

# Silicon Valley Chemist

Santa Clara Valley Section

American Chemical Society

Volume 31 No. 12

## DECEMBER 2009 NEWSLETTER TOPICS

- National Chemistry Week 2009 Wrap-up
- Chair's Message
- Election 2009
- Mosher Award Meeting
- Lightening Strikes Twice! This Time in the Mexican Riviera "Chocolate: Food of the Gods" on the Sapphire Princess
- Reservations for the 239th National Meeting
- Photos from the November 19th Dinner Meeting with Drs. Jeanette Medina and Thomas Lane

## National Chemistry Week 2009 Wrap-up

Thanks for celebrating National Chemistry Week 2009! Did you take a moment between October 18-24th to recognize "Chemistry—It's Elemental!" in honor of the 140th anniversary of Mendeleev's Periodic Table of the Elements?

Leading off the official NCW fun this year was our best-ever annual public outreach



booth held on Saturday, October 17th at the Dr. Martin Luther King Jr. Library in downtown San Jose. Over 75 kids and their families came to take a spin on the Wheel of Chemistry Fortune where Santa Clara University student volunteer, Connor Pihl, showcased the elements by enticing the kids to name an element and win a prize! Among other fun hands-on activities, kids were able to learn the elemental differences between Oreo cookie dirt and organic dirt, and to extract elemental iron from their Total breakfast cereal. Kids experimented with the best household liquids to clean copper pennies (did you know ketchup was that acidic?) and of course, the slime lab was a hit! As usual, the enthusiasm of the young chemists was only surpassed by the enthusiasm of our amazing student volunteers. Special thanks go to Santa Clara University professor, Dr. Linda Brunauer, and San Jose State University student leader, Thanh-Ngoc Le, for rallying all of these volunteers! Also, thanks go to Lois Durham, our great photographer for this event. The day was



## Season's Greetings



## Chair's Message

We had an inspiring meeting for the November dinner meeting. This was the inaugural presentation of the Section's newest award: the Community college Teacher-Scholar award. The recipient was Professor Jeanette Medina of Cañada College. Dr. Medina received a plaque, as well as a check for her and another check for her department. Dr. Medina is both a scholar with 14 publications in refereed scientific journals, and also is an educator who understands what students require to learn chemistry. She seeks to provide those experiences and services for her students that not only enrich their education but also help remove the stress of those factors that get in the



way of learning. She prepares high school students by designing events that keep their teachers current in chemical sciences.

Dr. Medina is the principal investigator in an NSF grant with which she is developing a certificate program and an associate in science program in chemical technology that will be preparing Cañada students to have entry level skills for technician positions in the local industry and Cañada graduates for undergraduate transitions to baccalaureate programs and beyond in the chemical sciences. She has also planned a series of activities each year that will ensure the sustainability of these two new pro-

*continued on next page*



*continued on next page*

NCW, continued from front page

best summed up by one young boy who, upon seeing how well vinegar with catalytic salt cleaned his copper penny, exclaimed, "That's awesome!"



Then on Wednesday, October 28th, Brian Malow presented "Rational Comedy for an Irrational Planet" – an evening of science humor at the Rooster T. Feathers comedy club in Sunnyvale. Over 40 ACS members and guests packed the house for this hilarious evening of science-flavored stand-up by opener Robert Mac and headliner Brian Malow. At the end of the show, Brian entertained questions from the audience, and our group even had a chance to query him on his feelings



about the redefinition of the kilogram and other chemistry hot topics. If you missed Brian's show, don't despair—he is a local talent so you can catch him in his element by following him at [www.sciencecomedian.com](http://www.sciencecomedian.com).

Finally, the 2009 K-12 national poster contest received several entries from Palma High School in Salinas. Special thanks go to Palma teacher John Chipley for encouraging his students to participate! Next year we hope to have even more local schools participate. Stay tuned next summer for announcements about more National Chemistry Week fun for 2010!

