



New Haven Section
VOLUME 21, NUMBER 1, March 2004

March 24, 2004 – NEW HAVEN SECTION MEETING

Dr. Virginia Maxwell

will present

"Analysis of Trace Evidence in Criminal Investigation"

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}C and ^2H Labeling in Studying
the Metabolism of Propargyl Alcohol"**

- *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.

* * * * *

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. **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.

* * * * *

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.

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}C and ^2H 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. **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.

Chemists Celebrate Earth Day, April 22, 2004 - What do you know about H₂O?



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 H₂O?" 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 H₂O?" 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.

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.

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

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



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

Words from Your Editor ...

The 2003 National Chemistry Week winners and the 50-Year Members will be honored at the May meeting. 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 --

This Bulletin and other information is also posted on the

Section's web site at

<http://membership.acs.org/N/NewHaven>



New Haven Section VOLUME 21, NUMBER 2, May 2004

May 13, 2004 – NEW HAVEN SECTION MEETING

Geoff Fox

Weatherman, Storm Team 8

will present

"Today's Weather, and More"

* * *

National Chemistry Week winners

*

50-Year Member Honored

*

Photos from the March and April meetings

*

Younger Chemists Committee (YCC)

FROM THE NORTH OR SOUTH ON INTERSTATE 91: Take I-91 to Exit 10 (Mt Carmel / Cheshire) Rte 40 (Exit 10 puts you on Rte 40 Connector running from I-91 to Whitney Ave., Hamden) Take Rte 40 Connector to end. At the end take left fork. Take a left onto Whitney Ave. and go approximately 1.2 miles. (You will go through one double set of traffic lights) Eli's On Whitney is on the right (at the second set of traffic lights). Parking is across the street on the left with limited parking behind Restaurant.

FROM THE NORTH ON RTE 15 - WILBUR CROSS PARKWAY: Take Exit 62 (Whitney Avenue, Hamden) Take a right onto Whitney Ave. and go approximately 1/3 mile, past Hamden Town Hall. (You will go through 2 sets of traffic lights) Eli's On Whitney is on the left (at the third set of traffic lights) Eli's On Whitney is on the left (at the third set of traffic lights): Parking is across the street on the right with limited parking behind Restaurant.

FROM THE SOUTH ON RTE 15 - WILBUR CROSS / MERRITT PARKWAY: Take Exit 61 (Whitney Avenue, Hamden) Take a right onto Whitney Ave. and go approximately 1/3 of a mile, past Hamden Town Hall. (You will go through 2 sets of traffic lights). Eli's On Whitney is on the left (at third set of traffic lights). Parking is across the street on the right with limited parking behind Restaurant.

FROM NEW HAVEN - VIA WHITNEY AVENUE OR DIXWELL AVENUE: Follow Whitney Avenue or Dixwell Avenue to the Hamden Town Hall. (There will be a set of traffic lights). If on Whitney Avenue, follow through the traffic lights; if on Dixwell, take a left onto Whitney Avenue. Eli's On Whitney is on the left. Parking is across the street on the right with limited parking behind Restaurant.

Directions to Eli's On Whitney

Eli's On Whitney – Thursday May 13, 2004

Entree choices: Baked Scrod topped with a snow crab and cracker crust
Grilled sliced London Broil
Chicken Marsala
"Kid's Menu" – Chicken fingers with French fries, soda and dessert

Price: ACS Members/Guests \$24
Kids \$12
Teachers/Retirees/Students \$19
Price includes tax and tip.

All entrees are served with a garden salad, dessert of white chocolate mousse with raspberry sauce, coffee, tea or decaf.

**BECAUSE THIS MEETING WILL HAVE A LARGE ATTENDANCE,
YOU MUST SIGN UP FOR A DINNER BY MONDAY MAY 10**

Please make your reservation by contacting **Susan Tomlinson** by **Monday May 10, 2004**, at (203) 812-3912 or email to: susan.tomlinson.b@bayer.com. 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.

Geoff has also brought back reports from the top of Mt. Washington, (on a day when the temperature was about zero degrees (F) and the wind was gusting close to 100 MPH), from the eye of Hurricane Diana and from Disneyworld (someone's got to do it!). Geoff was the driving force behind News Channel 8's coverage of Hurricane Gloria. His accurate predictions warned people of the possible dangers of the hurricane both before and during the storm. Geoff brings you the weather each weeknight on News Channel 8 at 5, 6 and 11, and also gets to do some fun stuff - like fly with the Navy's Blue Angels.

Brief Biographical Sketch: Geoff came to News Channel 8 in May of 1984. Since joining the team, he has supervised the re-equipping of the News Channel 8 Weather Center. The center now contains a variety of state-of-the-art equipment, along with SchoolNET 8. News Channel 8 is the only station in the state with an educationally based weather network that serves a growing number of schools across Connecticut. This system allows students to access live weather data and utilize the information in daily science lessons. It also provides News Channel 8 viewers with accurate weather information gathered from the schools' weather stations across the state, all of which gives News Channel 8 a forecasting advantage.

Abstract: If you have lived in Connecticut for more than a few days, you have probably heard and seen Geoff Fox. Everyone talks about the weather, but Geoff talks about it a little more than the rest of us. His talk will bring a mixture of information about the weather, forecasting it, education, what his parents eat in Florida - everything. The topics involved are as varied as the weather, but you can be sure they will be entertaining.



Eli's On Whitney
2392 Whitney Avenue
Hamden, CT
(203) 287-1101
www.elisonwhitney.com

Social Hour: 6:00 p.m.
Awards presentation: 6:30 p.m.
Dinner: 7:00 p.m.
Lecture: 8:00 p.m.

Today's Weather, and More

will present

Geoff Fox

Eli's On Whitney

**Thursday May 13, 2004
May Section Meeting**

National Chemistry Week 2003 --- Winners

The theme for 2003 National Chemistry Week, held October 19-25, was "Earth's Atmosphere and Beyond". Almost 500 schools in New Haven County were invited to participate in our contests. All students who entered won a small prize and teachers received a subscription to the Journal of Chemical Education. Grammar School students conducted a Solar Heat experiment, and High School students measured the number of calories in sunlight and compared it to the solar constant. A poster contest using the theme was also conducted. Ten teachers and 219 students entered the grammar school contest, five teachers and 102 students entered the high school contest, and eight teachers with 172 students entered the poster contest.

A special thank you to Susan Tomlinson, Bayer Corp. for judging the grammar school entries and Dr. Irene Covey, U. Conn, Waterbury, for judging the high school entries. National Chemistry Week will be celebrated October 17-23, 2004, with Health and Wellness as the theme (read the next article).

Poster Contest Winners

| Student | Teacher | School | Grade |
|---------------------|------------------------|---------------------------|-------|
| Laqual Montini | Ms. Madera | Driggs / Waterbury | 4 |
| Eliscia Picard | Kathleen Griffin-Daley | No. Branford Intermed. | 6 |
| Gene Libow | David Tremblay | West Haven High | 11 |
| Carley Weted | Nancy Ryan | Mary T. Murphy / Branford | 4 |
| Christopher Marsala | Nancy Ryan | Mary T. Murphy / Branford | 4 |
| Julie Bachmann | Robert Mack | No. Branford Intermed. | 6 |
| Nathaniel Dziuba | Kathleen Griffin-Daley | No. Branford Intermed. | 6 |
| Sharfi Forhana | David Tremblay | West Haven High | 11 |
| Sandra Cimino | David Tremblay | West Haven High | 11 |

Grammar School Winners

| Student | Teacher | School | Grade |
|-----------------------|------------------------|-----------------------------|-------|
| Julie Cappello | Kathleen Griffin-Daley | No. Branford Intermed. | 6 |
| Mike Fadden | Robert Mack | No. Branford Intermed. | 6 |
| Ketika Kloth | Thomas Santoro | Pomperaug / Southbury | 4 |
| Kelly Laske | Nancy Ryan | Mary T. Murphy / Branford | 4 |
| Jason Menard | Brenda Pilettere | Holy Trinity / Wallingford | 6 |
| Rachel Burkholz | Kathleen Griffin-Daley | No. Branford Intermed. | 6 |
| Cassandra DeFelice | Robert Mack | No. Branford Intermed. | 6 |
| Carolyn Duman | Barbara Kelley | Melissa Jones / Guilford | 3 |
| Bianca Kenney | Nancy Ryan | Mary T. Murphy / Branford | 4 |
| Megan Nayar | Thomas Santoro | Pomperaug / Southbury | 4 |
| Jinging Jennifer Ruan | Kathy Lembo | Worthington Hooker/N. Haven | 4 |

High School Winners

| Student | Teacher | School |
|-----------------------|----------------|------------------------|
| Lynn Cocchiola | Sharon Geil | Branford High School |
| Danielle Sattelberger | Sharon Geil | Branford High School |
| Tiffany Schroeder | Sharon Geil | Branford High School |
| Brandon Ferraro | David Tremblay | West Haven High School |
| Adam Glick | Nancy Graham | Hamden High School |
| Marah Paley | Nancy Graham | Hamden High School |

And special thanks to Caroline Maselli of Crompton Corp., Chair of the National Chemistry Week Committee.

National Chemistry Week 2004 --- Getting the Ball Rolling

National Chemistry Week 2004 (NCW) will be here sooner than you think, and planning is already underway for local and national activities. The theme for NCW 2004 is "Health and Wellness" and the unifying event is hosting a "health fair." Bayer Pharmaceuticals is aiding in this effort by donating Clinistix and Multistix (urine test strips) for use by local sections. The ACS Office of Community Activities (OCA) staff is writing activities which use these strips to demonstrate how diseases like diabetes are detected. Because we are chemists and not certified medical professionals, we cannot do screening with these test strips, so we will need to invite a local medical doctor to be part of our health fair. The doctor can offer screening for diabetes, and our local ACS volunteers can explain the chemistry of how the screening tests work. OCA is currently researching groups that can help us to host a health fair. With the current emphasis that health and wellness is getting in the media, this will be an ideal opportunity for us to contribute to our community with pertinent activities and relevant information. Anyone with ideas related to the NCW celebration is invited to email ncw@acs.org. Information is currently on the NCW website (chemistry.org/ncw) and new information will be posted as it becomes available.

NCW 2004 Theme: **Health and Wellness**

Date: **October 17-23, 2004**

Unifying Event: Community health fairs held during NCW

K-12 Event: National Poster Contest focused on chemistry's contributions to our health and wellness

Student Affiliate Event: NCW Chemvention Contest – invention contest using chemical principles

ChemMatters Magazine for high school students will dedicate its October issue to the chemistry of health and wellness

Celebrating Chemistry Hands-on activity newspaper for elementary school students related to:

- diagnosis of diabetes/kidney function - urinalysis and blood testing
- nutrition/obesity – antioxidants, caloric intake
- infection – hand-washing, the body's defenses
- dental health – preventive use of plastics
- prevention of skin cancer – sunscreens

By the way, for those of you who like to plan way ahead, the topic for the 2005 NCW campaign will be "Celebrating Chemistry in the Home" and will focus on materials used to keep our homes warm, safe and sturdy.

Speakers for Section Meetings

Do you know of someone who would be a good candidate for Speaker at a Local Section meeting? Perhaps you would like to give a presentation on a chemistry related subject in which you are involved as part of your job or your hobby, or maybe about a special interest you may have. The Section is always interested in having local speakers for their meetings. If you or a colleague wish to present a talk or know of someone who may have an interesting presentation that he or she would be willing to give, please contact our Chair-Elect Susan Tomlinson at (203) 812-3912 or email her at susan.tomlinson.b@bayer.com.

The "Old" and the "New"



Ali Banijamali (left), outgoing Section Chair for 2003, receives plaque from Mike Gelbin, current Section Chair, for his service to the New Haven Section in 2003. The presentation took place at the March 2004 Section meeting.

