

# Silicon Valley Chemist

Santa Clara Valley Section

American Chemical Society

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## Reminder

## January Dinner Meeting

## Reminder

# Mosher Award Recipient Plastic Solar Cell with Engineered Interfaces

Dr. Tobin J. Marks

### Abstract

The ability to fabricate molecularly-tailored interfaces with nanoscale precision can selectively modulate charge transport across hard matter-soft matter interfaces, facilitating transport of the "correct charges" while blocking transport of the "incorrect charges." This interfacial tailoring can also control defect densities at such interfaces and stabilize them with respect to physical/thermal decohesion. In this lecture, challenges and opportunities are illustrated for three specific and related areas of research: 1) charge transport across hard matter-soft matter interfaces in organic electroluminescent devices, 2) charge transport across hard matter-soft matter interfaces in organic photovoltaic cells, 3) charge transport to unconventional electrodes. It will be seen that rational interface engineering along with improved bulk-heterojunction polymer structures leads



to solar power conversion efficiencies as high as 5.6% - 7.3%, along with far greater cell durability.

### Biography

The 2010 Harry and Carol Mosher award recipient is Dr. Tobin J. Marks. Dr. Marks is the Vladimir N. Ipatieff Professor of

Chemistry and Professor of Materials Science and Engineering at Northwestern University.

*continued on next page*

## January Dinner Meeting

**Date:** Thursday, January 20, 2011

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

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

**Speaker:** Dr. Tobin Marks  
Northwestern University  
"Plastic Solar Cells with  
Engineered Interfaces"

**Cost:** \$27.00 with a choice of:  
Pork Marsala or  
Eggplant Parmesan

**Reservations:** [www.scvacs.org](http://www.scvacs.org)  
Sally Peters 650-812-4994

Reservations should be made by January 17th stating your name, address, company affiliation, number of people in party. Watch the web site for more information. If you are unable to honor your reservation and do not cancel by Wednesday, January 19th, you will be invoiced following the dinner meeting.

## Chair's Message

Wow! Our November 15th dinner meeting was very special. Herb Silber received the Radding Award and T.R. Dickson received the Community College Teacher-Scholar Award. Also, about 20 people received the Chemistry Ambassador Award from the national ACS president, Dr. Joseph Francisco. Dr. Francisco talked about some of the national programs, specifically emphasizing programs for helping community colleges.

Our January 20 meeting will feature the presentation of the Mosher Award to Dr. Tobin Marks of Northwestern University. He will be discussing



applications of chemistry to the production of certain solar cell materials. Please plan on attending this significant meeting.

Abby Kennedy will be our Section Chair in 2011 and she is planning an interesting year. Please support her.

This message is my last as I fade away to become Past Chair for next year. As always, the Section's year has been interesting and a bit different than during my first term as Chair in the 1970's. Thank you for your support during 2010. This is a good and strong Section; help keep it that way.

*Mosher Award, continued from front page*

Among the themes of his research are synthetic organo-f-element and early-transition metal organometallic chemistry, polymer chemistry, materials chemistry, homogeneous and heterogeneous catalysis, molecule-based photonic materials, superconductivity, metal-organic chemical vapor deposition, and biological aspects of transition metal chemistry.

He received a B.S. degree from the University of Maryland in 1966 and a Ph.D. from MIT in 1971 in Chemistry. Dr. Marks has mentored over 100 Ph.D. students and nearly as many postdoctoral fellows. He has been chair of the ACS Division of Inorganic Chemistry, and he has been active in the Chicago local section. Dr. Marks has also organized a number of conferences and symposia to help introduce the scientific community to emerging fields, and he has been an

Associate Editor of the ACS journal, *Organometallics*.

