

# Silicon Valley Chemist

Santa Clara Valley Section

American Chemical Society

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## JANUARY 2013 NEWSLETTER TOPICS

- 2012 Mosher Award to Doctors Charles and Martha Casey
- February Dinner Meeting
- Chair's Message
- January Dinner Meeting Reminder
- New Members List for December
- SCV Election 2012
- Local Science Fairs in 2013
- Highlights of the November Dinner Meeting with Dr. Tzipor Ulman
- ChemPloyment Abstracts

## February Dinner Meeting

### 2012 Mosher Award to Doctors Charles and Martha Casey

#### Abstract

Martha and Chuck Casey will describe how their chemistry experiences had common origins in undergraduate research and in joining the research groups of beginning professors in graduate school at MIT. Chuck's career followed a traditional path as a Professor at the University of Wisconsin. He will describe his research career in organometallic chemistry and his experiences in teaching both graduate and undergraduate students. Martha switched to university administration, and will describe some of the ways her chemistry background helped her as an Assistant Vice Chancellor in charge of academic planning and institutional research. Chuck and Martha have shared a strong



interest in ACS activities. Martha became active first, was elected secretary-treasurer of the Wisconsin Section in 1975, Chair in 1980, and a Councilor in 1982. She has served on national committees ranging from the Committee on Budget and Finance to the Women Chemists Committee. Chuck was Chair of the Wisconsin

Section in 1985, and later served as chair of the Organometallic Chemistry Subsection and the Inorganic Division of ACS. With Martha acting as a savvy campaign manager, he successfully ran for 2004 ACS President. He is proud of starting the Academic

*continued on next page*

## Chair's Message

Happy New Year, and welcome to a new year of ACS activities! Like all of the Santa Clara Valley (SCV) Chairs before me, I'm here to keep our section informed and active.

We have many things planned for the forthcoming year. Some are annual events and others are brand new.

With a section membership in excess of 3,000, we have so many opportunities to participate. Think about it. You are a member of the SCV section. You can contribute something and get rewarded for doing so. What rewards? Exercise your talents. Yes, whatever they may be, there's something you can do: learn new skills, meet colleagues in a



friendly environment, see your efforts help others, practice your leadership skills, and influence events. All of that is yours in less than a year.

For all new Chairs this is the time to set goals for the year. Here are my top three.

- Get five new people involved in SCV activities at a high level of participation and decision-making that shows results.
- Hold at least one dinner meeting in a membership cluster site to engage more people.
- Have one lunch meeting as part of the Western Regional Meeting in October.

*continued on next page*

## February Dinner Meeting

**Date:** Thursday, February 28, 2013

**Time:** 6:00 p.m. Social Hour  
7:00 p.m. Dinner  
8:00 p.m. Presentation

**Speakers:** Charles and Martha Casey  
2012 Mosher Award Winners

**Location:** Biltmore Hotel & Suites  
2151 Laurelwood Road  
Santa Clara, CA

**Cost:** \$26.00  
Grilled Salmon or Pasta Primavera

**Reservations:** [www.scvacs.org](http://www.scvacs.org)  
Lois Durham, 650-322-3507

Reservations should be made by February 25th stating your name, address, company/school affiliation, and dinner selection. If you are unable to honor your reservation, please cancel by February 27th.

*Mosher Award Winners, cont. from front page*  
Employment Initiative and for efforts that led to open disclosure of ACS Executive Compensation.

Since retirement, Martha and Chuck's activities have re-converged and now center on service to scientific, civic and university organizations. Chuck chaired the National Research Council Committee that wrote the 2007 report "The Future of U.S. Chemistry Research: Benchmarks and Challenges"; he also served as chair of the Chemistry Section of AAAS during the International Year of Chemistry. Martha currently serves on the national ACS Nominations and Elections Committee, and needs suggestions for ACS presidential candidates. She continues to seek ways the local ACS section can best serve the chemical community, especially the students. In Madison, she serves on many boards including Madison Symphony Orchestra, Opera for the Young, Downtown Rotary, and the UW-Madison Alumni Association.

