



# New Haven Section American Chemical Society Newsletter

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New Haven Section Chartered in 1912  
[www.newhaven.sites.acs.org](http://www.newhaven.sites.acs.org)

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## Message from the Chair

This time of year I think of how chemistry helps keep Connecticut safer. Salt lowers the melting point of the ice and snow on our roads, often giving us wet rather than icy roads. Small pellets of SiO<sub>2</sub> help improve traction in winter.

We have about 900 members in the New Haven section of the ACS. We had an election of officers last Fall and 39 members voted; a lower turnout than even state legislature elections. The following were elected: Dr. Camille Solbrig Chair-Elect, Dr Max Reeve, Treasurer, Dr. Gerald Putterman, Councilor, Dr. Kap-Sun Yeung and Dr. Steve Cantor both Alternate Councilor.

Dr. James Kearns of SCSU led a successful Chemistry Week event described later in this Newsletter.

Sara Dampf, a senior at UNH, is leading an effort to have a "Battle of Chemistry Clubs" with chemistry clubs from at least two other local Universities. She got a grant to help fund this and also got financial and other support from the New Haven section.

These are two examples of members of our section doing chemistry related projects. Do you have one close to your heart? Would you like to speak about it at one of our meetings? If so, come to one of our meetings and tell us or email [new.haven.chemists417@gmail.com](mailto:new.haven.chemists417@gmail.com)  
**Please enjoy the newsletter!**

### **Message from the Chair-Elect**

Camille Solbrig

#### ***ACS Leadership Training***

Every year since 2006 the local sections have been able to send a representative to leadership training sponsored by the National ACS over a weekend in Dallas where section leaders spend the weekend thinking about and practicing skills and tools to use to run their sections. Since I was just elected chair-elect for 2015, I was given the opportunity to attend.

National ACS board of directors and district leaders were available at the training, as was the current president of the organization, Diane Schmidt and president-elect, Donna Nelson, who was our featured speaker at NERM 2013. On Sunday there was a special feed-back session on the strategic plan set out by the ACS for the next 5 years. Facilitators collected comments on each of the 5 goal statements set forth in the plan, then, summarized the comments at the end of the session for the attendees.

I participated in the local section leader training sessions held Friday through Sunday. During sessions involving sections from all over the country, my fellow section leaders from New England were seated at my table and were my

teammates throughout the sessions. We were tasked with developing a project or event with intra-district participation. The New Haven section (me!) partnered with the CT Valley Section and Rhode Island section representatives while the Green Mountain Section in Vermont and Northeast Section created another team. The CT-RI team built an event that we could run together that would encourage the participation of younger chemists in our section's activities. We used skills that were learned in more focused training sessions on Strategic Planning and on Motivating Volunteers to design our event. The take-aways from these sessions, for me, were that you actually need to do focused planning to help your section grow and you need to invest time in encouraging motivated volunteers to do the work involved in reaching the goals in your plan.

I am looking forward to working with my fellow section leaders in New England, as well as supporting the Western New York sections who are engaged in putting together NERM 2015 in Ithaca, NY in June. Stay tuned for more information about intra-district activities in the future.

At the end of the training the New England attendees all scrambled to get back home before storm Juno hit up north and snowmageddon was unleashed. I wasn't so lucky, as I got stuck for 2 nights in Boston before I could get to my car at the Providence airport.



**ACS Leadership Training, New England Contingent**  
(Left to Right, Back row: David Heroux, chair-elect, Green Mountain section, VT; Neil Glagovich, chair-elect, CT Valley section; Front Row: Susan Meschewitz, secretary, Rhode Island section; John Jasinski, chair-elect Northeast

section, MA and NH; Camille Solbrig, chair-elect, New Haven section.

**A Salute to Longevity:**  
**Recognition of 50- & 60- Year Members from 2014**

The Officers of the Section are pleased to announce that the following Section members will reach the milestone of 50 or 60 years of membership in the American Chemical Society in 2014.

