

# Silicon Valley Chemist

Santa Clara Valley Section

American Chemical Society

Volume 31 No. 2

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## March Dinner Meeting

### 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.



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 indispens-

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#### 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,

## March Dinner Meeting

**Date:** Thursday, March 19th

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

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

**Speaker:** Dr. Ted Brown  
Mosher Award Winner  
University of Illinois, Urbana-Champaign  
"The Voice of Science in Society"

**Cost:** \$27.00 with a choice of:  
Grilled Salmon  
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 March 16th 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 Wednesday, March 18th, you will be invoiced following the dinner meeting.

## Chair's Message

As we begin the new year, one of my responsibilities as local section chair is to prepare goals for the section. I'd like to share some of these goals with you and would welcome your participation, comments and support on each of these activities.

1. Conduct one meeting for members in the Monterey Bay region to extend local section participation opportunities to the southern reaches of the section. The Santa Clara Valley section covers a wide section of California, extending from South San Francisco to Monterey and Salinas. On Saturday, May 2, we will hold a meeting in Monterey at the Monterey Bay Research Institute (MBARI). The speaker will be Dr. Ken Johnson of MBARI and he will describe his research on using globally distributed chemical sensor networks to monitor

the effects of climate change on ocean chemistry and biology. The logistics of the meeting (time, place, etc.) are still being worked out. But this meeting is planned for a Saturday afternoon/evening so that you can either spend the weekend enjoying the Monterey area, or just attend the meeting and dinner. The Los Padres ACS section (which is on our southern border and includes San Luis Obispo) will co-host this event.

2. Create a Santa Clara Valley Government Affairs and Legislative Action committee to provide information to local legislators (both State and Federal) regarding STEM education. As you may recall, one of the ACS activities is to provide informational support to Federal and State legislators on the importance of STEM (science,

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ability 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 related, 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.

### **Biography**

Theodore Brown is Professor Emeritus of Chemistry at the University of Illinois, Urbana-Champaign, and Founding Director Emeritus of the Arnold and Mabel Beckman Institute. He graduated with a B.S. degree in Chemistry from the Illinois Institute of Technology in 1950, served three years on active duty in the U. S. Navy, and then received his Ph.D. in Chemistry from Michigan State University in 1956. He has been a faculty member in the UIUC Department of Chemistry since 1956 (he assumed emeritus status in January 1994). During 1980-1986 he served as Vice Chancellor for Research and Dean of the Graduate College. In 1987 he became the founding director of the Arnold and Mabel Beckman Institute, and served in that role through 1993. The Beckman Institute at Illinois is among the largest and most broadly based interdisciplinary research institutions in the world. Brown also served as interim Vice-chancellor for Academic Affairs during 1993.

Among many board and committee activities, he was President of the Association of Graduate Schools of the AAU universities during 1985-86. He was a member of the National Academies Government-University-Industry Research Roundtable during 1989-1994. During 2003-2005 he co-chaired a National Academies committee under the auspices of the Committee on Science, Engineering and Public Policy, on Facilitating Interdisciplinary Research. He was a member of the Board of Directors of the Arnold and Mabel Beckman Foundation during 1994-2008. He is a member of the Advisory Board of the multi-institutional Spatial Learning and Intelligence Center.

Brown's fields of research interests were inorganic chemistry and organometallic chemistry, with an emphasis on the kinetics and mechanisms of reactions. Seventy Ph.D. candidates completed their thesis researches under his mentorship, and nearly thirty postdoctoral research associates worked in his laboratories.

Brown's current interests are in the cognitive, philosophical and social aspects of the scientific enterprise. In 2003 he authored *Making Truth: Metaphor in Science*, which explores the essential roles of metaphorical reasoning in science. He was a subject editor for chemistry of the *New Scribner's Dictionary of Scientific Biography*, and continues as coauthor of the best-selling general chemistry text, *Chemistry: The Central Science*, now in its 11th edition. He has recently completed a book on the authority and moral authority of science in society, *Imperfect Oracle: The Epistemic and Moral Authority of Science*, which will appear in 2009. A second book, *Crossing Divides: The Origins of the Beckman Institute at Illinois*, will also appear in 2009.