Dr. Marks has served on the NAS-NRC International Benchmarking committee to evaluate the health of the US chemical research, and the DOE Basic Energy Grand Research Challenges Committee to help identify promising future directions for US scientific research. He will be serving as the US team leader (on behalf of ACS office of International Activities and NSF Chemistry Division) at an upcoming Chemical Sciences and Society Symposium on Sustainable Materials involving the US, UK, German, Japanese and Chinese Chemical societies

Dr. Marks has received multiple awards and honors from the ACS and other organizations. We are very pleased to add the 2010 Mosher Award to this distinguished list. A few of the major ones include the ACS 2000

ACS Cotton Medal; 2001 ACS Willard Gibbs Medal; 2001 ACS Linus Pauling Medal; 2002 American Institute of Chemists Gold Medal; 2003 German Chemical Society Karl Ziegler Prize; 2004 Royal Society of Chemistry Frankland Medal, and the 2005 ACS Bailar Medal. He received the 2008 Spanish Principe de Asturias Prize for Scientific Research; the 2009 N. American Catalysis Society Pines Award; the 2009 Taylor Materials Research Award from Pennsylvania State University; the 2009 Von Hippel Award from the Materials Research Society; the 2010 ACS Nichols Medal; the 2010 Distinguished Affiliated Professor Award and Wilhelm Manchot Prize, Technical University of Munich; and the 2011 Schulich Prize from the Technion-Israel Institute of Technology.



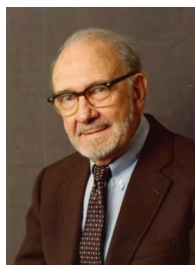
## Nobel Laureates Speak at the 25th Annual William S. Johnson Symposium

by Howard Peters (Stanford University, Ph.D., Chemistry 1967)

The 25th annual Johnson Symposium was celebrated at the Stanford University Department of Chemistry on October 8th and 9th. This October's meeting occurred on a quintessential California sunlit, autumn day. The Braun Auditorium in the Mudd Chemistry Building was filled completely, as expected, and some attendees had to overflow into the adjacent lecture hall equipped with a television monitor. The audience included Stanford faculty, graduate students, post-docs, sponsor representatives, alumni, and some general public.

This was probably the largest group meeting of Nobel Prize winners in the State of California this year. The invited Nobel Prize lecturers included: Dr. E. J. Corey (Harvard, Nobel in Chemistry, 1990), Dr. Robert M. Grubbs (California Institute of Technology, Nobel in Chemistry, 2005), Dr. Ada Yonath (Weizmann Institute, Nobel in Chemistry, 2009), Dr. Andrew Fire (Stanford Medical School, Nobel in Medicine, 2006), Dr. Stanley Prusiner (University of California San Francisco, Nobel in Medicine, 1997), Dr. Roderick MacKinnon (Howard Hughes Medical Institute, Nobel in Chemistry, 2003), and Dr. Richard Schrock (Massachusetts Institute of Technology, Nobel in Chemistry, 2005).

The Johnson Symposium was first held in 1985 and commemorates Dr. William S.



Johnson (1913-1995). Dr. Johnson was a Homer Adkins Professor of Chemistry at the University of Wisconsin in 1957 when he was approached by the Stanford Provost, Dr. Frederick Terman to head the Stanford Chemistry Department. Johnson was one of the leading figures in the development of the art

and science of the synthesis of organic compounds, particularly steroid structures. In addition to his many honors and awards, Johnson was elected to the National Academy of Sciences in 1954. Johnson arrived at Stanford in 1958 and was successful in recruiting an amazing faculty including: Dr. Carl Djerassi, Dr. Eugene van Tamelen, Dr. Henry Taube, Dr. Paul Flory, and Dr. Harden McConnell. It was said by Dr. Terman that William Johnson was instrumental in creating the Stanford chemistry renaissance we now know.

The Johnson Symposium continues to focus on the synthesis of organic compounds, particularly those related to natural products. The 2010 Johnson Symposium was organized and facilitated by many people under the direction of the Organizing Committee: Dr. Chaitan Khosla, Dr. Barry Trost and Dr. Paul Wender. The industrial sponsors for this Johnson Symposium included: Amgen, Genentech, Merck, Gilead, and Boehringer-Ingelheim.

