

***251ST AMERICAN CHEMICAL SOCIETY
NATIONAL MEETING & EXPOSITION***



Spring 2016 National Meeting in San Diego

***San Diego Convention Center
111 W Harbor Drive***

March 13-17, 2016

Theme: Computers in Chemistry

http://www.acs.org/content/acs/en/meetings/spring-2016.html?cid=home_meetings

CHAIR NOTES

Dear ACS Members,

As we head towards the first day of spring, the local events calendar becomes packed with exciting meetings and activities.

We have already held our first two monthly speaker meetings of 2016. **Marco Biamonte** of Drug Discovery for Tropical Diseases and **Steven J. Oldenburg** of nanoComposix gave fascinating presentations in January on some of the advances in the use of nanoparticles and their application to the fields of defense, dermatology and diagnostics.

In February, **Carol Gallagher** discussed key lessons learned as President and CEO at Calistoga Pharmaceuticals during the discovery and development of the first-in-class cancer therapeutic, ZYDELIG (idelalisib).

Going forward the San Diego Section is participating in some upcoming events that you won't want to miss!

We will be hosting an educational booth at the **San Diego Festival of Science & Engineering EXPO Day** at PETCO Park on Saturday, March 5, 2016. Come and say hello if you are attending.

At the **ACS Spring National Meeting & Exposition** being held here in San Diego, March 13-17, 2016, you will find us in the lobby by registration.

Members of our own Executive Committee will be working as judges at **The Greater San Diego Science and Engineering Fair** at Balboa Park on **Wednesday, March 16th**.

Finally, during the month of April the **San Diego Section** will be celebrating our **75th Birthday**. We were founded on April 7th, 1941, and in celebration we are organizing a one-day symposium at SDSU. Further details to be announced shortly. Keep an eye out for them!

Our next Executive Committee Meeting will take place on Tuesday, March 1stth. As always, all members who wish to become more involved are invited to attend. We can never have too many idea generators and event organizers donating their time.

Cheers,

Graeme Freestone

2016 Chair

American Chemical Society – San Diego Section

E-mail: gfreestone@sandiegoacs.org

Web: www.sandiegoacs.org

FREE EVENT ANNOUNCEMENTS FOR NON-PROFIT ORGANIZATIONS!

Does your non-profit organization have an upcoming event that might be of interest to members of the ACS – San Diego Section? If so, please send your announcement to our 2016 Chair, Graeme Freestone, at gfreestone@sandiegoacs.org. Once approved, Graeme will see that your announcement is published on our website (www.sandiegoacs.org) and, if received by the 23rd of the month before the event, in *The San Diego Chemist* newsletter. This is a free service of the ACS – San Diego Section. Take advantage of it!

ATTENTION ADVERTISERS

Did you know that *The San Diego Chemist* is the only monthly e-newsletter that targets chemists and chemical engineers in San Diego and Imperial Counties? As soon as our newsletter is uploaded on www.sandiegoacs.org a separate notification is sent to the **2,400 members** of the ACS-San Diego Section, each potential customers for your products and services! **Quick turnaround:** Ad copy submitted by the 23rd of each month will be published by the end of that month.

For more information, please contact: Renate Valois, renate@sandiegoacs.org.

CHEMISTRY JUDGES NEEDED

Judging by professional societies at the 62nd Annual Greater San Diego Science & Engineering Fair will take place on **Wednesday, March 16th, at 12:15 pm** in Balboa Park. If anyone is able to help choose exhibits for our Section's chemistry awards or wants more information, please contact Ken Poggenburg at jkp135@att.net or Jim Shih at jimshih@earthlink.net

THE SAN DIEGO CHEMIST, the official newsletter of the San Diego Section of the American Chemical Society, published on a monthly basis, can be viewed at <http://www.sandiegoacs.org/newsletter/>.

All contents are published at the discretion of the Section's Executive Committee. Events of interest to chemistry professionals in the community may be included in the events calendar as space permits and are subject to editing for brevity. Advertisements and announcements from the chemistry community are accepted at published rates. The deadline for items submitted is **the 23rd of the month** for publication by the end of that month.

Advertisers: Ad prices as of January 1, 2015:
Size (w x h) Number of Issues & Price/Issue

	1	3	6
2" x 3"	\$ 75	\$ 68	\$ 58
4.5" x 1.5"	\$ 80	\$ 74	\$ 67
4.5" x 4.75"	\$200	\$184	\$163
8.5" x 5.5"	\$400	\$360	\$310
full page	\$655	\$590	\$510

Discounts will be available for issues not shown
Please send your jpg to:

Renate Valois at renate@sandiegoacs.org.

Make checks payable to:

American Chemical Society and mail to:

Bill Szabo, Treasurer
3950 Mahaila Avenue, B-36
San Diego, CA 92122

SECTION E-MAIL LISTSERVER!