### **Biographies**

Charles Casey is Homer B. Adkins Emeritus Professor of Chemistry at the University of Wisconsin-Madison. He received a B.S. in Chem. from St. Louis University and a Ph.D. from MIT. In 1968, he joined the faculty at the University of Wisconsin-Madison where he spent his entire academic career and served as Chair of Chemistry from 1998-2001. He served as President of the American Chemical Society in 2004. His research focused on mechanistic organometallic chemistry and explored mechanisms of important catalytic processes including hydroformylation, hydrogenation, and alkene polymerization. He chaired the National Research Council Panel that wrote the 2007 report: "The Future of U.S. Chemistry Research: Benchmarks and Challenges." He is a member of the National Academy of Sciences (1993) and has received ACS Awards in Organometallic Chemistry (1991) and for Distinguished Service to Inorganic Chemistry (2011).

Martha Casey received her A.B. degree from Bryn Mawr College and her Ph.D. in organic chemistry from the Massachusetts Institute of Technology. She did postdoctoral work at the University of Wisconsin-Madison. After six years as a research chemist at UW-Madison, she switched to a career in university administration. She completed her service as an Assistant Vice Chancellor and head of the Academic

Planning and Analysis Office, an arm of the Provost's Office. This office developed academic planning and institutional research at the University of Wisconsin-Madison. In particular, she pioneered developing truly comparable comparisons with peer universities.

Martha was elected a Fellow of the American Chemical Society in 2012. She currently serves on the ACS national Committee on Nominations and Elections. As Councilor for the Wisconsin Section of the ACS for 28 years, she previously served on the Council Policy Committee, the Budget and Finance Committee, the Committee on Economic and Professional Affairs, and the Women Chemists Committee. At the local level, she has

served as chair of the Wisconsin Section and secretary-treasurer. She is particularly proud of helping to transform the mission of the Wisconsin Section toward student-oriented activities. She also serves on a number of boards in Madison related to supporting classical music and opera in the community and to supporting the university.



### *Chair's Message, continued from front page*

Now, the details.

- A high level of participation and decision-making that shows results means leading some activity or event or some part of it. You take a risk to say "Yes" to anything. Here's a way to take a small risk, do something to help out, and see the benefits.
- A membership cluster site is some work locale where we have a group of members. There are company sites in our section where there are anywhere from a dozen to more than a hundred ACS members. Let

us come to you with the programs of the SCV. Join me and volunteer to make this happen.

- Instead of a dinner meeting, we will have a Saturday lunch meeting at the Western Regional Meeting in October to meet not only SCV members but also other ACS members from local sections in Northern California.

You can reach me by emailing me at [chair@scvacs.org](mailto:chair@scvacs.org). I welcome and look forward to your e-mail.

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Reminder

January Dinner Meeting

Reminder

## Alice Brooks and Bettina Chen

Founders of Maykah, Inc.

### Abstract

Bettina Chen and Alice Brooks, the co-founders of Maykah, Inc. will describe their company and toys. They have developed a toy called Roominate, a wired building toy for girls because every young girl is an artist, engineer, architect and visionary. Bettina and Alice were influenced by their early childhood experiences. They are committed to delivering a fun toy experience that encourages exploration and confidence for young girls in science, technology, engineering, and math. Early opportunities to be inspired and encouraged will help girls welcome their potential as tomorrow's technology innovators! Math, sci-

ence, and engineering are a way of thinking that can become familiar to children through early exposure. Confidence and enthusiasm can be developed, starting with fun and engaging hands-on play in childhood.



