

Silicon Valley Chemist

Santa Clara Valley Section

American Chemical Society

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SEPTEMBER 2009 NEWSLETTER TOPICS

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Reminder!

September Dinner Meeting

Thursday, September 17, 2009
 Biltmore Hotel & Suites
 Dr. Thomas O. Passell
 will speak on Cold Fusion

October Dinner Meeting

How the FDA Regulates Nanotechnology in Food Containers and Food Processing

Abstract

The US Food and Drug Administration (FDA) recognizes the potential of nanotechnology on the food contact substances (FCSs) it authorizes. Published data show that typically, these FCSs may include nanomaterials incorporated into plastics, to improve barrier and mechanical properties, stability, antimicrobial properties, and detection of pathogens. The main focus of this presentation will be to discuss the regulatory background of components of food contact articles, and FDA's engagement of the public in dialogue on regulatory approaches and emerging scientific issues regarding nanotechnology in food contact articles.

Biography

Dr. Elizabeth Sánchez Furukawa is a Consumer Safety Officer for pre-market notifications for food contact substances within the Division of Food Contact Notifications in the Center for Food Safety and Applied Nutri-



tion at the U.S. Food and Drug Administration. She received a Bachelor of Science degree in Chemistry from the University of Redlands in 1998 and received a Ph.D. in Chemistry from Arizona State University in 2003. Since then, she serves as a scientific and regulatory analyst. She handles assignments

of national scope and significance, including being the regulatory lead in food packaging nanotechnology.

October Dinner Meeting

Date: THURSDAY, October 15

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

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

Speaker: Dr. Elizabeth Furukawa
 FDA, Nanotechnology and
 Food Handling

Cost: \$27.00 with a choice of:
 Pork Marsala
 Vegetarian Stew

Reservations: www.scvacs.org or
 Shirley Radding 408-246-2564
 408-296-8625 Fax

Reservations should be made by October 12th 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, October 13th, you will be invoiced following the dinner meeting.

Chair's Message

Of all the great activities that the Santa Clara Section is involved in, I always find the projects involving students to be the most rewarding. Last month, I had the privilege to attend a reception and poster presentation for the Stanford summer interns, which included the three Project SEED interns. Stanford hosted 23 summer research interns. They put together a great program that involved about 8 weeks of research. On Wednesdays, the summer interns gathered for a seminar by a



Stanford professor or graduate student on special topics of scientific interest.

The ACS sponsored three students. The majority of the funding came from Project SEED National funds, although the Santa Clara Valley section also contributed \$500 towards this program. A short synopsis of each of the Project SEED student's projects is provided below as well as a quote or two from their final report.



continued on next page

Jennifer Cabello, "Developing a Lab Curriculum for Young Cancer Patients"



Jennifer's project involved creating lab experiments that can be conducted in the hospital setting for young patients so that they do not fall behind in their

education. Under the supervision of Nick Cordella (Graduate student) and Andrew Spakowitz, Chemical Engineering, Stanford, Jennifer worked on a red cabbage pH experiment and a freezing point depression experiment.

"I am interested in pursuing a major in engineering or medicine that will give me all the satisfaction that I'm looking for. I'm extremely grateful to you, ACS, for funding my internship because never in my life would I have ever thought that I'd be given the opportunity to learn and explore the world of science like I have at Stanford University. Thanks!!!"

Stephanie Logia, "Exploring the Dynamics of DNA in Extensional Flow Using Fluorescence Microscopy"



Stephanie worked with her mentor, graduate student Amit Kushwaha, to try to capture images and video of individual strands of DNA flowing through a cross-shaped channel, while also observing how these strands stretch during flow and ultimately attempting to get a strand of DNA in the stagnation point (in the flow field where the local velocity is zero) in order to stretch it even further.

"I learned about the basic concepts of polymer physics and how it relates to technology and medicine. Some of the most interesting parts of being in the lab were watching the presentations of other people in the lab about their experiments and findings."

"Working in the lab with other grad and undergrad students was a great experience for me; I could see myself working in a similar lab environment in a future career and be comfortable and interested in my work."

Javier Rodriguez "Rinsing Flow Behavior of Fluids and the Effect of Viscoelasticity"

Javier worked in Professor Gerald Fuller's lab with his mentor, T. Theresa Hsu, investigating the rinsing flow behavior of fluids and the



effect of viscoelasticity. His research was on focused on observing a jet of water impinge upon several different fluids, each with different properties.