The Friday evening after-dinner speaker

at the new Rosewood Hotel was Rudy Baum, Editor-in-Chief of the ACS weekly news magazine, *Chemical and Engineering News*. Rudy's thought-provoking subject was "Sustainable Growth; Is it an Oxymoron and What That Means for the Chemistry Enterprise." Rudy mentioned the Johnson Symposium in his editorial page in the October 18th edition of *C&E News*. Also, the full text of his Johnson Symposium after-dinner address is found in the November 8th edition of *C&E News* (pp. 44-47).

The next Johnson symposium will be held on Friday, October 7th, 2011 and information can be found beginning in May 2011 at [www.stanford.edu/dept/chemistry/events/index.html](http://www.stanford.edu/dept/chemistry/events/index.html) under Events.



Front row: Dr. Bianxiao Cui, Stanford Session Chair; Dr. Karlene Cimprich, Stanford Session Chair; Dr. Paury Trost, Stanford, Session Chair & Johnson Committee; Dr. Ada Yonath, Speaker, Weizmann Institute; Dr. Roderick MacKinnon, Speaker, Rockefeller U.; Dr. Robert Waymouth, Stanford Session Chair; Dr. Paul Wender, Stanford, Johnson Committee; Dr. E. J. Corey, Speaker, Harvard. Back row: Dr. Lynette Celgeski, Stanford Session Chair; Dr. Andrew Fire, Speaker, Stanford; Dr. Chaitan Khosla, Stanford Session Chair & Johnson Committee; Dr. Matthew Kanan, Stanford Session chair; Dr. Richard Schrock, Speaker, MIT; Rudy Baum, Dinner Speaker, Editor-in-Chief, *Chemical and Engineering News*.

# Teach the Teachers Returns

By Bonnie Charpentier (Workshop Organizer)

The workshop “Teach the Teachers” for middle and elementary school teachers was held October 30 celebrating the National Chemistry Week (NCW) theme “Behind the Scenes with Chemistry”. Led by Juanita Ryan, our remarkable workshop instructor, teachers performed experiments such as pH color changes and demonstrated the chemistry behind slime, fake blood, and magic writing set to examples from movies including “Flubber”, “Ghost Busters” and “Harry Potter”.

The resumption of “Teach the Teachers” was made possible by a generous grant from our new sponsor, Gilead Sciences. (The workshop was not held last year due to the closure of the site of our long-time sponsor, Roche Palo Alto). We also have a new partner, the Resource Area for Teaching (RAFT). RAFT personnel managed notification and registration of teachers and provided space to hold the workshop.



Juanita Ryan teaching the teachers



Students helping demonstrate special effects

Teachers performed hands-on experiments and were provided with a binder of experiment instructions and all of the materials needed to do the experiments in their classrooms. In addition, there was a raffle that gave away laboratory supplies and equipment. A special thanks to Linda Brunauer, Juanita Ryan and Lee Latimer who joined me in attending a give-away

at the Roche Palo Alto campus to obtain supplies that were given to the teachers at the raffle. Teachers were also provided



Teachers performing experiments

links to ACS resources for teachers and a discounted rate to become members of RAFT.

This year about three quarters of the teachers were first time attendees. We also welcomed back teachers who have attended many times since the workshop first began in 1996, including one teacher who attended with her daughter who is now also a teacher. A total of 38 teachers participated in the workshop, representing almost as many individual schools (and one home-schooler). The feedback from the teachers was overwhelmingly positive, rating the overall workshop highly with particular appreciation for the hands-on aspect of the workshop. Some of the feedback included the following comments: “It was fun and very engaging.” “So many helpful people.” “Getting all the materials and explicit directions and handouts...ensures that the activities will be implemented and not just stored in a pile at the back of my room.” “It was awesome!” “Be sure to do it again!”