Situations Wanted

POLYMER CHEMIST, Ph.D, with 22 years experience and awards in electronic and industrial coatings, including 15 years at IBM Research, seeks senior scientist or manager position. Please contact John, at 203-575-9170 or JLL11@aol.com

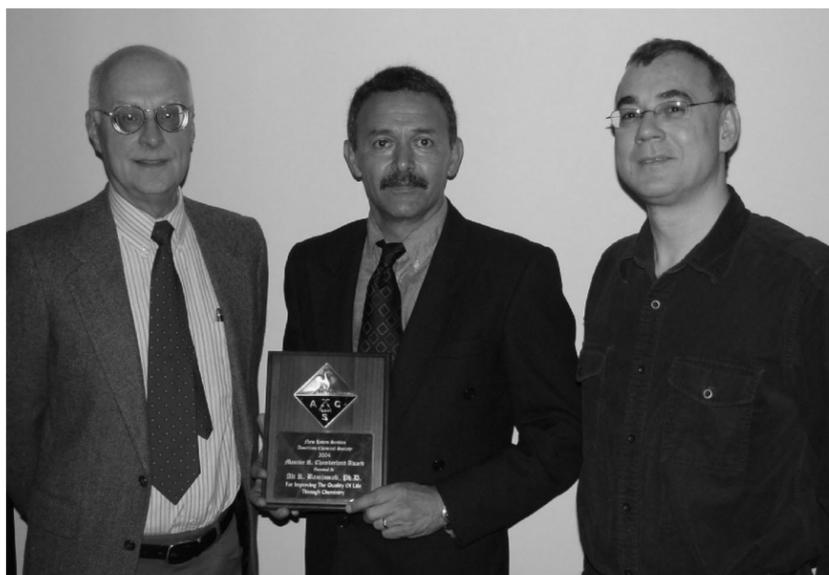
The Ad Guidelines are as follows: Situations-wanted by New Haven Section member - **No Charge**. Non-members **\$20 for four lines**. Want Ads are **\$40 for a 4-line ad** or **\$75 for a full-page (4 x 8 inch)**.



**Younger Chemists
Committee**

AMERICAN CHEMICAL SOCIETY

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Dr. Banijamali (center) is presented with the Chamberland Award plaque by Dr. David Smudin (left), Chairman of the Awards Committee and Dr. Michael Gelbin, Chair of the New Haven Section.

Thoughts to Ponder....

The best way to have a good idea is to have a lot of ideas.

--Linus Pauling

Even if you are on the right track, you'll get run over if you just sit there.

--Will Rogers, humorist



New Haven Section

VOLUME 21, NUMBER 3, September/October 2004

September 21, 2004 – NEW HAVEN SECTION MEETING

Dr. Derek Lowe, Bayer Healthcare

will present

"Drug Discovery Through Fragment Assembly"

October 19, 2004 – NEW HAVEN SECTION MEETING

Prof. James Masi, Western New England College

will present

**"Picking Up Heavy Metals:
How to Build a Superparamagnetic Polymer"**

Call for nominations

Meet the new chair-elect

NCW 2004 – Coming Soon

September Meeting
Tuesday September 21, 2004

Yankee Silversmith

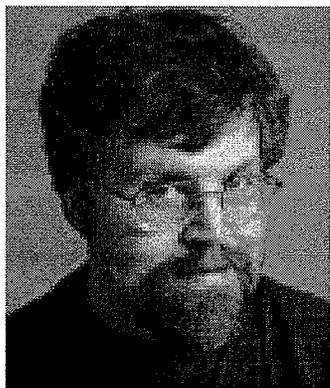
Dr. Derek Lowe

will present

Drug Discovery Through Fragment Assembly

Yankee Silversmith
1033 North Colony Road
Wallingford, CT
(203) 269-5444

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



Abstract: Lead generation in drug discovery is an increasingly difficult task, and new approaches will soon be needed. Existing drug development strategies often produce compounds whose molecular weights are too high to be useful, but optimizing from low-weight structures is problematic. No one wants to start with a ten-micromolar lead compound! One possible solution is fragment assembly. Several research groups have reported methods to combine small structures to produce new ligands. An assembly of weakly bound structures could yield a very potent binder if properly combined. This field of research appears

promising, but each of the reported ideas has its own set of potential problems. Successes (and failures) from the literature will be shown.

Brief Biographical Sketch: Dr. Derek Lowe received his BA from Hendrix College (1983) and his PhD from Duke University (1988). After a Humboldt postdoctoral fellowship in Germany, he joined the CNS drug discovery group at Schering-Plough. Over the next eight years, he contributed to several programs targeting schizophrenia and Alzheimer's. He then joined Bayer's Pharmaceutical Division in West Haven in 1997, and has since worked on numerous drug targets in the fields of metabolic disease and cancer.

How Can You Be Part of the Solution to Build Chemistry's Future?

Do you want to provide resources and training to chemistry teachers, support outreach efforts to bring depth and diversity to chemistry in the coming century, help young scholars enter the field of chemistry and more? Make a gift today to the American Chemical Society. You can be part of the solution and help build chemistry's future.

To learn more about this, visit

http://www.chemistry.org/portal/resources/ACS/ACSCContent/gifts/pledge_brochure.pdf and <http://www.chemistry.org/gifts>.

Yankee Silversmith – Tuesday September 21, 2004

Entrée choices: Baked Chicken Breast stuffed with 5 grains, mushrooms and spinach, topped with orange cranberry glaze
Baked Boston Scrod, Heritage style
Roasted Center Cut Pork Loin stuffed with 5 grains, apples & sausage, capped with cinnamon, apple chutney demi-glaze

Price: ACS Members/Guests \$26
Teachers/Retirees/Students \$23
Price includes tax and tip.

All entrees are served with Chef's Soup of the day, Silversmith (Garden) salad, dessert of strawberry shortcake with homemade biscuit, coffee, tea or decaf.

Please make your reservation by contacting **Ning Su** by **Monday September 20, 2004**, at (203) 812-3928 or e-mail to: ning.su.b@bayer.com. 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 Mr. Su so he can keep the count of number of attendees, and arrive at the restaurant by 8:00 PM when the lecture will normally begin.

Directions to Yankee Silversmith

Traveling North or South on I-95 (from New York or Rhode Island): I-95 (North or South) to I-91 North (Hartford), go to Exit 15 (Durham/Yalesville). Left off exit onto Rt. 68W. Proceed 2.2 miles (6 lights) to Rt. 68 overpass. (Rt. 5 is directly under overpass) Turn right on Off Ramp. At the end of the Ramp turn right onto Rt. 5. The Yankee Silversmith is ½ mile on the left side.

Traveling South on I-91: Exit 15, take right off exit onto 68W. Proceed 2 miles (5 lights) to Rt. 68 overpass. (Rt. 5 is directly under overpass) Turn right on Off ramp. At the end of the ramp turn right onto Rt. 5. The Yankee Silversmith is ½ mile on the left side.

Traveling North on the Merritt or Wilbur Cross Parkway (Rt. 15): Exit 66, turn right at the end of the ramp. The Yankee Silversmith is a fraction of a mile on the left.

Traveling South on the Merritt or Wilbur Cross Parkway (Rt. 15): Exit 66, the Yankee Silversmith is at the end of the ramp straight ahead.

Major Changes in Section Leadership

It is with regret that we have lost Susan Tomlinson as our Section's Chair-elect. Susan has changed her place of employment and will no longer be residing in the area. Consequently she has resigned her office with the Section but not before finding an able replacement. Ning Su of Bayer Corporation will replace Susan as Chair-elect.

Ning received his BS from the University of Inner Mongolia. He holds Master of Science degrees in Organic Chemistry from the Chinese Academy of Sciences and from Brigham Young University. In 2002 he obtained an MBA from the University of New Haven and has recently received a Certificate in Pharmaceutical Studies from Fairleigh Dickinson University

October Meeting

Tuesday October 19, 2004

Jesse Camille's Restaurant

Prof. James Masi

will present

Picking Up Heavy Metals: How to Build a Superparamagnetic Polymer

Jesse Camille's Restaurant
615 North Church Street
Naugatuck, CT 06770
(203) 723-2275

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



Abstract: Some "aha" thoughts have been the source of new directions in research for all who work in the sciences and engineering. Such studies on sequestrants and inclusion compounds for heavy metal cleanup have led researchers to study how these materials can be agents for making new magnetic polymers. Many new polymer (organic) materials have been fabricated in which there is sufficient electronic exchange as well as stability in both thermally and chemically at room temperature and above. This paper gives an overview of the synthesis of promising new complex polymer building blocks that can yield ferro-, ferri-, and super-paramagnetic materials for devices of the future in power, signal, display, and

data storage devices. The use of these methods to produce ferri-, para-, and superparamagnetic materials has changed our way of thinking about how to fabricate magnetic devices with properties heretofore unrealizable. New materials from the saccharide, sequestrant, and epoxy classes of materials are explained. Some devices made from these materials and early results on newer materials are discussed.

Brief Biographical Sketch: Dr. James V. Masi received his B.S. in Physics from Fairfield University, the M.S. in Physics from Long Island U., and the Ph.D. in Applied Science (Materials Science) from the University of Delaware. He has over 45 years experience in industry and academia and has worked and researched in solid-state devices, liquid crystals, corrosion, semiconductors, luminescence, energy devices, electromagnetics, dental materials, and other areas of materials science. He joined Western New England College in 1980 and is presently professor emeritus of Electrical Engineering and Bioengineering. He was Executive Director of The National Center for Telecommunications Technologies (NSF Center of Excellence) from 1997-2001. He is also an adjunct professor at the University of Southern Maine and a consultant for Sandia National Labs and ITT. He holds over 60 patents, and has authored over 140 articles and papers, 3 books, and 3 videotapes.

Jesse Camille's Restaurant – Tuesday October 19, 2004

Entrée choices: Chicken Cordon Bleu
Baked Stuffed Shrimp
Pan Seared Filet of Salmon with a dill butter sauce
Veal Medallions Marsala with Mushrooms

Price: ACS Members/Guests \$24
Teachers/Retirees/Students \$21
Price includes tax and tip.

All entrees are served with Penna Pasta with Marinara sauce, fresh Garden salad, homemade rice pudding, coffee, tea or decaf.

Please make your reservation by contacting **Ning Su** by **Monday October 18, 2004**, at (203) 812-3928 or e-mail to: ning.su.b@bayer.com. 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 Mr. Su so he can keep the count of number of attendees, and arrive at the restaurant by 8:00 PM when the lecture will normally begin.

Directions to Jesse Camille's Restaurant

FROM New Haven: Whalley Av (Rt 63) north through Woodbridge and Bethany (Amity Rd). Continue through Naugatuck staying on Rt 63. The restaurant is on the right about ¾ mile past the intersection with Rt 68.

FROM Meriden and Hartford: I-91 or I-691 to I-84 West. Exit I-84 at Exit 17 – Naugatuck onto Rt 64. Left at the stoplight onto Rt 63 south. Restaurant is approximately 2 miles south, on the left.

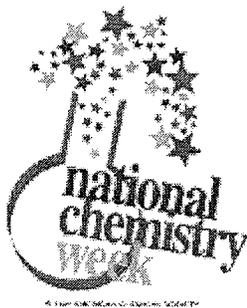
FROM Danbury/Southbury: I-84 East to Exit 17 – Naugatuck. Right at exit onto Rt 63 south. Restaurant is approximately 1.5 miles south, on the left.

Assess Your Work Style with A.C.T.

If you are considering a career move or just feeling stuck in your current role, take advantage of Advanced Career Tools (A.C.T.), an assortment of career-building tools launched by the ACS Department of Career Services.

Among the tools available at chemistry.org/careers is the Behavioral Style Assessment, which takes ten minutes to complete, and provides users with a one-paragraph assessment of their work style at no charge. Understanding your strengths provides you with greater confidence in interviews and enhances your ability to communicate in the workplace. A 26-page report, analyzing the results of the Behavioral Style Assessment in depth, is available for a fee.

Other A.C.T. features include nearly 300 articles of frequently asked questions (FAQs) on job search and career development, access to professional career coaches, products such as CDs and books, and customized features such as e-mail alerts on topics of specific interest to the user.



National Chemistry Week: Health & Wellness!

Each year the American Chemical Society's (ACS) National Chemistry Week (NCW) campaign reaches millions of people with positive messages about the contributions of chemistry to their daily lives. It is the one time during the year that chemists, regardless of background, unite with the common goal of spreading the word that chemistry is good for our economy, our health, and our well-being. The date for the 2004

celebration will be October 17 – 23 with the theme, "Health & Wellness!"

It is not too late for you to join the celebration! Some ways that you can contribute to the NCW campaign are: performing chemical demonstrations at a neighborhood school; conducting hands-on activities with children at museums, malls, or libraries; or writing articles or letters to the editor of your local paper.