Among his honors and awards: Fellow, American Association for the Advancement of Science (1987); Fellow, American Academy of Arts and Sciences (1994); American Chemical Society Awards: for Research in Inorganic Chemistry (1972); for Distinguished Service in the Advancement of Inorganic Chemistry (1993); the Harry and Carol Mosher Award of the Santa Clara Valley section of the American Chemical Society (2008). He was an Alfred P. Sloan Fellow (1958-62) and a Guggenheim Fellow (1979-80).

technology, engineering and math) education in the K-12 classes. National has identified California as one of 5 states for outreach at the State level. In the Santa Clara Valley section, we can support this effort by inviting our local representatives to participate in ACS events, and by keeping our elected officials fully informed of the importance of STEM education to ACS and their constituents. I am looking for volunteers to help with this committee. Please let me know if you would be interested. Your involvement can be as simple as sending emails to your representatives when there is a new bill to be supported in Sacramento, or as involved as meeting with local State representatives. We all know that this will be a tough year in Sacramento and budget cuts are inevitable. We need to make sure that STEM education is not completely sacrificed because it forms the basis of future jobs and employees.

3. Enhance the employment networking opportunities offered by the local section. This could include the creating of an online database of companies that employ chemists in the local section. We already offer the ChemPloyment ads in each newsletter, and the potential for networking at the dinner meetings and other events. In addition, the ACS has a job fair at each National ACS meeting. But in this time of tough economy, it was suggested that we should be more proactive in our efforts. We will be contacting each company in our section that currently employs members of the ACS for permission to publish their names as chemistry employers in an online database (posted on our website). It is hoped that this database will be useful to anyone looking for a new position locally.

If you would be interested in helping achieve any of these goals, please let me know ([nmcclure@drugregulatoryaffairs.com](mailto:nmcclure@drugregulatoryaffairs.com) or (650) 906-7831). I'd love to include you. I hope to meet you at the upcoming dinner meeting or other ACS sponsored event.

*Natalie McClure*

# Sacrament of Fear

by Will Dresser

(A Wes Franklin novel)

Reviewed by Howard Peters

If you liked the recent book and movie The Da Vinci Code by Dan Brown, you will be fascinated by Sacrament of Fear (2007) by first-time author Will Dresser of Palo Alto. I consider it to be of the science-in-fiction genre of novels promoted by Stanford Chemistry Professor Emeritus Dr. Carl Djerassi (<http://www.djerassi.com/>).

The plot: Dr. Wes Franklin was one time a child prodigy in medicine, science and engineering. Now he is a member of a loose civilian covert international intelligence network called the Cloister of Akhenaten. Wes is summoned to the Netherlands to attend the funeral of a friend and colleague. In Amsterdam he soon learns that several colleagues have just died and the only common factor appears to be membership in the Cloister. A Cloister member in top security at the Hague is convinced that the deaths are not from "natural causes" and are somehow linked to a series of cryptic-but-threatening letters that his office has received from somewhere in the volatile Middle East. The pace is fast as Franklin and his Cloister colleagues spiral deeper into information overload to solve the mystery.

After a near fatal confrontation with a minion of the powerful Syrian multimillionaire Osman Ghasi, Wes learns of an incredibly simple but ungodly plot to unleash an unprecedented wave of terror throughout Europe. Franklin and friends enter into a race against time to discover how, when and where Ghazi plans to deliver his Sacrament of Fear - and who will succeed?

A quote from page 1 is prescient and sounds like a description of our now daily news fare:

"Truth never happens in real time. Events happen, sources are cited, authorities offer up explanations. But truth requires time. Time to shed illusions. Time to fend off lies. Time to evolve. And, in the end, after all have had their say, 'Truth' will have the last word - and continue to light our way."

You will find in Chapter 1 that someone dies in an auto accident- not yet a mystery. In Chapter 2 we get a glimpse of the absolute terror that is being planned.

Reminder

February Dinner Meeting

Reminder

## Elementeo, the Chemistry Card Game and its Young Inventor

Thursday, February 19-Canada College, Room 22-116

If you give science/chemistry textbooks to students, they'll learn for a day but if you mix fun into the learning, they'll experiment for a lifetime! Elementeo is a chemistry card game that is designed to inject fun into education! Elements like Oxygen Life Giver and Lithium Leprechaun have their own personality and fight with each other using their properties and oxidation states. Throughout the card



Box cover

game, players create compounds, combat with element reactions, attack with oxidation states, and conquer their opponent's electrons.

Come to the Santa Clara Valley ACS meeting in February, and hear from the game designer Anshul Samar, a 9th grader from Silicon Valley, and the CEO of Alchemist Empire, Inc. Elementeo ([www.elementeo.com](http://www.elementeo.com)) has been presented



Elementeo creator Anshul Samar

at the American Chemical Society Conference, National Academies of Sciences, and the National Association of Gifted Children Conference. The game has also been covered by New York Times, San Jose Mercury News, C&EN, Scholastic, and other blogs and publications. The pictures show examples of the cards used in this intriguing new game.