"During my stay in the chemical engi-

neering lab, I was able to learn quite a few skills that can help me in a possible future science career. Even before arriving to the lab, I was learning helpful skills, like the safeties of working with chemicals. I learned how to protect myself if working with hazardous chemicals, what to do if any solutions spilled, and what to do if any dangerous solutions came in contact with skin."

"I benefited enormously while working in a Stanford Science lab. I am thankful to the funding source, the internship program, and my mentor because they gave me the opportunity to experience working in a lab."

I am always impressed by the quality of people around me in the ACS. Please join me at our September dinner meeting, or at one of the many outreach programs we participate in each year. You will be amazed at how rewarding, easy and fun it can be to participate in the ACS, and how a small commitment of time and energy can have such important impact on someone else's life.

Celebrate National Chemistry Week 2009!

National Chemistry Week (NCW) 2009 is almost here! October 18-24 is designated as our special week this year and we hope you will join our celebration of "Chemistry—It's Elemental!" Did you know that 2009 is the 140th anniversary of Mendeleev's Periodic Table of the Elements? Impress your friends with that fun fact, and then take this opportunity to investigate and appreciate the discovery and use of the elements in every aspect of our lives. This year we've got two great activities planned to help you celebrate National Chemistry Week 2009!

The highlight event for NCW this year will be a public show by Brian Malow, "Earth's Premier Science Comedian" (www.sciencecomedian.com). He'll be headlining at Rooster T. Feather's Comedy Club for one hilarious evening in October (157 W. El Camino Real, Sunnyvale). Actual date, time and details will be announced in our October newsletter. Also check for updates, and RSVP at www.scvacs.org. This event is open to the public, but we would like to invite you—science enthusiasts—to attend for free! The first fifty members to sign up online and then attend the show will be our guests. Tell all your friends—not only will Brian Malow tickle your funny bone, he will also tease your brain!

Let's pack the house with chemists!

Also in celebration of NCW 2009, our fun annual public outreach booth will take place on Saturday, October 17th from 10 am -1 pm at the MLK Jr. Library in downtown San Jose (150 E. San Fernando St., San Jose). Of course, the crowd-favorite Wheel of Chemistry Fortune will be spinning for all kids to win a prize, and we'll have fun hands-on activities for kids to explore chemistry and to celebrate NCW. This will also be your opportunity to pick up your free copy of "Celebrating Chemistry", the NCW newsletter for elementary-aged children. For more information, please contact Abby Kennedy (akennedy@exelixis.com). Hope to see you there!



National Senior Games 2009 at Stanford

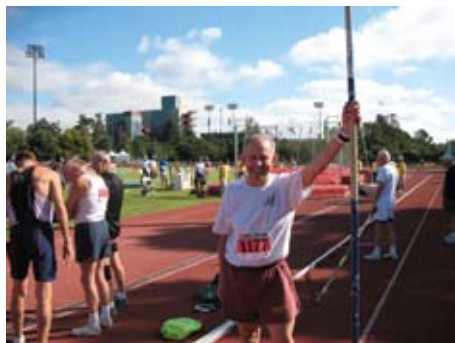
by Howard Peters

In early August over 10,000 senior athletes (ages 50-100) from around the nation descended on the Stanford University campus for one version of the National Summer Olympics: swimming, tennis, track & field, cycling and the like. For more general information see www.2009seniorgames.org/.

Included among these remarkable athletes were at least two chemists, both long active in the American Chemical Society.

Dr. Wendell Dilling retired in 1992 from Dow Chemical in Midland Michigan and is presently an adjunct professor at Central Michigan University (CMU) in Mt. Pleasant, Michigan. Wendell and the author worked together briefly in the same Edgar C. Britton lab at Dow in 1968. Wendell qualified in his events in Michigan and competed in the pole vault, hammer throw, javelin, shot put, high jump, long jump, triple jump and received a sixth place award in the pole vault. He qualified for the 100m, 400m, 5K and 10K runs but a recent hamstring injury prevented him from competing, this time in the 70-74 age category.

Wendell served as Chair of the ACS Midland Section in 2000 and as its Councilor from 1976 to 1996. Starting about 1990 he mentored PROJECT SEED students at CMU. He is a graduate of Manchester College in North Manchester, Indiana, and holds a Ph.D. in chemistry from Purdue.



Trivia for the day: two other chemists of note (who roomed together) are graduates of Manchester College in Indiana: the late polymer chemist Dr. Paul Flory, of Stanford University, and Nobel laureate in chemistry in 1974, and the late polymer chemist Dr. Roy Plunkett, inventor of Teflon at DuPont (see US Patent 2230654).