Irene Covey among NCW Coordinators Honored in Philadelphia Meeting

Irene Covey from our Section was among those honored at the recent national meeting. Irene has served as our NCW coordinator for thirteen years. It is only through the hard work, commitment and dedication of our volunteers that the National Chemistry Week program has grown from its beginnings in 1987 as National Chemistry Day to reaching an estimated 31 million people last year. The Committee on Community Activities and the Office of Community Activities recognized all of those individuals with five or more years of service as NCW Coordinator during the "Celebrating Chemistry—Reunion, Recognition, and Highlights" event at the ACS national meeting in Philadelphia. Honorees from the other Connecticut Sections included Ellen Anderson, Connecticut Valley, 10 years and Babu George, Western Connecticut, seven years. Thanks to these volunteers for all of their efforts to make National Chemistry Week a success.

Bayer Supports National Chemistry Week 2004

National Chemistry Week 2004 is almost here. The theme for NCW 2004 is "Health and Wellness" and the unifying event is hosting a "health fair." Bayer HealthCare Diagnostics Division has made an extraordinary in-kind contribution to the 2004 American Chemical Society National Chemistry Week Celebration: "Health and Wellness" valued at more than \$260,000! The NCW Coordinator in each ACS local section will be offered 2 digital glucometers with test strips, hundreds of CliniStix and MultiStix (urinalysis test strips), testing standard solutions and tablets, as well as test tubes and paper cups. The donation was made possible due to the efforts of former ACS President Helen Free and Senior Vice President Joe W. Martin of Bayer Healthcare.

The 2004 ACS Matching Gift Fund matched Bayer HealthCare's gift one-for-two. The ACS Office of Community Activities will use the matching funds to enhance offerings for NCW including a web-based interactive for children, expansion of the chemistry.org/kids website, and materials for ACS local sections.

Situations Wanted

POLYMER CHEMIST, PhD, with 22 years experience and awards in electronic and industrial coatings, including 15 years at IBM Research, seeks senior scientist or manager position. Please contact John, at 203-575-9170 or 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)**.

Call for nominations for 2005 Officers

Three positions on the Section's Executive Committee are up for election in 2005. These are: Chair-elect, Treasurer and Alternate Councilor. Chair-elect is a three-year position with the successful candidate becoming Section Chair in the second year and Past-chair in the third year. The Chair-elect organizes the Section's meetings and in the second year, presides over all Section activities. The Treasurer, a two-year position, is responsible for all financial duties in the Section. The Alternate Councilor, a three-year position, acts as liaison between the Section and the national ACS when the Councilor is unavailable to fulfill these duties. If you are interested in running for one of these positions, contact Ali Banijamali at (203) 573-3220 or e-mail at ali.Banijamali@cromptoncorp.com.



2005 ACS ProSpectives Conferences

Detailed information for these, and other ACS ProSpectives conferences, can be found by visiting www.acsprospectives.org

Process Chemistry in the Pharmaceutical Industry

February 6-9

Miami, Florida

Chairs: Margaret Faul, Amgen; Joseph Armstrong, Merck

Interplay of Chemistry and Biology in Integrative Biology

March 6-9

Miami, Florida

Chairs: Stephen Naylor, MIT; Michael Briggs, Vertex Pharmaceuticals

Advanced Forensic Science Applications for the Food and Drug Industries

May 1-4

San Diego, CA

Chair: Fred Fricke, FDA

Discovery and Selection of Successful Drug Candidates

May 15-18

Boston, MA

Chair: Andrew Combs, Incyte Corporation

(Tentative) Organic Microelectronics (joint with IEEE and MRS)

July 10-13

Ogunquit, Maine (tentative)

Chairs: Tobin Marks, Northwestern (ACS); Henning Sirringhaus, Cambridge University (IEEE), George G. Malliaras, Cornell University (MRS)



New Haven Section

VOLUME 21, NUMBER 4, November, 2004

November 16, 2004 – NEW HAVEN SECTION MEETING

Dr. Ya Ha, Yale School of Medicine

will present

"How do cells control the conversion of APP to β -amyloid, a small peptide causing Alzheimer's disease?"

November Meeting Details

Biographies of Candidates for Section Offices

Ballot for 2005 Officers

New ACS Employment Program

Education Resources for Grades 3-8

November Meeting
Tuesday November 16, 2004

500 Blake Street

Dr. Ya Ha

will present

How do cells control the conversion of APP to β -amyloid, a small peptide causing Alzheimer's disease?

500 Blake Street Cafe
500 Blake Street
New Haven, CT
(203) 387-0500

Website: www.500blakestrectcafe.com

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



Abstract: Alzheimer's disease affects about one percent of the general population. Since mutations in APP (amyloid precursor protein) were found to be responsible for certain inherited forms of the disease, this protein has become the center of inquiries aiming at understanding the mechanism of the disease. One particular focus is the β -amyloid, a small peptide derived from APP, which becomes precipitated in the form of senile plaques at susceptible regions of the brain. Mutations in APP appear to increase the chance of such precipitation and, as indicated by *in vitro* studies, the amyloid peptide is toxic to surrounding neurons. We currently try to

understand how the conversion from APP to beta amyloid, a process that harmlessly occurs inside normal cells, is controlled and how this control becomes affected by mutations and by other factors. Our goal is to develop pharmacological approaches to reinforce this control in order to reduce amyloid load in brain tissues, both as a test and as a potential therapeutic application of the hypothesis that, by removing β -amyloid, Alzheimer's disease can be prevented, slowed, or even cured.

Brief Biographical Sketch: Dr. Ya Ha received his BS from Nanjing University in 1992 and his PhD from the University of Minnesota, Twin Cities Campus in 1998. After that he worked at Harvard University where he held a postdoctoral fellowship awarded by the Jane Coffin Childs Memorial Fund for Medical Research. He has now joined the staff of the Department of Pharmacology, Yale School of Medicine where he is an Assistant Professor. Dr. Ha received the 42nd Biophysical Society Annual Meeting graduate student travel grant in 1997 and the biochemistry graduate student travel grant in 1998. He currently has the Ellison Memorial Foundation New Scholar Award in aging, granted from 2002-2006. His research interests include the molecular mechanism of aging, macromolecule structure and function and X-ray

crystallography, where he has authored numerous papers. Dr. Ha is a member of the American Association for the Advancement of Science, the American Crystallographic Association and the Biophysical Society.

500 Blake Street Cafe – Tuesday November 16, 2004

Entrée choices: Stuffed Breast of Chicken, Sauce Supreme

Baked Scrod Livornese

Roasted Top Sirloin, Mushroom Sauce

Price: ACS Members/Guests \$25

Teachers/Retirees/Students \$22

Price includes tax and tip.

All entrees are served with appetizer of stuffed shells, 500 Blake Street House Salad with House Dressing, Chef's Choice of two vegetables and potato, and dessert of warm Apple Crumb a la mode with coffee, tea or decaf.

Please make your reservation by contacting **Ning Su** by **Monday morning November 15, 2004**, at (203) 812-3928 or e-mail to: ning.su.b@bayer.com. 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 Mr. Su so he can keep the count of number of attendees, and arrive at the restaurant by 8:00 PM when the lecture will normally begin.

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 Grasso 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 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.

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)**.

Kilometers are shorter than miles.

Save gas, take your next trip in kilometers. -George Carlin

New Program Aims to Help Mature Chemists

ACS industrial members age 45 and over who have lost their jobs, or have been given notice that they will become unemployed by December 31, are eligible for a pilot program that aims to assist them to return to work.

Five mid- and late-career members will receive financial subsidies to receive professional career coaching and to participate in the Chemjobs Career Center at the Spring 2005 National Meeting in San Diego. The new program, "Member Career Outreach," was launched this fall by the ACS Department of Career Services with the support of Corporation Associates.

Data show that mature chemists (age 45+) face very different challenges in securing employment than younger chemists. Not only are older workers more likely to be unemployed and to experience lengthy periods of unemployment, but they also may lack recent experience in looking for a job, face greater family and financial responsibilities than younger candidates, have outdated skills, bring unrealistic expectations to the job search, and suffer age discrimination.

According to data from the 2004 ACS Comprehensive Salary and Employment Status Survey, the unemployment rate is positively correlated with age. Not only is the unemployment rate higher for older chemists, but chemists over the age of 45 are likely to experience a lengthier period of unemployment than younger chemists. According to the latest survey, as of March 1, 2004, 38.5 percent of the unemployed age 45+ had been unemployed for a year or more, while only 17 percent of those under age 45 were unemployed for a long period.

The "Member Career Outreach" program will help grantees in four essential ways

- * It will provide financial support to receive professional career coaching, purchased online and delivered via telephone and e-mail. This personal, one-on-one assistance can help members refine their job-search strategy.
- * It covers travel expenses to attend the Spring 2005 National Meeting in San Diego. This will enable grantees to participate in Chemjobs Career Center, including taking interviews with prospective employers and attending workshops and technical sessions.
- * A reception for mid- and late-career job seekers and selected employers will be held at the San Diego National Meeting. This will afford grantees an opportunity to interact informally with other chemists, including prospective employers. Networking is known to be one of the main mechanisms by which job seekers learn of job opportunities and eventually secure positions.
- * Each participant will receive a career transition workbook developed by the Department of Career Services. The workbook will guide ACS members through the stages of the career transition process as well as provide a record-keeping system for tracking the progress of their job search.

After advertising "Member Career Outreach" in C&E News, DCS will select awardees by a combination of lottery and evaluation of their application materials with the assistance of the Subcommittee on Professional Services of the Committee on Economic and Professional Affairs (CEPA). (CEPA reviews ACS career programs and services.) Those selected for the program will be notified in early January.

To apply for the program or for further information, contact *Elaine Diggs* at e_diggs@acs.org

New Resources Combine Inquiry and Physical Science for Grades 3-8

Elementary school teachers are responsible for teaching math, English, social studies, science and sometimes more. They need to closely monitor the early stages of learning in all these subjects and provide individual attention to students when possible while navigating all the class management, parental and school-wide issues that arise on a daily basis. Many of these teachers receive extensive training in math and English methods as pre-service teachers and continuing professional development in these areas as in-service teachers. Often, their exposure to science content and methods courses, particularly in physical science, and to professional development in science is not as thorough.

An added challenge for teachers is the expectation that students learn science through active involvement in investigating objects, materials, and substances. This hands-on, inquiry-based approach to teaching science requires a comfort level with experimental design and with physical science content. But with a somewhat limited background in physical science, and the pressures to teach all other subjects, elementary teachers find it difficult to develop and practice these types of science activities that will engage their students and teach basic physical science principles. Often these teachers have support through textbooks and kit-based programs but these products rarely can give teachers the background knowledge and experience in experimental design that they need to confidently teach physical science concepts in an inquiry-based way. Although middle school teachers usually have taken more pre-service science classes than most elementary teachers, they can also benefit from help incorporating and practicing a more inquiry-based teaching approach to their science lessons.

The K-8 Science Office has developed a set of products and programs which offer science content and practice developing an inquiry-based approach to teaching the chemistry-related physical science standards from the *National Science Education Standards*

Inquiry in Action Investigating Matter through Inquiry, 2nd Edition became available in the first week of September, 2004. The book was developed by the K-8 Science Office to offer not only science investigations in basic chemistry topics, but detailed guidance in a guided-inquiry approach to the investigations.

The *Inquiry in Action Investigation Pack* is for teachers without science equipment such as reusable droppers, magnifying glasses, graduated cylinders, and thermometers.

The *Chemistry through Inquiry* online course is a 5-week course based on the investigations in *Inquiry in Action*. The course focuses on developing in teachers the ability to integrate the teaching of inquiry skills and physical science content.

The professional development workshop, *Inquiry Matters Incorporating Inquiry into Elementary and Middle School Physical Science*, is an in-person workshop presented by K-8 Science Office staff. The workshop is also based on *Inquiry in Action* and has teachers working in groups to learn and practice some of the activities in *Inquiry in Action* while presenters model and encourage a guided inquiry-based teaching style.

For more information, visit www.chemistry.org/acs/ and go to 'educators and students', then to 'ACS Education Division Homepage'.



National Chemistry Week was celebrated October 17-23 with the topic Health and Wellness. A poster contest is being held for grades K-12. A scientific contest is being held for the grammar school involving sugar in sodas and the high school topic involves calories. The deadline for entries is December 31, 2004. Information is being sent to each school in New Haven County. If you would like more information on entering the contests please contact **Caroline Maselli** at (860)567-4719 or by e-mail at caremike@snet.net.