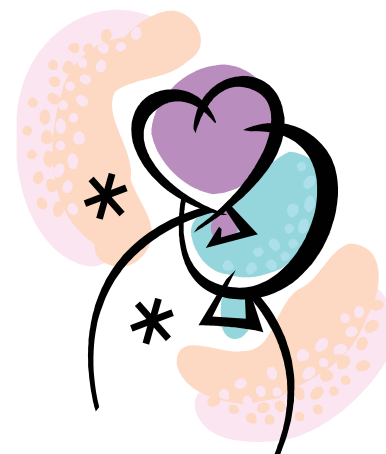


Playing cards

Portions of the novel (Chapters 1-6) and how to purchase it are on the Internet at [www.sacramentoffear.com/index.htm](http://www.sacramentoffear.com/index.htm). I highly recommend it.

About the author: Will Dresser is a transplant from Illinois and earned a degree in Political Science and graduate work in Counseling from North Illinois University in DeKalb. His travels have taken him all around the world, including a seven-month stay in Peshawar, Pakistan where he did electronic intelligence gathering for the U.S. Air Force. Will currently works in Palo Alto, California in a patent law firm that specializes in Intellectual Property related to chemistry and biotechnology. This is his first Wes Franklin novel. He plans to pub-

lish the second in the series, "The Methuselah Man" this summer. Early chapters are page-turners.



# Project SEED Initiative in the Silicon Valley

Howard Peters - Councilor

Background: PROJECT SEED started over 40 years ago in the San Francisco Bay Area at the urging of the late Dr. Alan Nixon. It provides funds for diversity, underrepresented and income-challenged high school students to experience first-hand an intense laboratory experience. Dr. Glenn Fuller (Stanford, BS and UC Berkeley, Ph.D. - and one of our past Radding Award winners) hosted the first PROJECT SEED student at the US Department of Agriculture laboratory facility in Albany. In the past, some PROJECT SEED students have performed lab research at San Jose State with Dr. Maureen Scharberg and Dr. Herbert Silber. Herb in particular has been very active with PROJECT SEED at the ACS national level. The program has grown and now is a nationwide program sponsored and funded by ACS. However, the Santa Clara Valley Section is not currently participating in this program.

At the SCV EXCOMM meeting on January 8, Paul Grossi, Assistant Director of the Stanford University Office of Science Outreach (OSO), outlined some of the work of his local office in promoting K-12 science. Specifically, he asked our section to participate in an application for at least one PROJECT SEED student internship for the summer of 2009. Space has been identified in the laboratory of Professor Gerald Fuller in the Department of Chemical Engineering on campus. Once the program is funded in the spring, high school applicants will be considered immediately. The selected student would have an 8-week internship

at Stanford. At the end of the summer, Fuller and the student would prepare a research report and poster outlining their research.

Your SCV EXCOMM voted unanimously to support the program both ad-

ministratively and financially. We look forward to working with Stanford OSO and the Department of Chemical Engineering of this new initiative. The Stanford OSO will submit an application to ACS for financial support. This new program should be of interest to our many members. More details will be provided in this newsletter as they become available.

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## 2009 Local Science and Engineering Fairs

Howard Peters

January to June of each year is the time for intense effort for IMPORTANT science fair competitions at the local, regional and international levels.

**SPECIAL NOTE:** The 2009 Intel International Science and Engineering Fair will be held in Reno NV on May 12-13 (Tues-Wed). There will be a need for an enhanced commitment of our Silicon Valley scientists to volunteer for judges in all judging categories.

REMEMBER - There is always a need for judges for these science fairs. Please volunteer—now.

Contact information is below:

### San Mateo County Science Fair

Date: February 3, 2009

Location: Hiller Aviation Museum, San Carlos

For more information contact: Mr. Gary Nagagiri

visit: [www.cms.pvsd.net/~bbrown/MySite/Science\\_Fair\\_08-09\\_files/%2306\\_09\\_Parents\\_Info.pdf](http://www.cms.pvsd.net/~bbrown/MySite/Science_Fair_08-09_files/%2306_09_Parents_Info.pdf)

### SCIENCEPALOOZA, East Side Union High School for first time science fair participants

Date: Saturday, February 28, 2009

Location: Santa Clara County Fair Grounds, San Jose.

For more information, visit: [www.outreach-foundation.org/judges.html](http://www.outreach-foundation.org/judges.html)

### Santa Cruz Science Fair Santa Cruz County high school students

Date: Saturday, March 8, 2009

Location: Santa Cruz Civic Auditorium, Santa Cruz.

For more information, visit: <http://science.santacruz.k12.ca.us/>

### Synopsys Championship (aka Santa Clara Valley Science and Engineering Fair)

Date: Wednesday, March 18, 2009

Location: San Jose Convention Center, San Jose.

