

# Silicon Valley Chemist

Santa Clara Valley Section

American Chemical Society

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## APRIL 2008 NEWSLETTER TOPICS

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## Chair's Message

Once again my time has gotten away from me, and this time I am really late. My apologies to everyone that works on the newsletter, for being so slow. Every rationale that I write looks like an excuse to me, and I can only imagine that it will look even worse to anyone else.

As we had no speaker or meeting in March, I hope to see everyone at the April meeting, on the 23rd, at Genentech. This will be a joint meeting with the California Section, and the speaker will be Dr. Bruce Roth, of Genentech.

This year your local section Annual Report was submitted to the National ACS office on time – is that good news or what? Please, hold your excitement in check. A copy of the report is posted on our web site, for

*continued on next page*

## April Dinner Meeting The Discovery and Development of LIPITOR® Bruce Roth, Ph.D.

Come to April's dinner meeting and not only meet some of our colleagues in the California Section, but join us also for an interesting presentation given by Dr. Bruce D. Roth, Senior Director Chemistry, Genentech Small Molecule Discovery. Dr. Roth is well known for his synthesis of the compound known as Lipitor as well as his many other contributions to science.



The dinner meeting will be on April 23rd, and held at the Genentech campus in South San Francisco. Directions, a campus map and details regarding building location, entrance into the building, and parking are provided on the next page. Also at the following web site:

[www.gene.com/gene/contact/san-francisco.html](http://www.gene.com/gene/contact/san-francisco.html)

### Abstract

The discovery and development of the potent HMG-CoA reductase inhibitor Lipitor (atorvastatin calcium), the largest selling drug in the history of the pharmaceutical industry, will be overviewed from its design and synthesis to clinical testing. A key part of the understanding the success of Lipitor is related to the enhanced safety and efficacy of this agent in comparison to other HMG-CoA reductase inhibitors (HMGRIs). This talk will overview the structure activity relationship that led to the discovery of atorvastatin calcium as well as the

concept of tissue selectivity of HMGRIs and how the physicochemical properties of compounds in this class are related to safety and efficacy.

### Biography

Bruce Roth received his BS in

*continued on next page*

## April Dinner Meeting

**Date:** Wednesday, April 23, 2008

**Time:** 6:00 Social Hour

7:00 Dinner

8:00 Presentation

**Location:** Genentech Inc.

Grandview Place/DNA Way  
Building 33, Cafeteria  
South San Francisco, CA

**Speaker:** Dr. Bruce Roth

The Discovery and  
Development of LIPITOR

**Cost:** \$25.00 Buffet Dinner

Roasted Broccoli Salad w/Parmigiano Reggiano, Roasted Chicken w/Romesco Sauce, Panko Crusted Salmon with Lemon Pepper Sauce, Tiramisu for dessert

**Reservations:** [www.scvaacs.org](http://www.scvaacs.org)

Shirley Radding

408-246-2564

408-296-8625 Fax

Reservations must be made by April 18th stating your name, address, company affiliation, and number of people in party. If you are unable to honor your reservation and do not cancel by Monday, April 21st, you will be invoiced following the dinner meeting.

*April Dinner Meeting, continued from front page*  
 Chemistry from St. Joseph's College in Philadelphia, PA (1976). He then moved to Iowa State University where he received his Ph.D. in Synthetic Organic Chemistry (1981) under the direction of Dr. George A. Kraus. Bruce then underwent postdoctoral training under the direction of Dr. Andrew S. Kende at the University of Rochester where he completed the total synthesis of the insect antifeedant ( $\pm$ )-Ajugarin IV and the anticancer agent ( $\pm$ )-Quadrone.

In 1982, Bruce joined the Atherosclerosis Chemistry Section of the Warner-Lambert/Parke-Davis Co. located in Ann Arbor, MI. As part of a project aimed at discovering inhibitors of cholesterol biosynthesis, Bruce synthesized the compound that would ultimately be marketed as Lipitor. For his invention of Lipitor, Bruce received the 1997 Warner-Lambert Chairman's Distinguished Scientific Achievement Award, the 1999 "Inventor of the Year Award" from the New York Intellectual Property Law Association, the 2003 American Chemical Society Award for

Creative Invention, the 2003 Gustavus J. Esselen Award for Chemistry in the Public Interest, sponsored by the North East Region Section of the American Chemical Society, the 2005 Distinguished Achievement Award from Iowa State University and a 2006 Pfizer Global Research and Development Achievement Award. After taking on progressively greater leadership responsibilities at Parke-Davis and Pfizer, Bruce served as Vice President of Chemistry at the Pfizer Global Research and Development, Ann Arbor Laboratories from 2000-2007. He also served as an adjunct associate professor in the Department of Medicinal Chemistry in the School of Pharmacy of the University of Michigan from 1996-2007.

