

# Silicon Valley Chemist

Santa Clara Valley Section

American Chemical Society

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## DECEMBER 2012 NEWSLETTER TOPICS

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## January Dinner Meeting

### 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, science, 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.

#### Biographies

Alice grew up playing in her dad's robotics lab. When she asked for a Barbie, he gave

*continued on next page*



Alice Brooks



Bettina Chen

## 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 95054

**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.

## Chair's Message

This will be my last chair's message, as my term is coming to an end. At the beginning of the year, I set three goals for the year:

- To continue outreach activities: National Chemistry Week activities, Tech Trek, Teachers Workshop, Project SEED
- To prepare to host Western regional meeting in 2013
- To increase involvement in local section by recruiting more volunteers and re-invigorating the committee structure

I think we can claim success on two of these goals. Our section is quite active and we have numerous outreach activities that we



arrange each year. These include the National Chemistry week activities at Martin Luther King, Jr. Library, organizing Northern California chemistry Olympiad (jointly with the California section), sponsoring 3 students at Stanford University for Project SEED, and Tech Trek. Each of these activities

has been described in previous newsletters. This year, under Bonnie Charpentier's leadership, we initiated a new activity, which involved running hands on chemistry experiments at four San Mateo county family homeless shelters. An Innovative Program Grant from ACS supports this activity. The

*continued on next page*

January Dinner Meeting, continued from front page

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.



## 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 November

Jourdan Aguirre  
Dr. Deepshikha Angrish  
Jeanette Bertron  
Eda Canales  
River C. Charles  
Dorothy Chung  
John A. Crapster  
Alexander Cress  
Dr. Thomas De Swiet  
Alicia Fernandez  
Ryan J. Flannery  
Connor Hathaway  
Dr. Benedict Y. K. Ho

James N. Hohman  
Malcolm Huestis  
Bill Huynh  
Edward Irvine  
Jasmine Kalsi  
Todd Kohn  
Bobby D. Landreth  
Hengli Liu  
Nicholas Maskell  
Dr. John H. Miyawa  
Darian Orozco  
Jordan Kiefer O'Sullivan

Roberto Pimienta  
Sammy Pontrelli  
Pareet Raju  
Dr. Debjani Roy  
Jaziel Salomon  
Devleena Samanta  
Ariana D. Sanchez  
Andrew Galen Scheuermann  
Xuesong Shi  
Nicholas Simmons  
Francis B. Swain  
Dr. Byunghoon Yoon

Chair's Message, continued from front page

section volunteer's helped the children who lived in these centers to do a series of chemistry experiments exploring polymers. They made slime from polyacrylate, silly putty from glue and experimented with the superabsorbent polymers used in diapers. Several new volunteers from Stanford University and from Cañada College were involved in the homeless children's program.

We have also made good progress on the second goal. The Santa Clara Valley section and the California section are co-hosting the Western Regional meeting. The meeting will be held October 2-6, 2013 at the Hyatt Regency in Santa Clara. The meeting theme is "The Many Elements of Chemistry". We are expecting between 600-1200 attendees from the entire Western Region. The call for abstracts will be posted in February. This is a huge undertaking to arrange all the details for this meeting, so if you would like to be involved, please contact me (Natalie McClure), or any of the Executive Committee members. We need help contacting and organizing the exhibitors, in arranging special events, in setting up the Education track for chemistry

instructors and for undergraduate students.

Our third goal of re-invigorating the committees of the local section management and to increase volunteer participation represents a long term and ongoing challenge for the section. In the Bay Area, we are blessed by many interesting activities that are available to occupy any spare time that we may have. There is a multitude of ACS related opportunities that range from helping organize dinner meetings, to community outreach programs, like those described above, or to serving as a counselor or alternate counselor.

The Executive committee is charged with representing our section members at the National meetings and with organizing and coordinating the local activities. One of our mainstay activities has been the monthly dinner meeting with an interesting after dinner speaker. We have followed this format for many years. However, these dinner meetings

usually have an audience between 20 and 40 people, which is a small percentage of our membership. We will be discussing various ways of changing the meeting up, including evaluation of the meeting location, timing, speaker selection and format. We welcome your input. Please feel free to let anyone on the Executive committee know what you would like to have the section do, or come to one of our Executive committee meetings. The times and dates are posted on our website ([www.scvacs.org](http://www.scvacs.org)).

There is no dinner meeting in December. I look forward to seeing you in January.