For more information, visit: [www.outreach-foundation.org/judges.html](http://www.outreach-foundation.org/judges.html)

### Monterey County Science and Engineering Fair County High School students

Date: Saturday, March 28, 2009

Location: California State University, Monterey Bay.

For more information, visit: <http://www.montereycountysciencefair.com/>

### Intel International Science and Engineering Fair (ISEF) World Class Competition

Date: Tuesday-Wednesday, May 12-13, 2009

Location: Convention Center, Reno, Nevada

For more information, visit: [www.sciserv.org/isef/](http://www.sciserv.org/isef/)

\*Please note that the INTEL ISEF in May 2010 will be held in San Jose, CA

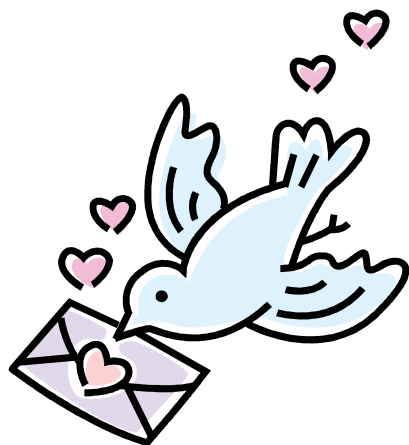
### California State Science Fair

Date: Monday-Tuesday, May 18 - 19, 2009

Location: California Science Center, LA.

For information, visit: [www.usc.edu/CSSF/](http://www.usc.edu/CSSF/)

For other affiliated US Science Fairs, please visit: [www.societyforscience.org/isef/students/aff\\_fairsearch.asp](http://www.societyforscience.org/isef/students/aff_fairsearch.asp)





## Solubility Profiles of Amyloidogenic Molecular Structures Theory and Experiment

Professor Florin Despa, Department of Pharmacology  
University of California, Davis, CA

### Abstract

Hydration shells of normal proteins display both structured and bulk-like waters. Isomers with considerable bulk-like hydration tend to aggregate. In my talk, I will present both theoretical and experimental data showing that different morphological states of aggregated isomers differ by hydration distribution profiles and water magnetic resonance (MR) signals. The results help explain the MR contrast patterns of amyloids, a subject of long controversy, and suggest a new approach for identifying unusual protein aggregation related to disease. As an example, I will present MRI data and cell toxicity measurements revealing the relationship between the structural conformations of several amyloidogenic peptides and the mechanisms of cellular dysfunction. Developing strategies to detect in vivo the amyloidogenic molecular structures at an early stage of development and to predict their interaction with the cellular components are crucial for treating, inhibiting the progression of disease and preventing some of the devastating effects of protein conformational diseases, such as Alzheimer's disease, type 2 diabetes mellitus and diabetic cardiomyopathy.

### Speaker Biographical Sketch

Florin Despa, PhD, is on the faculty of the Department of Pharmacology, University of California, Davis. Prior to his arrival at The University of California, Davis, in 2008, Dr. Despa was a research faculty member in The Department of Surgery at The University of Chicago. He joined the Department of Surgery in 2004, after completing his research training in physical chemistry and molecular biophysics in The Department of Chemistry, The University of Chicago, where he published numerous papers in the area of protein folding and dynamics of water at biological interfaces, thermodynamics of cellular proteins and the chaperone mechanism. Between 1998 and 2000, Dr. Despa was with The Department of Physics at K.U. Leuven where he was awarded with a postdoctoral fellow of the Foundation for Scientific Research

– Flanders for studying physico-chemical properties of nano-systems. He was also a postdoctoral fellow of The Research Board of the K.U. Leuven and served as a research scientist in the Department of Theoretical Physics at The Institute of Atomic Physics, Bucharest. He was a visiting scientist at The Forschungszentrum Juelich (2008) and at The Humboldt University Berlin (1999). His current research studies focus on hydrophobic interactions and molecular crowding effects, as they generate the driving force for the aggregation of amyloidogenic proteins. He is also involved in studies aiming to understand how water molecules next to proteins behave differently than ordinary water molecules, and how one can use magnetic and dielectric resonance as probes to determine the amount and nature of water-protein interaction and, specifically, to provide molecular-level information in clinical evaluation of injuries.

**Date:** Wednesday, March 11, 2009

**Time:** 7:30 pm – 8:30 pm

**Place:** Exponent

149 Commonwealth Drive  
Menlo Park, Ca 94107  
(650) 688-7061

**Dinner:** 6:30 pm – 7:30 pm

Cost \$20 for ECS member, \$25 for non-members, \$10 for students. Talk: free for students and ECS members and \$5 for non-members.

