

# Silicon Valley Chemist

Santa Clara Valley Section

American Chemical Society

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## Career Assistance and Transition Workshop

Linda Wraxall, Employment Committee Chair  
Marinda Li Wu, Local Section Career Program Coordinator

The California Section Employment Committee, in conjunction with National ACS Career Services and St. Mary's College Chemistry Department, will hold a half-day career assistance workshop on Saturday, November 17 from 11 am to 3 pm in Dryden Hall, St. Mary's College, Moraga. Dryden Hall is west of the chapel, between Oliver Hall and the Students Union. Directions will be provided at the guard gate.

In the morning, Dorothy Rodmann, a well-known career consultant and speaker for National ACS, will present "An Overview of the Career Transition Process". There will be a panel discussion on transition experiences after lunch, followed by a half-hour presentation by Ms. Rodmann on "Putting Together an Effective Resume for Career Transitions." There will, of course, be time for questions and help with resume reviews.

The only cost to participants is \$10 (half price for students and unem-

ployed ACS members) for the gourmet box lunch. There is a choice of three sandwiches: Curry Chicken Salad on whole wheat, Grilled Portabella on foccacia, and California-Style Club on croissant. Dessert and hot or cold beverage are included.

For reservations and choice of

sandwich, please call the California Section office at 925-287-8055 or e-mail [office@calacs.org](mailto:office@calacs.org) by **November 8**.

Lunch will be at noon either outside at nearby picnic tables or indoors depending on the weather. The California Section looks forward to the opportunity to provide ACS members who are in the job market with the tools and skills that they need to change careers and get a better job!



## Chair's Message

The safety of American citizens at home and abroad has been on everyone's mind since the September 11th terrorist attacks in New York, Washington, and Pennsylvania. It seems that every person directly or indirectly knows someone who was involved; they were unimaginable atrocities in a time of peace. It is difficult for those of us on the West Coast to feel that we can adequately help with the disaster relief. Yet, I urge you to donate to reputable charities like the Red Cross, pray for everyone's safety and world peace, and show that you are proud to be an American! I was not going to mention the terrorist attacks and their aftermath, but the previous three editorials in the C&EN and the venerable scientific publications Nature and Scientific American have set the tone with somber editorials and articles. Scientists feel both grief due to the attacks and pride for their country!

This month's message is a difficult one to write, not only because of the international events, but also because of the timing of the newsletter. From mid-October to mid-November several local section activities took place as

this newsletter was published and distributed. The ebullient talk on beer and the artistic talk on art conservation will have occurred. The Western Region had their regional meeting in Santa Barbara and the California section celebrated their 100th anniversary the last weekend in October! National Chemistry Week demonstrations of Kids in Chemistry and the always widely successful local teachers training by Juanita Ryan happened the week of November 7th! So watch for a pictorial newsletter in December!

If you are a 'meeting junkie' and need a fix before our January dinner meeting, check out [chemistry.org](http://chemistry.org)'s new Meeting Locator at

<http://center.acs.org/applications/meetinglocator/home.cfm>. This web site can keep you informed of meetings in our society and other scientific societies. A smaller and local meeting of more interest is our executive committee meeting, usually held the second Thursday of each month. This is really the place to get the early scoop on activities within our area. Come and meet your officers and learn how you can help the local

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The submission deadline for each issue is the **10th** of the month preceding publication.

Contact Laura Rasay at 650-859-4782 or [laura.rasay@sri.com](mailto:laura.rasay@sri.com) for more information.

*Chair's Message, continued from front page*

section meet the needs of the valley's chemists. If you would like to attend, contact me at [speters@parc.xerox.com](mailto:speters@parc.xerox.com) or 650-812-4994 for the date, location, and time.