Dr. E. Gerry Meyer is familiar to many

within the ACS. He is now retired (officially, at least) as professor of chemistry at the University of Wyoming but has remained active in energy matters and research. Before relocating to Wyoming, Gerry served in the U.S. Navy in World War II. Gerry is a graduate of New Mexico State University and earned a Ph.D. from Carnegie Institute of Technology (now Carnegie Mellon University). Long active in ACS matters, he served as chair of the Wyoming Local Section and for many years as its Councilor. In 2008 he received the national ACS Volunteer Award.

Gerry qualified for events in Wyoming and competed at Stanford in both the 1500 meter and 5000 meter events, and received an award in the age 85-89 category.

This author's most enduring memory of Gerry is riding a motorcycle over 250+ miles from Anchorage to Fairbanks, Alaska, at the age of 85, to attend the ACS NORM meeting in 2005.



Santa Clara Valley Election 2009

The proposed ballot is available online at http://www.scvacs.org/Local_Folder/Ballot.html. Petition nominations may be submitted to the Secretary until September 30, 2009. A petition must be signed by 15 or more members of the SCV Section. You may have more than enough members right at your workplace! The election will be done electronically and will be managed by Vote-Now, as it was last year.

The electorate will be determined by the Section roster provided to us by the

National Office. Members without valid e-mail addresses and/or internet access will be accommodated with post card notifications and paper ballots if necessary. But the more of this paper that is needed, the higher our cost will be. So we urge you to make sure the e-mail address that National has for you is current. You can update your roster record by going to <http://www.scvacs.org> and clicking on the link labeled "How to tell the ACS that your address has changed."

And we hope you will vote this fall!

Sustaining a Small Chemical Business through Federal R&D Grants

We are seeking small chemical business owners to discuss the business realities of creating a small chemical business with help from Federal R&D grants, including the Small Business Innovation Research (SBIR) program. Presenters are sought to discuss both the success and pitfalls of this at the upcoming ACS National meeting in San Francisco, March 2010. We seek to share perspectives on developing a chemical business through SBIR, including highlights of various state incentive programs, way to get assistance in the application and review process, and experiences of successful recipients.

Please contact ACS member Christopher White if you would like to learn more or are interested in speaking at the session. Call 650-269-0401 or Chris. ActiveSpectrun@gmail.com

Volunteers Needed for Science Education

Volunteers are needed to participate in the science classroom working with teachers to set up experiments and demonstrations as well as to teach students how to record and analyze observations. RESEED (Retirees Enhancing Science Education through Experiments and Demonstrations) is a national program aimed at stimulating greater interest in science among students at the middle school level. RESEED Silicon Valley is a local group of volunteers that serve primarily in schools in the San Francisco Bay Area. Anyone with a science and engineering related background is welcome to participate. Volunteers generally spend one or two days per week working with a teacher-partner during the school year. Participants typically receive 2 to 3 days of training before being matched with a teacher to work with students.

RESEED volunteers have proven to be successful in helping students to elevate their performance. Most of those who have been involved in the program value their experience as among the most meaningful in their lives. Anyone interested in the program is encouraged to view the RESEED Silicon Valley web site, www.reseed-sv.org, which provides the details of RESEED's history and activities, or to contact Dr. Peter K. Mueller, RESEED Coordinator (telephone: 650-303-6893; e-mail: pklausm@mac.com).

Two New Free Subscriptions for ACS Members

One Publication That Packs a Punch with the Press

Who reads all 33,500+ articles destined for publication each year in ACS's peer-reviewed scientific journals? We do in the ACS Office of Public Affairs. Our science writers sift through 130 galley or ASAPs every working day, searching for newsworthy topics for press releases to the news media.

ACS members now can have a free subscription to the exclusive publication that turns research in journals and Chemical & Engineering News into headlines and sound bites in newspapers, magazines, TV, radio and online sites. Until now, the ACS News Service Weekly Press Pac was available only to 2,000 journalists around the world.

With a PressPac subscription, you get an insider's perspective on the process of translating chemical research into news that connects with the everyday lives of non-scientists.

And Another That Showcases Outcomes

For a sweeping panorama of the news coverage from the PressPac, sign on for a free subscription to ACS Daily News Briefs. This daily e-newsletter showcases highlights from news media coverage of the PressPac and other ACS news.

To get the Weekly PressPac and Daily News Briefs, send an email to newsroom@acs.org with the word "Subscribe" in the Subject line.

