

Silicon Valley Chemist

Santa Clara Valley Section

American Chemical Society

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FEBRUARY 2015 NEWSLETTER TOPICS

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Connect with Chemists

Meet fellow local chemists for an early morning coffee.

Look for Ean at a table with molecular models.

Thursday, February 26th at 7 a.m.

La Boulange

151 University Ave, Palo Alto

2014 Teacher-Scholar Award for Community College Chemistry

Professor Robert Tricca of Cañada College

This award, created in 2009 by the ACS Santa Clara Valley Section, is the first in the nation to specifically recognize excellence in teaching and significant scholarly activity by community college chemistry educators. The winner of the award receives \$500 and her or his chemistry department receives \$500 to support the needs of the department.

The 2014 Teacher-Scholar Award has been awarded to Professor Robert Tricca of Cañada College. Professor Tricca received his Bachelor of Science in Chemistry from Boston College in 1980 and his Doctor of



Philosophy in Physical Chemistry from Tufts University in 1985. Tricca started his professional career in the chemical industry where he spent a significant number of years. He has held positions at Pfizer, Oral B/Gillette, Align Technology and Oral Health Technologies ranging

from bench work to upper administration and co-founder. In 2008, Tricca decided to pursue his passion for teaching. His teaching career started as an adjunct faculty at Diablo

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Thursday, February 19 Teacher-Scholar Award

Time: 6:00 Social Hour
7:00 Dinner
8:00 Presentation

Awardee: Dr. Robert Tricca, Chemistry Professor, Cañada College

Speaker: Dr. Leandra Martin, VP of Instruction Mission College

Location: Mission College, Hospitality Management Building

http://www.missioncollege.org/gen_infol/campus_maps/index.html

Cost: \$20.00. Coriander-crusted Pork Tenderloin or Stuffed Portobello Mushroom Caps (vegetarian)

Reservations: www.scvacs.org

Dr. Ashley Piekarski
ashley@scvacs.org

Reservations should be made by February 14th stating your name, address, company/school affiliation, number of people in party. Watch the web site for more information. If you are unable to honor your reservation please cancel by Monday, February 16th.

Chair's Message

Ashley Piekarski

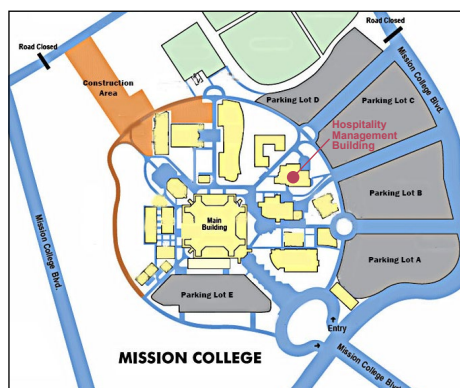


As I mentioned in my last Chair's message, I have been teaching at Mission College for almost four years now. Many of my students are planning to pursue a career in health care as a doctor, pharmacist, dentist, etc. Every once in a while I convert a couple of them to research in chemistry! Since I usually teach the full year of Organic Chemistry series, I get to know my students very well. Many of my students are older, work full-time or part-time to support themselves and their families, and are first generation college students. They are very passionate about getting an education and building a better life for their families. I feel it is not only my responsibility to teach them Organic Chemistry so they can use that knowledge in their future classes and careers, but also to provide them with as many tools as possible to be successful and persevere through the arduous journey of

obtaining a degree in science.

Therefore, I host several panels inviting professionals from all over the Bay area to speak with my students about their own experiences getting through school and where they are at now in their careers. I have invited professors, research scientists, doctors and pharmacists to these

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Teacher Award, continued from front page

Valley College, Laney College and Cañada College. His commitment and aptitude for the job were unquestionable and only two years later, Professor Tricca assumed his current fulltime position at Cañada College. In a short period of time, Tricca has contributed to the advancement of chemical education by updating the general chemistry laboratory experiments to reflect modern relevant bench skills; establishing an ongoing undergraduate student research environment in collaboration with the National Resources Conservation Service and has continuously promoted students success by mentoring and exposing them to professional organizations and professional networking opportunities.