***50- Year Honorees for 2014***

Dr. Gary Lee Haller  
Dr. Herbert Malkus  
Mr. Lawrence P. Martin  
Dr. Manfred Noack  
Mr. Timothy O'Keefe  
Dr. Marie Zuckerman

***60- Year Honoree for 2014***

Mr. James Haglind

**COUNCILOR REPORT**

Gerald J. Putterman, Councilor  
New Haven Section

In this column I thought I would try to answer briefly some of the questions I have received from section members regarding the role of the Councilor, the role of the Council, itself, and more recently, the role of the region (as in NERM).

The Council and the Board of Directors are the two deliberative bodies that govern ACS. The Council meets on Wednesday morning at each of the two ACS National Meetings. The President of ACS presides at the meetings and reports are presented by the officers of ACS as well as by Committee chairs. Councilors must vote on items including Committee members and most importantly on reducing the ballot for ACS president from 4 candidates (proposed by the Committee on Nominations) to 2. (That effort had little effect as a write-in candidate,

Donna Nelson, was elected by the ACS membership.)

The New Haven Section belongs to District I. Local sections comprising District I include those in New England, New York State and parts of Pennsylvania. Local Sections can be moved to other districts if the total membership of the district exceeds a specified number. In fact the number of councilors for a particular Local Section depends on the total number of ACS members in that section according to a special formula that is currently under revision and will influence the 2016 election. Thus, the New Haven Section currently has 2 Councilors but that number could increase or decrease in 2016 depending on the number of members in our section.

The Councilors from District I hold their own meeting, called a caucus, the evening before the Council Meeting to discuss issues of interest that will be discussed and/or voted on at the Council Meeting. This caucus is presided over by the District I Director who is a member of the ACS Board of Directors. I had the opportunity at several caucuses to get on the agendas to present progress reports on our preparations for NERM 2013 as well as to ask that district Councilors encourage their members to attend NERM 2013.

In addition to being in District I the New Haven Section is a member of the Northeast Region, whose main function is to sponsor regional meetings enabling those who cannot attend a national meeting to still be able to attend a smaller, nearby meeting and present and listen to/view quality papers and posters. The Northeast Region also presents awards to individual chemists and teachers. Having served as a judge for one of the awards presented at NERM 2012, I have been asked to serve on a committee revising the application process for these awards. Since the Northeast Region committee meets at the national meetings, I have attended those committee meetings as well.

In general the Local Sections in District I are also in the Northeast Region, however that is not necessarily the case. The Local Sections of the Northeast Region are in New England and

Upstate New York. Thus, while the New York City section is in District I, that section is in the Middle Atlantic Region. Since that region did not have a regional meeting (MARM) in 2013, information on NERM 2013 presented at the District I caucus served as a stimulus to get members from New York City to attend NERM 2013.

## **General Meeting 2014 -2015 Summaries**



### ***Doing Things Less Bad is Not Enough....***

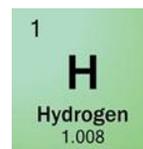
On October 16, 2014, Dr. Paul Anastas gave a lecture to the New Haven Section at the Graduate Club in New Haven. Dr. Anastas is from the Yale Center for Green Chemistry and Green Engineering and is widely known as the “Father of Green Chemistry” for his groundbreaking work on non-hazardous and environmentally friendly design and manufacture of chemicals. He has authored numerous articles and books and has served in many positions within EPA, including as Assistant Administrator and Science Advisor to the Agency. He lectured on “Green Chemistry and Transformative Innovation”. He started the lecture saying that “all we have is energy and matter”, and showed a picture that looked like abstract art, but on zooming in turned out to be a field of disposed plastic grocery bags. We use 60,000 plastic bags in the US every five seconds. There are chemicals in common use today that are linked to developmental delays, other endocrine disrupting effects.

