and other information is also posted on the  
Section's **web site** at  
<http://membership.acs.org/N/NewHaven>*

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