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MEMBER ACIL

## The Division of Chemistry and the Law Establishes the Howard and Sally Peters Award Established for Non-Traditional Careers in Chemistry

The ACS Division of Chemistry and the Law (CHAL) has established an award regarding non-traditional careers in chemistry in honor of chemists Howard and Sally Peters—long-term members of the Santa Clara Valley Local Section. This is the first award established by CHAL in more than twenty years, and it was presented for the first time to both Howard and Sally to recognize their significant lifetime contributions to non-traditional careers in chemistry. Howard has laboratory research experience in high explosives at SRI International, Menlo Park and is now retired after a 30-year career as a patent attorney in the Silicon Valley. Sally has laboratory research experience at Geneva College, Beaver Falls, Pennsylvania and the Department of Chemistry at Stanford University. She is now retired after 28 years as a chemical information specialist with XEROX PARC in Palo Alto, CA. The award presentation occurred at a dinner following the CHAL Executive Committee meeting held on Sunday, August

19, 2012 during the 244th American Chemical Society National Meeting in Philadelphia, PA. It was first announced at the CHAL reception held Monday, August 20, 2012 at the Chemical Heritage Foundation.

The award presented to Howard and Sally was the first of many annual presentations to come. Beginning in 2013, CHAL



plans to recognize one to two ACS members each year. Recipients of the award will be those who have significantly contributed to, or who have been significantly involved in non-traditional careers in chemistry. An ACS plaque and an honorarium for the future Peters Awards will be provided. Further details about the Peters Award will be featured in the coming months on CHAL's official ACS website which can be found at [www.chemistryandthelaw.org](http://www.chemistryandthelaw.org).

Howard was instrumental in establishing CHAL as a subdivision of the Division of Chemical Information (CINF) during the 1980's. Sally was a Charter Member of CHAL. They combined have 50+ years of membership in CHAL, about 50 years of service on the ACS Council, and 80 years of ACS membership. The Peters' are often better known as Mr. & Mrs. Chocolate for their long-running fun presentations on "Chocolate-Food of the Gods" in many nationwide venues.

## International ACS Sections

The American Chemical Society has members all over the world, and many of the members outside the U.S. are also members of other chemical societies in their countries of residence. The ACS recognizes that many of these non-U.S.-based members occasionally feel isolated from ACS activities and may wish to develop connections with other ACS members, both inside and outside of the U.S. To address this, the ACS established in its bylaws the capability for International Chemical Science Chapters.

There are currently five International chapters, with three of them in Asia: Thailand, Hong Kong and Shanghai. Given the economic and technical connections between the West Coast and these three chapters, the California and the Santa Clara Valley Sections want to develop ways to strengthen and help these chapters. As a first step, we would like to establish closer contact with these sections. These chapters are eager to have visitors from the U.S. at their meetings. In contrast to the ACS local sections, the Chapters do not receive any financial support from the ACS, and they are unlikely to be able to afford bringing speakers from the US. If you are planning a trip to Asia either for

business or pleasure in the future and would be willing to give a talk at one of these Chapters, please let us know. We will alert them and put you in contact with their

leadership.

Please consider a visit to any one of the International ACS chapters if your travel plans permit.

### Volunteer Needed! Director of ChemPloyment Abstracts

The SCVACS is seeking a new Director of ChemPloyment Abstracts who is responsible for tracking, coordinating, editing and billing the monthly employment ads received electronically by the Santa Clara Valley section. The director sequentially numbers each ad submitted, verifies that the ads submitted do not exceed the space limit, adds the headings and formats the text to provide a standard presentation for all ads. If an ad exceeds the space limits, the director may shorten the ad at their discretion, or contact the submitter to coordinate the shortening of the ad. Once the ads are formatted, they are sent to the graphic designer to be printed in the newsletter.

On a periodic basis, the director will inform new companies about the ChemPloyment Abstracts service offered by the section. On an annual basis, the director submits an annual report to the secretary of the section on the number of ads received, number of unique companies submitting ads, and the revenue generated by the service.

The new Director of ChemPloyment Abstracts will receive the necessary guidance for transitioning into the position.

#### Contact:

For those interested in the position or who would like to ask more questions about the full list of duties, please send an email to [chair@scvacs.org](mailto:chair@scvacs.org) with the subject line, "Director of ChemPloyment Abstracts."

