



# New Haven Section American Chemical Society Bulletin

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New Haven Section Chartered in 1912

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## Last Call! (for snail mail)

The effort to print and distribute the paper copy of the general meeting announcements and newsletters is overwhelming. We will phase out paper copies by the end of the year. We are encouraging all those who still get the print copies to please update National ACS with an email address. In addition, please let us know so that we can you to our directory ([newhavenacs09@gmail.com](mailto:newhavenacs09@gmail.com))

## Message from the Past Chair

### Dennis Jakiela

2010 marks my sixth year serving as an Officer of the New Haven Section. With the conclusion of my term as Chair in 2009, I want to take this opportunity to reflect back on my volunteer experiences and the continuation of the New Haven Section as an active and vibrant professional organization in 2010 and beyond. In the spring of 2004, I was in the midst of a job search after a successful 13-year career at American Cyanamid/Cytec Industries. Yes,

unemployment is not the unique experience of chemists falling victim to the most recent economic downturn, which has now morphed into a prolonged period of high unemployment. I regret that far too many of us can relate to this unwanted experience.

That spring, I started attending the local section meetings in earnest with the idea of professional networking with my peers in the chemical industry. With more time on my hands, I was also interested in volunteering. At that time the section was not in immediate need of volunteers! That year, Chair-Elect Susan Tomlinson left Bayer (then in West Haven) and moved out of the area. Fortunately a successor was available, another Bayer employee, Ning Su, however by the end of the year, Ning had also moved on with his career. Suddenly the opportunity to become Chair Elect in 2005 presented itself. Although I was by then employed, I took the position that I would hold for the next four years.

I enjoyed the position of Chair-Elect, whose major function is to organize six general membership meetings each year. As Chair-Elect, you get to choose the topics, speakers, restaurants, and even the menus! Although I was slated to become Chair in 2006, and despite extensive recruiting efforts, a new candidate for the Chair-Elect position could not be found. I was content with my role as Chair-Elect, and Dr. Dave Smudin agreed to serve as Chairman in 2006, 2007, and 2008 when no-one could be found to fill the Chair-Elect position. Dave played a central role in keeping the section going during this time, when it was so difficult to attract volunteers, and when the option of disbanding the New Haven Section was seriously considered. I want to thank Dave not only for his long-standing and steady contributions to the New Haven Section over the years, but for his guidance and friendship as well.

Dr. Jerry Putterman has served as Councilor for many years, and along with Dave, brings experience to the board. In addition to representing the New Haven Section at National ACS meetings, Jerry provides insightful comments on new proposals at our board meetings and serves as one of our judges at the New Haven Science Fair.

During this time Dave, Jerry, and I have witnessed a nearly complete rebirth of the Executive Board. These new volunteers have breathed new life into

our organization, and their combined efforts have put us on a solid foundation for 2010 and beyond. In 2006 we welcomed Dr. Walter Krol as Secretary and organizer of our National Chemistry Week activities, and Dr. Olivier Nicaise as organizer of our participation in the National Chemistry Olympiad. Walter has recently been elected for another two-year term. In addition to taking minutes at our board meetings, Walter organizes our annual poster contests in conjunction with National Chemistry Week. He has also secured the Connecticut Agricultural Experiment Station auditorium as our now regular venue for our annual student awards ceremonies, and has even served as a speaker at one of our General Membership Meetings.

Dr. Olivier Nicaise resurrected our Chemistry Olympiad program which had briefly lied dormant, and has now enlisted the help of the Yale University Chemistry Dept. in providing laboratory space for the local competition. Highlights of the program under Olivier's leadership have been Jenny Lu of Pomperaug High School winning a Bronze medal in the 2008 International Chemistry Olympiad competition in Budapest, Hungary, and Alexander Siegenfeld of Hopkins School attending the study camp at the Air Force Academy in Colorado and being named as an alternate to the 2009 U.S. National Team. In addition to this responsibility, Olivier has been recently elected to serve as Councilor, and has been appointed our liaison with Yale University for the selection of the 2010 Kirkwood Award winner.

