

Silicon Valley Chemist

Santa Clara Valley Section

American Chemical Society

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MARCH 2009 NEWSLETTER TOPICS

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April Dinner Meeting

Herbal Products: They're Natural but Are They Safe?

Dr. David F. Wiemer

Abstract

Herbal products have become big business in the United States. Infomercials, radio and television commercials and print ads trumpet the benefits of natural remedies for various illnesses or as aids for weight loss or in programs to stop smoking. These products are commonly described as "all-natural" and draw on the common belief that if something is natural it must be safe. But does this belief have any scientific basis? Native peoples often have used plants to treat disease or illness, and both traditional remedies and other plants have given rise to many of the drugs used in Western medicine. However, many natural materials are



highly toxic, and some natural products are useful precisely because they are highly toxic. In this presentation, examples of both the beneficial and harmful compounds found in nature will be presented, along with a

description of the strategies that are used to isolate biologically active compounds from natural sources.

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April Dinner Meeting

Date: Wednesday, April 15th

Time: 6:00 Social Hour

7:00 Dinner

8:00 Presentation

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

Speaker: Dr. David Wiemer
Herbal Products: They're
Natural but Are They Safe?

Cost: \$27.00 with a choice of:
Chicken Parmesan
Eggplant Parmesan

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

Reservations should be made by April 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, April 14th, you will be invoiced following the dinner meeting.

Chair's Message

We had a great dinner meeting in January. Dr. Chris McKay, Planetary Scientist at NASA Ames, provided a fascinating update on the findings from the Phoenix Mars Explorer. As I am sure you have read in the news, frozen water has been found. In addition, they have found high levels of perchlorate in the Martian soil. This is particularly exciting because perchlorate can serve as an oxidation energy source for bacteria. In fact, there are terrestrial bacteria that metabolize perchlorate as their primary energy source.

Dr. McKay was an excellent speaker with a great sense of humor and engaging speaking style. The other thing that made this a particularly successful meeting was the excellent turnout. We had a standing-room-only crowd of about 60-70 people. I was excited to see so



many ACS members attending who are not part of our usual group and would encourage everyone to come again to the next meeting. In addition, Ray Rocklin, an ACS member and faculty member at Lynbrook

High School, San Jose, attended the meeting and brought 4 members from his school's astronomy club. We are always thrilled to have students (either college or high school) attend our meeting. As the old saying goes, students are the life blood of the future, and one of the continuing themes of the ACS is to promote students' interest in science.

The February dinner meeting was also a great one for encouraging younger chemists and wowing older ones. The speaker, Anshul Samar, a high-school-age entrepreneur who has invented and is

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Biography

David F. Wiemer received a Bachelor of Science degree in chemistry from Marquette University in 1972, before moving to the University of Illinois at Champaign-Urbana to pursue graduate study in organic chemistry. He received the Ph.D. in 1976 for work in synthetic organic chemistry under the direction of Nelson J. Leonard, and then continued his career with postdoctoral study at Cornell University under the direction of Jerrold Meinwald. He joined the faculty in the Department of Chemistry at the University of Iowa in 1978, and now holds the rank of professor. His honors include a National Institutes of Health postdoctoral fellowship, a fellowship from the Alfred P. Sloan Foundation, a University of Iowa Faculty Scholar Award, and a University of Iowa Collegiate Teaching Award. Dr. Wiemer is interested in the isolation, characterization, and synthesis of biologically active natural products and the field of chemical ecology. His research projects include studies of the chemical basis of host-plant resistance to defoliation by leafcutter ants and of natural insecticides and anti-fungal agents in general. He also is involved in the chemical synthesis of various terpenoids with antiviral, anti-leukemic, and anti-proliferative properties and in the development of new methodology for organic synthesis based on organophosphorus chemistry.

Chair's Message, continued from front page

now marketing a new chemistry-based card game called Elementeo described the challenges of starting a company at age 14 and arranging for manufacture and distribution of his game. He taught us how to play Elementeo, and we passed the evening with an Elementeo tournament.

I hope to meet you at the upcoming dinner meeting. It should be both fun and informative.



Reminder

March Dinner Meeting

Reminder

The Voice of Science in Society

Dr. Theodore L. Brown, Mosher Award Recipient

In March we will have the 2008 Mosher Award presentation. The speaker and recipient of the 2008 Mosher Award is Theodore ("Ted") Brown. His presentation is titled: "The Voice of Science in Society" and will be presented during our monthly dinner meeting at the Biltmore.