Get up-to-the-minute reminders of local events and develop dialogs with your fellow members!

To subscribe to our moderated listserver:

1. Send an e-mail with SUBSCRIBE TO LISTSERVER in the subject line, and your name and e-mail in the body of the message to Ken Poggenburg at jkp135@att.net.
2. If you receive a message from the postman, reply to confirm that you wish to be added to the list, otherwise it will not take effect.
3. You will receive reminders approx. 5-7 days prior to upcoming events and messages of general interest to members.
4. To post topics for discussion, or informational items to the listserver members, send the message to sandiego-chemist-l@ucsd.edu.
5. If the moderator approves the post, it will be sent to the members.

NOTE: That is the letter "l", not the number "one" following the word "chemist".

Executive Committee Meeting Dates 2016

6:00 – 8:00 pm

	Tuesday	
Tuesday	March	1
Thursday	April	7
Tuesday	May	3
Thursday	June	2
Tuesday	July	5
Thursday	August	4
Tuesday	September	6
Thursday	October	6
Tuesday	November	1

Meetings will be held at:

9381 Judicial Drive, Suite 160
San Diego, CA 92121



The San Diego Section of the American Chemical Society would like to thank our Corporate Sponsors. Here are a few examples of our annual outreach programs that are made possible by their generous donations:

Mad Science - Stage demonstrations for 4th and 5th graders which make science fun for kids! Last year the program was viewed by over 8000 students in low-income areas and from military families.

ChemExpo - A science event for middle and high school students held annually for the past 28 years. It features live stage demonstrations and interactive booths that teach kids about applied science. Last year over 1000 local students participated!

EarthFair - We participate in the world's largest free annual environmental fair, held in Balboa Park.

CONSIDER SPONSORSHIP OF THE ACS SAN DIEGO SECTION

The San Diego Section of the ACS is looking for organizations that are committed to advancing science and education in the greater San Diego area by providing financial support. There are several ways to get involved, and each one comes with its own benefits and privileges. **For further information please contact Jonathan Lockner, Interim Chair, Fundraising Committee, at jlockner@sandiegoacs.org**

ACS SHORT COURSES IN SAN DIEGO, CA

The ACS will be holding Short Courses in San Diego, CA, **March 11 – 13, 2016**, to help you gain invaluable training in just a few days. For information, see: <http://proed.acs.org/sandiego/>

GET INVOLVED IN STEM EDUCATION – VOLUNTEER TUTOR OR PURSUE A PATH TO TEACHING WITH ENCORPS!

The EnCorps STEM Teachers Program (www.encorps.org) provides STEM industry professionals with opportunities to tutor 1-2 hours a week in local middle and high schools. We also offer a program to explore a career in teaching, all free to our participants. Inspire the next generation of scientists and innovators! Find out more by joining one of our monthly free EnCorps 101 webinars, RSVP: <http://encorps.org/webinar/>

APPLY NOW for consideration into our 2016 cohort: www.encorps.org/apply

Interview Date

March 15, 2016

April 16, 2016

May 16, 2016

Application Deadline

March 11

April 13

May 9

I WANT TO BE A CHEMIST; CAN YOU HELP ME?

e3 Civic High is looking for a few chemist who are willing to share their expertise with our students. A four-hour commitment is all it takes. A student will observe you in your workplace while you perform your normal activities and answer questions. Job Shadows will take place on **March 11, 2016**, from either **8:00, 8:30 or 9:00 am to 12:30 pm**. For more information contact: Melissa Woods, Internship Workforce Development Coordinator, at woods@e3civichigh.com or (619)546-0000 ext. 2714 or option 8.

THE 213TH MEETING OF THE TWO-YEAR COLLEGE CHEMISTRY CONSORTIUM (2YC3)

We invite you to attend the 213th 2YC₃ meeting on **March 11-12, 2016**. The conference will take place at **San Diego City College**, located on 1313 Park Blvd, San Diego, CA 92101. We currently are looking for colleagues who would like to contribute to our program by giving a presentation, leading a workshop, or participating in a panel discussion. We especially encourage topics related to our theme, **"Teaching Chemistry Through Its Social Impacts"**. If you would like to present on a different topic, please do not hesitate to submit an abstract, as we encourage as diverse a program as possible. The due date for submitting abstracts (via email to the Program Co-Chairs) was **February 15, 2016**. For more information, see <http://www.sdcity.edu/2yc3>

Program Co-Chairs

Nancy Crispen: ncrispen@sdccd.edu

Joann Um: jum@swccd.edu

Haim Weizman: hweizman@ucsd.edu

Local Arrangements Chair

Robert Kojima: rkojima@sdccd.edu

Exhibits Coordinator

Shane Haggard: mhaggard@sdccd.edu

NATIONAL CHEMISTRY OLYMPIAD

The Education Committee of the San Diego Section of the American Chemical Society (ACS) is pleased to announce that we will be participating in the 2016 U.S. National Chemistry Olympiad (USNCO). The primary goals of this program are to stimulate interest and achievement in chemistry among high school students throughout the United States and to provide recognition of outstanding young chemistry students, teachers, and schools.