In 2009 I was very excited to welcome no less than four new members to the board, John Bayusik, Jennifer Larese, Dr. Maxwell Reeve, and Jeff Chin, in part due to determined recruiting efforts by Dave. John, a frequent attendee at our general membership meetings over the years, was invited to join as an Alternate Counselor, whose main role is to represent us at National meetings when the Councilors cannot attend. John is a welcome addition to the Board and provides input at our meetings on all section activities from his perspective as a long-time New Haven section member.

Jennifer was appointed Councilor in 2009 and was recently elected to serve a two-year term. Jennifer has been very active in her short time with the section. She has already represented us at two

National meetings, the Spring 2009 meeting in Salt Lake City and the Fall 2009 meeting in Washington, D.C., and attended the 2010 ACS Leadership Conference in Austin, Texas. She has recently been named to the national Younger Chemists Committee. She chaired a symposium entitled "Science Outreach: What are People Doing?" at the 2009 NERM meeting in Hartford. Jennifer has also been active in promoting chemistry in local schools through our Suitcase Science program, an educational outreach program that provides pre-made science kits for giving chemistry demonstrations to students.

Dr. Maxwell Reeve has very ably stepped into the role of Treasurer this year. He has prepared periodic financial reports for review by the Board, our annual report for submission to ACS, and annual budgets. Max manages our section bank accounts, disbursements and receipts. Max is the person normally collecting the money when you sign in at our general membership meetings.

Jefferson Chin has proven to be another valuable addition to the board. As program chair in 2009, Jeff has organized very interesting general membership meetings and livened them up a bit with door prizes; has completely revamped our long-dormant web site, brought it up to date, and serves as webmaster; chaired two symposia at the 2009 NERM Meeting in Hartford, "Biotech in the Northeast" and "Topics in Analytical Research"; has, with Jen Larese, obtained an Innovative Projects grant from ACS to purchase science kits for our "Suitcase Science" program; and now serves as the newsletter editor.

Jeff also instituted paperless communications with our membership. He now sends out meeting announcement fliers by e-mail, independent of the newsletters. The newsletters are sent out by e-mail as well. By going paperless, our printing and mailing costs were reduced from a budgeted \$3000 to only \$170 in 2009. In addition to the tremendous cost savings, Dave was relieved to have the onerous burden of printing, folding, stamping, addressing, and mailing the bulletins lifted from his shoulders. The money saved will be dedicated to other activities for the benefit of our membership.

In reflecting on my experiences, I recently realized that the past and present board members have provided me with steady, long-term professional relationships that were missing during my long

period of career transition from bench chemist to chemical patent agent. I want to thank all past and present board members, and all the individuals who have attended the general membership meetings, for your support of our organization and for your friendship. My participation has unexpectedly reunited me with a close friend from my past, Blake Lewis, and has also helped me grow closer to my close friend Janet Eagan through her steady support of all my endeavors. Thank you all for help in filling a gap in my life.

With starting a new career path in 2008 requiring long hours at work, I reluctantly have had to reduce my participation with the section, including handing over newsletter editing responsibilities to Jeff in 2010. However, Jeff has picked up the slack and enthusiastically addressed everything that needed to be done. With Jeff's able leadership, the proven ability of our new board members Walt, Olivier, John, Jennifer, and Max, and the continued participation and leadership of Dave and Jerry, I am very excited about the future of the New Haven Section, more so than I have ever been before. I encourage anyone interested to attend one of our board meetings. In this way you can get to know us better, and learn about our goals for 2010, in which there will be increased emphasis on outreach to teachers and students, and in rewarding outstanding teachers and students. I can promise you that you will not meet a finer group of people to be associated with, and your life will be enriched by the experience.

## **Message from the Chair**

**Jefferson Chin**

**Happy New Year!** As we enter a new decade there are many things to look forward to, but first I should recognize where the section has come from. Throughout the past two years of my active participation, it has been both Drs. David Smudin and Dennis Jakiela that have been at each of the meetings welcoming everyone. The New Haven Section continues on due to their dedication. I am not going to say that their presence will be missed as that would be an admission that they will no longer be a part of the section operations. Au Contraire! I am only going to say **Thank You!** Their experience and knowledge of the section

have made an easy transition for us rookies, and I will see you at the next meeting.