Alice Brooks



Bettina Chen

## 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 -- 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 December

Dr. Richard L. Beardsley	Zhe Li	Alyssa Russo
Marc A. Blatchford	Minh Luu	Pamela Seng
Alix Chan	Dr. Jean Lythcott	Vincent Wenchung Shieh
Taia V. Ergueta	Yusuke Miyazaki	Benjamin Smith
Garrett Garton	Elizabeth Ogden	Dr. Jibin Sun
Kenneth George Kilen	Dr. Donogh Omahony	Jay Titus
Dr. Brian K. Kobilka	Baixin Qian	Mengyou Wu
Yuki Kubota		

### Biographies

Alice grew up playing in her dad's robotics lab. When she asked for a Barbie, he gave her a mini saw. So she made her own doll!

Alice Brooks graduated from the Massachusetts Institute of Technology in 2010 with a BS in Mechanical Engineering. She received her Masters in Mechanical Engineering Design from Stanford in June 2012. While a student at Stanford, Alice spent six months working at Nest Labs.

In her spare time, Alice loves making anything from light fixtures to stuffed animals to strawberry shortcake.

As a young girl, Bettina loved Lego and built hundreds of extravagant creations with her older brother.

Bettina Chen graduated from the California Institute of Technology in 2010 with a BS in Electrical Engineering. She received her Masters in Electrical Engineering from Stanford in March 2012. Bettina has conducted research on bionic contact lenses and worked as an electrical engineer at Discera and KLA-Tencor.

Bettina loves volunteering and working with kids, and is looking forward to getting kids as excited about engineering as she is! She is an ultimate frisbee enthusiast and plays competitively on a San Francisco bay area mixed club team.

## January Dinner Meeting

**Date:** Thursday, January 17, 2013

**Time:** 6:00 p.m. Social Hour  
7:00 p.m. Dinner  
8:00 p.m. Presentation

**Speakers:** Alice Brooks and Bettina Chen  
Founders of Maykah, Inc.

**Location:** Biltmore Hotel & Suites  
2151 Laurelwood Road  
Santa Clara, CA

**Cost:** \$26.00  
Chicken Romano or  
Vegetarian Lasagne

**Reservations:** [www.scvacs.org](http://www.scvacs.org)  
Sally Peters 650-854-4614

Reservations should be made by January 14th stating your name, address, company/school 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 Thursday, January 16th, you will be invoiced following the dinner meeting.



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## SCV Election 2012

Our 2012 election ended just after the December issue of this newsletter went to press. We got 308 votes, which is 10.0 % of the electorate.

As we do every year, we have a new Chair-Elect. We also have a new elected chair, due to the resignation of our Chair-Elect for 2012. Both the Treasurer and the Secretary were re-elected. All three of the Councilors and all three of the Alternate Councilors whose terms expired at the end of 2012 ran for re-election; all, of course, were reelected since they ran unopposed.

We thank everyone who voted, and we hope that our electronic balloting, managed by Vote-Now, was as easy for you as it was for us. The continuing members of the Executive Committee also thank those who voted for the implied vote of confidence in the volunteer work we do for the Section. We also thank you for your votes on the revision of our bylaws.

The most important requirements for Executive Committee ("ExComm") membership are (1) membership in the Santa Clara Valley Section of the ACS and (2) willingness to serve. If you're interested, you should come

to our dinner meetings; most of the current ExComm members attend most of those and showing up is a good way to meet them and get to know them, and they you. Any of us will be glad to describe what being a member of the ExComm involves. Also, visitors are always welcome at our ExComm meetings; the times and places are listed near the bottom of our home page at [www.scvacs.org](http://www.scvacs.org). For some time now we've been meeting at 7:30 p.m. on the first Monday of the month. Most of our recent meetings have been at the home of Howard and Sally Peters in Menlo Park. Meetings typically last until about 9:30.

Our Nominations and Elections committee puts names on the ballot based upon interest and willingness to serve, or, for incumbents, willingness to continue to serve. Thus, you have to find a way to be active in Section activities and attract the notice of the committee. Come to our dinner meetings! Volunteer for one of our committees!