In addition to Gilead and RAFT (and, of course, Juanita), the workshop depended on the hard work and time commitments of our dedicated volunteers. Juanita was ably assisted by Josefa

Arruiza and Susan Sakaguchi. This year we had the participation of Linda Brunauer’s students from Santa Clara University and Jeanette Medina’s students from Cañada College. Thank you to Linda and Jeanette for encouraging their students to participate and for helping organize the raffle prizes. Thanks go to our other amazing ACS volunteers who jumped in wherever needed and made the workshop run smoothly (lead roles noted in parenthesis): Lois Durham (volunteer set up coordination and pictures), Maurizio Franzini, Mark Kent, Lee Latimer, George Lechner (breakfast organizer), Susan Oldham-Fritts (registration and give-away bag organization), Howard Peters (purchase and delivery of drinks and supplies, lunch supervision and clean-up), Bruce Raby, Carmen Rodriguez, and Rebecca Suttman. Our RAFT partners were Jeanne Izant and Sylvia Lodge. We’d also like to thank Robin Martinez of the Epicurean Group for working with us to provide a delicious lunch for the teachers at an affordable cost.



Juanita Ryan and a teacher having some fun

This workshop is a great partnership which provides a wonderful service for teachers. We hope to keep it going for many years to come.



## Donate to the American Chemical Society or any other Charitable Organization

As the end of the year approaches, it becomes more critical to plan the timing of your gift to support the American Chemical Society. There are a number of programs that one can contribute to at the ACS, including, The SEED Program, ACS



Scholars Program, Teachers Professional Development, or the ACS General Fund. In addition to the ACS, there are a number of other charitable causes that could use a gift in these difficult times. Here are some dates to remember depending on the type of asset you wish to give.

### A Very Important Date

All gifts must be completed on or before December 31st to qualify for an income tax deduction this year when you itemize on your federal taxes.

- Cash contributions sent through the mail are usually deductible if they are mailed by midnight on December 31st.
- Securities are generally deductible on the date they are fully transferred (if done

electronically) to our books—not the date you ask your broker to make the transfer.

- Real estate gifts, in most states, are considered complete on the date a properly executed deed is delivered.
- Tangible personal property gifts are complete once the property is delivered to ACS.
- Life insurance gifts are considered complete on the date you sign the paperwork transferring ownership to the ACS, assuming you properly forward the form on to the insurance company.

You can visit the following website for a secure place to donate on-line: <https://webapplications.acs.org/applications/give/>

If you would like help in planning your gift to receive full benefit this year, contact Mary Bet Dobson at 202-872-6210 or [PlannedGifts@acs.org](mailto:PlannedGifts@acs.org).

## Welcome to the Santa Clara Valley Section of ACS

Each month the section receives a spreadsheet from national ACS with the names of members new to our section. The members are either new to ACS, have transferred in from other areas, or are the newest members -- the students. To welcome you to the section and get to know you, the Executive Committee offers new members a free dinner!! To encourage you to attend a monthly section dinner meeting, we would like you to be our guest. When you register, make certain to mention that you are a new member and you and a spouse (or friend) will be our guests.

The dinner meetings are often the 3rd Thursday of the month at a local spot, somewhat convenient to the entire section. If you are unable to attend in the evening, perhaps you would join us for an outreach event, like judging a science fair, participating in the chemistry olympiad, or a national chemistry week event in October. Then, there is our annual wine tasting and awards picnic in July. The local section is a volunteer organization. Please attend an event, volunteer to help, and get to know your local fellow chemists. Welcome!!