The sixth annual Teacher Scholar Award will be presented to Professor Tricca at the February dinner meeting to be held at Mission College in Santa Clara on Thursday, February 19th.



Chair's Message, continued from front page

events since I have started at Mission College I always ask the panelists at the end of each meeting to give one piece of advice to the students in order to be successful. The majority of the panelists say "network". Many of us know this to be very true. Would you be in the career or position you are in today if you did not know someone who helped you to get there? As much as my students need to network, since they are just starting their careers, experienced chemists need to continue networking in case we want to make a career change or return to the field after periods away from chemistry.

The most recent panel particularly stands out in my mind. It was a medical school career panel. I remember all the panelists told my students to find a local chapter of an organization that matched their career or major. The pharmacists of the panel mentioned there was a local chapter for pharmacists in the bay area. My students' eyes lit up. Learning of these opportunities, many of my students went immediately searching on the web for upcoming meetings. It reminded me of why I volunteer for our local section of ACS: to provide networking opportunities for students and professionals. I always bring students to our dinner seminars, and they all leave with lots of business cards and enthusiasm!

Have you been to our dinner seminars recently? We are hosting two seminars in February. Our Mosher award will be given to

Volunteers Needed for the 2015 Chemistry Olympiad

The 47th International Chemistry Olympiad will be held in Baku, Azerbaijan, July 20-28. Some of the world's most talented high school chemistry students will be attending from about 70 countries. The U.S. will send a team of four outstanding students, who will be selected from a pool of 20 finalists from across the United States. If you remember, in 2013 Stephen Ting from our section, admirably represented the U.S. in Moscow, where he won a silver medal and in 2014 David Wang attended the study camp at the Air Force Academy.

The selection of the 20 finalists begins in the local sections. Chemistry students from the Santa Clara Valley will participate by taking a standardized ACS written exam to determine their placement. The first round of testing is conducted in the local high schools in March. The local section invites and encourages the high schools to participate and provides the testing materials.

Our top 16 students will meet on April 18th to compete in the national exams. That same weekend over 1000 students across the country will take the same written and lab exercises to determine the top 20 finalists. This year, our students will join the students from the California section for a day of testing at Santa Clara University. Our section will host the event and provide snacks and lunch, as well as, proctor in the classrooms and lab space.

Those exams are sent to national ACS for grading. The top 20 students, chosen from the 1,000 participants, will then attend a week-long study camp at the Air Force Academy in Colorado in June. The top four will then represent the U.S. in Azerbaijan in July.

Dr. Scott Denmark on February 5th, and our Teacher-Scholar award will be given to Dr. Robert Tricca on February 19th. Both events will be a great opportunity for all of us to connect and network!

In addition, another networking opportunity our past Chair, Ean Warren, started was "Connect with Chemists". This is an event where we meet at a café early in the morning to network with fellow chemists. Look for Ean at a table with molecular models on Thursday, February 26th, at 7 a.m. at La Boulange, 151 University Ave., Palo Alto.

If my students have taught me anything, it is that social media is definitely one good way to network! We all have busy lives, and I realize many of you may not be able to come

Would you like to help with the process? Encourage your local high school chemistry teachers to have their advance placement or honors students participate in the testing process. There are over 125 high schools in the valley and only about 24 schools compete. In January each school's science department is contacted by letter and invited to compete.

Local section members are needed to register the students and proctor the exams on April 18th at Santa Clara University. Dr. Linda Bruneaur, our host, does all the lab prep work in advance. This is an excellent opportunity to volunteer and encourage these students to think about careers in chemistry. (By the way – David Wang will be back for a 2nd round!) It is also an especially good chance to get to meet some of your section members. No heavy chemical knowledge is required! Lunch is even provided!