Our Section is designated by the national office as "large". We have seven Councilors, and seven Alternate Councilors. That's fourteen people, and three of the five officers are also either Councilors or Alternate

Councilors. So, despite the fact that Section membership is still well over 3000, all we have been able to do is get 16 people to fill 19 slots! Getting volunteers for ongoing work isn't easy!

The only viable way to be elected is to get your name listed on the ballot. The national bylaws require Sections to hold elections, even if the races are non-contested. We are also required to allow for write-in votes, but the fact is that no one has ever come remotely close to being elected that way. Besides being placed on the ballot by the Nominations and Elections committee, the only way to get on it is through a petition. At least one past Section Chair not only ran, but also was elected in precisely this way. Only 15 signatures (one can even be the candidate's own) of Section members are needed. You send the petition to the Secretary, and you're on the ballot.

We're a 100% volunteer organization. None of us is paid for what we do, and we have no paid employees. Volunteers are always welcome. The work is interesting, fun, and rewarding. We invite you to join us!

Karl Marhenke, Secretary

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## Local Science Fairs in 2013

Contact: **Susan Oldham-Fritts**, [sofritts@garlic.com](mailto:sofritts@garlic.com), or **Mark Kent**, [marklent@yahoo.com](mailto:marklent@yahoo.com)

Now that the holidays are over, we are starting another important time frame—Science and Engineering Fair season. Every January to June is the time of intense effort for important competitions at the local, regional, state and international levels. There is always a great need for category awards judges for the following science fairs (especially in the areas of botany, biology, biochemistry, chemistry, microbiology, and the behavioral/social sciences). In addition, we have need of a few interested members for our SCVACS sponsored special award judges team at our local fair, the Synopsys Championship.

So, no matter which fair includes your hometown, please volunteer now!

### SCIENCEPALOOZA

East Side Union High School District fair, where many of the students are first time science fair participants

**Date:** Saturday, February 9, 2013

**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)

### San Mateo County Science, Math and Technology Fair

**Date:** Tuesday, February 26, 2013

**Location:** Hiller Aviation Museum, San Carlos

Contact Janet Shi at [jshi@smcoe.k12.ca.us](mailto:jshi@smcoe.k12.ca.us) or (650) 802-5355

For more information, [www.usc.edu/CSSF/Fairs/400.html](http://www.usc.edu/CSSF/Fairs/400.html)

### Monterey County Science and Engineering Fair

Sixth through twelfth grade Monterey County students

**Date:** Saturday, March 9, 2013

**Location:** California State University, Monterey Bay

For more information, visit [www.montereycountysciencefair.com](http://www.montereycountysciencefair.com)

### Santa Cruz Science Fair

Sixth through twelfth grade Santa Cruz County students

**Date:** Saturday, March 9, 2013

**Location:** Santa Cruz County Fairgrounds, Santa Cruz

For more information, visit [www.science.santacruz.k12.ca.us](http://www.science.santacruz.k12.ca.us)

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

**Date:** Wednesday, March 13, 2013

**Location:** San Jose Convention Center, San Jose

For information on category award judging, visit

[www.outreach-foundation.org/judges.html](http://www.outreach-foundation.org/judges.html)

For information on participating in the SCVACS special awards judging team, contact Susan Oldham-Fritts, [sofritts@garlic.com](mailto:sofritts@garlic.com),

or Mark Kent, [marklent@yahoo.com](mailto:marklent@yahoo.com)

### San Francisco Bay Area Science Fair - ISEF affiliate

While San Mateo County students are eligible, they will not be able to qualify for the California State Science Fair (CSSF).