Looking towards the rest of the year, the New Haven section will continue the mission of science outreach. The Science kits have been kid tested and teacher approved. We plan to further the outreach efforts by visiting more schools and recruiting more local ACS members to show kids that scientists can have fun!

Awards are another goal for this year. We will continue to recognize the participants in our National Chemistry Week poster contest as well as the participants in the Chemistry Olympiad. It is also time for the Kirkwood Award (awarded jointly with Yale University) and the winner will be announced later this year. We will again participate in the New Haven Science Fair (May 11-13) sponsoring two Excellence in Chemistry Awards, grades K-8 and 9-12. This year we plan to present an award that recognize excellence in high school teaching and science outreach.

#### **Local Section Executive committee**

The results are in! Thanks to all those who took the time to vote. Walter Krol and Jennifer Larese continue on as Secretary and Councilor, respectively. This will be Walt's second term as Secretary as his devotion to note taking and dedication to paying attention has served us well. Jennifer's first year as Councilor was made by appointment so keeping in line with the by-laws, she has been officially elected to fulfill the remaining two years. Our newest Councilor is Dr. Olivier Nicaise. Olivier is not new to the section though, as he has been actively managing the Chemistry Olympiad and will continue to do so while carrying out his duties as Councilor.

#### **Councilor's Corner**

**Jennifer Larese**

Here are some announcements from the August 2009 National Meeting that are worth sharing:

- In a report on Chemical Education, Richard Zare talked about approaching the ACS Board to support Science Coaches. The Science Coaches would be volunteers from local section to partner with a local science

teacher. They are hoping to make a small starter grant available to help with the program.

- ACS National sponsored a Science Cafe and we heard from two speakers about a collaboration between chemical elements and haiku. The artwork was on display for viewing.
- ACS is debuting their new program: Chemistry Ambassadors. Chemistry Ambassadors are encouraged to promote chemistry in every day life, using existing resources through ACS. For more info: [here](#).
- **ACS PressPac** – A weekly science news subscription! (email: [newsroom@acs.org](mailto:newsroom@acs.org), "subscribe presspac")
- 2011 is the International Year of Chemistry. As an ACS local section, we hope to partner with National ACS to promote these quarterly themes: environmental, health, materials, and energy. If you have ideas or would like to be interested, please contact me ([jennifer.larese@gmail.com](mailto:jennifer.larese@gmail.com)).

We received a mini-grant to welcome the student affiliates into the local section as student members. If you are a student affiliate, you are now considered a student member! As a section, we are hoping to plan a small reception for the new student members to introduce the section's activities and invite their participation at the general meetings.

#### **Spring General Meetings**

The line up for the general meeting is nearly complete. This spring there will be four (4) meetings. Hopefully the topics will interest you enough to attend.

**Feb 18<sup>th</sup>** – *Cathy Van Dyke & Jay Kerwin: The New Haven Science Fair Program: How You Can Help*

**March 17<sup>th</sup> or 18<sup>th</sup>** – TBD

**April 22** – *Maria Parr, Trinity College*

**May/June** – Student/Teacher Awards

## 2010 U.S. National Chemistry Olympiad

Happy New Year to you, Chemistry Olympians, Coaches, and Supporters of the Chemistry Olympiad!

It is 2010, and the U.S. National Chemistry Olympiad (USNCO) is naturally back! There is excitement in the air, I can feel it: 2010 will be indeed a very special and successful year for the ACS New Haven Local Section and its Chemistry Olympiad competitors! Following the remarkable accomplishments of Ms. Jenny Lu, a 2008 Bronze Medalist at the 40th International Chemistry Olympiad (IChO), in Budapest, Hungary, and presently a Senior at Pomperaug High School, and also those of Mr. Alexander Siegenfeld, the first alternate of the Alpha Beta team that represented the United States at the 41<sup>st</sup> IChO competition this past summer, in Cambridge, England, and presently a Junior at the Hopkins School, 2010 promises indeed to be quite a unique vintage!

The U.S. National Chemistry Olympiad and the International Chemistry Olympiad are multi-tiered competitions that are designed to stimulate interest and promote achievement in high school chemistry, and bring together the world's most talented high school students to test their knowledge and skills in chemistry. These programs also provide recognition of outstanding young chemistry students, teachers, and schools. Nations around the world conduct examinations to nominate the most high-performing students for the International Chemistry Olympiad.