## New Members List for November

Adolfredo Alvarez  
Annabelle I. Benin  
Dr. Mary L. Blackburn  
Dr. Roberto A. Bogomolni  
Forest Bohrer  
Dr. Alexander Breder  
Allan Chan  
Dr. Zhu Chen  
Lila Forte  
Dr. Qiufeng Gao  
Chiara Helena Catherina Giammanco  
Dr. Fangxiao Guan  
Ryan G. Hadt  
Young Soo Han  
Laural Elizabeth Hargrove  
Brandon Heilman  
Joseph Henrich  
Dr. Joseph I. Horwitz  
Glenn Johnson  
Douglas Jones II  
Samuel S. Kintz  
Dr. Mikhail N. Kislitsyn  
Brianna Michelle LaMay  
Brian Leon  
Dr. Dong-Hee Lim  
Linda Lim  
Prof. Robert S. H. Liu  
Stephen Mangum  
Ruben M. Martinez  
David Nasim Mazahreh  
Lillian McBee  
Chris Murphy  
Thomas Ni  
Dr. Jens K. Norskov

## Calling all Stanford Chemistry and Chemical Engineering Alumni

By Howard Peters

(Stanford University, Ph.D., Chemistry 1967)

Following the 25th annual Johnson Symposium at the Stanford University Department of Chemistry on October 9, a brief luncheon was held at the Palo Alto Sheraton Hotel for local Stanford Chemistry and Chemical Engineering Alumni. Professor Justin Du Bois made a short presentation of some interesting events, new Chemistry Department faculty hires, and opportunities

for alumni.

Professor Du Bois shared with the group that the Stanford Chemistry Department is interested in reviving events and get-togethers with its alumni. If you are interested in being notified, getting involved or contributing, please contact Dr. Justin Du Bois ([jdubois@stanford.edu](mailto:jdubois@stanford.edu)) or Patricia Dwyer ([pdwyer@stanford.edu](mailto:pdwyer@stanford.edu)).

# National Chemistry Week 2010 -- It's a Wrap!

By Abby Kennedy

The Santa Clara Valley and California Sections of the ACS teamed up this year to celebrate National Chemistry Week (NCW) with a KABOOM by sponsoring "Chemistry – Colorful and Fun in 2010", at eight venues in Northern California. Professors Marvin Lang and Donald Showalter of the University of Wisconsin, Stevens Point, thrilled audiences from Santa Cruz to Chico with their world-famous demonstrations. Beginning with the cryogenic magic of liquid nitrogen, they progressed to color changes and clock reactions at room temperature, and finally to flames and detonations when various combinations of fuel, air, and ignition meet in bottles or balloons. Among the nearly 800 attendees were many local chemistry teachers, who left with new ideas and new connections with the ACS and their colleagues. The NCW Committee would like to especially thank the student chemistry clubs and their faculty advisors at University of California at Santa Cruz and San Jose State University for hosting these special events!

The complete list of venues was as follows:

- University of California, Santa Cruz

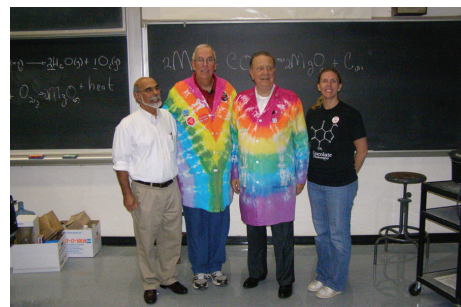
- Sunday, October 17, 2010
- St. Mary's College, Moraga, CA  
Monday, October 18, 2010
- California State University, Chico  
Tuesday, October 19, 2010
- California State University, Sonoma  
Wednesday, October 20, 2010
- Dominican University of California, San Rafael  
Thursday, October 21, 2010
- California State East Bay, Hayward  
Friday, October 22, 2010
- Exploratorium, San Francisco  
Saturday, October 23, 2010
- San Jose State University  
Saturday, October 23, 2010

To see Professors Lang and Showalter in action, at CSU Sonoma please visit: [www.youtube.com/watch?v=mAn9tjZFnI](http://www.youtube.com/watch?v=mAn9tjZFnI)