A preliminary screening of students through the administration of a standardized ACS examination will be held on **Saturday, March 19, 2016**, at 9 am and repeated on **Sunday, March 20, 2016**, at 9 am at the University of San Diego in The Shiley Center for Science and Technology – Rooms 129, 130 and 133. The exam lasts approximately 2 hours. Please send students with a pencil and calculator (nonprogrammable only).

We need volunteers to proctor these ACS examinations. Please contact Joan Schellinger at jschellinger@sandiego.edu if you are interested.

Mailings have gone out to chemistry teachers in all San Diego County high schools. If your child is interested in participating, please have them contact their chemistry teacher to express their interest in registering for the Olympiad.

For more information please e-mail Joan Schellinger at jschellinger@sandiego.edu.



ACS

Chemistry for Life™

WE ARE CELEBRATING AN ANNIVERSARY! – COME JOIN US

The San Diego Section of the American Chemical Society was founded at SDSU in April 1941. **We are in the process of planning a full day, free symposium to celebrate our 75th anniversary at SDSU on Wednesday, April 6. Plans are being formulated to host 6 prominent San Diego scientist speakers and a lunchtime student poster session. Watch for details in the month of March.**

ACS-HACH PROGRAMS

[ACS-Hach Land Grant Teacher Scholarship](#)

Application Period: [Contact participating universities directly for application details](#)

[ACS-Hach Post-Baccalaureate Teacher Scholarship](#)

Application Period ends on April 1st

[ACS-Hach Second Career Teacher Scholarship](#)

Application Period ends on April 1st

About ACS-Hach Programs [Learn more.](#) Email: hach@acs.org Phone: (800) 227-5558 ext. 8178

Nominations Open for the Helen M. Free Award for Public Outreach

Taxes aren't the only thing due on **April 15**—that's also the deadline date for nominations for the 2016 [Helen M. Free Award for Public Outreach](#). The award recognizes outstanding achievements in the field of public outreach by an ACS member who improves public recognition and appreciation for the contributions of chemistry. Winners receive a crystal award and a \$1,000 prize. Nominations must be submitted using the online [nomination form](#); visit the Helen M. Free Award for Public Outreach [website](#) for complete details and eligibility requirements.

SUMMARY OF THE SAN DIEGO SECTION EXECUTIVE COMMITTEE MEETING MINUTES FEBRUARY 4, 2016

Treasurer's Report - Income YTD \$17 (interest on savings), \$2,100 in receivables, primarily Chememployment & ads for Newsletter; YTD there is \$1,600 budget deficit, \$21,000 liquid assets, expecting ~\$19K allotment from National; SDCCU CD about to mature, finance committee to meet and formulate a plan to reinvest this amount; Vanguard fund down \$6,400 in unrealized loss in 12 months but it is doing better than the stock market; financial portion of annual report has been submitted

January Monthly Seminar - Two speakers Marco Biamonte and Steven Oldenburg on nano-technology, 100 attendees

February Monthly Seminar - Carol Gallagher, Partner at New Enterprise Associates; Thurs. 2/18, at Sanford Consortium; there will be charges for room use and parking

Leadership Institute - Good opportunity to meet ACS National leaders; emphasis on collaboration with neighboring sections -- leaders from SoCal sections met to discuss ideas

75th Section Anniversary - SDSU requesting to move meeting to 4/6

Mad Science - Two shows so far; price staying the same

Seniors Breakfast - Coco's closed, meeting at Marie Callender's cancelled by inclement weather; next meeting at Denny's in Clairemont Mesa

San Diego Festival of Science & Engineering - Mar. 5; received notification of prime booth location behind home plate (near Vertex and Coast Keepers); plan to reproduce last year's "Compounds of Interest" such as hydrogen peroxide in glow sticks, the aroma of baked bread

Greater SD Science and Engineering Fair - Mar. 16; judging starts 1 p.m.; time for judging conflicts with ACS Council Meeting so will need extra judging help

National ACS Meeting - San Diego Section as host needs to staff a booth near registration area to assist conference attendees to find their way around San Diego for food and sites of interest; needing volunteers; booth should include ChemLuminary poster, add QR code linked to Section Website

Action: Ben Pratt to make surfboard key ring with QR code to Section info on the Web

Earth Fair - April 17, need to make deposit before participating

Project SEED -

Motion: Split funding equally between USD and TSRI - **Approved**

IPG - Professor Iovine (USD) wanting to submit grant but missed January deadline; intent to host 1-day symposium on materials science