The Local and U.S. National Chemistry Olympiad competitions are sponsored by the American Chemical Society, and administered by its local sections. Each year, four students are chosen to represent the United States team at the International Chemistry Olympiad competition. Overall, the Chemistry Olympiad consists of the following four stages:

1. Local Chemistry Olympiad Competitions
2. U.S. National Chemistry Olympiad Competition
3. Study Camp
4. International Chemistry Olympiad

For the past 23 years, the United States has sent a team of four students to compete with nations

around the world at the IChO. The students participate in both theoretical and laboratory examinations over several days. Gold, silver, and bronze medals are awarded to the best performers, and the IChO provides students the opportunity to interact with their peers from other countries. The 2010 international event, in its 42<sup>nd</sup> edition, will be held in Tokyo, Japan, July 19-28, 2010.

This year's host of the USNCO Program offered by the New Haven Section will be again the Department of Chemistry at Yale University, and on this occasion, the Section would like to thank again Professor Scott Miller, Irénée du Pont Professor of Chemistry and Chair of the Yale U. Chemistry Department, for accepting to host this competition. On the same occasion, the Section would also like to thank in advance the contribution of Dr. Jonathan Parr, a Lecturer in the Yale U. Chemistry Department, to hosting the USNCO Program. Well, it is clear that the Games of the 42<sup>nd</sup> Chemistry Olympiad will take place, so, may the preparation for the Games begin!

As the New Haven Section USNCO coordinator, my immediate task is to encourage as many teachers and their students as possible to participate in this program. The identification of the four-member U.S. team begins at the local system level. It is the responsibility of the New Haven Section to nominate students from the New Haven County to participate in the U.S. National Chemistry Olympiad Competition, aka the National Exam, by first conducting the Local Chemistry Olympiad Competition, aka the Local Exam. The Local Exam and the National Exam will be hosted by the Department of Chemistry at Yale University (*vide supra*). The Local Exam is a competition with the purpose of encouraging widespread participation, and it will consist of a multiple-choice questions examination (60 questions, 1h50min). The National Exam is a three-part exam, and it will consist of: a multiple-choice questions section (1h30min), a free-response section (1h45min), and a laboratory practical (1h30min).

I encourage as many schools as possible to participate in this academic Olympiad. All students who participate will be recognized and presented with a certificate. Some students will also receive recognition for outstanding performance in certain categories. I hope that this

recognition will serve to stimulate interest in chemistry and to promote a positive attitude toward chemistry.

I encourage as many teachers as possible to enter students –“chemical athletes”!– from their school in this Chemistry Olympiad competition, and I would like to thank you so very much in advance for helping us promote chemical education in this country.

### ACS New Haven Local Section

May the preparation for the Games of the 42nd Chemistry Olympiad begin!

Sincerely,

Dr. Olivier Nicaise

Trinity College, Hartford, CT

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### Important Dates – Mark Your Calendars!

**Monday, March 15, 2010**      Deadline for High School Chemistry Teachers to Register

**Saturday, March 27, 2010**      Local Exam

**Saturday, April 24, 2010**      National Exam.

### New Haven Science Fair 2010

The New Haven Science Fair is scheduled for May 11-13, 2010 at University Commons, Yale University. Last year, we decided to sponsor this event with an *Award for Excellence in Chemistry*. This year the New Haven ACS will be awarding two *Excellence in Chemistry Awards*, one for grades K-8 and one for grades 9-12. Because our judges (David Smudin and Jerry Putterman) had difficulty deciding between a team of enthusiastic, interested and bright elementary school students and a bright, talented high school student, this year we have approved two awards: (\$100 each) for grades K-8 and 9-12, respectively.

The Science Fair is always in need of science Mentors as well as judges. You can represent the New Haven ACS, just sign up at the New Haven Science Fair [website](#). Don't forget to let us know as well! That way we can acknowledge your effort and say Thanks.

### Suitcase Science!

### Jennifer Larese & Jeff Chin

Last year we received an Innovative Project grant from National ACS. We used these funds to assemble four Suitcase Science kits. These kits are portable, hands-on science experiments. Each kit has a step-by-step lab manual for the volunteer and supplies for up to 25 students. These kits are great for parents (but not limited to them) that would like to go into their child's classroom.