CHEMPLOYMENT ABSTRACTS SEPTEMBER 2009

CHEMPLOYMENT ABSTRACT 3939

Position Title: Research Associate - Medicinal Chemistry

Job Description: Genentech has an exciting opportunity for a synthetic chemist to participate in our innovative program in small molecule drug discovery. The incumbent will be responsible for the design and synthesis of novel drug-like compounds. The position requires an individual that is highly motivated and excited to work in a collaborative environment.

QUALIFICATIONS DESIRED:

Education: This position requires a Bachelor's or Master's degree in Organic Chemistry

Experience: This position requires at least one year of experience in synthetic or medicinal chemistry. Demonstrated expertise in multi-step synthesis, compound purification and structural characterization is preferred.

LOCATION, SALARY, EMPLOYER DESCRIPTION:

Job Location: South San Francisco, CA

Salary: DOE

Employer Description: For more than 30 years, Genentech has been at the forefront of the biotechnology industry, using human genetic information to develop novel medicines for serious and life-threatening diseases.

Application Instructions: Genentech is dedicated to fostering an environment that is inclusive and encourages diversity of thought, style, skills and perspective. To learn more about our current opportunities, please visit: <http://careers.gene.com> and reference Req. #1000027360. Please use "Web - ChemEmployment" when a source is requested. Genentech is an Equal Opportunity Employer.

CHEMPLOYMENT ABSTRACT 3940

Position Title: Lecturer, Chem 152 (Thermodynamics) - Part Time - Start Date 01/04/2010

Job Description: Planning and teaching one section of Chemistry 152 (Thermodynamics); Consulting with tenure-stream faculty regarding course content; Specific teaching responsibilities are posted at: <http://www.scu.edu/cas/chemistry/Job-Opportunities.cfm>.

QUALIFICATIONS DESIRED:

Education: Ph. D. in Chemistry

Experience: Prior experience teaching physical chemistry at the undergraduate level is preferred, and experience teaching at SCU is advantageous.

LOCATION, SALARY, EMPLOYER DESCRIPTION:

Job Location: Santa Clara University, Santa Clara, CA

Salary: \$5,500

Employer Description: Department of Chemistry & Biochemistry at Santa Clara University, a Catholic, Jesuit university with an ACS-approved undergraduate program

Application Instructions: Submit a curriculum vitae, a statement describing applicant's experience or interest in working with people of diverse cultures and identities, a copy of graduate transcripts, and two letters of recommendation before 10/16/2009 to Dr. Jack Gilbert, Chair, Dept of Chemistry & Biochemistry, Santa Clara University, 500 El Camino Real, Santa Clara, CA 95053.

E-mail: jgilbert@scu.edu.

CHEMPLOYMENT ABSTRACT 3941

Position Title: Lab Lecturer, General Chemistry III Lab - Part-time - start date 3/29/2010

Job Description: Planning and teaching one or more laboratory sections of Chemistry 13 (General Chemistry III); Coordinating with other Chemistry 13 laboratory instructors through regularly scheduled meetings; Specific teaching responsibilities are posted at:

<http://www.scu.edu/cas/chemistry/Job-Opportunities.cfm>

QUALIFICATIONS DESIRED:

Education: M.S. in Chemistry (Ph.D. desirable)

Experience: Prior experience teaching general chemistry laboratory essential

LOCATION, SALARY, EMPLOYER DESCRIPTION:

Job Location: Santa Clara University, Santa Clara, CA

Salary: \$3,300 per laboratory section

Employer Description: Department of Chemistry & Biochemistry at Santa Clara University, a Catholic, Jesuit university with an ACS-approved undergraduate program.

Application Instructions: Submit a curriculum vitae, statement describing applicant's experience or interest in working with people of diverse cultures and identities, a copy of graduate transcripts, and two letters of recommendation before 2/19/2010 to Dr. Jack Gilbert, Chair, Dept of Chemistry & Biochemistry, Santa Clara University, 500 El Camino Real, Santa Clara, CA 95053.

E-mail: jgilbert@scu.edu.

CHEMPLOYMENT ABSTRACT 3942

Position Title: Part-time Lecturer, Chem 150 (Biophysical Chem) - Start date 3/29/2010

Job Description: Planning and teaching one section of Chemistry 150 (Biophysical Chemistry); Consulting with tenure-stream faculty regarding course content; Specific teaching responsibilities are posted at: <http://www.scu.edu/cas/chemistry/Job-Opportunities.cfm>

QUALIFICATIONS DESIRED:

Education: Ph.D. in Chemistry

Experience: Prior experience teaching physical chemistry at the undergraduate level is preferred, and experience teaching at SCU is advantageous.