*Chair's Message, continued from front page*

grams by sponsoring events and workshops that raise the level of chemistry instruction at Cañada so that its graduates will be successful when transferring to the next academic level.

The award was presented by Dr. Tom Lane, President of ACS, who gave an inspiring talk about the importance of education, with special emphasis on community college education. In addition to all his other duties, Dr.

Lane has been a long time supporter of community colleges in his local section in Michigan, including efforts as a fund raiser, as an adjunct professor, and as a member and chair of the governing board of his local community college.

Dr. Onofrio Gaglione, Professor Emeritus, New York City College of Technology, who nominated Dr. Medina for her award, came from Las Vegas to help celebrate the award. In addition, several of Dr. Medina's former and current students were able to attend. One student described how she had completed her studies at Cañada College and is now in her final semester at UC Berkeley as a chemistry major. It was great to meet the students and to hear their stories.

This awards ceremony was the culmination of a vision and a lot of hard work by Dr. Harry Ungar, who has firsthand knowledge of the importance of the community colleges. Harry persuaded the Executive Committee to establish this award, was the champion for it and made it happen. His hope is that more sections will establish similar awards, and that the recognition of the dedication of community college professors will gather more support.

As is our tradition, there will not be a dinner meeting in December. January's meeting will feature a presentation by Sally and Howard Peters, who are this year's recipients of the Mosher award. While I can't promise anything, I would expect that there might be some special refreshments (think chocolate) at the meeting. I hope to see you there.



## Election 2009

by Karl Marhenke, Secretary

Our 2009 election has just ended. As one might expect, all candidates were elected, since we had no contested races. A total of 339 ballots was received; this is more than we have been seeing in recent years, even though it represents only a little more than 10% of our electorate. We thank everyone who voted, and we hope that our electronic election, managed by Vote-Now, was as easy for you as it was for us.

There were a few write-in votes, which may or may not have been serious; it was a bit hard to tell. We thought it would be worth saying something about how people become members of our ExComm, and, frankly, write-in voting isn't a practical way!

The most important requirements for membership are (1) membership in the Santa

Clara Valley Section of the ACS and (2) willingness to serve. If you're interested, you should come to our dinner meetings; most of the current ExComm members attend those and showing up is a good way to meet them and get to know them, and they you. Any of us will be glad to describe what being a member of the Executive Committee ("ExComm") involves. Also, visitors are always welcome at our ExComm meetings; the times and places are listed near the bottom of our home page at [www.scvacs.org](http://www.scvacs.org). This past year, we've been meeting at 7:30 p.m. on the first Monday of the month at PARC in Palo Alto, on Coyote Hill Road not far from the Stanford campus. Meetings typically last until 9:30.

Our Nominations and Elections committee puts names on the ballot based upon interest and willingness to serve, or, for incumbents, willingness to continue to serve. Thus you have

to find a way to be active in Section activities and attract the notice of the committee.

The only viable way to be elected is to get your name listed on the ballot. We are required to allow for write-in votes, but no one has ever come remotely close to being elected via write-in votes. Besides being placed on the ballot by the Nominations and Elections committee, the only way to be listed there is through a petition. At least one past Chair of the Section not only ran, but won in precisely this way. Only 15 signatures (one can even be your own) of Section members are needed. You send the petition to the Secretary, and you're on the ballot.

We're a 100% volunteer organization. None of us is paid for what we do, and we have no paid employees. Volunteers are always welcome. The work is interesting, fun, and rewarding. We invite you to join us!

Reminder

January 21, 2010

Reminder

## Mosher Award Meeting Death by Chocolate and Chemistry Outreach

### Abstract

Chocolate has been a part of our New World culture for thousands of years.