Of course NCW wouldn't be complete without our flagship event; the annual public outreach booth held this year on National Mole Day, Saturday, October 23rd at the Dr. Martin Luther King Jr. Library in downtown San Jose. Over 75 kids and their families came to take a spin on the Wheel of Chemistry Fortune. In celebration of the NCW theme, "Behind the Scenes with



Marvin Lang and Donald Showalter in action



California Section ACS President Paul Vartanian, Donald Showalter, Marvin Lang, and SCV Section Chair-Elect Abby Kennedy

Chemistry", kids were able to experiment with movie special effects like sodium polyacrylate snow and carbon dioxide(g) fog, and to practice deciphering secret messages using acid-base reactions. As usual, the enthusiasm of the young chemists was only surpassed by the enthusiasm of our amazing student volunteers. Special thanks go to Santa Clara University, San Jose State University, Cañada College and De Anza College student and faculty volunteers!

Stay tuned next summer for announcements about National Chemistry Week fun for 2011, during the International Year of Chemistry! GO IYC NCW!



Student volunteers and future chemists enjoying National Chemistry Week



# How to Grow a Borax Crystal Snowflake

Do real snowflakes melt too quickly? Grow a borax crystal snowflake, color it blue if you like, and enjoy the sparkle all year long!

## What You Need:

- string
- wide mouth jar (pint)
- white pipe cleaners
- borax (see tips)
- pencil
- boiling water
- blue food coloring (optional)
- scissors

## Here's How:

- The first step of making borax crystal snowflakes is to make the snowflake shape. Cut a pipe cleaner into three equal sections.
- Twist the sections together at their centers to form a six-sided snowflake shape. Don't worry if an end isn't even, just trim to get the desired shape. The snowflake should fit inside the jar.
- Tie the string to the end of one of the snowflake arms. Tie the other end of the string to the pencil. You want the

length to be such that the pencil hangs the snowflake into the jar.

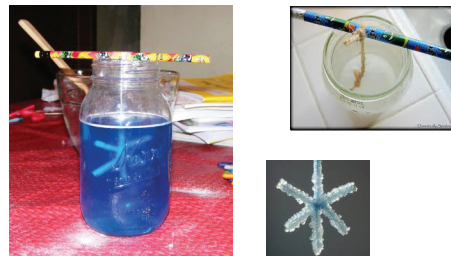
- Fill the wide mouth pint jar with boiling water.
- Add borax one tablespoon at a time to the boiling water, stirring to dissolve after each addition. The amount used is 3 tablespoons borax per cup of water. It is okay if some undissolved borax settles to the bottom of the jar.
- If desired, you may tint the mixture with food color.
- Hang the pipe cleaner snowflake into the jar so that the pencil rests on top of the jar and the snowflake is completely covered with liquid and hangs freely (not touching the bottom of the jar).
- Allow the jar to sit in an undisturbed location overnight.
- Look at the pretty crystals!!! You can hang your snowflake as a decoration or in a window to catch the sunlight.

## Tips:

- Borax is available at grocery stores in the laundry soap section, such as 20

Mule Team Borax Laundry Booster. Do not use Boraxo soap.

- If you can't find borax, you can use sugar or salt (may take longer to grow the crystals, so be patient). Add sugar or salt to the boiling water until it stops dissolving. Ideally you want no crystals at the bottom of the jar.



## Cabrillo College Instructor Wins 2010 Teacher-Scholar Award

By Bob Galembo

At the November dinner meeting, The 2010 Community College Teacher-Scholar Award was awarded to Thomas R. Dickson.

His anecdotes "brought the world of chemistry alive to his students". A gifted author, his textbook "presented important material in a clear, interesting way". As a mentor and advocate for his students he "guided them onward to advanced education in the nation's top universities".