He was not advocating that we go back to the stone age, but was saying that we were “doing the right things, wrong”, that some of the things we were doing to ameliorate problems had unintended consequences, like energy savings from using compact fluorescent lights was reliant on toxic heavy metals. He believes that the solutions must be designed from a systems context considering functionality in the context of toxicity reduction. One approach is to relate toxicity endpoints to molecular features, which

can be done by computational modeling. He provided examples from work currently being done by his group at Yale. He also pointed out that we can learn from nature as we strive to improve processes. Transformative innovation is the key to the future design where the benefits of a product can be achieved sustainably. For example, coffee used to be decaffeinated with methylene chloride, and is now decaffeinated more sustainably with supercritical carbon dioxide. He asked “what about growing coffee beans that do not contain caffeine?” He ended with the unspoken motto of the green chemistry community... “There is no desire to do the best green chemistry. We will do the best chemistry, and it will happen to be green.”



### ***The Science and Applications of Making Hydrogen from Water and Electricity***



Dr. Katherine Ayers, Director of Research at Proton OnSite of Wallingford, CT. presented at the November 13, 2014 General Meeting held at the Waverly Inn in Cheshire, CT. Proton’s core technology is proton exchange membrane based electrolysis of water to produce hydrogen. Proton’s objective is to provide technologies for the localized production and storage of energy. The company manufactures electrolyzers to produce hydrogen wherever their customers (both private and governmental) need it. Her presentation discussed the chemistry behind the technology as well as its practical applications.

A highlight of the meeting was the hydrogen powered SUV that Dr. Ayers brought. It

contained three small hydrogen cylinders, a fuel cell and a battery. It had more than 150,000 miles on it and had been in three accidents including a rear end collision. This demonstrated the safety of the vehicle because the hydrogen cylinders are located in the rear of the vehicle.

More than thirty people (including high school students and their teachers) attended the meeting.



### Summary of SCSU's Chemistry Club's ACS Chemistry Week Poster Competition

James Kearns, SCSU

1539 teachers in southern Connecticut schools were contacted by email by Southern Connecticut State University Chemistry Club students, inviting them to participate with their students in a poster contest, presentation and campus tour. On the morning Friday October 24<sup>th</sup> 2014, 37 students from St. Bernadette's in New Haven arrived at Southern Connecticut State University. Members of the undergraduate ACS Chemistry Club offered tours through general chemistry labs, instrumental labs, marine studies labs, and a microbiologist gave a talk on her field of study. Finally, students toured the lecture halls. The students proceeded to Engleman Hall where, with the help of nine volunteers from the chemistry club and marine studies program, they assisted in hanging the posters. During that time we celebrated the ACS designated topic "The Sweet Side of Chemistry - Candy" by sampling some. Then, provided with rubrics from the National Science Teachers Association, the Chemistry Club volunteers numerically graded the posters. Teams of student volunteers talked to students and determined the top five winning posters. Finally, after a pizza feast, the middle school students departed at 12:30 PM guided by two undergraduates.

### New Haven Science Fair 2015

We will again be offering up two *Excellence in Chemistry* awards (\$100 for Grades K-8; \$100 for Grades 9-12) at this year's science fair.

The Science Fair will take place May 11 & 12, 2015 at University Commons, Yale University.

**Monday, May 11, 2015**, 5:00 to 8:00 pm:

Judging

**Tuesday, May 12, 2015** - 9am-1:00pm: Final Judging. 1-6pm: Public Viewing.

**Wednesday, May 13, 2015** - 9am-9pm: Public viewing and Awards

If you would like to judge and represent the New Haven Section, please contact Dr. Ken White. [charles.ken.white@gmail.com](mailto:charles.ken.white@gmail.com)

If you would like to be a general judge, please contact New Haven Science Fair Program, 203-782-4341. [www.nhsciencefair.org](http://www.nhsciencefair.org)

### **2014 New Haven Science Fair**

David Smudin

The 20th Annual New Haven Science Fair was held at Commons Hall, Yale University, on May 12 to 14, 2014. A total of 234 projects exploring ideas in both the biological and physical sciences were entered in this year's fair. The entries were submitted by students in grades PreK through 12 from schools in New Haven.

The New Haven Section is proud to be a part of this program and for the past several years has supported it both financially and professionally. In addition to providing monetary awards for *Excellence in a Chemistry Related Science Fair Project* in the pre-K to 8, and 9 to 12 grade categories, the Section also provides judges for this event. Judges from the Section for the 2014 Science Fair were Drs. C. Kenneth White, Jerry Putterman, Yane-Shih Wang, Wei Liu, Somnath Chowdary, and David Smudin.