Abstract

Science and the technologies it spawns are integral to nearly every element of modern life. Every day, decisions that involve scientific and technological considerations are being made at many levels of society. They occur in law, medicine, business, legislation, regulatory rule-making and other realms. At a personal level, science impacts on our religious beliefs, our decisions with respect to health matters, and how we deal with a variety of ethical issues. Yet, as we acknowledge the indispensability of science to modern life, its place in society as a social force is continually questioned. Today, science seems to be pressed on several fronts to defend its place, and to justify in economic, social and moral terms the effects it and technology, to which it is symbiotically re-

lated, have had on the modern world.

Science is but one voice among many. To operate effectively in society, it must exercise an authority that challenges the authorities of competing forces. For example, conflicts between science and religion go on today in many sectors of society,

and are an obstacle to full social acceptance of theories and experimental findings that are widely accepted within science. In similar ways, the contributions of science to debates about many social policies and legal and ethical practices often give rise to conflicts with older traditions. Think, for example, of the influence of scientific findings in genetics and the behavioral sciences on our understanding of race or gender, with all of the attendant implications for social policies and practices. In this lecture I will use examples to discuss the concept of authority: what kinds of authority there are; how science justifies its authority; how its exercise of authority is limited, and what science might do to acquire a stronger cultural authority in society.

Try Out an ACS Webcast! It's Easy and Economical

Few companies are immune from the economic hardships in the headlines and many budgets have been trimmed. But it is still crucial to your career to engage in continuing education to expand your skills and stay abreast of new topics. So save your time and money and take a look at the courses available online through the ACS. The ACS offers a wide variety of webcast short courses and our winter/spring schedule is open for registration now.

ACS Webcast Short Courses provide the same quality training that the ACS has long been known for, but, because the courses are presented over the Internet, they offer added convenience and flexibility.

- **Economical:** Most ACS Webcasts cost less than \$100 an hour, which is far less than most technical training.
- **Easy:** Our technology is easy to use and works with all typical computer systems so virtually anyone can easily take a webcast from the comfort of their home, office, or lab.
- **Convenient:** Class attendance is NOT required. If you miss a class, simply use your on-demand access to the session recording so you can catch up on your own time.
- **Informative:** All class materials are available for download and you can email the instructor anytime.

There are expanded course offerings in analytical, organic, pharmacology, engineering, instrumentation, and other areas. For the full list of Webcast Short Courses and more information on available discounts, visit www.acs.org/webcourses



Call for Nominations Shirley B. Radding Award



The Santa Clara Valley Section of the American Chemical Society (ACS) announces the call for nominations for the 2009 Shirley B. Radding Award.

First awarded in 1994 to its namesake, the Shirley B. Radding Award annually honors someone who has been a member of the ACS for at least 20 years. Nominees must have demonstrated dedicated, unselfish leadership, service and significant contributions over a sustained period of time to industrial, applied, or academic chemistry and to the ACS through elected or appointed positions at local, district, and national levels.

Award Criteria

- Member of the American Chemical

Society for more than twenty (20) years.

- Demonstrated dedicated and unselfish service to ACS and its members over a sustained period of time.
- Provided leadership through elected and appointed ACS positions at local, district, and national levels.
- Made significant contributions to industrial, applied, or academic chemistry.

Previous Award Recipients

- 1994 Shirley B. Radding
- 1995 Agnes Ann Green (deceased)
- 1996 John F. "Jack" Riley (deceased)
- 1997 Howard M. Peters
- 1998 Alan C. Nixon (deceased)
- 1999 Valerie J. Kuck
- 2000 Halley A. Merrell

- 2001 Norman A. LeBel (deceased)
- 2002 Paul H. L. Walter
- 2003 Jean'ne M. Shreeve
- 2004 Maureen G. Chan
- 2005 Glenn Fuller
- 2006 Janan M. Hayes
- 2007 Merle I. Eiss
- 2008 Dorothy J. Phillips

The award consists of an honorarium of \$1,000 and a suitably inscribed memento. Nominations must consist of at least one letter of nomination stating how the nominee's work relates to all aspects of the award. It is strongly recommended that seconding letters accompany the nomination.