For my brief stroll down memory lane I read, with newly developed interest, a brief item in the November, 1951, *Vortex*. It seems that one chemist, Bob Levine, was finally made grandfather! Well, that gave me the opening I needed to mention my new granddaughter! Her proud grandfather, Howard, known in our section for his chocolate addiction, did some calculating of the past and predicting her future to arrive at some interesting statistics. Her paternal grandfather has 43 years of ACS membership as a biochemist, her maternal grandfather has 38 years of membership as an organic chemist/patent attorney, and her maternal grandmother has 20 years of membership as an information specialist! With 101 years of membership (not counting her father's) in the world's largest scientific society, we wonder what she will be when she grows up!



The four grandparents and their beautiful granddaughter, Kayleigh.

Remember to vote in the ACS elections by November 15th!

*Sally Peters*



## Gearing Up for National Chemistry Week

November 4-10, 2001

Thousands of chemists, teachers, students, and other volunteers will join forces to celebrate National Chemistry Week 2001. Participants are gearing up and planning events to carry out the theme—Celebrating Chemistry and Art. Events will include chemical demonstrations and hands-on activities; lectures and public displays; and contests and games. Your support can play an important role in helping the public better understand what chemistry is and how it relates to everything that is around us. For NCW products and more information, visit the NCW website and ACS Online Store at [www.chemistry.org/ncw](http://www.chemistry.org/ncw); write Office of Community Activities, American Chemical Society, 1155 Sixteenth Street, NW, Washington, DC 20036 or telephone 1-800-227-5558, ext. 6097. Plan to participate, celebrate, and educate! Below are activities you can do with your children or at your local school. For more activities, go to [www.chemistry.org/ncw](http://www.chemistry.org/ncw) and click on the link to Activities and Articles on the left.

### Marker Butterflies

Some artists use the way paint moves on a surface to produce interesting shapes and designs. Many artists paint on canvas, a type of fabric that is very absorbent. Before painting on canvas, most artists treat it so it does not absorb as much liquid. The artist Helen Frankenthaler did not prepare her canvas in this way. Frankenthaler used the absorbent property of canvas to create interesting shapes and patterns. To make a painting, she would tack a canvas onto the floor and pour the paint directly onto the surface. She would let the way the paint moved over the canvas help decide what the picture would be. In this activity, painting with water over marker designs on coffee filters will produce different shapes and beautiful works of art.

#### Materials

- 2 circular white coffee filters
- 1 pipe cleaner
- Water-based markers (various colors)
- Scrap paper (do not use newspaper)
- Paintbrush
- Paper towel
- Cup of rinse water

#### Procedure

1. Place the coffee filters on top of a piece of scrap paper. Use several different color markers to create a design or pattern on each coffee filter. Please note that this design will be changed when the directions in Step 3 are carried out.
2. Place both coffee filters on another piece of scrap paper.

3. Dip the paintbrush in the water and paint over the designs with the wet brush. Be certain to rinse the brush in the water several times while you are painting with the water. Watch how the designs change.
4. Fold the pipe cleaner in half. Hold the pipe cleaner about 2 cm from the fold and twist two times. This will leave a small loop.
5. Scrunch one of the coffee filters along an imaginary line down the middle of the filter to produce one set of the butterfly's wings.
6. Place this filter inside the open ends of the pipe cleaner, centering it close to the twisted end.
7. Repeat Step 5 with the other coffee filter. This is the second set of the butterfly's wings. Place it above the first filter, inside the open ends of the pipe cleaner.
8. Twist the two pieces of the pipe cleaner together about 4 cm from the open end of the pipe cleaner. This will hold the two filters in place.
9. Turn down the ends of the pipe cleaner to look like antennae.
10. Thoroughly clean the work area and wash your hands.

#### Drying hint:

Place the folded end of the pipe cleaner in the end of a straw. Balance the straw in a glass or jar. More than one butterfly can be dried in the same jar this way. The coffee filters can be

dried on a paper towel before scrunching them and putting them in the pipe cleaner.

#### **Where's the Chemistry?**

The filter is made of a special type of paper that absorbs water easily. Paper towels are made of a similar type of paper. The colors in the mark-

ers dissolve, or are soluble in, water. When the water is painted onto the coffee filter, the colors dissolve in the water. As the paper filter absorbs the water, the dissolved colors move with the water and create the resulting color patterns.