These accolades define the teaching career of Thomas R. Dickson, "T.R." to his friends and students--an emeritus Instructor at Cabrillo College in Aptos, California, who taught there from 1971 to 1997.

The award honors teaching and scholarship among the chemistry faculty of two-year colleges. It is the first of its kind in the nation, and it was first awarded in 2009. This year's award was presented to Dickson by Dr. Joseph Francisco, President of the American Chemical Society, at the November 15 dinner meeting at the Biltmore Hotel in Santa Clara.

His students and colleagues affectionately remember Dickson, an instructor whose specialty was freshman college chemistry.

Katherine Olgiati, Ph.D., a former student and herself a retired Professor of Chemistry at St. Michael's College in Vermont, recalls, "T.R. brought clarity to chemistry, lab work and problem solving, in a course that is rarely, if ever, celebrated by students as clear."

"T.R.'s teaching style was captivating," explains Albion Baucom, now a computer systems architect at Genentech, "although I had endured high school chemistry just a year prior, his ability to keep me focused on the material while explaining it in terms that made it very understandable was uncanny."

"His ability to capture and hold the attention of a diverse group of students is uniquely T.R.", according to Christy Vogel, a Chemistry Instructor at Cabrillo College. "Interweaving his extensive knowledge of novel chemical applications and historical background with a clear presentation of chemical principles, he maintained the largest non-science major audience in the history of Cabrillo College."

Dickson is also the author of several books.

His textbook "Introduction to

Chemistry" has been reprinted in Spanish as well as English. It has been updated through eight editions and is regarded as a model of clarity in presentation and developing problem solving skills. One of T.R.'s colleagues once spotted a copy in the front window of a large bookstore in downtown Melbourne, Australia.

In 1968, the year the Defense Advanced Research Projects Agency (DARPA) linked two mainframe computers, known as the birth of the internet, he published *Computers and Chemistry: An Introduction to Programming and Numerical Methods*, one of the seminal books to explain a central tool of chemistry.

In 1978, when hand held calculators were cutting-edge technology, *Popular Science* declared his 364-page *Electronic Calculator Handbook* as a "superb guide to using your calculator" that "includes everything--and more--about how these electronic marvels work."

T.R.'s whimsical and imaginative side came through in his 1999 novel "The Great White Troid," a science fictionalized version of the Moby Dick tale.

## Highlights of the November 15th Dinner Meeting



National ACS Chair of the Board of Directors Bonnie Charpentier, ACS President Joe Francisco, this year's Community College Teacher-Scholar Award winner T.R. Dickson, and last year's winner Jeanette Medina



Joe Francisco, T.R. Dickson and Alternate Councilor Harry Ungar



SCV Section staff photographer Lois Durham



SCV Section Secretary Karl Marhenke receives a Chemistry Ambassador Award from Joe Francisco, while Chair Bruce Raby looks on



Peter Rusch giving the Shirley Radding Award to SCV Section Councilor Herb Silber

## CHEMEMPLOYMENT ABSTRACTS DECEMBER 2010

For a complete list of current abstracts, please visit: [www.scvacs.org/Local\\_Folder/abstract.htm](http://www.scvacs.org/Local_Folder/abstract.htm)

### CHEMEMPLOYMENT ABSTRACT 3957

**Position Title:** Senior Research Associate, Small Molecule Process Chemistry

**Job Description:** Genentech is seeking a highly motivated and experienced Senior Research Associate with a proven record of laboratory achievement to join its growing Process Chemistry group. The candidate will discover, develop and demonstrate process chemistry at the laboratory and kilo-lab scale for timely delivery of early and mid-phase small molecule development candidates in the growing GNE pipeline in accordance with cGMP, ICH and FDA regulations. The individual will control the bulk quality attributes of the API conducive to successful development and formulation.