**Date:** Wednesday, March 20, 2013

**Location:** San Francisco County Fair Ground Building - Golden Gate Park

Contact Robert Fabini at [sfbasf@gmail.com](mailto:sfbasf@gmail.com)

[www.usc.edu/CSSF/Fairs/300.html](http://www.usc.edu/CSSF/Fairs/300.html)

# Highlights of the November Dinner Meeting with Dr. Tzipor Ulman

Photos Courtesy of Lois Durham



Cinzia Muzzi



Dr. Tzipor Ulman



George Lechner, Bob and John Stutz



Natalie McClure



Floyd Hobbs and Bruce Raby



Abby Kennedy and Harry Ungar

## CHEMEMPLOYMENT ABSTRACTS JANUARY 2013

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 3981

*Position Title:* Chemistry Research Associate

*Job Description:*

- Synthesis and characterization of organic molecules, including nucleic acids
- Chemical modification and characterization of surfaces
- Chemical and spectroscopic analysis and interpretation (e.g., UV-VIS, Fluorescence, HPLC, NMR, LC/MS, FTIR)
- Documentation of experimental work; analysis of data and reporting/presenting results

**QUALIFICATIONS DESIRED:**

*Education:* Masters of Science degree in Chemistry.

*Experience:* Candidates must have 2-5 years of relevant post-graduate experience in industry, where they demonstrated an expert knowledge of organic chemistry, creative problem solving ability, proficiency and independence in a multidisciplinary laboratory research environment; and achievement of successful experimental outcomes. Experience with nucleic acids and other biomolecules is highly desirable.

**LOCATION, SALARY, EMPLOYER:**

*Job Location:* Palo Alto, CA

*Salary:* Salary is commensurate with industry standards and experience.

*Employer:* Centrillion Biosciences is a venture-backed, growing life sciences company located in Palo Alto, CA.

*Application Instructions:* Please send resumes to [hr@centrillionbio.com](mailto:hr@centrillionbio.com)

Happy  
New Year

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## SANTA CLARA VALLEY SECTION

<b>2013 Section Officers</b>	Chair	Peter Rusch (chair@scvacs.org)
	Chair Elect	Ean Warren
	Past Chair	Natalie McClure
	Secretary	Karl Marhenke
	Treasurer	Ihab Darwish

<b>Councilors</b>	2011-2013	George Lechner
	2011-2013	Herb Silber
	2012-2014	Abby Kennedy
	2012-2014	Ean Warren
	2013-2015	Linda Brunauer
	2013-2015	Sally Peters
	2013-2015	Peter Rusch

<b>Alternate Councilors</b>	2011-2013	Mark Kent
	2011-2013	Harry Ungar
	2012-2014	Lisa Milstein
	2012-2-14	David Parker
	2013-2015	Stephanie Bachmann
	2013-2015	Lois Durham
	2013-2015	Natalie McClure

**Newsletter Editor** Nathaniel Zuckerman  
nathanielzuckerman@gmail.com

**ChemPloyment Abstracts** Director Liang Cao

## FUTURE MEETINGS

- Jan 13-18** 21st Winter ACS Fluorine Conference  
St. Pete Beach, FL  
<http://fluorine.sites.acs.org/21stwfc.htm>
- Jan 17** Santa Clara Valley Section Meeting  
Alice Brooks and Bettina Chen  
Founders of Maykah, Inc.  
Santa Clara, CA  
[www.scvacs.org](http://www.scvacs.org)
- Jan 29** Stanford Distinguished Alumni  
Lecture Series  
Dr. Daniel Gamelin  
<https://chemistry.stanford.edu/events/sessler-lectures>
- Feb 28** Mosher Award Dinner Meeting  
Doctors Charles and Martha Casey  
University of Wisconsin  
Biltmore Hotel & Suites  
Santa Clara, CA  
[www.scvacs.org](http://www.scvacs.org)
- Mar 17-21** Pittcon  
Philadelphia, PA  
<http://pittcon.org>
- Apr 7-11** 145th National ACS Meeting  
New Orleans, LA  
[www.acs.org/neworleans2013](http://www.acs.org/neworleans2013)