Each project of a chemical nature was judged with respect to the problem to be studied, the hypothesis, the application of the scientific

method to test the hypothesis, the collection and interpretation of data, and the explanation and reporting of results.

Because of the level of excellence of many of the projects submitted this year, the Section's judges found it difficult to select only one best project from each of the grade categories presented earlier. For this reason they agreed to select two projects from each grade category, declare a tie, and award them equally.

The awards for *Excellence in a Chemistry Related Science Fair Project* from grades Pre-K through 8 were presented to Grace Trufan, a student in Ms. Weber's 6<sup>th</sup> grade class at the Barnard Environmental Studies Magnet School, for her project entitled *Fishy Food*, and Sara Thakur, a student in Mr. Jones' 8<sup>th</sup> grade class at Worthington Hooker School for her project entitled, *Bases Trap Gases*.

The awards for *Excellence in a Chemistry Related Science Fair Project* submitted by students in grades 8 through 12 were given to Young-Jae Kim, a 9<sup>th</sup> grade student in Ms. Rodi's Class at Wilbur Cross High School, and Lauren Low, a 9<sup>th</sup> grade student in Mr. Rushworth's Class at Engineering and Science University Magnet School. Mr. Kim's project studied the *Emission of Radiant Energy by Different Colors*. Ms. Low's project explored, *The Effect of Pseudomonas Putida on the Degradation of Different Plastics*.

## Obituary

### Aspet Merijanian

1928 - 2014

ACS member for 52yrs



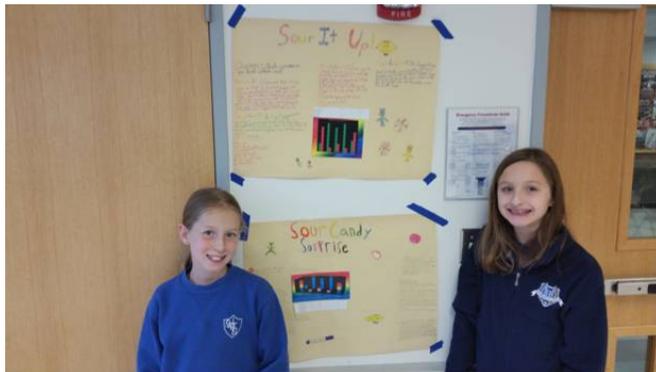
Dr. Aspet "Ozzie" Merijanian, 86, died in June, 2014. Ozzie was born in Abadan, Iran. He immigrated to the United States as a young man and pursued his education with emphasis on the field of chemistry. He earned his bachelor's and master's degrees at Southwest Texas State University, and his Ph.D. at Texas A&M under Professor Ralph Zingaro.

Upon receiving his Ph.D. he joined Uniroyal, Inc. as a research scientist, at its Wayne N.J. location. He relocated to Connecticut when the company moved its R&D headquarters to Middlebury in the early 70's. At Uniroyal his research was primarily focused on the development and curing of a variety of polymers for various applications. He received several patents for his work. He also served as a mentor to many younger chemists joining the company. Ozzie joined Uniroyal in 1964 and remained with the company, through several reorganizations, until his retirement in 1995.

Ozzie was very active with the Local Section having served as its Chairman in 1988. He preferred to become involved with special Section projects that were important to the operation of the Section rather than run for office. In that regard he was the Section's voice at Yale during the selection of several Kirkwood Award recipients. He chaired the Section's Chamberland Award Committee, and lead the committee which revised the Section's By-Laws in 2000.

Ozzie was a regular attendee at meetings of the Local Section's general membership. His presence was missed by many of the members when declining health prohibited his attendance at these meetings.

## SCSU's Chemistry Club's ACS Chemistry Week Poster Competition



## Remember When?

### 34 Years Ago

The October, 1980, meeting of the General Membership was held at the Red Coach Restaurant in West Haven. At that meeting the Section's Maurice R. Chamberland Award was presented to Professor Matthew L. Thakur of the Yale University School of Medicine. Professor Thakur's Chamberland Award Address was entitled, *Potential Applications of Indium-III Labeled 8-Hydroxy Quinoline*.