This presentation includes:

1. Some high points of the ancient history of chocolate and its production from the Mayan, Olmec and Aztec cultures up to the present.
2. Aspects of the processing of the cocoa pod, bean and pulp fermenting, drying, roasting, conching, tempering, blending and finishing.
3. Some chemistry, biochemistry and biology of chocolate and its active ingredients including theobroma cocoa (literally from the Greek: Food of the Gods).
4. Some health aspects (flavanoids, polyphenols and other antioxidants) showing that this exotic processed food is good for you.
5. For those who stay to the "bitter" end there will be a free drawing for a ten-pound bar of dark "bittersweet" chocolate.

For more information see [www.howard-peters.com](http://www.howard-peters.com) (home page, and some old slides in PowerPoint on the second page under the "Presentations" bar) and [www.scvacs.org/newsletter/news0806hi.pdf](http://www.scvacs.org/newsletter/news0806hi.pdf) (p.2-3).

The ACS kindly recorded the chocolate lecture at the national ACS meeting in Washington DC in August 2009. Most of it (voice over and slides) are now on the ACS website at [www.acs.org](http://www.acs.org). See national meeting presentations at the national meetings - Aug 17 or go to [www.softconference.com/acschem/sessionDetail.asp?SID3D177565](http://www.softconference.com/acschem/sessionDetail.asp?SID3D177565)

### Biography

Howard Peters earned a B.S. in chemistry in 1962 at Geneva College in Beaver Falls, Pennsylvania and a Ph.D. in organic chemistry at Stanford University in 1967. He next did chemical research at Dow Chemical and at SRI International. He is the author or co-author of many technical and legal publications and presentations and holds several patents, mostly in high explosives on Department of Defense or Atomic Energy Commission matters.

In 1978 Howard received a Juris Doctor



degree from Santa Clara University. He practiced patent law in the Silicon Valley for 30 years, and his clients included many high-technology companies, as well as most campuses of University of California, Stanford University, and Brigham Young University. During this time he wrote and obtained over 300 patents.

He is a 47-year member of the ACS and has served as an elected member of the ACS Council for 31 years; he has served on all national ACS elected committees and was an elected member of the ACS Board of Directors for 2005-7.

Howard is the author of "Understanding Chemical Patents," published in 1991 by the national ACS. He has received ACS awards for his diversity and inclusion efforts, and for his public outreach explaining science issues to general audiences. He received the ACS Henry Hill Award in 2007 for advancing chemistry as a profession. In 2006 he was elected a Fellow of the Royal Society of Chemistry (London). For the past nine years he has been an invited judge for chemistry for the INTEL International Science and Engineering Fair (ISEF - the world's largest high school science fair).

Sally Peters is also a chemistry graduate of Geneva College (1964). She did virus research at Stanford under Dr. Hubert Loring, the chemist who first crystallized the polio virus as later used by Dr. Jonas Salk, and she then worked briefly in the Swain Chemistry Library at Stanford. In 1983 she earned a Masters Degree in Library and Information Science at San Jose State University. She has been an information specialist at PARC in Palo Alto for over 25 years.

Sally served as the Chair of the Santa Clara Valley Section in 2001 and has served as a Councilor for the Section for 15 years. Sally received the Geneva College Outstanding Alumni Service Award in 1997 and the SCV Section's Ottenberg Service Award in 2001. She has organized the high school-level ACS-United Nations Chemistry Olympiad competition in the Santa Clara Valley since 2001.

Howard and Sally have been talking and writing about "Chocolate, Food of the

Gods" as public outreach for chemistry in various venues around the US for over 5 years. They have been invited scientist-author lecturers on Cunard's Queen Mary 2 and the Princess Cruise lines. Their business card reads "Have Chocolate - Will Travel."

## Dinner Meeting

**Date:** THURSDAY, January 21, 2010

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

**Location:** Biltmore Hotel & Suites  
2151 Laurelwood Blvd.  
Santa Clara, CA 95054

**Speakers:** Howard and Sally Peters  
Death by Chocolate and  
Chemistry Outreach  
(Yes, there will be samples  
and a raffle!)