In May 2007, Bruce joined Genentech Small Discovery as Senior Director of Discovery Chemistry.

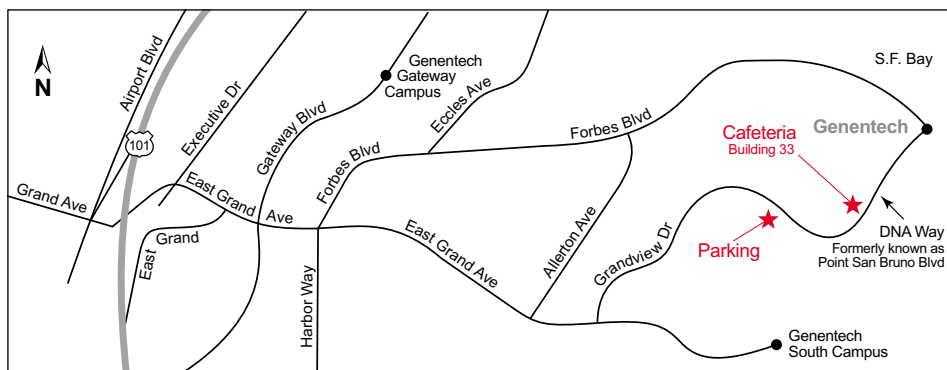
Dr. Roth is the inventor or co-inventor of 43 issued U.S. patents and the author or co-author of 50 manuscripts, 35 published abstracts, 9 book chapters and review articles. He has given more than 20 invited lectures.

*Chair's Message, continued from front page*  
 those who wish to know more about what the Santa Clara Valley section accomplished last year. National requires an annual report from each local section; the report is compiled by your Executive Committee members, and gives details of everything that the section has accomplished in the past year: dinner meetings, financial status, educational and outreach efforts, goals for the upcoming year, and an evaluation of how well we met last year's goals. Now that we have submitted the report, National will release to the section our share of funds needed to run all of our programming for this year.

Some of you will be reading this in the midst of packing/preparations for your journey to New Orleans, April 6-10. For those that are going, enjoy the trip and have a safe journey (and listen to some jazz for me, please).

Our May meeting will be on the 15th, and the speaker will be Dr. Bego Gerber of Chemists Without Borders.

See everyone at the April meeting.



#### Driving From the North

- Take the 101 Freeway South.
- Exit at Grand Ave./South San Francisco.
- At the bottom of the exit ramp, turn left at the light onto Airport Blvd.
- At stoplight, turn left onto Grand Ave. and proceed under freeway to East Grand Ave.
- At the fourth stoplight, turn left onto Forbes Blvd.
- Continue on Forbes Blvd. for 1.3 miles until it terminates at DNA Way.

#### Driving From the South

- Take the 101 Freeway North.
- Exit at Grand Ave./South San Francisco.
- At the bottom of the exit ramp, turn right onto East Grand Ave.
- At the first stoplight, turn right to continue on East Grand Ave.
- At the second stoplight, turn left onto Forbes Blvd.
- Continue on Forbes Blvd. for 1.3 miles until it terminates to DNA Way.



#### Location/Parking

The meeting will be in B33, and people will need to come into the building using the door closest to the B33 reception area. There will be a security guard at the door to check people in. He will ask to see a photo ID and have them sign the sheet prior to giving them their badge.

The parking lot this group will use is called the Upper Lot. It's located across from B20. There will be a sign at the lot, and I expect that Security will post 1-2 bike patrol officers at the entrance to assist visitors.



## Family Science Night!

The local SCVACS section will be co-hosting a Family Science night at the East Palo Alto Charter School on Thursday April 24. We are co-hosting this event the California Section who have run many of these very popular and successful events. The East Palo Alto Charter School (EPACS) is a K-8 public school with a strong academic emphasis and a goal to have all of its graduates attend and complete college. They have 420 students, and expect as many as 600 students and parents to attend the science night. The EPACS also has a partnership with Stanford University students who come in weekly for an after school science event and who run and judge their science fair. The family science night will be the kickoff meeting for this year's science fair.