**RSVP:** Sarah Stewart

sstewart@exponent.com or 650-688-7061  
by 5PM, Wednesday, March 4, 2009.  
Please indicate if you will attend both the dinner and the talk or only the talk.

### Directions to Exponent

From 101 take the Marsh Road exit towards the bay (North/East).

Turn right on Bayfront Expressway at the light.

Turn right on Chrysler Dr. at the light.

Bear left on Commonwealth Dr.

Enter door on left side of building, near security.

SCV-ACS First in the Nation

## The Teacher-Scholar Award For Community College Chemistry Faculty

On January 8 your SCV EXCOMM unanimously approved a plan to create a unique Teacher-Scholar award. This "first in the nation" annual award is intended to recognize the contributions of community college chemistry teachers to science education across America.

The award will honor an outstanding faculty member from one of the 13 community colleges in the ACS Santa Clara Valley Section local territory. Nationally, the ACS supports awards at the local, regional and national levels, for excellence in teaching at the high school, college and university levels. Our award will be the first to recognize the value of Community College teaching.

We hope that our initiative will generate publicity and catalyze the creation of

similar awards in other ACS local sections, at regional levels, and ultimately at the national level. The publicity surrounding these awards is expected to increase the visibility and respect accorded to community college science education, both by other chemists and the general public.

### Relevant Achievements

- Excellence in teaching in the lab and classroom
- Extensive mentoring and encouragement of students toward academic success
- Collaborations with local high schools and four year colleges and universities, leading to more student transfers and better articulation
- Supervision of undergraduate research
- Published articles and books related to

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chemistry education

- Participation in grant funded projects promoting innovative teaching methods and undergraduate research
- Dissemination of creative curricular innovations
- Exceptional contributions to the operation of their Chemistry Department
- Public outreach
- Contributions to the local community, for example through the K-12 system

**Eligibility** - A chemistry faculty member, active or emeritus, from any community college in the SCV section area is eligible. Membership in the ACS is not required.

**Nomination process** - The nominator completes a form describing the person's accomplishments, plus brief letter(s) of support from colleagues, former students and/or administrators. We plan to post the announcement and the application form on the SCV-ACS web site ([www.scvacs.org](http://www.scvacs.org)) at the beginning of March, 2009. The application deadline is tentatively set for October 1, 2009 and the award will be made at our local section dinner meeting in November.

The initiative for the award and the first \$500 in seed money came from the NSF-funded ChemEd Bridges Project to help with dissemination and travel. ChemEd Bridges provides professional development opportunities to expand the horizons and enrich the careers of CC chemistry faculty, encouraging more of them to become teacher-scholars. The SCV-ACS local section allocated \$500.

Tax-deductible Donations of any size are requested from SCV Section members who want to support the award and begin to build momentum and a possible local endowment. Checks should be made out to ACS-SCV, referencing New Community College Award and sent to ACS - Santa Clara Valley Local Section, P.O. Box 395, Palo Alto, CA 94302.

For more information contact Dr. Harry Ungar, Emeritus Chemistry faculty member at Cabrillo College: [haungar@cruzio.com](mailto:haungar@cruzio.com)



## Photos from the January Dinner Meeting with Dr. Chris McKay

By Lois Durham



Harry Ungar and Tamiru Bedada



Natalie McClure and Sally Peters



Natalie McClure and Chris McKay



Harry Ungar and George Lechner



Carmelita De Vera, Shirley Radding and Thelma Smith

## What's a Silver Circle?

Well, in some circles (excuse the pun), a silver circle might be a ring, worn by someone who wants to share an event or person in their life. Another circle is one of friends and acquaintances who share their lives and experiences in friendly settings like homes and parks. But, what's a Silver Circle? Here in the ACS and the Santa Clara Valley Section, a Silver Circle would be a group of local member chemists and chemical engineers who have reached a certain age and level of expertise and want to share their experiences and knowledge with others. They may or may not be retired and may or may not appreciate the term "senior" and the silvery gray hair that develops as we grow older. The sharing could be in a place as convenient as a local restaurant for breakfast at the discretion of the group.

There are many activities that a Silver Circle group can do. The following list contains some suggestions:

- Organize a science café for discussions of science over coffee, wine or with local residents and scientists, as well as experts
- Shared meals such as breakfast, lunch or dinner (with or without talks)
- Book club
- Public outreach
- Help with National Chemistry Week, Chemistry Olympiad, section meetings, etc.