## Stained Glass Glue

Colored translucent material such as colored glass has been used for centuries to make beautiful stained glass artwork. Glass makers use different chemicals in various combinations to produce the many different colors of glass for stained glass artwork. The combination of the design, the colors, and the effect of the light passing through the translucent material can create wonderful works of art. This activity uses glue instead of glass to create a work of art that you can hang in your window.

#### **Materials**

- White, clear-drying glue
- Food coloring
- Water
- Craft stick
- Small plastic circular lid or styrofoam bowl
- 2 small plastic cups
- Liquid dish detergent
- Toothpicks
- Measuring spoons

#### **Procedure**

1. Place a small amount of liquid dish detergent in one small cup.
2. Place about 1 teaspoon of the glue in the other small plastic cup. Add about 1/4 teaspoon of water. Mix with the craft stick.
3. Pour the glue and water mixture into the lid or small styrofoam bowl. Tilt the lid or bowl until the glue solution completely covers the bottom surface.
4. Place one drop of food coloring on the glue solution.
5. Repeat Step 4 two times, using a different color each time. Be certain to place the three drops in three different locations on the glue.
6. Dip the end of the toothpick into the detergent to obtain a small

amount on the end of the toothpick.

7. Very quickly touch the center of each food coloring drop with the detergent on the end of the toothpick. Do not stir.
8. Observe the changes.
9. Thoroughly clean the work area and wash your hands.
10. Allow the glue to dry overnight. Remove the dried glue from the container. Hold your "stained glass" up to the light and enjoy!

#### **Where's the Chemistry?**

Food coloring is made from water and color molecules called pigments. The white glue also has water in it plus a chemical called polyvinyl acetate that is made of much longer and more flexible molecules than water is made of. The water molecules and the polyvinyl acetate molecules mix so much that the long flexible molecules of polyvinyl acetate move around like strands of spaghetti in a pot of boiling water. When the food coloring drops are added to the glue and water mixture, they can't spread out much because they are blocked by the combination of water and polyvinyl acetate molecules. When the detergent is added, the detergent molecules grab onto the pigment molecules and drag them along and the color spreads over the surface of the glue.



## Newsletter Forum

The SCV local section would like to start a forum for our members to express their thoughts on various topics related to chemistry. You can either send letters concerning issues that you think are important or you can address the monthly topic. Letters may be edited and published based on space available. We reserve the right to not publish a letter based on space or content. All letters must be signed with sender contact information and received by the 10th of the month to be published in the next newsletter. Email your contributions to [forum@scvacs.org](mailto:forum@scvacs.org).

This month's topic is: How will chemistry and chemists contribute to the fight against terrorism?

## ACS Volunteers Urgently Needed

On Saturday, January 5, 2002 the George Washington Carver (GWC) Recognition Day will be held at the Santa Clara Convention Center. There are two opportunities to volunteer in the GWC program!

The first opportunity will need about 25 judges for science projects of 6-12 grade students. No prior experience is needed and instructions will be provided on-site. Secondly, we need about 15 ACS members to organize a Carver Kidvention for about 100 3 - 6 grade students. The Kidvention is organized, arranged, and held all on Saturday. This is an excellent on-the-job training opportunity! Both opportunities have a time commitment from 7 am to 1 pm; lunch will be provided!

For further information, please contact: Dr. Howard M. Peters  
650-324-1677 Ext. 20  
[peters4pa@aol.com](mailto:peters4pa@aol.com)

## Strategic Planning Committee

The Santa Clara Valley Section Executive Committee has created a new committee, the Strategic Planning Committee, to set the long range vision, goals, and strategies of the section. This committee will meet in the coming months to discuss the future direction of local section. If you are interested in contributing to this committee, contact Ean Warren ([ewarren@scvacs.org](mailto:ewarren@scvacs.org)).