Nominations are due on or before May 1, 2009, and must be mailed to:

Radding Award Committee

Santa Clara Valley Section ACS
P. O. Box 395
Palo Alto, CA 94302-0395

Family Science Night at Benjamin Franklin Middle School

April 16, 2009 6:30 PM to 8:30 PM

Last year, we had a great time at a Family Science Night in East Palo Alto. It was so much fun that we are going to hold another one. Please join the California and Santa Clara Valley Sections as we celebrate Earth Day with another joint Family Science Night event, hosted by Benjamin Franklin Intermediate School in Colma. With your help, we will present a dozen hands-on activities, including the ever-popular Slime! and Liquid Nitrogen Ice Cream. No special experience is required, just a desire to share the fun of science with seventh and eighth graders at a diverse school whose principal and staff are eager to welcome us. The Scientific Jam Band will be there to open the show with music and chemistry magic. Many of the students (and parents) are English language learners, so volunteers with language skills such as Spanish will be especially helpful.

To join the fun, please contact Natalie McClure, at nmcclore@drugregulatoryaffairs.com

Address:

Benjamin Franklin Intermediate School
700 Stewart Avenue, Daly City, CA 94015-3519
Phone: (650) 991-1200
James Parrish III, Principal

Directions from the North:

- Take Highway 280 to the Junipera Serra Boulevard / John Daly Boulevard exit and continue 1.4 miles along Junipera Serra Boulevard.
- Turn right at 87th Street and continue 0.6 miles to Maddux Drive.
- Turn right again and continue a short distance to Stewart Avenue.
- Turn right again (Stewart Avenue is a one-way street) and continue a short distance to the point where Stewart Avenue makes a right angle bend to the left.
- The school is on the right side, with the main parking lot just before the bend.

Directions from the South:

- Take Highway 280 to the Mission Street exit.
- Turn left at Junipera Serra Boulevard and continue 0.7 miles to 87th Street.
- Turn left on 87th Street and continue as above.

Note to navigational system users: some navigational systems list this school in Colma rather than Daly City.

Volunteers Needed for Chemistry Olympiad

From mid-March through mid-April, several of our local high schools will be participating in the regional Chemistry Olympiad. On April 25th we will be hosting about 30 of the top students from the Santa Clara Valley and California sections and need a few volunteers. Santa Clara University and Dr. Linda Brunauer will be providing the classrooms, labs, and equipment; we need to provide some proctors and food.

Can you give a few hours in the morning and/or afternoon to join us at the chemistry department at Santa Clara? No heavy duty chemistry needed, just a calming influence for some very intelligent young people!

If you can't help on the 25th, perhaps you can help to customize the certificates that all students receive for participation. Access to a good color printer or scanner/printer helps. Customization with calligraphy would be grand! There should be about 125 ACS-supplied certificates that will need to be personalized!

Here is your chance to help your local section in 2009. Contact Sally Peters by email or telephone and volunteer.

sally.peters@parc.com or
650-854-4614

March 9, 2009
10 am to 4 pm
South San Francisco
Conference Center

Free Parking available on site and public transportation is available from the South San Francisco Caltrain Station

www.ssfconf.com



The City of South San Francisco and the
California Applied Biotechnology Center in
partnership with BHRN, BOLD and SHRG

Present

The South San Francisco Life Science Career Fair



- The **Career Fair** is an opportunity for displaced biotech employees or life science students to meet company and industry professionals
- The life science industry offers jobs for all education and skill levels
- Over 25 life science companies will be available to meet with you
- In addition to looking for a job, visit our **Wellness Room** to learn how to take care of yourself in these economic times
- Meet your local **Workforce Board** representatives who can provide you with resources and support you in your job search
- Meet your **Professional Organization** for extensive networking opportunities
- Get one-on-one resume review and advice (sign up on-site)
- Learn how to center and focus in times of stress (sign up on-site)
- Thinking of starting your own business, meet our **Incubators**

For further information, please contact us at ssfcareerfair@gmail.com

Please register by Friday, February 27, 2009.
To Pre-Registration, go to <http://tinyurl.com/d5eha9>

Note: This Career Fair is directed to life science employees who have been recently laid off from companies.
Are you coming as a candidate for a job? If so, you may register at the door.