The science night format consists of many small hands-on projects. Students move from one project to the next, collecting a stamp or sticker for each activity they complete. Each project is a short 5-10 minute experiment (e.g., making slime) or a longer detailed discussion of the science, depending on the interest and attention span of the student. We would like to have the SCV Section run 3-4 of the hands-on experiments and would greatly appreciate volunteers. The activities include making slime, some acid-base chemistry with cabbage indicators, making liquid nitrogen ice cream, some basic astronomy observing, pen and ink paper chromatography, soap bubble chemistry and building molecular models. Please let me know if you would like to participate. In addition, please let me know if you would like to be involved in the planning of this event. It will be great fun!

**Natalie McClure**

[nmclure@drugregulatoryaffairs.com](mailto:nmclure@drugregulatoryaffairs.com)

## Local Science Fair Activities

The Sciencepalooza sponsored by the Synopsys Outreach Foundation ([www.outreach-foundation.org](http://www.outreach-foundation.org)) was held on Saturday, March 1 at the Santa Clara County Fairgrounds. Sciencepalooza encourages first time science fair entries from the East Side Union High School District of San Jose. About 1500 students participated. Some Santa Clara Valley ACS members were judges for the many projects.

The Synopsys Science and Technology Championship of the Silicon Valley (<http://synopsys.championship.oglepages.com>) was held all day on Wednesday, March 12 at the San Jose Convention Center. ACS local section members who were judges included professors from San Jose State U and from IBM as well as Silver Circle members George Lechner, Bruce Raby and Howard Peters.

The Synopsys Science and Technology Championship awards ceremony was held on Sunday, March 30 at the Great American Theme Park in Santa Clara. Local section officers presented a total of \$1,000 in prizes for five selected chemistry projects. During the ceremony student projects which will advance to the INTEL International Science and Engineering Fair ([www.societyforscience.org/isef/index.asp](http://www.societyforscience.org/isef/index.asp)) and the California State Science Fair in Los Angeles ([www.usc.edu/CSSF/](http://www.usc.edu/CSSF/)) were announced.

The INTEL International Science and Engineering Fair will be held from May 11-16, 2008 in Atlanta GA and the California State Science Fair in Los Angeles will be held on May 19-20, 2008.

PLEASE NOTE - The following science day programs (Synopsys SuperSchool Seminars) will be offered this summer to local K-12 teachers. Please see the following website for more details [www.outreach-foundation.org/](http://www.outreach-foundation.org/). Program topics and dates are listed below.

- Jun 21** Genetics and Evolution
- Jun 24** Color and the Nature of Light
- Jun 26** Lenses and Mirrors
- Jun 28** Integrating Forensics into Science Courses
- Jul 10** Move Into Science
- Jul 12** Forensic Analysis: The JFK Assassination
- Aug 5** Chemistry for Elementary Students
- Aug 6-7** Microbiology



George Lechner, Howard Peters and Bruce Raby.

## BYLAWS ELECTION RESULTS

The votes are in for the recently conducted election on revising the Section's bylaws. The tally was 244 YES, 3 NO, 1 ABSTAIN. The vote count was submitted to National ACS and we received their approval. So, we have a new set of bylaws that will improve our election process by allowing electronic voting on issues, such as electing new officers every year in the Fall. The complete bylaws are posted on our website, [www.scvacs.org](http://www.scvacs.org), for you to view at your leisure. The elections Committee is now working on the mechanics of electronic voting and will make the process as easy as possible for the members. As stated in earlier articles on this subject, the two main reasons for doing this were to make voting easy for members and less expensive than the snail mail method, which we will continue to use for those who need it. If you would like to comment on this, please do by contacting a member of the Executive Committee.

**George Lechner**

## Registration Open for the Short Course Circuit

San Francisco, CA, May 19-23, 2008

Registration has opened for the American Chemical Society Short Course Circuit to be held in San Francisco, CA, May 19-23, 2008. Register before April 21st to receive a \$100 discount on your registration fee. Academic and group discounts are also available.

Visit the following website for complete details.

<http://ent.groundspring.org/EmailNow/pub.php?module=URLTracker&cmd=track&j=197323576&u=2011307>

– Circuit Course Calendar –

### Monday, May 19 and Tuesday, May 20

Fundamentals of High Performance Liquid Chromatography

Introduction to Modern Mass Spectrometry

Drug-Like Properties in Drug Discovery

Essentials of Biochemistry for Drug Hunters

Synthetic Organic Chemistry: Modern Methods and Strategies

### Wednesday, May 21 and Thursday, May 22

Chemical Engineering and Process

Fundamentals for Chemists

Structure Based Drug Design

Pharmacokinetics and Pharmacodynamics:

Principles and Applications in Pre-Clinical

Drug Development

### Wednesday, May 21, Thursday, May 22 and Friday, May 23

Statistical Analysis of Laboratory Data

Laboratory Safety and Health

For over 30 years, ACS Continuing Education has been a respected source for chemists who wish to advance or update their skills. Contact ACS Continuing Education at 1-800-227-5558 X4508 or via email at [shortcourses@acs.org](mailto:shortcourses@acs.org).