- Mentor young chemists
- Write local chemistry histories about persons, industries, etc.
- Present career forums
- Social activities, such as picnics, bowling, parties, etc.
- Field trips and tours
- Be a chemistry resource for local teachers, reporters, and officials
- Pot luck meal with each participant explaining the chemistry of his/her preparation
- Volunteer – Habitat for Humanity, local technical museums, etc.
- Community service
- Topical subgroups
- Use your imaginations to generate other ideas

There has been interest in the past in forming such group in the Santa Cruz area, Palo Alto, and elsewhere in the Section. So, if you might be interested, please contact anyone on the Executive Committee, or, more specifically, Bruce Raby or George Lechner. See the contact information on the last page of this newsletter. Initially, if only a few of you would be willing to get together with us, we can determine how to proceed. A postcard mailing is in the planning stage now to advertise this effort. Watch for it in your mailbox soon.

## CHEMPLOYMENT ABSTRACTS FEBRUARY 2009

### CHEMPLOYMENT ABSTRACT 3924

*Position Title:* Professor Materials Engineering, Tenure Track

*Job Description:* Will be responsible for addressing the educational needs of undergraduates and graduate students through development of course materials, teaching strategies and research projects. The new faculty member will collaborate with SJSU's Materials Characterization and Metrology Center [MC]2 (<http://www.engr.sjsu.edu/MC2/>). This is an active group of faculty users who share access to campus technical resources, collaborate on research, and work together to obtain external funding. The new faculty member will be able to leverage the state of the art tools and collegial atmosphere of the Center to build up their own research and curriculum.

#### QUALIFICATIONS DESIRED:

*Education:* PhD in Materials Engineering or a related field

*Experience:* Details of the open position can be found at <http://www.engr.sjsu.edu/about/emp>. Preferred candidates must have a demonstrated interest in developing characterization laboratory capabilities in nanomaterials, biomaterials or structural materials

#### LOCATION, SALARY, EMPLOYER DESCRIPTION:

*Job Location:* San Jose, CA

*Salary:* Assistant Professor

*Employer Description:* The Charles W. Davidson College of Engineering has a total student population of approximately 5,000, with 3,000 undergraduates and 2,000 graduate students who pursue a M.S. degree. We have a very diverse student body with a large population of under represented groups, immigrants, and first generation college students. The eight academic departments house eleven degree programs and have approximately 80 full-time faculty. Located in the heart of Silicon Valley, the College has strong ties with local industry. San Jose State truly values the mix of both teaching and research. Innovative educational research and curriculum development is encouraged and quality teaching is valued in the promotion process. SJSU is an Equal Opportunity Employer

*Application Instructions:* For full consideration, send a letter of application, curriculum vitae, statement of teaching interests/philosophy and research plans, and three original letters of reference with contact information by February 15, 2009 to: Dr. Stacy Gleixner, Chair, Search Committee, Department of Chemical and Materials Engineering, San José State University, One Washington Square, San José, CA 95192-0082. Please include Job Opening ID #13558 on all correspondence

### CHEMPLOYMENT ABSTRACT 3925

*Position Title:* Lecturer, Biochemistry Summer 2009

*Job Description:* Planning and teaching Biochemistry 141 (Biochemistry I), offered Summer 2009. This course will meet from June 18 to July 24. Lectures are 130 minutes in length and meet MWF. Specific teaching responsibilities are provided at the website:

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

#### QUALIFICATIONS DESIRED:

*Education:* Ph.D. in biochemistry

*Experience:* Prior experience teaching university-level upper-division courses in biochemistry is required

#### LOCATION, SALARY, EMPLOYER DESCRIPTION:

*Job Location:* Santa Clara University

*Salary:* Minimum of \$4,900–5,900, depending on enrollment.

*Employer Description:* The Department of Chemistry at Santa Clara University, a Jesuit Catholic institution with an ACS-approved undergraduate program.

*Application Instructions:* Submit a curriculum vitae, a copy of graduate transcripts, and two letters of recommendation to Dr. Jack Gilbert, Chair, Department of Chemistry, Santa Clara University, 500 El Camino Real, Santa Clara, CA 95053. E-mail: [jgilbert@scu.edu](mailto:jgilbert@scu.edu). Individuals employed within the last year at SCU need only contact Dr. Gilbert to express interest in the position.

**CHEMEMPLOYMENT ABSTRACT 3926**

*Position Title:* Lecturers, General Chemistry Summer 2009

*Job Description:* For general chemistry lectures and for lab sections during Summer 2009. GenChem I (June 15 to July 3); GenChem II (July 6–24); GenChem III (July 27 to Aug 14). Lectures are 3 hours in length, meet M–F. Labs are 3 hours in length, meet 3 times each week. For specific teaching responsibilities and salaries, refer to <http://www.scu.edu/cas/chemistry/Job-Opportunities.cfm>

**QUALIFICATIONS DESIRED:**

*Education:* Ph.D. in chemistry is required for lecture sections and is preferred for lab sections.