BALLOT

New Haven Section
American Chemical Society
Officers for 2005

Program Chair Dennis J. Jakiela

Treasurer Caroline Maselli

Alt. Councilor Gerald Putterman

Mail to: Ms. Jennifer Burke
Bayer Healthcare – Pharmaceuticals
400 Morgan Lane, Bldg. B27
West Haven, CT 06516-4140

or

e-mail to: jennifer.burke.b@bayer.com

Mail-in ballots must be postmarked November 30, 2004.

e-Mail ballots must be received by midnight November 30, 2004



Election of New Officers for 2005 - Nominees

It is once again time to choose the officers who will lead the Section in 2005. The three positions open for 2005 are Program Chair, Alternate Councilor and Treasurer. The Program Chair sets up the meeting schedule for the year and becomes the Section Chair in the following year. The Alternate Councilor represents the Section in legislative actions of the national ACS in the event one or both Councilors are unable to attend the National meeting. Alternate Councilor is a three-year position. The Treasurer is responsible for Section finances. He/she collects the dinner fees at meeting, pays bills incurred by the Section and keeps account of dues received from the National ACS. All officers are members of the Section's Executive Committee which determines the course your Local Section takes in the near future.

A short biography of the nominee for each office is presented below.

Dennis J. Jakiela - Program Chair

Dennis holds a B.A. degree in Chemistry from Wesleyan University and a Ph.D. in Organic Chemistry from S.U.N.Y. at Stony Brook. He has 19 years of industrial research and development experience. After working briefly at Uniroyal Chemical and then at Sunoco Chemicals, he joined American Cyanamid (now Cytec Industries) in 1989. His work there focused mainly on UV stabilizer technology in support of Cytec's polymer additives business. He currently works on dyes, photo-initiators, ionic liquids, acrylate monomers, and UV absorbers at Hampford Research in Stratford.

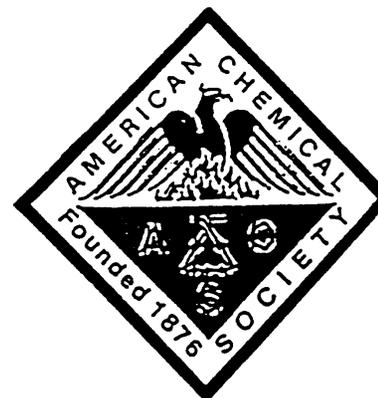
Caroline Maselli – Treasurer

Caroline has been a member of ACS since 1989. She has a BA in Chemistry and Biology from Skidmore College and will receive her MBA in July 2005. Caroline has been co-chair of National Chemistry Week since 1991 and was Section secretary 1990-1992. She has been employed by Crompton Corporation for more than 15 years and currently is a Regulatory Affairs Analyst.

Gerald Putterman – Alternate Councilor

Gerald J. Putterman has been a member of the New Haven Section for the past 20 years and has served the Section as Councilor and Chair of the Nominating Committee. Jerry received an A.B. in chemistry from the Johns Hopkins University and a Ph.D. in biochemistry from Yale University. During this 20 year period Jerry conducted research at Yale Medical School, served as the Program Officer for Sigma Xi (when that honor society's headquarters were in New Haven) and was responsible for plant and animal metabolism studies conducted by Crompton Corporation (formerly Uniroyal Chemical Company).

Options -- We have only one candidate for each available office this year. In order to save you time and a stamp, we are allowing voting by e-mail. If you choose this option, include your name and "ACS" in the subject line. This will keep your response from inadvertently being treated as junk-mail or spam.



New

Haven

Section

VOLUME 22, NUMBER 1, March, 2005

March 16, 2005 – New Haven Section Meeting

Dr. Henry E. Auer, Proteus Patent Practice, LLC

will present

A Scientist's Introduction to Patent Practice

April 12, 2005 – New Haven Section Meeting

Dr. Tim Lowinger, Bayer Pharmaceutical

will present

**Discovery of BAY 43-9006 -- A Dual Acting RAF kinase
and VEGFR2 Inhibitor for the Treatment of Cancer**

March Meeting Details

April Meeting Details

Section Officers for 2005

Kirkwood Award

March Meeting
Wednesday March 16, 2005

Contrassegno Restaurant

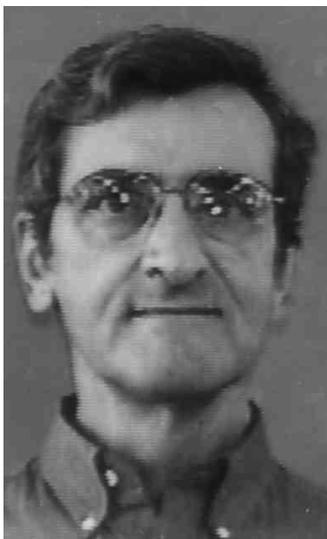
Dr. Henry E. Auer

will present

A SCIENTIST'S INTRODUCTION TO PATENT PRACTICE

Contrassegno Restaurant
4137 Whitney Avenue
Hamden, CT
(203) 248-3600

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



Abstract: This presentation introduces the field of patents to practicing research scientists, from the point of view of a practicing scientist. By way of introduction, we will consider the nature of scientific inquiry, and how it differs from technological research and development that may lead to patentable inventions. Next the statutory foundation of the patent system will be presented, and the notion of a patent as a type of property will be developed. Then we will discuss broadly the types of inventions that are patentable and the legal requirements for an application to be granted as an issued patent. Certain aspects of these requirements may be unfamiliar to a scientist engaged in research and development. We will examine how to understand a patent examiner's remarks that a practicing scientist is likely to encounter during pendency of an application. This

discussion rests critically on an understanding of the main parts of a patent document. Other topics to be presented include a discussion of a scientist's desire to publish the results of his/her work as opposed to a need for patentability to file a patent application, the logistics of the patent application process, and the notion of who qualifies to be an inventor. Finally, we will follow a patent application on a model path from the date of filing to the grant of an allowed patent.

Brief Biographical Sketch: Henry E. Auer, Ph.D., President of Proteus Patent Practice LLC, is a Registered Patent Agent, permitting him to represent clients with the U. S. Patent and Trademark Office (USPTO). His practice combines extensive biotechnology patent practice expertise with a wide-ranging background in the biological and chemical sciences. Prior to founding Proteus, Dr. Auer was Manager of Patent Prosecution at CuraGen Corporation in Branford, CT. Dr. Auer earlier was a Patent Agent at Fitch, Even, Tabin & Flannery, and served as a Patent Examiner in

the biotechnology group of the USPTO. Dr. Auer is a seasoned scientist with many years in research and development in the biotechnology industry. He worked on a sustained release system for protein pharmaceuticals, and on developing somatotropin for use in livestock. As a faculty member at the Medical College of Wisconsin and the University of Rochester School of Medicine, Dr. Auer's research focused primarily on protein and nucleic acid structure and function, and conformational stability and dynamics. Dr. Auer holds an A.B. in chemistry from Princeton University and a Ph.D. from Harvard University, and was a research fellow at the Weizmann Institute of Science and Cornell University.

Contrassegno Restaurant – Wednesday March 16, 2005

Entrée choices: New York Strip topped with butter garlic sauce
Chicken Picatta
Cajun Salmon topped with pesto cream sauce

Price: ACS Members/Guests \$25
Teachers/Retirees/Unemployed/Students \$20
Price includes tax and tip.

All entrees are served with seasoned vegetables tossed in light butter and garlic, risotto melanese, bread and butter, house salad, dessert choice of Kahlua cake or New York cheese cake, and coffee, tea or decaf.

Please make your reservation by contacting **Dennis Jakiela** by **Tuesday March 15, 2005**, at (203) 375-1137 or e-mail to: djakiela@hampfordresearch.com. 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 Dennis Jakiela so he can keep the count of number of attendees, and arrive at the restaurant by 8:00 PM when the presentation will normally begin.

Directions to Contrassegno Restaurant in Hamden

From Route 15 North (Wilbur Cross Parkway):

Take Exit 61, Whitney Ave., toward Hamden. Turn right onto Whitney Avenue (Route 10). Contrassegno Restaurant is about 4.5 miles on the right.

From Route 15 South (Wilbur Cross Parkway):

Take Exit 61, Whitney Ave., toward Hamden. Turn left onto Whitney Avenue (Route 10). Contrassegno Restaurant is about 4.5 miles on the right

From I-95 North or I-95 South:

Take Exit 10. Merge onto Route 40, Westbound. Turn right onto Whitney Avenue (right turn) at the end of Route 40. Contrassegno Restaurant is about 3 miles on the right

AD SPACE Available in the Newsletter

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 **\$85 for a full-page (4 x 8 inch)**.

April Meeting
Tuesday April 12, 2005

Brazi's Restaurant

Dr. Tim Lowinger

will present

Discovery of BAY 43-9006 -- A Dual Acting RAF kinase and VEGFR2 Inhibitor for the Treatment of Cancer

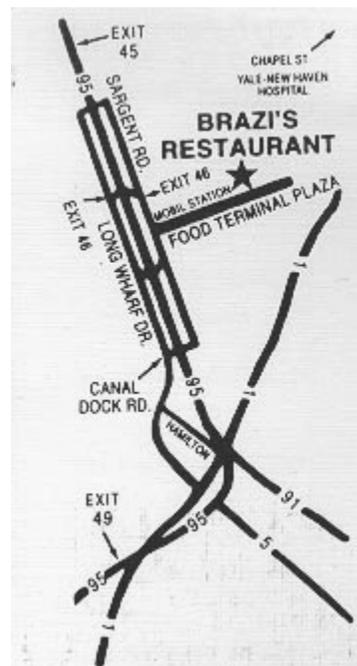
Brazi's Restaurant
201 Food Terminal Plaza
New Haven, CT 06511
(203) 498-2488

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

website: nearhome.com/ct/newhaven/brazis

Abstract: Bay 43-9006 is a novel, dual-acting signal transduction inhibitor currently in Phase III clinical trials for the treatment of cancer. Bay 43-9006 was discovered as a collaborative effort between scientists at Bayer's West Haven research center, together with scientists at Onyx Pharmaceuticals in Richmond, CA. The drug discovery effort from target selection through lead-finding, lead generation, and lead optimization will be presented, and initial results from clinical trials will also be discussed.

Brief Biographical Sketch: Tim Lowinger grew up on the outskirts of Vancouver, Canada and obtained his B.Sc. (Hons.) and Ph.D. at the University of British Columbia, where his research focused on the development of stereospecific radical cyclization reactions. He then moved to The Ohio State University where he held a Merck postdoctoral fellowship in the labs of Prof. Leo A. Paquette. While at Ohio State, Tim applied himself to the synthesis of both natural and unnatural products. In 1993 he joined Bayer Pharmaceuticals, working first in the Alzheimer's disease area, then taking on responsibility for the Cancer Exploratory Research portfolio and the leadership of the raf kinase strategic project. In early 1998 Tim accepted an opportunity to head the Department of Chemistry at Bayer's research center in Kyoto, Japan, working in the areas of asthma and urology. This four year assignment was followed by another two year international assignment as a Director of Medicinal Chemistry at Bayer's research center in Wuppertal, Germany, where he was responsible for anti-viral research efforts. In late 2003 Tim returned to Bayer in West Haven, CT, where he is currently Vice President of Chemistry Research.



Directions to Brazi's Restaurant in

From I-95 N:

Take Exit 46 (Long Wharf Drive) toward Sargent Drive. Turn left onto Long Wharf Drive. Turn left onto Canal Dock Road. Turn left onto Sargent Drive. Turn right onto Food Terminal Plaza. Brazi's Restaurant is on the right

From I-95 S:

Take Exit 46 (Sargent Drive) toward Long Wharf Drive. Turn right onto Sargent Drive. Turn left onto Food Terminal Plaza. Brazi's Restaurant is on the right .

Brazi's Restaurant – Tuesday April 12, 2005

Entrée choices: Beef Marsala

Chicken Francese

Price: ACS Members/Guests \$25
Teachres/Retirees/Unemployed/Students \$20
Price includes tax and tip.
Cash bar

All entrees are served with the vegetables of the day, choice of roasted potatoes or Penne Marinara, fresh green salad, Fococcia bread and Roni rolls, pitchers of soda, coffee and tea, and ice cream for dessert.

Please make your reservation by contacting Dennis Jakiela by Friday April 8, 2005, at (203) 375-1137 or e-mail to: djakiela@hampfordresearch.com. Please leave your name, telephone number, dinner choice and number of reservations desired. Cancellations must be made 48 hours prior to the meeting or you may be charged for dinner.

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

New Officers for 2005

Newly elected officers for the New Haven Section are;

Program Chair Dr. Dennis Jakiela, Hampford Research
Treasurer Ms. Caroline Maselli, Crompton Corp.
Alternate Councilor Dr. Jerry Putterman

Dr. Jakiela will serve as program chair in 2005 and assume the position of Section Chair in 2006. Ms. Maselli will be the Section's treasurer for the two-year term 2005-2006. Dr. Putterman will represent the Section in legislative actions of the national ACS for the three-year term 2005-2007.