## New Legislative Action Network Homepage

ACS Office of Legislative and Government Affairs (OLGA) is proud to announce the development of a new Legislative Action Network homepage called [act4chemistry.org](http://act4chemistry.org).

Act4chemistry.org offers American Chemical Society members:

- Current news and commentary through the Act 4 Chemistry blog,
- Daily links to news articles of interest to scientists, and
- Access to an improved legislative action center, where ACS members can send letters to policymakers.

Register:

[www.act4chemistry.org/register](http://www.act4chemistry.org/register)

Only registered participants will receive notices of key decisions being made affecting chemistry. ACS members are encouraged to register so that they can comment on blogs and send letters to their policymakers.

Act4chemistry.org is a free program of the OLGA designed to bridge the gap between policymakers and chemistry. If you have any questions please contact Brad Smith at [b\\_smith@acs.org](mailto:b_smith@acs.org).

## 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 2008 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 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
- 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

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, 2008, and must be mailed to:

Radding Award Committee  
Santa Clara Valley Section ACS  
P. O. Box 395  
Palo Alto, CA 94302



## CHEMPLOYMENT ABSTRACTS APRIL 2008

### CHEMPLOYMENT ABSTRACT 3896

*Position Title:* Senior Analytical Chemist

*Job Description:* The position requires advanced knowledge and hands-on skills in nuclear magnetic resonance (NMR), mass spectroscopy and chromatographic techniques. It uses professional concepts to solve a variety of problems. Conceives, directs, plans, designs and executes R&D on the basis of advanced theoretical knowledge. Analyzes outcomes, interprets results and adjusts R&D strategy based on technical principles and theories.

**QUALIFICATIONS DESIRED:**

*Education:* PhD/MS/BS

*Experience:* Ph.D. in chemistry or pharmaceutical science with 0-2 years of experience, M.S. with more than 5 years work experience, or B.S. with more than 10 years of experience.

**LOCATION, SALARY, MAIL ADDRESS:**

*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:* Apply via our web page at:

<https://sri.ats.hrsmart.com/cgi-bin/a/highlightjob.cgi?jobid=3946>

SRI is an equal opportunity employer. <http://www.sri.com/jobs>

### CHEMPLOYMENT ABSTRACT 3897

*Position Title:* Associate Director, Compound Services – Medicinal Chemistry

*Job Description:* Coordinate all aspects of compound management with responsibilities for a team of 5-7 scientists & research associates. Majority of time to be spent in management activities of: daily sample bank, compound acquisition & parallel synthesis, HTS, and compound purification. This is a highly collaborative role within key areas of research.

**QUALIFICATIONS DESIRED:**

*Education:* A Ph.D. with a minimum of 6 years experience or MS with a minimum of 8 years.

*Experience:* Typically requires 6+ years' relevant experience; in-depth knowledge of state-of-the art principles and theories, applying such knowledge to the research direction that supports Company interests; and demonstrated technical proficiency, scientific creativity, collaboration with others and independent thought in suggesting experimental design & research strategy.

**LOCATION, SALARY, MAIL ADDRESS:**

*Job Location:* Foster City, CA

*Salary:* DOE

*Employer Description:* Gilead Sciences is a biopharmaceutical company that discovers, develops and commercializes therapeutics to advance the care of patients suffering from life-threatening diseases worldwide.

*Application Instructions:* Apply online at:

<http://gilead.apply2jobs.com/index.cfm?fuseaction=mExternal.showJob&RID=941&CurrentPage=1>

### CHEMPLOYMENT ABSTRACT 3899

*Position Title:* Research Assistant

*Job Description:* The Research Assistant (RA) will be trained in, and responsible for, the use of a circular dichroism spectrometer, UV-vis spectrometer, a precision density meter, and two ultrasensitive calorimeters. The RA will maintain a clean and organized working environment for all laboratory members, and the RA will train and mentor research students in the proper use of instrumentation. Further information may be found at the supervisor's website: <http://www.chemistry.sjsu.edu/deggers/homepage.htm>

**QUALIFICATIONS DESIRED:**

*Education:* B.S. or M.S. degree in Chemistry, Biochemistry, Biochemical Engineering, or equivalent.