San Diego App & Section Website - Ken Ajayi moved to Chicago and Michael Coste in school so no progress

West Coast Analytical Symposium - Sept 14, Nobel Laureate Kurt Wüthrich, recruiting additional sponsor booths

YCC - Graeme Freestone suggesting brewery or wine talk and presentation on manufacturing desalination membranes

Western Regional Meeting - Lee Latimer pushing for San Diego Section to host a WRM but no one in the Section has volunteered to take on chair position

Open Executive Committee Positions - WCC Chair, Alt Councilor, Professional Development Chair vacant

ACS Fellow Nominations - Selection criteria: service to ACS and contribution to the discipline

Action: John S. draft potential submission

Next meeting: March 1

ORGANIZERS NEEDED!

The San Diego Section of the American Chemical Society is looking for volunteers to organize an **ACS Western Regional Meeting**. Exact dates are flexible and yet to be determined, but it will be held between 2018 and 2020. We are currently looking to fill the positions of General Meeting Chair and Program Chair(s). If you are organized, work well with others and want to expand your professional network to a national scale, you may be a great fit for either of these positions. The **General Meeting Chair** will be responsible for overseeing the planning of the meeting venue and logistics while the **Program Chair(s)** will fill events and speaker lists. Location, duration and desired attendance are based on the vision of the organizers. If you have an idea for a large meeting held here in San Diego, this is your way to make it happen.

For more information please contact:

Graeme Freestone, 2016 Chair
San Diego Section of the American Chemical Society
gfreestone@sandiegoacs.org

HELP INSPIRE LOCAL HIGH SCHOOL STUDENTS TO PURSUE A CAREER IN CHEMISTRY!

Do you enjoy talking about how much you love chemistry? Would you like to help local high school students understand how they can have a successful career in science? High Tech High Chula Vista's 10th grade chemistry teachers, Kaitlin Douglass and Dalya Almansour, are looking for professionals who utilize chemistry in their careers to speak to our students about possible career paths that they might take. HTHCV is a project based learning school that is part of the large High Tech High charter school system in San Diego. Many of our students will be first generation college students and will be minorities within the science and engineering workplaces. We want to show them how exciting and rewarding careers in science can be and engage them early on in discussions about their future career plans. We would only need a time commitment of approximately one hour. It would be great to hear about your education history, why you chose to pursue a career involving chemistry, the rewards and challenges of your career path and why students should consider your career in the future. Please contact us at kdouglass@hightechhigh.org or damansour@hightechhigh.org if you are interested in helping us!

LINKS TO STEM

Links to STEM provides enrichment for students in grades 4-8 from schools throughout San Diego. **Links to STEM** introduces the students to a broad spectrum of STEM-related topics and emphasizes the skills necessary to participate on a robotics team. *The time commitment is from 9:00 am - 12 noon, 2 times monthly/every other Saturday at Francis Parker School in Linda Vista until the end of April 2016.* Volunteers are needed in the following areas:

- Computer programming
- Scientific experiments
- Elementary & middle school math
- Robotics competition preparation

If you are interested please contact Kemi Akinlabi at olakemi.akinlabi@hp.com

SHARE SCIENCE AS A CHEMISTRY AMBASSADOR

You can help kids learn to understand and love science as a Chemistry Ambassador, and ACS is ready to help you do it. Volunteer with youth groups, summer camps, and scouts in your community - the Chemistry Ambassadors program has tips and resources to support your outreach to your neighbors or students in your area. The Chemistry Ambassadors program makes it easy to stay involved, whether you have a lot of time, or just a little. See www.acs.org/chemistryambassadors for more details.

VOLUNTEER WITH KIDS & CHEMISTRY

Kids & Chemistry is a community-based program that brings together scientists and children to do hands-on science activities. Volunteers include ACS members, ACS Student Chapters, and corporate groups. Volunteer efforts can be implemented as a full program administered by an ACS local section or by an individual as a one-time classroom visit. For more information please see <http://www.acs.org/content/acs/en/education/outreach/kidschemistry.html>

ACS Webinars™

Featured Events

ACS Webinars® is a free, weekly online event serving to connect ACS members and scientific professionals with subject matter experts and global thought leaders in the chemical sciences. Each session is about 60 minutes, comprised of a short presentation followed by Q&A with the speaker. Live presentations are held on **Thursdays from 2-3pm ET**. Recordings of the webinars are available online to ACS members at <http://acswebinars.org/>.