Continuing Officers

Secretary Ms. Jennifer Burke, Bayer Healthcare
Councilor Dr. William Cesario, Insights/Directions
Councilor Dr. William Harned, Crompton Corp., retired
Alternate Councilor Dr. David Smudin, Crompton Corp., retired

We regret that Dr. Ning Su (Bayer) will be unable to continue as Section Chair in 2005. Dr. Ali Banijamali (Crompton Corp.) is currently acting as Section Chair until a replacement is found.

Earth Day in April

April 22, 2005 is **Earth Day**. Join your fellow chemists as we celebrate "**Air: here, there, everywhere**" with this year's unifying event: kite flying. Bring the community together for a fun-filled day. Take the opportunity to talk about the materials of flight, the chemistry of the atmosphere, and the wind; celebrate with contests and games, open houses and exhibits, lectures and workshops, hands-on activities and demonstrations. More information is available at the ACS website at www.chemistry.org.

2005 Kirkwood Award

The Kirkwood Award, presented jointly by the Yale University Department of Chemistry and the New Haven Section of the American Chemical Society, commemorates the life and work of John Gamble Kirkwood (1907 – 1959), former Sterling Professor of Chemistry and Chair of the Yale Chemistry Department. This award, presented biennially, recognizes outstanding research contributions, theoretical or experimental, in the physical sciences. Since the award was initiated in 1962, many of its recipients subsequently have won the Nobel Prize.

As this bulletin goes to press, the nominations for this year's recipient are currently being reviewed, and the Kirkwood Award Lecture, and presentation banquet are being considered for a date in April. In order to inform those Section members who have an interest in this award, of the name of the recipient and the date for the Kirkwood Lecture and Banquet, we have decided to post the information on the Section Web Site (membership.acs.org/N/NewHaven/) as soon as it is available. Alternatively, the information may be obtained by contacting Dr. David Smudin, via e-mail at dsmudin@aol.com, or by calling (203) 756-8648.

“Chemistry Headlines” – A new online feature from chemistry.org

Would you like to visit one ACS web page and access links to current chemistry news headlines, journal article briefs, and features on chemical patents, research advances, historical events, and meeting updates from the ACS?

A new online feature on *chemistry.org*, “Chemistry Headlines”, serves up all this and more. “Chemistry Headlines” is a compilation of headlines from external news sources and a variety of ACS magazines and journals, including C&EN Online, as well as headlines from Heart Cut, Patent Watch, Today in Chemical History, chemistry.org feature articles and other ACS products and resources. Staff members from chemistry.org, C&EN and ACS Publications have collaborated to help make a wide range of content available in this forum. This new feature can be found at www.chemistry.org/portal/a/c/s/1/newscenter.html, the same URL that was used previously for the first generation of the chemistry.org Newscenter.

Interested in a personalized demonstration of this new resource? Join staff from chemistry.org and C&EN at the exposition floor Booth #820 at the ACS National Meeting (March 14 - 16, 2005 in San Diego, CA) for a personal demonstration of “Chemistry Headlines”, special daily meeting events, and prize drawings.

Have questions or comments concerning “Chemistry Headlines”? Email webmaster@acs.org and include "Chemistry Headlines" in the subject line of your message.

Wanted: Good Program Ideas to Fund!

Have you been itching to start up a new program within your section, but don't know how to get funding? Or perhaps you would like to expand or enhance a program that your section already sponsors? If the answer is "yes" to either of these questions, you should contact your Local Section's Chair to consider submitting a proposal for an "Innovative Projects Grant" sponsored by the Local Section Activities Committee (or LSAC for short). These grants support local sections undertaking innovative programs or activities, particularly projects that promote local section and division interaction or interaction between multiple sections or that improve programming for a local section with special financial needs. Local sections may request funding up to \$3,000. **The deadline is April 1, 2005**, and approved projects will receive funding by July 15 in order for sections to initiate projects during the second half of 2005. Since this is an ongoing program, the 2006 grant application deadlines will be announced later this year.

To apply for an Innovative Projects Grant, visit the ACS OLSA website <http://www.chemistry.org/portal/a/c/s/1/acsdisplay.html?DOC=localsections\index.html>, where complete instructions and a template for the brief proposal (limited to 2 pages) are available (select "Innovative Grants Program" listed under "Improve Your Finances"). The website also includes a link to a list of some previously funded projects, which can help stimulate ideas. (Please note that imitation of another section's good idea is acceptable, provided it is "new" to the section which is applying!)

Note that funding cannot be used for hardware purchases or major equipment, honoraria, stipends, alcoholic beverages, or food. Planning for a funded program should begin within 3 months of the award date, and the project should be completed within 12 months of the award. Winning local sections are required to submit a report to LSAC within 3 months of completion of the project detailing how the funds were used and the impact which the

program had. Only one project per local section will be funded annually.

New Haven Section Bulletin
William H Harned, Editor
535 Greens Loop
Cheshire, CT 06410

Words from Your Editor ...

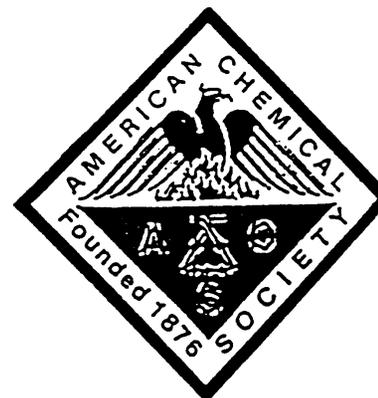
Check out the Section's web site

Attend the National Meeting in San Diego

Pay your national ACS dues online at www.chemistry.org/acs/

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





New

Haven

Section

VOLUME 22, NUMBER 2, May, 2005

May 18, 2005 – New Haven Section Meeting

Ms. Katrina Mateo

Townsend Harris High School at Queens College

will present

**THE ANTIMICROBIAL EFFECTS OF COMMON
CUISINAL SPICES ON THE GROWTH OF *BACILLUS
CEREUS* VERSUS *SERRATIA MARCESCENS***

May Meeting Details

Message from the Chair

Kirkwood Award

National Chemical Week Awards Ceremony

Internet-Based ACS Courses

National Chemical Week Awards Ceremony

Wednesday May 18, 2005

Eli's on Whitney Restaurant

Ms. Katrina Mateo

will present

THE ANTIMICROBIAL EFFECTS OF COMMON CUISINAL SPICES ON THE GROWTH OF BACILLUS CEREUS VERSUS SERRATIA MARCESCENS

Eli's on Whitney
2392 Whitney Avenue
Hamden, CT
(203) 287-1101

www.elisonwhitney.com

Social Hour: **5:30 p.m.**
Awards Presentations: **6:00 p.m.**
Dinner: **6:30 p.m.**
Lecture: **7:30 p.m.**



Abstract: Herbs have been used for centuries to act against pathogens. *Bacillus cereus* is an aerobic, rod-shaped, Gram-positive, motile, spore-forming bacterium. *Serratia marcescens* is a Gram-negative, motile, facultative anaerobe that maintains a pink pigment. An experiment was conducted to test the antimicrobial effects of common cuisinal spices on the growth of a *Bacillus cereus* versus *Serratia marcescens*. It was hypothesized that the spices will have a stronger overall effect on the Gram-positive bacteria, *Bacillus cereus*, by creating larger zones of inhibition. In this experiment, three disks soaked in garlic, oregano, and black pepper extract and a disk soaked in demineralized water were placed on sterile

agar plates inoculated with *Bacillus cereus* and *Serratia marcescens* by means of the Kirby Bauer technique. After an incubation period of 24 hours, the zones of inhibition were measured using a millimeter ruler and analyzed. The hypothesis was supported by the mean results. This experiment can be used to investigate how common spices can be used to preserve foods for longer periods of time by inhibiting the growth of bacteria and how their antimicrobial properties affect a Gram-positive bacterium as opposed to a Gram-negative bacterium.

Brief Biographical Sketch: **Katrina Mateo** is currently a junior at Townsend Harris High School at Queens College. Maintaining high academic achievement, she is currently a member of Arista (National Honor Society), Archon (National Service Society), Mu Alpha Theta (Math Honor Society), and NYSSHS (Science

Honor Society). In terms of musical achievement, she takes piano, flute, and violin lessons at the Center of Preparatory Studies of Music at Queens College and has performed at LeFrak Hall at Queens College, Colden Center for the Performing Arts, and Carnegie Hall. She is part of the Science Research Program at her school specifically geared towards preparing for the Intel competition and has completed several research papers mostly about suppression of bacterial growth. In the Summer of 2004, she completed a New York Academy of Sciences Summer Research Program internship at Columbia University School of Nursing under Drs. Elaine Larson and Patricia Stone. Presently, she is conducting research at a Molecular Typing lab at Memorial Sloan-Kettering under Dr. Kent Sepkowitz.

Eli's on Whitney – Wednesday, May 18, 2005

Entrée choices: Seafood Stuffed Sole – sherry crab and cracker stuffing topped with lobster sauce
Sliced Roast Porkloin – topped with apple and onion demi glace
Stuffed Chicken Pomodoro – spinach, tomato, garlic and herb crumb stuffing
"Kid's Menu" – Chicken fingers with French fries, dessert, and soda

Price: ACS Members/Guests \$25
Teachers/Retirees/Unemployed/Students \$20
Children's meal (Chicken fingers) \$12

Price includes tax and tip. Cash or check only – we cannot accept credit cards

All entrees are served with fresh seasonal vegetable, bread and butter, garden salad with balsamic vinaigrette, dessert choice of ice cream fudge roll with chocolate sauce or white chocolate mousse with raspberry sauce, and coffee, tea or decaf.

**BECAUSE THIS MEETING WILL HAVE A LARGE ATTENDANCE,
YOU MUST SIGN UP FOR A DINNER BY MAY 14**

Please make your reservation by contacting **Dennis Jakiela by Friday, May 13, 2005**, at (203) 375-1137 or e-mail to: djakiela@hampfordresearch.com. 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 Dr. Jakiela so he can keep the count of number of attendees, and arrive at the restaurant by 7:30 PM when the presentation will normally begin.

Directions to Eli's on Whitney Restaurant in Hamden

From the North or South on Interstate 91: Take I-91 to Exit 10 (Mt Carmel / Cheshire) Rte 40 (Exit 10 puts you on Rte 40 Connector running from I-91 to Whitney Ave., Hamden) Take Rte 40 Connector to end. At the end take left fork. Take a left onto Whitney Ave. and go approximately 1.2 miles. (You will go through one double set of traffic lights) Eli's On Whitney is on the right (at the second set of traffic lights). Parking is across the street on the left with limited parking behind Restaurant.

From the North on Rte 15 - Wilbur Cross Parkway: Take Exit 62 (Whitney Avenue, Hamden) Take a right onto Whitney Ave. and go approximately 1/3 mile, past Hamden Town Hall. (You will go through 2 sets of traffic lights) Eli's On Whitney is on the left (at the third set of traffic lights): Parking is across the street on the right with limited parking

behind Restaurant. (cont.)

From the South on Rte 15 - Wilbur Cross / Merritt Parkway: Take Exit 61 (Whitney Avenue, Hamden) Take a right onto Whitney Ave. and go approximately 1/3 of a mile, past Hamden Town Hall. (You will go through 2 sets of traffic lights). Eli's On Whitney is on the left (at third set of traffic lights). Parking is across the street on the right with limited parking behind Restaurant

From New Haven - via Whitney Avenue or Dixwell Avenue: Follow Whitney Avenue or Dixwell Avenue to the Hamden Town Hall. (There will be a set of traffic lights). If on Whitney Avenue, follow through the traffic lights; if on Dixwell, take a left onto Whitney Avenue. Eli's On Whitney is on the left. Parking is across the street on the right with limited parking behind Restaurant.

Chair's Message

(This article was partially omitted from the previous newsletter due to insufficient space.)

I am honored to once again serve as the Chair of the New Haven Section of the American Chemical Society for 2005. With your continued active participations and support, the Executive Board of Directors and I are planning several unique activities for 2005. The Section will once again be engaged in several enrichment and community outreach activities, including, the Chemistry Olympiad, Kids in Chemistry, and National Chemistry Week activities.