Also, if someone has access to a good color printer or scanner/printer, they could help by customizing the ACS student certificates that each participant receives before the end of the school year. There are usually about 150 certificates that need to be customized.

So here are some opportunities to help your local section with the 2015 International Chemistry Olympiad – encourage the teachers to participate (maybe even offer to help in the classroom or to grade exams!), volunteer to be a proctor, or help print certificates. If you need more information, please contact me.

Sally Peters

Chair of the Chemistry Olympiad Committee
sallybrownpeters@gmail.com
(650) 854-4614

to our dinner seminars due to time constraints and personal commitments. So I have created a LinkedIn page for our chapter, just search "Santa Clara Valley American Chemical Society Section" and add us to your LinkedIn group! You can post questions and start a discussion forum. If you are looking for a job or searching for qualified potential employees, this would be a great place to post your job search for free! If you would like to catch up with local chemists, we could organize a discussion on the LinkedIn page to determine a time to meet if you are looking to network with other chemists in the Bay area. I hope you will join our LinkedIn group so we can all continue our networking opportunities to further our careers!

Local Science Fairs in 2015

by Susan Oldham-Fritts

Haven't decided on a New Year's resolution yet? How about encouraging middle and high school students' participation into the world of STEM (science, technology, engineering, and mathematics)? The cost is minimal – a day of your time judging at your local science fair. The following area science fairs need category awards judges (especially in the areas of botany, biology, biochemistry, chemistry, microbiology, and the behavioral/social sciences). In addition, we need interested section members for our SCV-ACS-sponsored special award judging team at the Santa Clara County ISEF (International Science and Engineering Fair) qualifier, the Synopsys Championship (please contact me at sofritts@garlic.com) for inclusion in the latter). So, no matter which fair includes your home town, please volunteer now!

Sciencepalooza* Santa Clara County Fair Grounds, San Jose
February 7 www.outreach-foundation.org/judges.html

San Mateo County Science, Math and Technology Fair
March 3 Hiller Aviation Museum www.stemfair.net

Santa Cruz Science Fair Santa Cruz County Fairgrounds, Santa Cruz
March 7 www.science.santacruz.k12.ca.us

Synopsys Championship San Jose Convention Center, San Jose
March 11 www.outreach-foundation.org/judges.html

**Many students at this East Side Union High School District fair are first time science fair participants.*

2014 Peters Award to Bill Carroll

The Howard & Sally Peters Award was created by the ACS Division of Chemistry and the Law (CHAL): www.chemistryandthelaw.org in 2012 to honor local familiar Santa Clara Valley chemists and volunteers for their long-term achievements in alternative careers for chemists. The 2013 Peters Award was made to Hubert and the late Laurel Dubb of Belmont, CA to recognize their long-term dedication in the founding and maintenance of the ACS Division of Chemistry and the Law. www.scvacs.org/newsletter/news1312.pdf.

The 2014 Peters Award was made at the San Francisco National ACS meeting in August to Dr. William F. Carroll, Jr., then the Chair of the ACS Board of Directors. Bill has been active and involved with the Division of Chemistry and the Law for over 10 years. His has consistently participated in CHAL's symposia on



Bill Carroll receiving the Peters Award from CHAL Chair Dr. Andrew Berks.

non-traditional careers in chemistry and has had unwavering support of the CHAL Legal Assistance Network (LAN). His presentations in CHAL's symposia have undoubtedly helped many ACS members find fulfilling and interesting work and have raised CHAL's visibility in the Society. CHAL recognizes that the Legal Assistance Network could not have been formed without his involvement and support. See <http://cen.acs.org/articles/83/i35/Introducing-Legal-Assistance-Network.html>

Additional information about nominations for the Howard & Sally Peters Award can be found on the CHAL website www.chemistryandthelaw.org/category/announcements/.

The next deadline for nomination is May 31, 2015.