The December meeting, held at J. J. Starts in Hamden, featured Professor Philip Eaton of the University of Chicago, who spoke on *The Synthesis of Higher Prismanes*.

### 25 Years Ago

Professor Yung-chi Cheng, Dept. of Pharmacology, Yale School of Medicine was the speaker for the December 5, 1989 Section Meeting, which was held at the Britannia Spoon Company in Yalesville. The title of Professor Cheng's presentation was, *The Development of Anticancer and Antiviral Agents*. The meeting was presided over by Chairman Steven Fine.

### 15 Years Ago

Chairman James Kirby presided over the November 1999 meeting of the membership, which was held at Damon's Restaurant in Cheshire. The speaker for the evening was Professor Anthony M. Trozzolo of the Department of Chemistry and Biology, Notre Dame University. Professor Trozzolo spoke on the topic, *Photochromism – Molecules that Curl Up and Dye*.

### 5 Years Ago

Chairman Dennis Jakiela presided over the December 2009 meeting of the Membership which was held at the 95 Gathering Place, Wallingford. Professor Michael Shapiro, Department of Pharmaceutical Chemistry, School of Pharmacy, University of Maryland, was the speaker for the evening. The title of Dr. Shapiro's talk was, *Intersection of Biophysical Studies and Drug Design. Use of the "Efficiency Coefficient" and "Drug Design Matrix."*

## **Full Time (Fixed Term) Faculty Position Announcement**

**Department: Chemistry**

**Rank: Assistant Professor**

**Specialization(s): General Chemistry**

### **Brief Description of Duties/Responsibilities:**

The successful candidate will be expected to teach undergraduate lectures/labs in freshman chemistry commencing in August 2015. The candidate must be committed to teaching within a vibrant/demanding public liberal arts and sciences environment, and demonstrate the potential for excellence in teaching and mentoring undergraduate students for student success. This position is full time for the period of one year, and is renewable for a second year based on mutual agreement. It is an expectation that all full time faculty members at SCSU participate in department/university service. Nominal teaching load is 12 credit-hours per semester.

### **Required Qualifications:**

A Ph.D. in Chemistry with experience teaching a curriculum consistent with ACS accreditation standards. An ability to assess student writing according to ACS style guidelines is required and should be demonstrated in the application materials. ABD candidates will be considered if Ph.D. is anticipated by time of appointment.

### **Preferred Qualifications:**

Preference will be given to those who have demonstrated a strong record in teaching general chemistry.

### **Application Process:**

Please submit a letter of interest, current Curriculum Vitae, copies of undergraduate and graduate transcripts (official copies are required for permanent employment), and two letters of recommendation to (letters should be from persons familiar with the candidates teaching abilities):

Dr. Gerald Lesley, Search Committee Chair  
Chemistry Department  
Southern Connecticut State University  
501 Crescent St.  
New Haven, CT 06515  
Email: lesleym1@southernct.edu

For further information about the Chemistry Department at SCSU please visit our website at:  
<http://www.southernct.edu/chemistry/>

In order for your application to be given full consideration, all materials must be received by March 20, 2015. Position will remain open until filled.



[Registration is now open!](#)

[Abstract Submission is now open!](#)

Don't forget to book your housing! Information can be found at [nerm2015.sites.acs.org](http://nerm2015.sites.acs.org).

Please note the following important award deadlines:

Stan Israel: 3/1/2015

E. Ann Nalley: 4/1/2015

High School Teachers: 4/1/2015

\*Please go to <http://nerm2015.sites.acs.org/awards.htm> for nomination forms and nomination submissions.

Know a high school in your region that may be interested in submitting a nomination? Please feel free to forward the High School Teacher award information on to them!

# *Thinking of getting that Masters in Chemistry?*

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- Prime location in New Haven, CT with free, ample parking



For more information, visit: [www.southernct.edu/chemistry](http://www.southernct.edu/chemistry)