Your Section, therefore, needs your continued support and participation in organizing these activities. The list of Committee Chairs is available under the Officers Section in our website at <http://membership.acs.org/N/NewHaven>. Please consider becoming active with one of these committees. You will find the Committee Chairs eager to hear from the Section members, and most of the committees do need new members. One crucial committee for which the Section is in urgent need of

assistance is with National Chemistry Week (NCW). National Chemistry Week encourages young people to consider science as a career, as well as to provide outreach to the community dispelling some of the apprehensions that exist about chemistry. The NCW week theme for 2005 is "Chemistry and Toys." If you are interested in helping out with this year's NCW activities, please contact me at my place of business at 203-573-3220, or send me an e-mail at ali.banijamali@cromptoncorp.com.

The Section has made great stride in bringing in a stellar mix of speakers in this year's program; we have tried to hold the meetings at various locations so as to broaden our member coverage. We are trying to curtail the costs of the dinners in the hope that more of our members will consider attending both the lectures and the social to follow.

If you have an area of research or interest and would like to share with the New Haven Section, then please contact our program chairman, Dr. Dennis Jakiela (djakiela@hampfordresearch.com) with the title and few words briefly summarizing your area of research/specialty. We look forward to hearing from you about the topics that you wish to share with your Section.

As always, it is important to stress that all New Haven Section activities depend on YOU, the members, to be successful. When your ACS membership renewal notice arrives, please don't forget to check the box for due membership to New Haven Local Section. While Local Section dues are a voluntary contribution – they are not required to maintain Section membership – they are however, critically important to the well-being of the New Haven Section. Your \$6 voluntary dues directly fund events and services including the prestigious Kirkwood and Chamberland Awards and other excellent programs. It is your support and participation that makes it possible for the Section to play a positive role in our broader community.

Dr. Michael Gelbin, the Past Chair, has provided excellent leadership for the New Haven Section during 2004 and Dr. Dennis Jakiela is the Chair-Elect for 2005. Together with the members of the Executive Board, I hope that we remain proud of the New Haven Section of the American Chemical Society due to the unique role it plays. I look forward to meeting all of you at one of the Section functions this year.

Dr. Ali Banijamali, 2005 New Haven Section Chair, American Chemical Society

Robert Grubbs is 2005 Kirkwood Awardee

Professor Robert Grubbs, California Institute of Technology, has been selected as the recipient of the 2005 Kirkwood Award. The award address and banquet were held on Wednesday, April 27th. Dr. Grubbs award presentation was titled "Olefin Metathesis Catalysts for the Synthesis of Large and Small Molecules". We regret that the selection of the awardee and schedule for the lecture presentation were not available in time to be included in the previous newsletter.

The Kirkwood Award, presented jointly by the Yale University Department of Chemistry and the New Haven Section of the American Chemical Society, commemorates the life and work of John Gamble Kirkwood (1907 – 1959), former Sterling Professor of Chemistry and Chair of the Yale Chemistry Department. This award, presented biennially, recognizes outstanding research contributions, theoretical or experimental, in the physical sciences. Since the award was initiated in 1962, many of its recipients subsequently have won the Nobel Prize.

Safety Publications are Available from ACS

The ACS Joint Board-Council Committee on Chem. Safety (CCS) is pleased to announce the availability of the 7th edition of Safety in Academic Chemistry Laboratories (SACL). SACL has been in print continuously since 1972. This edition has two volumes: Vol. 1 for college and university students; and Vol. 2 for faculty, graduate teaching assistants, and administrators. With this latest edition of SACL, CCS has now produced new safety booklets within the last two years for all academic levels: Safety in the Elementary (K-6) Science Classroom; Chemical Safety for Teachers and Their Supervisors, Grades 7-12; and SACL. All these publications may be ordered from ACS (single copies are free) and or be viewed in PDF on the Committee website, <http://chemistry.org/committees/ccs>.

AD SPACE Available in the Newsletter

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 **\$85 for a full-page (4 x 8 inch)**.

N

The theme for 2004 National Chemistry Week, held October 17-23, was *"Health and Wellness"*. Schools in New Haven County were invited to participate in our contests. All students who entered won a small prize and teachers received a subscription to the Journal of Chemical Education.

A special thank you to Dr. Dennis Jakiela, Hampford Research for judging the grammar school entries, Dr. Irene Covey, U. Conn, Waterbury, for judging the high school entries, and Jan Galloway and Caroline Maselli for judging the posters. This year National Chemistry Week will be celebrated October 17-23, 2004, with Health and Wellness as the theme (read the next article).

Poster Contest Winners

| <u>Student</u> | <u>Teacher</u> | <u>School</u> | <u>Grade</u> | <u>Town</u> |
|--------------------|--------------------------|-----------------------|--------------|-------------|
| Francesca Pepe | Nancy Ryan | Mary T. Murphy | 4 | Branford |
| Rebecca Mencseli | Tara Daly | Norton | 6 | Cheshire |
| Anesha Agarwal | Nancy Graham | Hamden High | 10 | Hamden |
| Alex Borkowski | Nancy Ryan | Mary T. Murphy | 4 | Branford |
| Justin Hatch | Nancy Ryan | Mary T. Murphy | 4 | Branford |
| Brittany Virgulito | Jan Frank & Kevin Staton | Thomas Edison Middle | 6 | Meriden |
| Breanne Hunt | Jan Frank & Kevin Staton | Thomas Edison Middle | 6 | Meriden |
| Colleen Arntsen | Tara Daly | Norton | 6 | Cheshire |
| Nathaniel Dziuba | Kathleen Griffin-Daley | N. Branford Intermed. | 6 | N. Branford |
| Kimberly Barnes | David Tremblay | West Haven High | - | W. Haven |
| Anna Rogoulina | Nancy Graham | Hamden High | - | Hamden |
| Brian Williams | Nancy Graham | Hamden High | - | Hamden |

Grammar School Winners

| <u>Student</u> | <u>Teacher</u> | <u>School</u> | <u>Grade</u> | <u>Town</u> |
|--------------------|------------------------|-----------------------|--------------|-------------|
| Michael Wray | Roberta Mack | N. Branford Intermed. | 6 | N. Branford |
| Alex Brenner | Roberta Mack | N. Branford Intermed. | 6 | N. Branford |
| Molly Johnson | Kathleen Griffin-Daley | N. Branford Intermed. | 6 | N. Branford |
| Julia Gritzbach | Roberta Mack | N. Branford Intermed. | 6 | N. Branford |
| Madeline Slubowski | Joe Daley | Totoket Valley | 5 | Northford |
| Andrew Moeller | Joe Daley | Totoket Valley | 5 | Northford |
| Ryan Dombrowski | Joe Daley | Totoket Valley | 5 | Northford |
| Jack White | Roberta Mack | N. Branford Intermed. | 6 | N. Branford |
| Maggie Sullivan | Kathleen Griffin-Daley | N. Branford Intermed. | 6 | N. Branford |
| Shannon Pearson | Kathleen Griffin-Daley | N. Branford Intermed. | 6 | N. Branford |

High School Winners

| <u>Student</u> | <u>Teacher</u> | <u>School</u> | <u>Town</u> |
|--------------------|----------------|-----------------|-------------|
| Kara Marcello | David Tremblay | West Haven High | West Haven |
| Katherine Marcello | David Tremblay | West Haven High | West Haven |
| Cara Moran | David Tremblay | West Haven High | West Haven |
| Brian Williams | Nancy Graham | Hamden High | Hamden |
| Megan Hochstrasser | Nancy Graham | Hamden High | Hamden |

Improve Your Skills with Internet-Based Courses from the ACS

ACS's Webcast Short Courses team the technology and convenience of Internet learning with the dynamism of live, in-person training — ACS now offers Internet-based training courses to help you quickly learn the information that you need to succeed in your job. In the convenience of your home or office, you can learn new techniques, improve your lab skills, and hone your leadership and communication skills. The following courses will be offered Winter/Spring 2005

To obtain more information or to register online for a course, go to <http://chemistry.org/elearning> or call (800) 227-5558, ext. 4508, or (202) 872-4508.

Basic Statistical Analysis of Laboratory Data - Review and learn the fundamentals of statistics as they apply to laboratory data. Learn from practical examples that are found in typical analytical laboratories. Spring 2005 Session: April 22, 29, May 6, 13, and 20.

Cutting Edge HPLC Techniques for Analysis of Proteins and Peptides - This seminar will teach you how to analyze proteins and peptides by using cutting-edge HPLC techniques. You'll also learn different modes of separation techniques and how to choose a cost-effective HPLC column. Spring 2005 session : May 23-24.

Effective Technical Writing - Researchers, technical professionals, and managers who want to enhance their professional success by writing effectively and persuasively. You are encouraged to submit samples of your own writing, along with technical writing samples (such as scientific papers, reports, reviews, etc.) that you aspire to write. Spring 2005 Session: April 1, 8, 15, 22, and 29, 2005.

Fourier Transform Infrared Spectroscopy - Enroll in this course to improve your skill in identifying or quantifying molecules in unknown samples and to maximize your spectral quality while minimizing your preparation time. Managers who want cost-effective infrared analyses will find this course especially valuable. Spring 2005 Session: April 7, 11, 14, 18, and 21.

Gas Chromatography Basics - This course will help you to gain a sound working knowledge of basic gas chromatographic analysis principles and procedures and enable you to develop a greater understanding of theoretical and practical relationships. Become more efficient by learning ways to reduce the time you spend on selecting optimum parameters for separating species present in complex mixtures. Spring Session 2005: April 5 12, 19, 26, May 3, 10, and 17.

Infrared Spectral Interpretation, I - In this overview of infrared interpretation, you will learn how to integrate peak position, height, and width information in a spectrum to successfully determine unknown molecular structures and to perform identities properly. Gain hands-on experience in interpreting unknown spectra. Spring 2005 Session: Apr. 7, 11, 14, 18, and 21

Innovative Chemistry—The Road to Commercial Success

Learn the aspects of chemical engineering that are needed to transform your bench work into full fledged production. First you'll learn the issues of scale-up and scale down—what engineers do with your process once its chemistry is well defined. You will learn the basic design lessons, estimates, appraisal, project thinking, along with the basic steps of patent work and funding options. Spring 2005 Session: April 6, 13, 20, 27, and May 4. Leadership in Science: Managerial and Technical Skills. Understand the basic principles of leadership, motivation and communication. Prepare yourself to assume a leadership position or, if you are already in a leadership position, strengthen your leadership and participation skills. Spring 2005 Session: April 20, 27, May 4, 11, 18, and 25.

A Pharmacology Primer for Chemists - In this course, you'll get a solid understanding of pharmacological principles and how the chemical sciences impinge upon pharmacology research. Master the language and terminology of pharmacology by exploring the study of the interaction of chemicals with receptors to elicit physiological responses. Understand the chemistry behind the drugs used for therapy as you study the theory, application, and methods of receptor pharmacology as it is used to characterize drug activity. Spring 2005 Session: May 2, 5, 9, 12, 16, 19, 23, and 26.

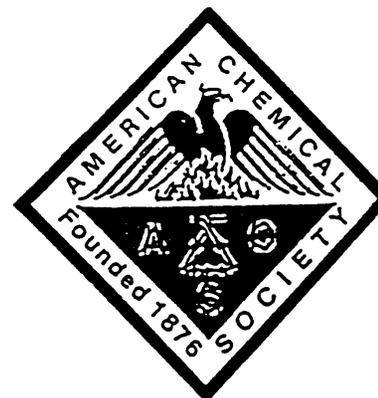
New Haven Section Bulletin
William H Harned, Editor
535 Greens Loop
Cheshire, CT 06410

Words from Your Editor ...

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Section's **web site** at <http://membership.acs.org/N/NewHaven>*





New Haven Section

VOLUME 22,

NUMBER 3,

September, 2005

September 22, 2005 – New Haven Section Meeting

Dr. Sanjay Malhotra, New Jersey Institute of Technology

will present

Ionic Liquids – The Designer Solvents for Organic Reactions

October 18, 2005 – New Haven Section Meeting

(joint meeting with the New Haven Section of AIChE)

Dr. Ronald Besser, Stevens Institute of Technology

will present

Miniaturization for Chemical Processing – Smaller Can Be Better

September Meeting Details

October Meeting Details

Call for Nomination of Officers for 2006

D. Smudin becomes Acting Section Chair

National Chemistry Week

New Directory of Graduate Research

Thursday September 22, 2005

Dolce Heritage in Southbury, Connecticut

Dr. Sanjay Malhotra

will present

Ionic Liquids – The Designer Solvents for Organic Reactions

Dolce Heritage
522 Heritage Road
Southbury, CT 06488
(203) 264-8200 heritage.dolce.com

Social Hour: 5:30-6:30 p.m.
Dinner: 6:30-8:00 p.m.
Lecture: 8:00-9:00 p.m.