# Calling All Chemist Mentors!

- Do you have a project coming up which your current staff doesn't have the time or expertise to complete?
- Would you like to make an impact on high school and community college chemistry students in the Bay Area?
- Would you like to have the services of a seasoned, enthusiastic, professional who brings excellent technical and organizational skills along with new perspectives to a summer project?

The IISME Summer Fellowship Program can help you. Industry Initiatives for Science and Math Education (IISME) places over 100 local math, science, and computer

teachers in 8-week fellowships each summer. Teachers use this experience to improve and update their instruction and inspire more students to become technologically and scientifically literate.

IISME provides a cost effective way to complete short-term projects. IISME teachers bring:

- Strong communication & technical skills
- New & different perspectives
- Enthusiasm & professional maturity

IISME also gives employers an opportunity to reach their future workforce, be recognized in the community and help employees make

connections to schools.

Each year, about 80% of all industry mentors report that the summer job performance of their IISME teachers exceeded their expectations. Over 90% say they would consider mentoring again.

The cost for each fellowship position is \$9,600 or \$10,400 depending on whether your organization or IISME is the employer of record. Once you have identified a summer project, you can screen, interview and select the teacher whose background fits your needs. IISME teachers can contribute to virtually any department within their sponsor companies.

For more information, please contact Kaye Storm at [kstorm@iisme.org](mailto:kstorm@iisme.org) or (650) 326-4860.

## Editor's Corner

Running through the redwoods in the Santa Cruz mountains in August was simply amazing! It was my first race and quite a rigorous one - half trail, half pavement, and a tremendous incline at mile 3. Though we started out at the same time, Ean and my friends seemed more comfortable at a faster pace; I didn't see them again until I finished just under one hour later. The most memorable aspect of the race was to see so many people running non-stop during the last mile as we ran through a meadow. It was truly an inspirational feeling to be a part of something that many people were motivated to do! It sure caught the human spirit especially in such a beautiful and majestic place.

Another place of obscene beauty



Laura capturing the beauty of Yosemite on camera September 9th. Picture by Peter Jarvis.



Ean (second from left), Laura (third from left), and Laura's friends after completing the 10K Race Thru The Redwoods in Felton on August 19th. Picture by Peter Jarvis.

would be Yosemite. It was my first visit since I was about four or five; I don't think that I was able to appreciate its greatness when I was younger. Even though it seemed big when I was younger, it's STILL very big.

Tragically when I returned to work the following Tuesday after Yosemite, the unthinkable happened and we are still living with it today.

The recent events in our nation and around the world have proved to us that we are living in a reality that is unforeseeable but always has been present. As much as we need to acknowledge and cope with these events, I find it is important to remember that we are also living in a world of majestic beauty. The world is filled with paradoxes and this is one of them.

This glorious beauty that I saw is something that no man can destroy from my memory.

*Laura Rasay*



## The SCV Runners Will Strike Again!

Come join the gang and run in the Run to the Far Side XVII on Sunday, November 25, a benefit for the California Academy of Sciences. For more information, visit:

[www.calacademy.org/events/farside/2001/](http://www.calacademy.org/events/farside/2001/)  
and [www.rbodyco.com](http://www.rbodyco.com)

If you want to join us, contact: Ean Warren  
(650) 329-4554  
[ewarren@scvacs.org](mailto:ewarren@scvacs.org)



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#### FUTURE MEETINGS

<b>Nov 4-10</b>	National Chemistry Week
<b>Nov 8</b>	SCV Dinner Meeting <i>Susan K. Roberts-Manganelli</i>
<b>Nov 15</b>	Executive Committee Meeting
<b>Jan 17</b>	SCV Dinner Meeting <i>Jim Morrison</i>
<b>Feb 21</b>	SCV Dinner Meeting <i>Harry Cook, USGS</i>
<b>Feb 24-27</b>	Process Chemistry in the Pharmaceutical Industry Barcelona, Spain
<b>Apr 7-12</b>	ACS Spring Meeting Orlando, FL

#### CHEMPLOYMENT ABSTRACTS

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