Photos from the February 19th Dinner Meeting with Anshul Samar

By Lois Durham



Mark Kent and Abby Kennedy



Anshul Samar



Joe and Barbara Evans



Vipin and Pratibha Samar (proud parents)



Natalie McClure, Karl Marhenke and Bonnie Charpentier



Game Board in Play

CHEMEMPLOYMENT ABSTRACTS MARCH 2009

CHEMEMPLOYMENT ABSTRACT 3932

Position Title: Associate Director - Analytical Chemistry

Job Description: The Associate Director will provide technical expertise and leadership to an analytical chemistry function supporting nonclinical safety studies conducted under Good Laboratory Practice regulations. The Associate Director will collaborate closely with other nonclinical development team members including formulation development, dose preparation, toxicology, pharmacokinetics, project management, and quality assurance

QUALIFICATIONS DESIRED:

Education: MS in Chemistry with 8 or more years exp.; PhD in Chemistry with 5 or more years exp

Experience: Requires a MS degree in chemistry or equivalent with 8 or more years of experience, or PhD in chemistry or equivalent with 5 or more years of experience. Previous coursework in Analytical Chemistry required. Minimum 3 years experience with GLP and/or cGMP regulations including familiarity with regulatory requirements for pharmaceutical/ analytical laboratory operations. HPLC experience required. Minimum 3 years supervisory experience and proven proficiency in planning, communicating, and coaching a team

LOCATION, SALARY, EMPLOYER DESCRIPTION:

Job Location: Menlo Park, CA

Salary: DOE

Employer Description: SRI International, an independent non-profit organization founded as the Stanford Research Institute in 1946, is a leader in the development of new products for the treatment and diagnosis of disease, primarily in the areas of cancer, infectious disease, neuroscience, and immunology.

Application Instructions: For a complete description, and to submit your resume and cover letter, apply via our web page: www.sri.com/jobs to job number 100178. SRI is an equal opportunity employer. www.sri.com

CHEMEMPLOYMENT ABSTRACT 3933

Position Title: Research Associate - Synthetic Organic/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 individual will be responsible for the design and synthesis of novel drug-like compounds.

QUALIFICATIONS DESIRED:

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

Experience: The candidate must have 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

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. Today, Genentech is among the world's leading biotech companies, with multiple therapies on the market for cancer and other serious medical conditions. Please take this opportunity to learn about Genentech, where we believe that our employees are our most important asset.

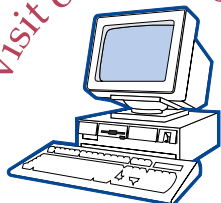
Application Instructions: Genentech is dedicated to fostering an environment that is inclusive and encourages diversity of thought, style, skills and perspective. To learn more about our current opportunities, please visit: <http://careers.gene.com> and reference Req. #1000025933. Please use "Web - ACS" when a source is requested. Genentech is an Equal Opportunity Employer

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

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

SANTA CLARA VALLEY SECTION

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Chair	Natalie McClure	650-906-7831	nmcclore@drugregulatoryaffairs.com
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Past Chair	Mark Kent	408-736-0989	markkent@yahoo.com
Secretary	Karl Marhenke	831-688-4959	karlmar@armory.com
Treasurer	Herb Silber	408-924-4954	hbsilber@science.sjsu.edu

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2009-2011	Howard Peters	650-854-4614	peters4pa@sbcglobal.net
2009-2011	Ean Warren	650-329-4554	ewarren@scvacs.org

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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 Abstract

Director:	Charles Sullivan	650-359-0731	cdansullivan@sbcglobal.net
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FUTURE MEETINGS

Mar – April	Local section testing for the International Chemistry Olympiad
Mar 19	Dr. Ted Brown Mosher Award Winner Biltmore Hotel, Santa Clara, CA
Mar 22-26	ACS National Meeting Salt Lake City, UT
Apr 15	SVC Dinner Meeting Herbal Products: They're Natural but Are They Safe? Dr. David Wiemer Biltmore Hotel, Santa Clara, CA
Apr 16	Family Science Night with the CA Section Ben Franklin Intermediate School Colma, CA
May 2	Joint meeting with Los Padres Section of the American Chemical Society MBARI, Monterey, CA
May 20	BioScience Forum Dr. Lynn Seely Chief Medical Officer, Medivation www.biosf.org/programs.htm