#### QUALIFICATIONS DESIRED:

**Education:** This position requires a Bachelor's degree in Chemistry (Master's degree preferred)

**Experience:** Candidates should have a record of innovation and success in multiple projects over the course of their industrial career. A sustained publication record is desirable. We are seeking a candidate with a strong working knowledge of the latest developments in contemporary Process Chemistry including chemo- and/or bio-catalysis/asymmetric transformations, organo-metallic chemistry as well as experience in heterocyclic chemistry.

6-12 years of industry experience.

#### LOCATION, SALARY, EMPLOYER:

**Job Location:** South San Francisco, CA

**Salary:** Competitive

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

**Application Instructions:** To learn more about our current opportunities, please visit: <http://careers.gene.com> and reference Req. #1000035310. Please use "Web - SCACS" when a source is requested. Genentech is an equal opportunity employer.



Season's  
Greetings



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## SANTA CLARA VALLEY SECTION

### 2010 Section Officers

Chair	<b>Bruce Raby</b>	408-294-6718	bruceraby@att.net
Chair-Elect	<b>Abby Kennedy</b>	209-640-2005	akennedy@exelixis.com
Past Chair	<b>Natalie McClure</b>	650-906-7831	nmclure@drugregulatoryaffairs.com
Secretary	<b>Karl Marhenke</b>	831-688-4959	karlmar@armory.com
Treasurer	<b>Ihab Darwish</b>	650-594-1654	darwishis@yahoo.com

### Councilors

2008-2010	<b>George Lechner</b>	408-226-7262	glechner@aol.com
2008-2010	<b>Herb Silber</b>	408-924-4954	hbsilber@science.sjsu.edu
2009-2011	<b>Abby Kennedy</b>	209-640-2005	akennedy@exelixis.com
2009-2011	<b>Howard Peters</b>	650-854-4614	peters4pa@sbcglobal.net
2009-2011	<b>Ean Warren</b>	650-329-4554	ewarren@scvacs.org
2010-2012	<b>Linda Brunauer</b>	408-554-6947	lbrunauer@scu.edu
2010-2012	<b>Sally Peters</b>	650-812-4994	Sally.Peters@parc.com
2010-2012	<b>Peter Rusch</b>	650-961-8120	pfrusch@aol.com

### Alternate Councilors

2008-2010	<b>Mark Kent</b>	408-736-0989	markkent@yahoo.com
2009-2011	<b>Ihab Darwish</b>	650-594-1654	darwishis@yahoo.com
2009-2011	<b>David Parker</b>	408-615-4961	dparker@santaclaraca.gov
2009-2011	<b>Bruce Raby</b>	408-294-6718	bruceraby@att.net
2010-2012	<b>Lois Durham</b>	650-322-3507	ldurham9398@sbcglobal.net
2010-2012	<b>Natalie McClure</b>	650-906-7831	nmclure@drugregulatoryaffairs.com
2010-2012	<b>Stephanie Gehling</b>	408-429-9681	s_gehling@hotmail.com
2010	<b>Harry Ungar</b>	831-708-2049	haungar@cruzio.com

### Public Relations

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### Newsletter

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## FUTURE MEETINGS

### 2010

**Dec 15-20** PacifiChem 2010  
Honolulu, HI  
<http://pacifichem.org>

### 2011

**Jan 9-14** 20th Winter Fluorine Conference  
St. Pete Beach, FL

<http://fluorine.sites.acs.org/20thwfc.htm>

**Jan 20** Dr. Tobin Marks  
Mosher Award Dinner  
Biltmore Hotel, Santa Clara, CA

**Feb 11** Monthly Dinner Meeting (TBD)

**Feb 13** Dr. Uwe Bergmann  
Secrets of the Ancient Goatskin  
Silicon Valley Café Scientifique  
[www.cafescisv.org/mtg070213.html](http://www.cafescisv.org/mtg070213.html)

**Mar 16** Dr. Megan Schwarzman  
Joint meeting with AWIS

**Mar 27-31** National Meeting and Exposition  
Anaheim, CA