Making an Artificial Leaf: Creating Hydrogen Fuels through Water, Sunlight and Carbon Dioxide
Thursday, March 3, 2016

Chemistry of Hello: Lithium Ion Batteries
Thursday, March 10, 2016

2016 Drug Design and Delivery Symposium

I - Time: The Fourth Dimension in Drug Discovery
March 23

April 28

II - Beyond Traditional Small Molecules

May 19 Design of Deliverable Macrocycles

June 23 Culture Clash - Antibody Drug Conjugates

July 28 Nucleic Acids Therapeutics - Making Sense of Antisense Oligonucleotides

August 18 *Special Topic (To Be Announced)*

III - Pharmacology Revisited

September 29 Designing Around Toxicophores

October 27 RNA by design and phenotypic screening

November 11 Cell Penetrating Peptides to Improve Cellular Drug Uptake

2016 ACS REGIONAL MEETINGS

CERM	May	18 - 21	Cincinnati, OH
MARM	June	9 - 12	Riverdale, NY
NORM	June	26 - 29	Anchorage, AK
ICS (Specialty)	July	17 - 21	New Orleans, LA
NERM	October	5 - 8	Binghamton, NY
SWRM	October	10 - 13	Galveston, TX
SERMACS	October	23 - 26	Columbia, SC
MWRM	October	26 - 28	Manhattan, KS

IS A CHEMISTRY STARTUP IN YOUR FUTURE?

On April 16, 2016, the ACS Portland Section will host the [Oregon Science Startup Forum](#), a one-day course in science entrepreneurship. Participants will hear the start-up experiences of science entrepreneurs from Oregon and beyond and learn from investors, intellectual property lawyers, and other experts on how to start their own science businesses. For more information see: [Oregon Science Startup Forum website](#).



YOUR AD HERE!

Place your ad in the next issue of
The San Diego Chemist

Please contact Renate Valois at
renate@sandiegoacs.org

NANOPARTICLES - GLOBAL HEALTH AND BEYOND
DR. MARCO BIAMONTE AND DR. STEVEN J. OLDENBURG
JANUARY 25, 2016

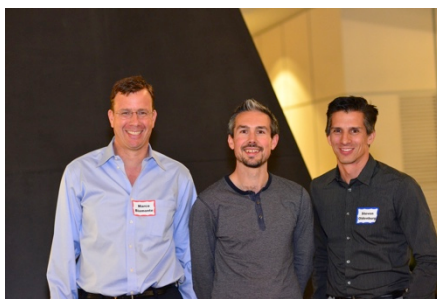
On Tuesday, January 26th, in the Keck Auditorium at The Scripps Research Institute, we hosted talks by two founders of two different companies that were using nanoparticles in novel ways to improve diverse aspects of everyday life. This fascinating subject had the packed auditorium enthralled with the subject matter and the questions and discussions lasted way past our allotted finish time.

First up was **Dr. Steven Oldenburg** of nanoComposix and his talk was on novel nanoparticles and some of their industrial applications. These ranged from acne treatment and wound dressing to anti-missile defense technology for helicopters. So when his company's R&D activities were compared to Q's lab in James Bond, it didn't seem that far fetched. nanoComposix has been ranked by the Department of Defense as one of the top 10% small companies in terms of commercialization success and everyone who was in attendance now understands why.

After that tough act to follow was an inspiring presentation by **Dr. Marco Biamonte** from the non-profit venture Drugs & Diagnostics for Tropical Diseases (DDTD), whose mission is to discover new treatments and diagnostics for neglected tropical diseases. These diseases have been typically neglected from research and development efforts due to the perceived lack of profitability. His talk focused on a device being developed at DDTD to detect parasitic worms. The device uses nanoparticles in a "lateral flow assay", which is the same format as the home pregnancy test. Further he discussed his hopes for its widespread application in fighting debilitating and lethal diseases in the third world.



Chair Graeme Freestone



l to r: Marco Biamonte, Graeme Freestone,
Steven Oldenburg



CANCER DRUG DEVELOPMENT: THE GOOD, THE BAD, THE UGLY
DR. CAROL GALLAGHER
FEBRUARY 18, 2016

On February 18th, **Carol Gallagher, Pharm.D.**, from New Enterprise Associates (NEA) spoke to approximately 100 attendees at the ACS San Diego February Monthly Meeting. The event was hosted in the Duane J. Roth Auditorium at the Sanford Consortium for Regenerative Medicine. Guests enjoyed appetizers from Bella Vista Social Club and Café at the social hour of networking followed by a talk by **Dr. Gallagher**, partner at NEA. In her presentation, she told the story of the discovery and development of ZYDELIG (idelalisib) which was invented in the PI3K delta program at ICOS Pharmaceuticals and later evaluated for B cell malignancies at Calistoga Pharmaceuticals. **Dr. Gallagher**, together with an

experienced team, helped to advance a first-in-class PI3K inhibitor idelalisib through definitive, proof-of-concept studies in patients with certain lymphomas and leukemias. During her tenure as CEO at Calistoga, **Dr. Gallagher** raised \$80 million in venture financing. Demonstration of the clinical benefit of Zydelig in patients with chronic lymphocytic leukemia (CLL), small lymphocytic leukemia (SLL), mantle cell lymphoma, and indolent non-Hodgkins lymphoma led to the acquisition of Calistoga by Gilead Sciences in April 2011 for a total consideration of \$600 million. Zydelig has since been approved. In July 2014, the FDA and EMA granted idelalisib approval to treat different types of leukemia. **Dr. Gallagher** shared her experience in drug development and strategic planning, and emphasized the importance of clinical trial protocol design that can make a big difference in the advancement of drugs.