# Skyline College Infused Chemistry at the Bay Area Science Festival

By Carmen L. Velez

On November 3, 2012, Skyline College students met early in the morning for a science extravaganza at the Second Annual Bay Area Science Festival, which took place at AT&T Park in San Francisco. The 2012 Bay Area Science Festival was a smashing success with 21,000 people participating in over 100+ events! Only a handful of community colleges participated at the event, making Skyline College shine.

A group of energetic students from different student organizations, SACNAS, SHPE, the Science and Research Club, hosted an interactive booth, "Nutrition for YOU." The students developed a series of hands-on activities to share with the public information on the sugar content in common drinks and healthy eating habits.

The sugar content in common drinks was tested using a simple chemical called Benedict's solution. The Benedict's solution

is a mixture of mostly copper sulfate that when mixed with a sample of drink and heated, a color change identifies the relative concentration of sugar in the test solution. The sugars that Benedict's reagent tests for are simple sugars such as glucose and fructose. This activity encouraged visitors to the

booth to think about the connection between nutrition and health and to make healthy decisions about what drinks to consume. Go to our website and enjoy our exhibition:

<http://skylinecollegesacnas.weebly.com/bay-area-science-festival-2012.html>



## The Evolution of HIV/AIDS Therapies: A Conversation Presented by the Chemical Heritage Foundation

CHF presents The Evolution of HIV/AIDS Therapies: A Conversation. Since its emergence as a global epidemic 30 years ago, HIV/AIDS has been transformed from a fatal illness into a manageable chronic disease. Join us on December 4th for a conversation focusing on the fascinating story of chemical innovation underlying the development of effective treatments along with their global impact.

This event, moderated by Jeffrey Sturchio and introduced by Edward Penhoet, will engage four luminaries in HIV/AIDS research, policy, and practice--Gregg Alton and Norbert Bischofberger from Gilead Sciences, and Sir Richard Feachem and Paul A. Volberding from the University of California, San Francisco--in a conversation about both the remarkable progress we have seen in HIV therapies and the challenges still to be met.

### Event Details:

December 4, 2012

5:00 p.m. Reception

6:00 p.m. Conversation

The Gordon and Betty Moore Foundation  
1661 Page Mill Road  
Palo Alto, California

### Registration:

Register online at <https://www.chemheritage.org/secure/register-for-an-event.aspx?eventid=78756>, or contact Nancy Vonada at 215-873-8226 or [nvonada@chemheritage.org](mailto:nvonada@chemheritage.org).

### Panelists:

**Gregg H. Alton**, Executive Vice President, Corporate and Medical Affairs at Gilead Sciences

**Norbert W. Bischofberger**, Executive Vice President, Research and Development, and Chief Scientific Officer, Gilead Sciences

**Sir Richard G. A. Feachem**, Professor of Global Health, University of California, San Francisco and Berkeley; Director, Global Health Group, UCSF Global Health Sciences; and former Executive Director, UCSF Global Health Sciences

**Paul A. Volberding**, Professor, Department of Medicine; Director, AIDS Research Institute; Director of Research, Global Health Sciences; and Codirector, Center for AIDS Research, University of California, San Francisco

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# Highlights of the National Chemistry Week in San José, October 21-27, 2012



Photos Courtesy of Lois Durham



These children learn about the polymer chemistry of "Slime" using the ingredients of food coloring, polyvinyl alcohol, and sodium tetraborate. Student volunteers from San José State SAACS, Santa Clara University, and San José City College helped to run the events at this year's National Chemistry Week event at Martin Luther King, Jr. Library.



Volunteers from the SJSU SAACS: Daniel Nguyen and Tony Bertolozio.



NCW Event Coordinator and Past SCVACS Chair, Abby Kennedy.

## CHEMPLOYMENT ABSTRACTS DECEMBER 2012

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

### CHEMPLOYMENT 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 Holidays!



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### 2012 Section Officers

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Past Chair	Abby Kennedy
Secretary	Karl Marhenke
Treasurer	Ihab Darwish

### Councilors

2010-2012	Linda Brunauer
2010-2012	Sally Peters
2010-2012	Peter Rusch
2011-2013	George Lechner
2011-2013	Herb Silber
2012-2014	Abby Kennedy
2012-2014	Ean Warren

### Alternate Councilors

2010-2012	Lois Durham
2010-2012	Natalie McClure
2010-2012	Stephanie Bachmann
2011-2013	Mark Kent
2011-2013	Harry Ungar
2012-2014	Lisa Milstein
2012-2014	David Parker

### Newsletter Editor

Nathaniel Zuckerman

### ChemPloyment Abstracts

Director Charles Sullivan

## 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  
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)