A gigantic thanks goes out to Furahi Achebe, Blake Lewis and Mahendra Chordia for their effort in December. With the science kit, *Phases of Matter*, they went into the 7<sup>th</sup> and 8<sup>th</sup> grade classrooms of Joan Thomas at Bishop Woods Middle School. More recently, the three went out again to demonstrate the fun of chemistry to a class of 3rd graders at the Barnard Environmental Studies Magnet School. Thanks Marjorie Drucker (teacher) for allowing them into the classroom.

Would you like to volunteer but do not have kids? Or your kids are too grown-up? No problem! We can locate a school or organization that would happily let you give a demonstration. If you would like to use the science kits please contact Jennifer Larese or Jeff Chin.



Mahendra Chordia, Blake Lewis, Majorie Drucker (teacher) and Furahi Achebe at the Barnard school on Feb 2, 2010.

### Local Section Member in the news for 350.org rally on the New Haven Green

Jennifer Larese, an American Chemical Society (ACS) member and Councilor for the New Haven section, participated in a rally on Saturday, October 24, 2009 on the New Haven Green. Jennifer, as well as 300+ other community

members, braved the wind and rain to raise awareness about the Copenhagen Conference that took place in December 2009. The rally was to promote awareness about the current carbon dioxide level and that it should be reduced to levels closer to 350 parts per million (ppm). Scientists believe that 350ppm is a sustainable concentration of carbon dioxide in the atmosphere. Currently, we have about 380 ppm of carbon dioxide in the atmosphere. And that number is rising.



Diane Lentakis, Sierra Club South Central Group, left, Jim, Newberry, rally organizer, Paul Brunner, Sierra Club South Central Group, Jennifer Larese, New Haven American Chemical Society, and Chris Schweitzer, New Haven Leon Sister City Project. *Image from Living Green and New Haven Register Sunday, October 18, 2009*

As part of the rally, Jennifer distributed copies of a carbon dioxide experiment to parents and children. This experiment is from the ACS website (<http://www.acs.org/>) and is readily available for personal use to ACS members as well as the public. The experiment is called “Pour CO<sub>2</sub>” and uses common household items, such as a candle, vinegar, baking soda, and an empty 1 L soda bottle. Jennifer also handed out copies of the 2009 National Chemistry Week flyer which included additional chemistry experiments and puzzles for children.

For the full article from the New Haven Register, click [here](#).

## Interested in Volunteering?

Anything within the pages of this newsletter sound interesting? Thinking you need some good karma? Or perhaps you disagree with the direction (or focus) of the New Haven ACS section? Attend a general meeting or executive meeting and voice your opinion.

Seek out anyone of us on the exec committee. There are plenty of opportunities to help out

## Transform Your Classroom with an ACS–Hach High School Chemistry Grant

The ACS–Hach High School Chemistry Grant is awarded to chemistry teachers with innovative ideas that transform classroom learning, foster student development, and reveal the wonders of chemistry. Applicants can request up to \$1,500 to support their ideas. Applications are due on April 1, 2010. Apply for the ACS–Hach High School Chemistry Grant today at [www.acs.org/hach](http://www.acs.org/hach)!

## President Obama Announces National Lab Day

On November 23, President Barack Obama announced the establishment of National Lab Day, an effort supported by ACS and 190 other organizations representing more than 6.5 million science, technology, engineering, and math (STEM) professionals. The first National Lab Day is tentatively set for early May 2010 and will be part of a large, ongoing STEM initiative called “Educate to Innovate.” ACS and other organizers hope National Lab Day will help stimulate more hands-on science learning by fostering enduring collaborations between individual STEM professionals, teachers, and students. ACS [Chemistry Ambassadors](#) are already making these connections. To join the effort or learn more, visit [www.nationallabday.org](http://www.nationallabday.org)

It'd be great if our New Haven ACS members would sign up to visit classrooms and share their love of chemistry with students and teachers! Check out the requests: a lot of teachers have already submitted their students' interest and just need a chemist to stop by! If you do participate, please let me know ([Jennifer.larese@gmail.com](mailto:Jennifer.larese@gmail.com))