LOCATION, SALARY, EMPLOYER DESCRIPTION:

Job Location: Santa Clara University, Santa Clara, CA 95053

Salary: \$5,500

Employer Description: Department of Chemistry & Biochemistry at Santa Clara University, a Catholic, Jesuit university with an ACS-approved undergraduate program

Application Instructions: Submit a curriculum vitae, statement describing applicant's experience or interest in working with people of diverse cultures and identities, a copy of graduate transcripts, and two letters of recommendation before 2/12/2010 to Dr. Jack Gilbert, Chair, Dept of Chemistry & Biochemistry, Santa Clara University, 500 El Camino Real, Santa Clara, CA 95053. E-mail: jgilbert@scu.edu

CHEMPLOYMENT ABSTRACT 3943

Position Title: Associate Director - Bioanalytical (DMPK)

Job Description: The Associate Director will lead a team of experienced and talented bioanalytical Scientists. This individual will work closely with colleagues within DMPK and in other departments on projects ranging from early to late stage discovery and up to proof of concept in the clinic.

QUALIFICATIONS DESIRED:

Education: PhD in Analytical Chemistry, Pharmacokinetics, Drug Metabolism or other relevant fields

Experience: At least 10 years of industrial experience

LOCATION, SALARY, EMPLOYER DESCRIPTION:

Job Location: South San Francisco, CA

Salary: DOE

Employer Description: Genentech is among the world's leading biotech companies, with multiple therapies on the market for cancer and other serious medical conditions.

Application Instructions: To learn more about our current opportunities, please visit: <http://careers.gene.com> and reference Req. #1000028847. Please use "Web - Chemployment" when a source is requested. Genentech is an Equal Opportunity Employer



How Can Your Local Section Support Your Area High School Chemistry Club?

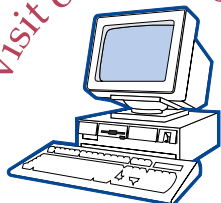
- ◆ Invite your local High School Chemistry Club sponsors and students to participate in National Chemistry Week or Chemists Celebrate Earth Day activities.
- ◆ Invite your local High School Chemistry Club to attend a Speaker Service program, Science Café, or Meeting.
- ◆ Organize a symposium about the diversity of careers in chemistry.
- ◆ Plan and co-sponsor a community outreach event.
- ◆ Provide small grants for High School Chemistry Clubs in your area.
- ◆ Apply for an Innovative Project Grant to provide an activity for a High School Chemistry Club.

To find out more about the ACS High School Chemistry Club program please contact hschemclubs@acs.org



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

Visit our web site at:



<http://www.scvacs.org>

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

SANTA CLARA VALLEY SECTION

2009 Section Officers

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

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2009-2011	Abby Kennedy	209-640-2005	akennedy@exelixis.com
2009-2011	Howard Peters	650-854-4614	peters4pa@sbcglobal.net
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2009-2011	Ihab Darwish	650-594-1654	darwishis@yahoo.com
2009-2011	David Parker	408-615-4961	dparker@santaclaraca.gov
2009-2011	Bruce Raby	408-294-6718	alanice811@att.net
2009	Lois Durham	650-322-3507	ldurham9398@sbcglobal.net
2009	Harry Ungar	831-247-4545	haungar@cruzio.com

Newsletter

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ChemPloyment Abstracts

Director:	Charles Sullivan	650-728-7034	cdansullivan@sbcglobal.net
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FUTURE MEETINGS

- Oct 4-6** Tactical Approaches to the Challenge of Drug Failure
ACS ProSpectives Conference
Philadelphia, PA
<http://www.proed.acs.org/courses>
- Oct 15** Dr. E. Furukawa
How the FDA Regulates
Nanotechnology in Food Containers
and Food Processing
Biltmore Hotel, Santa Clara, CA
- Nov 2-4** Process Chemistry in the
Pharmaceutical industry
ACS ProSpectives Conference
Durham, NC
<http://www.proed.acs.org/courses>
- Nov 18** BioScience Forum Meeting
Dr. Hans Reiser, VP Gilead
<http://www.biosf.org/programs.htm>
- Nov 19** Dr. Tom Lane
President, ACS
Teacher-Scholar Award for
Community College Chemistry
Faculty
Biltmore Hotel, Santa Clara, CA