Abstract: Ionic liquids represent a new class of solvents with non-molecular, ionic character. These liquids form biphasic systems with many organic product mixtures. In order to develop an understanding for organic and organometallic chemistry in these neoteric solvents, our research program has focused on both metal and enzyme catalyzed reactions. Our study shows that ionic liquids allow an enhanced stability of organometallic reagents and biocatalysts, an easy product recovery as well as possible recycling of homogeneous catalysts. A systematic approach has led

to development of simple protocols for C-C & C-N bond formation reactions; asymmetric catalysis, as well as designing of new chiral systems. Study of biocatalytic systems in ionic liquids has resulted in new methodologies for synthesis of natural building blocks such as amino acids, peptides, nucleotides and biochemical intermediates. An overview of these studies with representative ionic liquids would demonstrate a wide range of potential industrial applications of these systems.

Brief Biographical Sketch: Sanjay V. Malhotra obtained a Ph.D. in Chemistry in 1995 from Seton Hall University, NJ. Subsequently he worked as Research Associate with Nobel Laureate Prof. H.C. Brown at Purdue University, West Lafayette, IN. In 1999 he joined the Faculty of the Chemistry Department of the New Jersey Institute of Technology. His research focus is on developing new methodologies for organic, asymmetric synthesis via chemical/bio-catalysis in neoteric medium, ionic liquids. He is editor of two books, *New Methodologies in Asymmetric Synthesis*, Oxford Press, 2004 and *Organic Synthesis with Ionic Liquids*, Oxford Press, 2005 (in press). He has authored/co-authored over 50 articles (journal, reviews & book chapters).

Heritage Dolce Restaurant – Thursday September 22, 2005

Entrée choices: *Grilled Salmon Fillet*

Hungarian Beef Stew

Pan Seared Chicken Breast with Garlic Demiglace

Price: ACS Members/Guests \$25
Teachers/Retirees/Unemployed/Students \$20
Price includes tax and tip.

All entrees are served with Heritage *or* Caesar Salad, Pasta Primavera, baby spinach, sun dried tomatoes and parmesan cheese, Chef's choice of Starch & Vegetable, and frozen strawberry desert or pears poached in cinnamon syrup and whipped cream. Coffee, tea or decaf will be available.

Please make your reservation by contacting Dennis Jakiela by Monday September 19, 2005, at (203) 375-1137 or e-mail to: djakiela@hampfordresearch.com. 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 Dennis Jakiela so he can keep the count of number of attendees, and arrive at the restaurant by 8:00 PM when the presentation will normally begin.

FROM New Haven: Take Route 34 to Route 8 North. Proceed on Route 8 to exit 22. At the bottom of the ramp turn left, and at the light turn left on to Route 67 and continue to Southbury. In Southbury, continue under the I-84 overpass to the third traffic light. Turn left on to Heritage Road. Dolce Heritage is approximately one mile ahead on the right side.

FROM Meriden and Hartford: Take Interstate 84 West to exit 15 in Southbury. Turn right at the bottom of the exit ramp and proceed to the second traffic light. Turn left on to Heritage Road. Dolce Heritage is approximately one mile ahead on the right side.

FROM Danbury/Southbury: Take I-84 East to exit 15 in Southbury. Turn left on to Route 67/6 and proceed to the third traffic light. Turn left on to Heritage Road. Dolce Heritage is approximately one mile ahead on the right side.

AD SPACE Available in the Newsletter

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 **\$85 for a full-page (4 x 8 inch)**.

Tuesday October 18, 2005
University of New Haven, Bartels Hall
Dr. Ronald Besser

will present

Miniaturization for Chemical Processing – Smaller Can Be Better

| | | |
|----------------------------|--|-----------|
| University of New Haven | Social Hour: | 5:30 p.m. |
| Upper Lounge, Bartels Hall | Dinner: | 6:30 p.m. |
| 300 Boston Post Road | Lecture: | 8:00 p.m. |
| West Haven, CT 06516 | www.newhaven.edu/directions/campmap.html | |

--- Joint meeting with the New Haven Section of AIChE ---



Abstract: *Microchemical Systems* (MCS) are miniature, microfabricated systems with chemical and fluidic functionality, and characteristic dimensions in a range of 1-1000 μm . They possess distinct advantages over conventional chemical systems, primarily due to their extraordinarily high surface-to-volume ratios leading to superb transport properties for heat and mass.

In the first part of this talk, Prof. Ronald Besser will introduce the audience to the subject of MCS, what they are and are not, how they are constructed, elaboration of their many advantages, and descriptions of some of the applications that are especially relevant to MCS. The second part of the

talk will introduce examples from Besser's own research work.

Besser's group focuses on understanding the fundamental issues of chemical reaction in the confined geometries of MCS. This work is approached by holistically bringing together tools from various science and engineering disciplines. Microfabrication is used to create precisely defined structures in which chemicals can be fed and reactions studied. Testing methods involve coupling these small reactors to the external world to control them and sample their output with chromatographs and mass spectrometers. The data gathered are joined with mathematical models in order to understand the observations as well as predict behavior. The resulting understanding contributes to the small but growing base of knowledge needed to propel microchemical systems into real technology entities that can ultimately benefit society.

Recent work in the group has focused on understanding a reaction that eliminates a poison from the gas used for fuel cells. The process eliminates carbon monoxide in a critical step in the production of hydrogen from hydrocarbons for fuel cells. This kind of processing is essential for proton-exchange membrane (PEM) fuel cells which are the front runners for broad commercialization. New initiatives in the group will explore the processing of military logistical diesel fuels which can provide power and significantly lighten the load of tomorrow's foot soldiers, as well as bring distributed electrical power to large Navy vessels.

The group's work in processing of pharmaceutical chemicals involves the development of a new reactor concept which can circumvent problems existing in current reactor technology used in the industry. In this new approach, miniaturization affords the possibility of creating an intimate mixture of liquid and gaseous reacting chemicals, while at the same time efficiently extracting the heat generated by the process. The reactor is meant to be used with commercial catalysts already available, and can serve as a tool that pharma companies could use to screen catalysts from various vendors for a particular synthesis step being developed for manufacturing.

Prof. Besser's background is primarily in the development of materials, processes and devices. This expertise has been leveraged in developing microchemical systems using many of the same techniques exploited in MEMS technology. He and his students collaborate heavily with microsystems experts at Stevens, Lucent Bell Labs, NJIT, and the Cornell Nanofabrication Facility (CNF), where Besser serves as an elected member of the CNF User Committee.

Brief Biographical Sketch: Dr. Besser is professor of chemical engineering at Stevens Institute of Technology in Hoboken, New Jersey. Prior to joining Stevens in 2002, he was associate professor and group leader at the Institute for Micromanufacturing at Louisiana Tech University in Ruston, Louisiana. He is co-director and a core researcher at the New Jersey Center for Microchemical Systems, a Stevens center which is dedicated to leadership in understanding and developing microchemical systems. Prior to entering academia, he spent several years working in Silicon Valley industry in microfabrication and microelectronic materials and device development. Dr. Besser holds the B.S. degree in chemical engineering from U.C. Berkeley, and the M.S. and Ph.D. degrees in Materials Science and Engineering from Stanford University. He has more than sixty technical publications and patents. For further information on Dr. Besser and his work, see URL <http://personal.stevens.edu/~rbesser/>

Directions to University of New Haven – Bartels Hall

The dinner will be a hot buffet.

Caesar Salad, Garlic Bread
Chicken Parmesan
Penne a la Vodka
Meatballs, Sausage & Peppers
Italian Cookies and Cannolis
Water, Coffee, Tea and Decaf

| | | |
|--------|---------------------------------------|------|
| Price: | ACS Members/Guests | \$25 |
| | Teachers/Retirees/Unemployed/Students | \$20 |
| | Price includes tax and tip. | |

Please make your reservation by contacting **Dennis Jakiela by Friday October 14, 2005**, at (203) 375-1137 or e-mail to: djakiela@hampfordresearch.com. Please leave your name, telephone number, dinner choice and number of reservations desired. Cancellations must be made **48** hours prior to the meeting or you may be charged for dinner.

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

From west:

Connecticut Turnpike (I-95) Northbound.

Take Exit 43, Campbell Ave. Turn left at bottom of exit ramp. Continue past U. of New Haven sign on left at Ruden St. (0.6 miles) to intersection with Route 1 (Boston Post Rd). Turn left, travel to top of hill, turn left into the U. of New Haven.

Merritt/Wilbur Cross Parkway (Route 15) Northbound.

Take Exit 57, Route 34 east (Derby Ave.) Travel 3.4 miles to Route 122 (Forest Rd). Turn right, travel 1.0 miles to first traffic light, Route 1 (Boston Post Rd). Turn right, travel to top of hill, turn left into the University of New Haven.

From north / east:

Connecticut Turnpike (I-95) Southbound

Take Exit 43, First Ave. Turn right at bottom of exit ramp, travel 0.5 miles to second traffic light, Route 122 (Campbell Ave.). Turn right and continue past intersection with Ruden St (note U. of New Haven sign at left) to intersection with Route 1 (Boston Post Rd). Travel to top of hill, turn left into the U. of New Haven.

Merritt/Wilbur Cross Parkway (Route 15) Southbound.

Take Exit 57, Route 34 East (Derby Avenue) Travel 3.4 miles to Route 122 (Forest Road). Turn right, travel 1.0 miles to first traffic light, Route 1 (Boston Post Road). Turn right, travel to top of hill, turn left into the University of New Haven.

NOTE: From Southbound I-91, remain on highway and follow to juncture with I-95 South (toward New York City). The follow directions for I-95 south

Bartels Hall – The campus center:

From the main entrance on the Boston Post Rd., turn left for parking. Bartels Hall is near the parking lot. Go to the Upper Lounge in Bartels Hall. A campus map is available at <http://www.newhaven.edu/directions/campmap.html>

Congratulation to ACS 50-Year Members

The New Haven Section is proud to honor and congratulate the following chemists for 50 years of membership in ACS. They will be the guests of honor at a New Haven Section meeting later this fall.

Dr. Siegfried Aftergut

Mr. Martin Vartan Azarian

Mr. John A. Gannon

Mr. James R. Humphrey

Mr. Richard T. Pye

Dr. John Stanley Roscoe

Mr. O. B. Samler

Dr. Hansjuergen Schroeder

Mr. Norton T. Williams

Call for Nomination of Officers for 2006

It is once again time to choose new people to lead the Section in the upcoming year. Three positions are available for 2006. These are Program Chair, Councilor and

Secretary.

The Program Chair is responsible for arrangement of speakers and meeting locations for the year's meetings. He or she is assisted by the Executive Committee. In the following year the Program Chair becomes Section Chair and runs the meetings. The Secretary is responsible for taking minutes at Executive Committee meetings and handling any Section correspondence. This is a two-year term. The Councilor represents the Section at national ACS meetings and is a liaison between the Local Section and the National ACS. This is a three-year position. All three officers are members of the Executive Committee. If you are interested in running for one of these offices, please contact Dr. Ali Banijamali at 203 573-3220 or by e-mail at ali.banijamali@chemtura.com.

Dr. David Smudin Assumes Position as Acting Section Chair

Since the duly-elected Section Chair was unable to assume the duties of the office during 2005, Dr Ali Banijamali took over for the first half of the year. For the remainder of the year, Dr. David Smudin has agreed to take on this position. Dave can be contacted by e-mail at dsmudin@aol.com. The Section thanks both Dave and Ali for volunteering to help the Section through a difficult period.

National Chemistry Week (NCW), 2005 - Chemistry and Toys

Individuals dedicated to enhancing the public's awareness of the contributions of chemistry are invited to support **National Chemistry Week, October 16-22**. The 2005 theme is "The Joy of Toys" The annual NCW celebration unites ACS local sections, industries, schools, and individuals in communicating the importance of chemistry to the quality of life. This year, the New Haven Section will again sponsor written contests for grammar, middle and high schools located within New Haven County and a poster contest for grades K-2, 3-4, 5-8 and 9-12. The posters will serve as public service announcements emphasizing the role of science and chemistry in toys (i.e., toy development and production, materials from which toys are made, toy safety through chemistry, toys from different times in history and different cultures and toys that use chemistry to make them work. Information will be mailed to teachers by Caroline Maselli. Students may enter even if their teachers do not participate by directly contacting Ms. Maselli at (203) 573-2039, or by e-mail at caroline.maselli@chemtura.com. For more information about NCW, also visit chemistry.org/ncw.