Research Opportunities for Future Energy Technologies

Sunday, March 13, 2016 • 1:30 pm – 5:10 pm

San Diego Convention Center, Room 4 • (Upper Level)

Sponsored by ACS Division of Energy & Fuels (ENFL), ACS Publications Division, Chemical Abstracts Service (CAS) & ACS Immediate Past President Diane Grob Schmidt

Michelle Buchanan, Symposium Co-organizer and President
Oak Ridge National Laboratory

Photo: Peter Cutts Photography



Diane Grob Schmidt, Ph.D.
Symposium Co-organizer
ACS Immediate Past President



1:30 pm – 1:40 pm	Introductory Remarks
1:40 pm – 2:10 pm	The Honorable Franklin (Lynn) M. Orr Under Secretary for Science and Energy U.S. Department of Energy <i>The Quadrennial Technology Review: Creating a Clean Energy Future</i>
2:10 pm – 2:40 pm	Donald J. DePaolo Lawrence Berkeley National Laboratory <i>Basic Research for Carbon Capture and Storage</i>
2:40 pm – 3:10 pm	Krishan L. Luthra General Electric <i>Structural Materials Needs for Energy Technologies</i>
3:10 pm – 3:40 pm	Jeremy T. Busby Oak Ridge National Laboratory <i>Modern Materials and Chemical Science: Enabling Nuclear Power into the Future</i>
3:40 pm – 4:10 pm	Peter D. Olmsted Georgetown University <i>Basic Science Challenges in Additive Manufacturing</i>
4:10 pm – 4:40 pm	Tom F. Jaramillo Stanford University <i>Hydrogen Generation and Fuel Cells: Current Status, Research Challenges, and Future Prospects</i>
4:40 pm – 5:10 pm	George W. Crabtree Argonne National Laboratory <i>Energy Storage for Transportation and the Electricity Grid: Challenges and Opportunities</i>
	Closing Remarks



Family Picnic

Free Food, Games & Fun for Families, Friends & Fido!

DATE: Sunday, June 26, 2016

WHERE: Picnic Area #3, San Dieguito County Park, Solana Beach, at Lomas Santa Fe Drive and El Camino Real. Pay parking fee (\$3.00/car, free for seniors). At booth, proceed to Picnic Area #3 Parking.

Note: Due to the San Diego County Fair there may be heavy traffic on I-5 near the Lomas SantaFe exit. Please allow extra driving time!

TIME: 11:30 AM - 4:00 PM (food served from approx. noon to 3 PM)

WHO: Youngsters, seniors, in-betweensters, guys, gals, chemists, recovering chemists, guests and other friends of the ACS!

WHAT: BBQ, cold drinks, games and prizes for children of all ages. **Please bring a homemade dessert to enter the Best Dessert Contest. Prizes will be awarded!** If you bring a cold dessert, bring a cooler. Guests with special dietary needs should provide for them.

RSVP: As soon as possible but no later than **Wednesday, June 22nd**, by registering at <http://sdacs2016picnic.eventbrite.com/>. Please tell us how many adults and how many children (with their ages) will be in your party, as well as total number of vegetarians.

- **Younger Chemists:** Schmooze and network! Invite your friends! Make it WORK for you!
- **Women Chemists:** Meet and greet! Make this event a "Meeting Within a Meeting"! Share your ideas!

Please contact Jim Shih to sign up:

tel. 626-826-3561; e-mail: jimshih@earthlink.net



Chef Jim

CHEMPLOYMENT 780

POSITION TITLE

Consultant – Organic Chemist

JOB DESCRIPTION

We are seeking a seasoned and well-rounded organic chemist to consult on various current and new projects and products. The qualified candidate will have broad knowledge of bench chemistry, analytical chemistry and manufacturing scale-up. The candidate will work closely with company management and third party manufacturing and analytical partners.

QUALIFICATIONS AND DUTIES

- PhD in Organic Chemistry with 10+ years in the specialty chemical industry preferred.
- Strong knowledge of organic chemistry research and development
- Experience in manufacturing scale-up from bench to commercialization
- Able to provide technical service to solve manufacturing problems, questions or concerns
- Ensures CrossChem manufacturing principles and methods (where applicable) are implemented and monitored with third-party manufacturing partners
- Ensures CrossChem analytical methods (where applicable) are implemented and monitored with third-party manufacturing partners and independent analytical laboratories

DESCRIPTION OF COMPANY

CrossChem is a Carlsbad California-based specialty chemical company based on a third-party manufacturing model. We launched in 2001 as a spin-off of Rohm and Haas Company by R+H technical and commercial managers. Our products are produced in the USA and China with sales globally.