**Cost:** \$27.00 with a choice of:  
Grilled Salmon  
Vegetarian Pasta Primavera

**Reservations:** [www.scvacs.org](http://www.scvacs.org) or  
Shirley Radding 408-246-2564  
408-296-8625 Fax

Reservations should be made by January 18th stating your name, address, company affiliation, number of people in party, and menu selection.

If you are unable to honor your reservation and do not cancel by Tuesday, January 19th, you will be invoiced following the dinner meeting.



# Lightening Strikes Twice! This Time in the Mexican Riviera "Chocolate: Food of the Gods" on the Sapphire Princess

By Howard and Sally Peters

As you know, at least one of us has a Walter Mitty day dream about retiring permanently to a cruise ship. The circulating urban legend is that it is less expensive than retiring to a nursing home.

In March 2009 we had a Caribbean cruise on the Emerald Princess with our friends from long ago at Stanford, Geof and Cathy D. We had a great time. A short note to the cruise director, Paul, suggesting a passenger enrichment talk on "Chocolate: Food of the Gods" was embraced and arranged and announced during our return to Fort Lauderdale. Because of the concerns about transferring germs, we did not have our usual samples of chocolate for the audience. But Howard was able to purchase some fermented cocoa beans at a farmer's market in St. Lucia for our show-and-tell, and Tortola Chocolate rum cakes and Godiva Chocolate from the ship's store provided the prizes for our usual free drawing for those who stayed to the "bitter" end.

Having cruised more than once, we are on mailing lists for many cruise lines, and Princess Cruises updates us by e-mail at least once a week with their last-minute "bargains."

Early in October, Sally forwarded to Howard the latest Princess e-notice with a single word: "WELL?" The more Sally thought about this as a short sea cruise vacation, the more she liked it. We booked with minutes to spare.

Howard then wrote some additional letters to Princess volunteering to be enrichment speakers, on chocolate, of course. Ten days before leaving for the cruise, he handled the first call from the Princess Cruise Enrichment Department. Mucho information flashed back and forth between Menlo Park and Santa Clarita, California. With days remaining, we were approved to be enrichment speakers for Princess.

On Halloween we boarded the Sapphire Princess early in San Pedro and settled in. We were surprised to learn that Dr. Osman F. Guner, the listed instructor for the bridge games and tournament, is a semi-retired Ph.D. physical organic chemist from San Diego and a former Chair of our ACS Division of Chemical Information, the division that launched our locally formed ACS



Division of Chemistry and the Law over 25 years ago.

On Sunday, we gave our first talk to over 120 passengers on "Chocolate: Food of the Gods" with our signature free drawing for a ten-pound bar of Guittard (the chocolate supplier for See's Candies) "bittersweet" chocolate. Passengers would later stop us on board and exclaim, "You're the chocolate people."

On Monday we talked about "Teaching Invention and Innovation to Children and Grandchildren" with a free drawing for familiar patented toys: the SLINKY (The state toy of Pennsylvania where it was invented, US 2415012, the FRISBEE (named for the old Frisbie Baking Co. near New Haven Connecticut, US 3359678 ) and a YO-YO (an ancient weapon in the Philippines, US 59745.) By the way, all US patents back to 1836 can be found by patent number for free with figures at <http://www.pat2pdf.org> . (Enter 6469 for a copy of President Abraham Lincoln's 1849 patent.)

On the final day at sea returning from Cabo San Lucas, we gave the talk "Invention and Innovation: The US Debt to its Immigrant and Diversity Inventors," again with the free drawing for the same patented familiar toys. "Free" works. Everywhere!

One of our table mates was from a small town in Western Pennsylvania. We know something about small towns in Western Pennsylvania. Bill was from Glassport, which is across the Monongahela River from McKeesport, where Sally grew up.