ACS Directory of Graduate Research Available

The [ACS Directory of Graduate Research 2005](http://chemistry.org/education/DGRweb) is the premier source of information on faculty and research programs in chemistry, chemical engineering, biochemistry, polymers & materials science, toxicology, medicinal/pharmaceutical chemistry, and environmental science in the U.S. and Canada. It lists faculty member biographical information, area of specialization, titles of all papers published within the last two years, and telephone/FAX numbers. This edition contains faculty information for the '05-06 academic year. DGRweb 2005 will be released late October 2005 at <http://chemistry.org/education/DGRweb> and includes access to the complete 1997, 1999, 2001, and 2003 databases.

New Haven Section Bulletin
William H Harned, Editor
535 Greens Loop
Cheshire, CT 06410

Participate in National Chemistry Week, October 16-22

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





New Haven Section
VOLUME 22, NUMBER 4, November, 2005

November 12, 2005 – New Haven Section Meeting

Dr. Marco Leona

**David H. Koch Scientist in Charge
Department of Scientific Research
The Metropolitan Museum of Art**

will present

Art and Chemistry: Authenticity, History of Technology, and Conservation

PLEASE NOTE

This will be a Saturday meeting and will include a light lunch, Dr. Leona's presentation and a tour of the Wadsworth Atheneum Conservation Lab

November Meeting Details
Message from the Program Chair and the Acting Chair
Photos from the October meeting
National Chemistry Week contests may still be entered
ACS Newsletters and Alerts

Saturday November 12, 2005

Wadsworth Atheneum, Hartford, Connecticut

Dr. Marco Leona

will present

**Art and Chemistry: Authenticity, History of Technology,
and Conservation**

| | | |
|--------------------|------------------------------------|-----------|
| Wadsworth Atheneum | Sandwich and cold salad buffet | 12:00 |
| 600 Main Street | Dr. Marco Leona Presentation | 1:00 |
| Hartford, CT 06103 | Tour of Wadsworth Atheneum | 2:00 |
| (860) 278-2670 | Atheneum open for viewing exhibits | 3:00-5:00 |

Restored to Life: *Benjamin West's The Raising of Lazarus* (see below)

www.wadsworthatheneum.org



Abstract: In the talk I will discuss the activities of the Department of Scientific Research at the Metropolitan Museum of Art and show how scientific techniques are applied to the understanding and preservation of our rich artistic collections.

Brief Biographical Sketch: Marco Leona is the David H. Koch Scientist in Charge of the Department of Scientific Research at The Metropolitan Museum of Art. Dr. Leona graduated with a "Laurea in Chimica" from the Università degli Studi di Pavia (Pavia, Italy), and obtained a Ph.D. in Crystallography and Mineralogy from the same university in 1995.

As a scientist working in an art museum, Dr. Leona is mostly concerned with the material aspects of works of art. His role at the Metropolitan Museum is that of contributing to and enhancing art historical and art conservation research through the application of scientific techniques. The scientific examination of works of art, the identification of their constituent materials and manufacturing techniques, dating and authentication, the investigation of aging and degradation mechanisms, and the monitoring of environmental conditions in display and storage areas of the museum are the main tasks with which he and his staff are charged. Dr. Leona entered the art and cultural heritage studies field when he decided to explore an alternative career in chemistry through an NEA-Mellon fellowship at the

Conservation Research Laboratory of the Los Angeles County Museum of Art (LACMA). He then joined the staff of the Freer Gallery of Art in Washington DC, to conduct research on the techniques and materials of Japanese paintings. After a second period at LACMA, as senior conservation scientist, he moved to New York, where he now heads the newly created Department of Scientific Research of the Metropolitan Museum of Art.

Dr. Leona's own interests lay in the intersection of art and technology and in the elucidation of the material aspects of art production, either for the enhancement of our knowledge of past cultures, or for the preservation of their material vestiges.

His published contributions include the development of new techniques for the non-invasive analysis of works of art by reflectance spectroscopy, the study of Tibetan painting techniques and materials, Infrared and Raman spectroscopy studies of the pigments indigo and Maya blue, Surface Enhanced Raman spectroscopy analysis of natural dyes, and

Wadsworth Atheneum, Hartford – Saturday November 12, 2005

A sandwich and cold salad buffet will be served at **noon**

Dr. Leona's presentation will begin at approximately **1:00 PM**

The tour of the Wadsworth Conservation Lab will begin at approximately **2:00 PM**

Attendees will be able to view other museum exhibits from 3:00 – 5:00 PM

Cost: All attendees

Lunch buffet and program (includes museum admission) \$20

Please make your reservation by contacting Dennis Jakiela by Thursday evening November 10, 2005, at (203) 375-1137 or e-mail to: djakiela@hampfordresearch.com. Please leave your name, telephone number and number of buffet reservations desired. Cancellations must be made 24 hours prior to the meeting or you may be charged for the buffet. **Attendance at the buffet and tour is limited because of available space.**

Directions to Wadsworth Museum in Hartford

FROM I-91N & I-91S: Take I-91 to Exit 29A (Capitol Area). Bear right at Pulaski Circle. Right onto Gold Street. Museum is straight ahead at the intersection of Gold and Main Streets.

FROM I-84E: Take I-84 eastbound to Capitol Avenue Exit 48B. Turn left on Capitol Avenue, and when it ends, turn left on Main Street. The museum is on the right, two blocks up.

FROM I-84W: Take I-84 westbound to Downtown Hartford Exit 54 (left exit). Immediately after crossing the Founder Bridge, turn left on Columbus Blvd. Turn right on Arch St., the right on Prospect Street. The back of the museum is on the left, one block up.

Restored to Life... at the Wadsworth Atheneum



Restored to Life is the culmination of a fifteen-month conservation project of a monumental canvas by Benjamin West, one of the most influential American painters of the eighteenth century. One of the largest paintings in the Atheneum's collection, *The Raising of Lazarus* was originally commissioned as an altarpiece for England's Winchester Cathedral.

Kirkwood Award Winner Receives Nobel Prize in Chemistry

Earlier this month the Royal Swedish Academy of Sciences announced the recipients of the 2005 Nobel Prize in Chemistry. The three chemists receiving this honor, for their work in the development and understanding of olefin metathesis, were; Yves Chauvin of the French Petroleum Institute, Robert H. Grubbs of California Institute of Technology, and Richard R. Shrock of Massachusetts Institute of Technology.



In April of this year Professor Grubbs was the recipient of the 2005 John Gamble Kirkwood Award presented jointly by the Yale University Department of Chemistry and the New Haven Section. It is interesting to note that since the establishment of the Kirkwood Award in 1962, twelve of the twenty-two recipients subsequently have won the Nobel Prize.

On behalf of the New Haven Section, a note has been sent to Professor Grubbs congratulating him on this most remarkable achievement.



Photos from the October Meeting

Section members at the October meeting held at the University of New Haven received a lesson in miniaturization for chemical processing from Dr. Ronald Besser of the Stevens Institute of Technology. In this day of escalating costs for raw ingredients and waste disposal, working with reduced quantities of materials has become a priority in industry. The meeting was jointly sponsored by the New Haven Sections of ACS and AIChE.

Dr. Ronald Besser, Guest Speaker



Attendees Enjoying the Presentation

A Message from your Chairmen: Busy Lives, waning interest threaten future of the New Haven Section.

If attendance of the membership at recent dinner/lecture meetings of the New Haven Section of the ACS is an indication of member interest, this phase of Section activities may soon be going the way of the slide rule.

Officers of the Section have been aware for some time now that attendance at meetings has been declining. This decline was again noticeable at the two meetings held this fall. Attendance at the September meeting, where Prof. Sanjay Malhotra of NJIT gave a very interesting and informative talk on *Ionic Liquids*, was approximately 13, including 4 officers of the Section. The October meeting was held at the Univ. of New Haven, where Prof. Ron Besser of Stevens Institute presented a talk on *Miniaturization for Chemical Processing*. This meeting, which was held jointly with the local chapter of the AIChE, had 7 Section members in attendance, including 4 officers. These meetings can be cited as examples that the Section is trying to provide its members with speakers on a variety of scientific topics, at meetings held at different locations within New Haven County. When dinner/lecture meeting attendance, from a Section that has slightly greater than 1000 members averages approximately 12 individuals, with 7 or 8 of that number being officers of the Section, it is questionable if these meetings, which the Section has been providing for many years, should continue as part of our program.

A larger issue related to the poor meeting attendance is that without a reasonable number of active members (those who have an inclination to get involved in Section activities, or those who regularly attend the meetings for the social interaction, or to hear a lecture on a scientific topic of general interest presented by a recognized expert in the field) in a short time there will be no pool of individuals to draw on to fill the positions necessary to keep the Section and its activities alive. We are approaching that time now.

This edition of the Bulletin should have contained a ballot for the election of a Program Chairman, Secretary, Councilor and Alternate Councilor. But because we have not been able to find anyone who would be willing to run for these offices, we are unable to hold that election. The current Chairman was not elected, but is serving as an appointee of the Executive Board, according to Section By-Laws, until January 2006, when the Program Chairman will assume the role of Section Chairman. But that will leave the Section without a Program Chairman. Due to the lack of member involvement it has been necessary for many of the current officers to fill multiple roles. For example, one of your Councilors is also serving as editor of the Bulletin, and administrator of the Section Web Site.

The Executive Committee already has begun to meet to discuss ways to keep the Section viable. What may have to be done may depend on whether we can stimulate members to become more active and involved with the society at the local level. Therefore, we are asking you to help us understand why attendance at dinner/lecture meetings is unimportant to you, and why you prefer not to become involved with your scientific society. We are aware that everyone's lives are very busy and that we

all have our priorities, but if there are other issues regarding the local Section (meeting venues, lecture topics, meal pricing, transportation, etc.) that are keeping you from becoming involved, please tell us about them. Therefore, we are asking that as soon as possible, please e-mail your comments on this issue to either Dennis Jakiela at djakiela@hampfordresearch.com, or David Smudin at dsmudin@aol.com. For more information on the history and activities of the Section we recommend that you visit our website at <http://membership.acs.org/N//NewHaven>.

Many of you may not be aware that there are activities and programs other than the periodic dinner/lecture meetings that the Section is involved with. Therefore, we plan to present discussions of these activities in future Bulletins, with the hope that some of them may arouse your interest. Through this Bulletin we will also keep you informed of any changes in operation of the Section in an attempt to maintain its future existence. And finally, if you can become involved let us know, or come out to a meeting. The meeting on November 12th will certainly be a good one to attend.

David Smudin, Interim Chairman, 2005 Dennis Jakiela, Program Chairman

National Chemistry Week (NCW), 2005 - Chemistry and Toys

National Chemistry Week was celebrated October 16-22. The Section participated with written contests and poster contests for grade school, middle school and high school students. The contests involved this year's theme "The Joy of Toys" highlighting chemistry in toys. It is not too late for individuals or classes to enter the contests. If you know of interested students or teachers, please contact Ms. Caroline Maselli directly at (203) 573-2039, or by e-mail at caroline.maselli@chemtura.com.

ACS Newsletters & Alerts

Continuing Education offers a bi-monthly *ACS Short Courses* newsletter. The newsletter includes information about new courses, changes to the short courses calendar, and special offers.

Every other month the Education and International Activities Division sends out *Chemunity News*, an e-mail newsletter informing readers to new content on the education pages and relevant promotions. To subscribe to this newsletter please contact education@acs.org.

American Chemical Society Student Affiliates Program *FANmail* is an email newsletter from the Faculty Advisor Network.

Community Coordinator News is a quarterly newsletter that keeps you up to date on all of the offerings of the Office of Community Activities and the Comm. on Community Activities.

C&EN Online offers a weekly Table of Contents e-mail. To subscribe, send an e-mail to webmaster.cen@acs.org. Readers can also sign up for a *PDA version* of C&EN. This free service is provided through AvantGo.

ACS ProSpectives Conferences offers automatic updates on upcoming conferences *New Conference Alerts*.

The *Green Chemistry Institute International E-mail Network* provides a rapid

communication tool for green chemistry researchers, educators, government officials and interested members of the public. To join, send e-mail to gci@lanl.gov.

CPT offers a newsletter to provide updates on *Guidelines for Undergraduate Chemistry Programs*.

New Haven Section Bulletin
William H Harned, Editor
535 Greens Loop
Cheshire, CT 06410

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