APPLICATION INSTRUCTIONS

Qualified and interested candidates should send CV/Résumé to careers@crosschem.net



ACS PUBLICATIONS LAUNCHES MOBILE-OPTIMIZED WEB PLATFORM

ACS Publications has introduced **ACS2Go**, pubs.acs.org/acs2go, a new, mobile-optimized website that enriches the reading and browsing experience for readers of ACS content.

Mobile pairing technology provides authorized users from subscribing institutions with on-the-go access to the entire content of the ACS Publications web platform. That includes more than 1 million scientific journal articles, the full collection of ACS eBooks, C&EN Archives, and the ACS Style Guide, all via a mobile-optimized interface. ACS members can also access their personal subscriptions on this platform.

ACS2Go can be accessed at pubs.acs.org on a tablet or smartphone. Please see for more information: pubs.acs.org/acs2go.



ACS INDUSTRY VOICES

ACS Industry Member Programs brings you the ACS Industry Voices blog, with weekly posts that share stories, lessons, advice, and general musings from around the chemical technology field.



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A scientific truth does not triumph by convincing its opponents and making them see the light, but rather because its opponents eventually die and a new generation grows up that is familiar with it.

~ Max Planck

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CHEMISTRY FOR YOU AND YOUR KIDS VEGETABLE DYES – THEY ARE HARD TO "BEET"!

An area in the chemistry of art is the dyeing of fabrics. The chemicals in dyes that give them their color are called pigments. These chemicals and the chemicals in the fabric have to work together so that the dye *molecules* will connect to the cloth molecules, to color the cloth. If the dye and the cloth molecules work well together, the dye will not come out (run) even when the cloth is washed!

You will need

Safety glasses • Newspaper • Paper towels • White unlined paper • White 100% cotton cloth (from an old rag) • White cotton/synthetic cloth (from an old rag) • Raw carrot • Raw beet • Raw red cabbage • Grater • Three small plates • Blunt-end scissors • 3 zip-closing plastic bags • 6 plastic cups • Warm water • Laundry detergent

1. Put on old clothes or a smock that is okay to get stained. Cover your work area with newspaper. Ask your adult partner to grate about 1/8 cup of carrot, beet, and red cabbage onto separate plates.
2. Place each of the three vegetables into its own plastic bag. Add about 1/4 cup of warm water to each bag and close tightly.
3. You and your adult partner should now press the vegetable and water inside the bag with your hand for two or three minutes, until a lot of the pigment from the vegetables has colored the water.
4. Open one corner of each bag and pour the colored water into three separate cups.
5. Use your scissors to cut the 100% cotton cloth, the paper, and the cotton/synthetic cloth into three strips each, about 3 cm wide and about 15 cm long.
6. Place one strip of each material into each vegetable dye. Let the materials stay in the dye overnight. The next day, take them all out and place them on paper towels to dry.
7. Which dye seemed to work best with which material?
8. Let's see how well the dye molecules will stay on the material when it is washed. Fill three separate cups halfway with warm water. Put the three dyed materials in each of the three cups. Ask your adult partner to help you move them up and down for one or two minutes.
9. Did any of the pigment run? Which pigment stuck best to its material? Which one got washed away the most easily? Have your adult partner put some laundry detergent in the cups. Move the materials up and down. Which dyes were able to stay on which materials when washed in soapy water?

Excerpt: "The Best of WonderScience," pg. 62, Delmar Publishers, 1997.

Attention Companies!

Do you hire student workers?

If you have open positions in chemistry and biochemistry that would be of interest to college students, such as summer internship opportunities, here is a list of contacts you'll want to keep handy. The people listed below are the faculty advisors of the ACS Student Affiliate groups for all chemistry programs in San Diego County. These professors can get the word out to all chemistry and biochemistry majors at their schools about jobs, career fairs, open houses, etc.