We also met and had lunch with the Sapphire Princess' "Dad and Mom." Tom and Jean S. are both retired bankers from Arizona and have a home near Phoenix. But their second home for over the past six years during those Arizona hot summers is a cruise ship with Princess. This was their 19th cruise

on the Sapphire Princess this year. They know and are close with many of the ship staff and many of the entertainers. They really enjoy the life style: meals and entertainment all the time, interesting places to visit, and a new set of friends and tablemates about every week. Princess has even provided staff pins to identify them as the official Sapphire Princess "DAD & MOM". What a life! Howard is ready for that type of retirement NOW.

Our thanks to the Princess Cruise Line for making our adventure in 2009 a reality. The beauty of cruising is the traveling to new places in that protected time capsule, deciding to do absolutely nothing, being catered to, meeting other passengers and learning more about them. It really is a small world with less than six degrees of separation. P.S.: For more information, see [www.howard-peters.com](http://www.howard-peters.com) (home page and some old slides in PPT on the second page under the Presentations bar) and for an account of our adventure on Cunard's Queen Mary 2 in 2008, see <http://scvacs.org/newsletter/news0806hi.pdf> p.2-3).

## Reservations for the 239th National Meeting

The Joseph Breen Memorial Fellowship sponsors young international green chemistry Housing opens November 16th for the 239th ACS National Meeting which will be held March 21-25, 2010 in San Francisco. The theme for this meeting is "Chemistry for a Sustainable World" and based on the number of abstracts submitted, this meeting could possibly be the largest San Francisco meeting. Reserve your hotel room today. The inexpensive hotels will go fast!

Also, mark December 21st as the opening of registration on your calendars.

For registration, housing and detailed national meeting information, visit the Spring 2010 ACS National Meeting website at [www.acs.org/sanfrancisco2010](http://www.acs.org/sanfrancisco2010)

# Photos from the November 19th Dinner Meeting with Drs. Jeanette Medina and Thomas Lane

by Lois Durham



Harry Unger, Onofrio Gaglione



Jeanette Medina, Onofrio Gaglione



David Parker, Thomas Lane



Jeanette Medina



Harry Unger, Thomas Lane, and Bonnie Charpentier



Paul Vartanian, Natalie McClure



Heather Renee Sully-Tombani,  
and Thomas Lane



Thomas Lane, Jeanette Medina, and Bonnie  
Charpentier



Jeanette Medina, Thomas Mohr



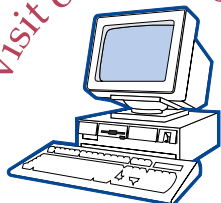
Janet Stringer, Jeanette Medina, and Thomas  
Lane

The Santa Clara Valley Section of the American Chemical Society is the copyright owner of all material published in The Silicon Valley Chemist. No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopy, recording, or any information storage and retrieval system, without advance permission in writing from the editor, particularly for commercial purposes. Authorization to photocopy items for limited internal or personal use, or the limited internal or personal use of specific clients, is granted by the Executive Committee of the Santa Clara Valley Section of the American Chemical Society.



SANTA CLARA VALLEY SECTION  
AMERICAN CHEMICAL SOCIETY  
P.O. Box 395, Palo Alto, CA 94302

Visit our web site at:



<http://www.scvacs.org>

To receive an email when our newsletter  
is published on our web site, sign up at:  
<http://www.scvacs.org/newsletter/>

## SANTA CLARA VALLEY SECTION

### 2009 Section Officers

Chair	<b>Natalie McClure</b>	650-906-7831	<a href="mailto:nmclure@drugregulatoryaffairs.com">nmclure@drugregulatoryaffairs.com</a>
Chair-Elect	<b>Bruce Raby</b>	408-294-6718	<a href="mailto:alanice811@att.net">alanice811@att.net</a>
Past Chair	<b>Mark Kent</b>	408-736-0989	<a href="mailto:markkent@yahoo.com">markkent@yahoo.com</a>
Secretary	<b>Karl Marhenke</b>	831-688-4959	<a href="mailto:karlmar@armory.com">karlmar@armory.com</a>
Treasurer	<b>Ihab Darwish</b>	650-594-1654	<a href="mailto:darwishis@yahoo.com">darwishis@yahoo.com</a>