Welcome to the Santa Clara Valley Section of ACS

Each month the section receives a spreadsheet from national ACS with the names of members new to our section. The members are either new to ACS, have transferred in from other areas, or are the newest members -- students. To welcome you to the section and get to know you, the Executive Committee offers new members a free dinner! To encourage you to attend a monthly section seminar meeting, we would like you to be our guest. When you register, make certain to mention that you are a new member and you and a spouse (or friend) will be our guests. The seminar meetings are often the 3rd Thursday of the month at a local spot, somewhat convenient to the entire section. If you are unable to attend in the evening, perhaps you would join us for an outreach event, like judging a science fair, participating in the Chemistry Olympiad, or a National Chemistry Week event in October. Then, there is our annual wine tasting and awards picnic in July. The local section is a volunteer organization. Please attend an event, volunteer to help, and get to know your local fellow chemists. Welcome!

New Members for January

Dr. Sree Alavattam
Kierstyn Anderson
Dr. Ramazan Benrashid
Jade C. Byrd
Zhenhong Ruby Cai
Dr. Arianna Carughi
Meredith A. Crisalli
Dr. Timothy D. Cushing
Andrew DeMartini
Ruochong Fei
Darren Finkelstein
Paul Flynn
Bryan Giberson
Carola A. Gregorich
Dr. Fenton Heitzler
Dr. Dudley S. Jayasinghe
Rebecca Jolitz
Dr. Scott B. Kennedy
Nikita A. Khlystov

Hiroyuki Konishi
Dr. Benedicte Lebreton
Jia Daniel Liu
Joseph Mansour II
Dr. Mohan Menon
Dr. James Mumby
Vy Ngo
Dr. Anutthaman Parthasarathy
Dr. Bomi Patel Framroze
Dr. Christopher J. Pope
Mr. Peter Campbell Psarras
Dr. John M. Rosenbaum
Anton Sinitskiy
Mr. Timothy Slugocki
Mr. Mike Swift
Dr. Tim Weadon
Dr. Andrew Wills
Man Xu
Chang Yang

Chemistry Quiz

Which element forms allotropes with hardness ranging from 10 to 1.5 on the Mohs scale?

Last Month's Question:

Four individuals have won or shared Nobel Prizes twice.

Marie Curie and Linus Pauling each won Nobel Prizes in two different fields. Who was the only person to win the Nobel Prize in Chemistry twice? Who was the only person to win the Nobel Prize in Physics twice?

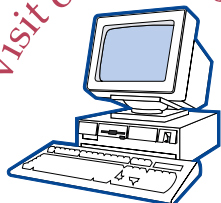
Answer:

Frederick Sanger is the only Nobel Laureate who has been awarded the Nobel Prize in Chemistry twice, in 1958 and 1980. John Bardeen is the only Nobel Laureate who has been awarded the Nobel Prize in Physics twice, in 1956 and 1972.



SANTA CLARA VALLEY SECTION
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is published on our web site, sign up at:
<http://www.scvacs.org/newsletter/>

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FUTURE MEETINGS

- Feb 14-15** Free Family Science Days
AAAS & Bay Area Science Festival
San Jose Convention Center
<http://meetings.aaas.org/family-science-days/>
- Feb 17** The Human Intranet –Where Swarms and Humans Meet
SCV IEEE Computer Society
<http://computer.ieeesiliconvalley.org/the-human-intranet-where-swarms-and-humans-meet/#more-346>
- Feb 19** Teacher-Scholar Award Presentation
Awarded to Bob Tricca of Cañada College
Presentation by Dr. Leandra Martin,
Vice President of Instruction
Mission College campus
- Feb 21** Stanford Women in STEM Symposium
Huang Engineering Center
Stanford University
<http://events.stanford.edu/events/474/47491>
- Mar 14** Pi Day - Free Admission to the Exploratorium
San Francisco Exploratorium
www.exploratorium.edu/visit/calendar/pi-day-free-day-2015
- Mar 19** Dr. Jin Zhang, UCSC
Gold Nanospheres for Photodynamic Therapy
Biltmore Hotel, Santa Clara, CA