*Experience:* Lecture Sections: Prior experience teaching university-level general chemistry is highly desirable.

Lab Sections: Prior experience teaching general chemistry laboratory is essential. For more information: <http://www.scu.edu/cas/chemistry/Job-Opportunities.cfm>

**LOCATION, SALARY, EMPLOYER DESCRIPTION:**

*Job Location:* Santa Clara University

*Salary:* Minimum \$7,000-8,000 for lectures per 3-week session; Minimum \$3,100 for each lab section.

More info on: [www.scu.edu/cas/chemistry/Job-Opportunities.cfm](http://www.scu.edu/cas/chemistry/Job-Opportunities.cfm)

*Employer Description:* The Department of Chemistry at Santa Clara University, a Jesuit Catholic institution with an ACS-approved undergraduate program

*Application Instructions:* Submit a curriculum vitae, a copy of graduate transcripts, and two letters of recommendation to Dr. Jack Gilbert, Chair, Department of Chemistry, Santa Clara University, 500 El Camino Real, Santa Clara, CA 95053. E-mail: [jgilbert@scu.edu](mailto:jgilbert@scu.edu). Individuals employed within the last year at SCU need only contact Dr. Gilbert to express interest in the position.

**CHEMEMPLOYMENT ABSTRACT 3927**

*Position Title:* Lecturers, Organic Chemistry Summer 2009

*Job Description:* For organic chemistry lectures and for lab sessions during Summer 2009: Organic I meets June 15 to July 3; Organic II meets July 6–24; Organic III meets July 27 to Aug 14. Lectures are 3 hours in length and meet M–F. Labs are 4.5 hours in length and meet twice each week. For specific teaching responsibilities, see: <http://www.scu.edu/cas/chemistry/Job-Opportunities.cfm>

**QUALIFICATIONS DESIRED:**

*Education:* Ph.D. in organic chemistry - required for lecture sections, preferred for lab sections

*Experience:* Prior experience teaching university-level organic chemistry is highly desirable.

**LOCATION, SALARY, EMPLOYER DESCRIPTION:**

*Job Location:* Santa Clara University

*Salary:* Minimum \$7,000-9,000 for lectures per 3-week session; Minimum \$3,100 for each lab section.

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

*Employer Description:* The Department of Chemistry at Santa Clara University, a Jesuit Catholic institution with an ACS-approved undergraduate program

*Application Instructions:* Submit a curriculum vitae, a copy of graduate transcripts, and two letters of recommendation to Dr. Jack Gilbert, Chair, Department of Chemistry, Santa Clara University, 500 El Camino Real, Santa Clara, CA 95053. E-mail: [jgilbert@scu.edu](mailto:jgilbert@scu.edu). Individuals employed within the last year at SCU need only contact Dr. Gilbert to express interest in the position.

**CHEMEMPLOYMENT ABSTRACT 3928**

*Position Title:* Lecturer, Biochemistry Spring 2009

*Job Description:* Planning and teaching one section of Biochemistry (Chem 141) for Spring quarter, 2009 (March 30-June 11). Contact time is 3.5 hours/week. Class time is flexible and includes evenings. Specific teaching responsibilities can be found at <http://www.scu.edu/cas/chemistry/Job-Opportunities.cfm>.

**QUALIFICATIONS DESIRED:**

*Education:* Ph.D. in biochemistry

*Experience:* Prior experience teaching university-level upper-division courses in biochemistry is desirable.

**LOCATION, SALARY, EMPLOYER DESCRIPTION:**

*Job Location:* Santa Clara University

*Salary:* \$5,500

*Employer Description:* Santa Clara University is a Jesuit Catholic institution with an ACS-approved undergraduate chemistry program.

*Application Instructions:* Submit a curriculum vitae, statement of experience/interest in teaching a diverse group, evidence of past teaching performance and sample syllabus, undergraduate and graduate transcripts, and 2 recommendation letters to Dr. Jack Gilbert, Chair, Department of Chemistry, Santa Clara University, 500 El Camino Real, Santa Clara CA 95053. Individuals employed within the last year at SCU need only contact Dr. Gilbert to express interest in the position.

**CHEMEMPLOYMENT ABSTRACT 3929**

*Position Title:* Senior Consultant - Process Engineer - Biochemical expert

*Job Description:* SRI Consulting (SRIC) is looking for a chemical engineer with biotechnology background to join its Process Economics Program (PEP) as a senior consultant. The PEP program develops conceptual designs and costs for processes used in chemical and energy industries, and conducts private research including process evaluations and feasibility studies for individual clients.

**QUALIFICATIONS DESIRED:**

*Education:* BS chemical engineering or equivalent experience and an MBA is a plus.