### Councilors

2007-2009	<b>Linda Brunauer</b>	408-554-6947	<a href="mailto:lbrunauer@scu.edu">lbrunauer@scu.edu</a>
2007-2009	<b>Sally Peters</b>	650-812-4994	<a href="mailto:Sally.Peters@parc.com">Sally.Peters@parc.com</a>
2007-2009	<b>Peter Rusch</b>	650-961-8120	<a href="mailto:pfrusch@aol.com">pfrusch@aol.com</a>
2008-2010	<b>George Lechner</b>	408-226-7262	<a href="mailto:glechner@aol.com">glechner@aol.com</a>
2008-2010	<b>Herb Silber</b>	408-924-4954	<a href="mailto:hbsilber@science.sjsu.edu">hbsilber@science.sjsu.edu</a>
2009-2011	<b>Abby Kennedy</b>	209-640-2005	<a href="mailto:akennedy@exelixis.com">akennedy@exelixis.com</a>
2009-2011	<b>Howard Peters</b>	650-854-4614	<a href="mailto:peters4pa@sbcglobal.net">peters4pa@sbcglobal.net</a>
2009-2011	<b>Ean Warren</b>	650-329-4554	<a href="mailto:ewarren@scvacs.org">ewarren@scvacs.org</a>

### Alternate Councilors

2007-2009	<b>Natalie McClure</b>	650-906-7831	<a href="mailto:nmclure@drugregulatoryaffairs.com">nmclure@drugregulatoryaffairs.com</a>
2007-2009	<b>Stephanie Gehling</b>	408-429-9681	<a href="mailto:s_gehling@hotmail.com">s_gehling@hotmail.com</a>
2008-2010	<b>Mark Kent</b>	408-736-0989	<a href="mailto:markkent@yahoo.com">markkent@yahoo.com</a>
2009-2011	<b>Ihab Darwish</b>	650-594-1654	<a href="mailto:darwishis@yahoo.com">darwishis@yahoo.com</a>
2009-2011	<b>David Parker</b>	408-615-4961	<a href="mailto:dparker@santaclaraca.gov">dparker@santaclaraca.gov</a>
2009-2011	<b>Bruce Raby</b>	408-294-6718	<a href="mailto:alanice811@att.net">alanice811@att.net</a>
2009	<b>Lois Durham</b>	650-322-3507	<a href="mailto:ldurham9398@sbcglobal.net">ldurham9398@sbcglobal.net</a>
2009	<b>Harry Ungar</b>	831-247-4545	<a href="mailto:haungar@cruzio.com">haungar@cruzio.com</a>

### Newsletter

Editor:	<b>Stephanie Gehling</b>	408-429-9681	<a href="mailto:s_gehling@hotmail.com">s_gehling@hotmail.com</a>
---------	--------------------------	--------------	--

### ChemPloyment Abstracts

Director:	<b>Charles Sullivan</b>	650-728-7034	<a href="mailto:cdansullivan@sbcglobal.net">cdansullivan@sbcglobal.net</a>
-----------	-------------------------	--------------	--

## FUTURE MEETINGS

- Jan 20** BioScience Forum  
Dr. Tom White  
Celera Corporation  
<http://www.biosf.org>
- Jan 20-22** New Green Economy  
National Council for Science and the  
Environment  
Washington, DC  
<http://ncseonline.org/conference/greeneconomy>
- Jan 21** Mosher Award Meeting  
Howard and Sally Peters  
Death by Chocolate and Chemistry  
Outreach  
Biltmore Hotel, Santa Clara, CA
- Jan 29** Photopolymerization Short Course  
Mountain View, CA  
<http://www.ggpf.org>
- Mar 21-25** Spring National Meeting  
Chemistry for a Sustainable World  
San Francisco, CA