*Experience:* Experience working in a research environment is desirable. Excellent verbal communication skills are mandatory. A minimum commitment of one year in this position is expected.

**LOCATION, SALARY, MAIL ADDRESS:**

*Job Location:* San Jose State University, San Jose, CA

*Salary:* Negotiable.

*Employer Description:* The RA will be paid from a grant administered by the SJSU Research Foundation. Foundation employment is separate and distinct from SJSU or State of California employment.

*Application Instructions:* Send letter of interest, resume, and the names and contact information of at least two references by post, email or fax to: Dr. Daryl K. Eggers, Chemistry Department, SJSU, San Jose, CA 95192-0101; (E-mail) [deggers@science.sjsu.edu](mailto:deggers@science.sjsu.edu); (Fax) 408-924-4945.

### CHEMPLOYMENT ABSTRACT 3900

*Position Title:* Chemist and Lab Manager

*Job Description:* Management of waste treatment and recycling; staying current on all applicable waste treatment compliance requirements; managing of lab technicians; training and managing waste treatment operators; monitoring process tanks and maintaining related records; assisting with facilities issues, such as requesting waste treatment equipment and supplies; initiating projects for continuous improvement and advancing sustainability of operations.

**QUALIFICATIONS DESIRED:**

*Education:* B.S. or greater in Chemistry or Chemical Engineering

*Experience:* Prefer 10 years experience in an industrial setting with hands-on management of waste treatment operations and chemical laboratory operations.

**LOCATION, SALARY, MAIL ADDRESS:**

*Job Location:* Hayward, CA

*Salary:* Negotiable, depending on qualifications and experience

*Employer Description:* A major player in precision chemical cleaning, serving the needs of the semiconductor industry and other high technology businesses; Closely-held for 25 years, ISO 9001-2000 certified; fully committed to spearheading "green" practices in waste treatment, processing, and reclamation.

*Application Instructions:* Please visit website at [www.tmpi-quickclean.com](http://www.tmpi-quickclean.com) for more information. Interested persons, please email resume to [eric@tmpi-quickclean.com](mailto:eric@tmpi-quickclean.com) with copy to [atrujillo@tmpi-quickclean.com](mailto:atrujillo@tmpi-quickclean.com).



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

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<http://www.scvacs.org/newsletter/>

## SANTA CLARA VALLEY SECTION

### 2008 Section Officers

Chair	<b>Mark Kent</b>	408-736-0989	marklent@yahoo.com
Chair-Elect	<b>Natalie McClure</b>	650-906-7831	nmccclure@drugregulatoryaffairs.com
Past Chair	<b>George Lechner</b>	408-226-7262	glechner@aol.com
Secretary	<b>Karl Marhenke</b>	831-688-4959	karlmar@armory.com
Treasurer	<b>Herb Silber</b>	408-924-4954	hbsilber@science.sjsu.edu

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2007-2009	<b>Sally Peters</b>	650-812-4994	Sally.Peters@parc.com
2007-2009	<b>Peter Rusch</b>	650-961-8120	pfrusch@aol.com
2008-2010	<b>George Lechner</b>	408-226-7262	glechner@aol.com
2008-2010	<b>Herb Silber</b>	408-924-4954	hsilber@science.sjsu.edu
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### Alternate Councilors

2006-2008	<b>Ihab Darwish</b>	650-594-1654	darwishis@yahoo.com
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2006-2008	<b>Bruce Raby</b>	408-294-6718	brida954@comcast.net
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2007-2009	<b>Natalie McClure</b>	650-906-7831	nmccclure@drugregulatoryaffairs.com
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### ChemPloyment Abstracts

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

## FUTURE MEETINGS

- Apr 6-10** National ACS Meeting  
Joint with AIChE  
New Orleans, LA
- Apr 19** UNESCO National Chemistry  
Olympiad Exam  
Livermore, CA
- Apr 23** Section Dinner Meeting  
Discovery and Development  
of LIPITOR  
Dr. Bruce Roth  
Genentach, Inc.  
South San Francisco, CA
- Apr 24** Family Science Night  
Joint activity with CA section  
East Palo Alto Charter School  
**Volunteers Needed**  
nmccclure@drugregulationaffairs.com
- Apr 29** 46th AIChE Annual Symposium  
South San Francisco Conference  
Center  
<http://aiche-norcal.org/symposium.php>
- May 15** Section Dinner Meeting  
Chemists Without Borders  
Dr. Bego Gerber  
Biltmore Hotel, Santa Clara, CA