*Experience:* 5-8 years of experience in process design and project management. Knowledge in evaluating biochemical process technologies with a major chemical company is preferable. Excellent written and verbal communication skills are required. Knowledge of AspenPlus and other process design and simulation and costing software is an advantage.

**LOCATION, SALARY, EMPLOYER DESCRIPTION:**

*Job Location:* Menlo Park, CA or The Woodlands, TX

*Salary:* Competitive

*Employer Description:* SRI Consulting is the world's leading business research service for the global chemical industry. Publishing for over 60 years, SRI Consulting is the preeminent source for in-depth business and process analysis.

*Application Instructions:* Email cover letter and resume to [jobs@sriconsulting.com](mailto:jobs@sriconsulting.com). Fax: 650-384-4273

**CHEMPLOYMENT ABSTRACT 3930**

*Position Title:* Senior Scientist - Protein Engineering

*Job Description:* The primary responsibilities of this position will be to help develop, lead, and implement NMR-based strategies to support small molecule drug discovery programs, working closely with the Biochemical Pharmacology and Discovery Chemistry Departments, and participating directly with small molecule project teams to aid the design of new small molecule compounds

**QUALIFICATIONS DESIRED:**

*Education:* A successful candidate should have a Ph.D in a relevant discipline

*Experience:* The candidate must have at least three years of postdoctoral training. Industry experience in fragment-based small molecule drug discovery is strongly preferred (Significantly more working experience is required for Senior Scientist candidates. The successful candidate will show evidence of productive, independent contributions in science, as demonstrated by a strong publication/patent record.

**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:* 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. #1000021966. Please use "Web - Employment" when a source is requested. Genentech is an Equal Opportunity Employer.

**CHEMPLOYMENT ABSTRACT 3931**

*Position Title:* Senior Scientist - In Vivo Pharmacology

*Job Description:* The Senior Scientist, Pharmacology will manage an in vivo pharmacology group and lead small molecule drug development program(s). The successful candidate will provide scientific, strategic leadership, and hands-on technical expertise to drive compounds from discovery to proof of concept in humans.

**QUALIFICATIONS DESIRED:**

*Education:* This position requires a Ph.D. in Biology

*Experience:* The candidate must have post-doctoral experience with 5-15 years of relevant experience in a research, biotechnology, or a pharmaceutical lab. An in depth understanding of the signaling pathways that leads to cancer and an ability to translate data from in vitro assays to preclinical models is required.

**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:* 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. #1000024282. Please use "Web - Employment" when a source is requested. Genentech is an Equal Opportunity Employer.

**CHEMPLOYMENT 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](http://www.sri.com/jobs) to job number 100178. SRI is an equal opportunity employer. [www.sri.com](http://www.sri.com)





SANTA CLARA VALLEY SECTION  
AMERICAN CHEMICAL SOCIETY  
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## SANTA CLARA VALLEY SECTION

### 2009 Section Officers

Chair	<b>Natalie McClure</b>	650-906-7831	<a href="mailto:nmccclure@drugregulatoryaffairs.com">nmccclure@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>Herb Silber</b>	408-924-4954	<a href="mailto:hbsilber@science.sjsu.edu">hbsilber@science.sjsu.edu</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>
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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:nmccclure@drugregulatoryaffairs.com">nmccclure@drugregulatoryaffairs.com</a>
2007-2009	<b>Stephanie Gehling</b>	408-261-3974	<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>

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Editor:	<b>Cinzia Muzzi</b>	408-864-5790	<a href="mailto:muzzicinzia@deanza.edu">muzzicinzia@deanza.edu</a>
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### ChemPloyment Abstract

Director:	<b>Charles Sullivan</b>	650-359-0731	<a href="mailto:cdansullivan@sbcglobal.net">cdansullivan@sbcglobal.net</a>
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## FUTURE MEETINGS

<b>Feb 18</b>	BioScience Forum Dr. Tony Allison Alavita Pharmaceuticals <i><a href="http://www.biosf.org/programs.htm">www.biosf.org/programs.htm</a></i>
<b>Feb 19</b>	Anshul Samar Game Inventor -- Elementeo Cañada College, Room 22-116
<b>Mar – April</b>	Local section testing for the International Chemistry Olympiad
<b>Mar 11</b>	2009 ESC (San Francisco Section) Joint Meeting with the American Chemical Society
<b>Mar 19</b>	Dr. Ted Brown Mosher Award Winner Biltmore Hotel
<b>Mar 22-26</b>	ACS National Meeting Salt Lake City, UT
<b>Apr 15</b>	Finalist testing for the Chemistry Olympiad Santa Clara University