California State University, San Marcos

Jacqueline Trischman

trischma@csusm.edu

760-750-4206

Palomar College

Greg Elliot

gelliott@palomar.edu

858-531-1149

Point Loma Nazarene University

Sara Choung

SaraChoung@PointLoma.edu

San Diego Mesa College

Dwayne Gergens

dgergens@sdccd.edu

619-388-2609

San Diego Miramar College

Fred Garces

fgarces@sdccd.edu

619-388-7493

San Diego State University (SDSU)

Mikael Bergdahl

bergdahl@sciences.sdsu.edu

619-594-5865

Southwestern College, Chula Vista

David Hecht

dhecht@swccd.edu

619-421-6700x5461

University of California, San Diego

Joe Cribari

jcribari@ucsd.edu

858-822-4055

Gourisankar Ghosh

gghosh@ucsd.edu

858-822-0469

Judy Kim

judyk@ucsd.edu

858-534-8080

University of San Diego

Tammy Dwyer

tdwyer@sandiego.edu

619-260-4030



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For information contact:

Renate Valois - renate@sandiegoacs.org

UPCOMING EVENTS

SAN DIEGO FESTIVAL OF SCIENCE & ENGINEERING

<https://www.lovestemsd.org/>

FESTIVAL WEEK: March 5-13, 2016

EXPO DAY at PETCO Park: Saturday, March 5, 2016

251st ACS SPRING NATIONAL MEETING & EXPOSITION

San Diego, California

March 13-17, 2016

THE 62nd ANNUAL GREATER SAN DIEGO SCIENCE AND ENGINEERING FAIR

Balboa Park Activity Center (2145 Park Blvd.)

For information please see <http://www.gsdsef.org/>

March 15 - 20, 2016

75TH SAN DIEGO ACS ANNIVERSARY

San Diego State University

Department of Chemistry and Biochemistry

5500 Campanile Drive, San Diego, CA 92182

Wednesday, April 6, 2016

SENIORS/RETIRES/CONSULTANTS/ETC. BREAKFAST

Denny's

4280 Clairemont Mesa Blvd, San Diego

Thursday, April 14, 2016, at 9:30 AM

EARTH DAY - EARTHFAIR 2016

Balboa Park, San Diego, CA

<http://www.earthdayweb.org>

Sunday, April 17, 2016

SUMMER PICNIC

San Dieguito County Park, Solana Beach

Sunday, June 26, 2016

19TH ANNUAL SAN DIEGO MEDCHEM SYMPOSIUM

Price Center Theater at UCSD

Friday, July 15, 2016

252nd ACS FALL NATIONAL MEETING & EXPOSITION

Philadelphia, Pennsylvania

August 21-25, 2016

SECOND ANNUAL ACS-WEST COAST ANALYTICAL CHEMISTRY SYMPOSIUM

Dart NeuroScience, 12278 Scripps Summit Drive, San Diego, CA 92131

Wednesday, September 14, 2016, from 9:00 am - 5:00 pm

HOLIDAY PARTY

The Butcher Shop

5255 Kearny Villa Road, San Diego, CA 92123

Thursday, December 1, 2016

THE SAN DIEGO SECTION OF THE AMERICAN CHEMICAL SOCIETY WELCOMES ITS NEW MEMBERS

Gregory Anderson
Stacy Anselmo
Alejandra Arroyave
Tyler Baguley
Angela Blum
Allen Borchardt
Elise Bouffard
Robert Boutelle
Patrick Brklycica
Ching-Lin Chan
Teng-Hao Chen
Jiaxiang Chu
Richard Cochran
Guillaume Collet
James Collins
Rishad Dalal
Ghazwan Darzi
Matthew Del Bel
Stanley Diniz
Anders Eliassen

R Bryn Fenwick
Sam Fleischman
Beatris Flores
Alexandra Foucault-Collet
Erica Fung
Jemma Gibbard
Mike Gibney
Jason Green
Max Hansmann
Ran He
Sha He
Francisco Hidalgo
Danielle Hoggan
Christopher Hondros
Dana Honeycutt
Peng-Hao Hsu
Bin Huang
Bradley Kearney
Madison Kennedy
Taeho Kim

Brian Laforteza
Joo Hee Lee
Sangeun Lee
Suhua Li
Leslie Lien
Charles Lin
Robert Malmstrom
Vincent Martin
Dan Mermelstein
Daisy Monsivaiz
Varnavas Mouchlis
Cynthia Narbais
Andre Nguyen
Andrew Nguyen
Steven Ogg
Jason Olejniczak
Morgan Papineau
William Pistel
Valentin Poiset
Tyler Porter

Prabhu Raman
Marc Riera Riambau
Jonathan Rittle
Alexander Rovira
Mitchell Santander
Jon Sauer
Jamie Schiffer
Lindsay Semmler
Amber Senese
Peyton Shieh
Glen Spraggon
Han Steger
Alexandra Stubelius
Fumitaka Sugiyama
Camille Sultana
Yuta Suzuki
Bryan Tamashiro
Katrina Tjhung
Tsung-I Tsai
Andrew Vaino

Hua Wang
James Wang
Jocelyn Wang
Le Wang
Karina Wiener
Shara Williams
Jennifer Woodring
Shannon Woodruff
Haoming Wu
Yijun Xie
Qinyi Yan
Jian Yang
Longhua Yang
Xiao Yu
Ted Zee
Almagul Zhanaidarova
Tiantian Zhang
Xiaoping Zhang
Jingjing Zhao
Qinzheng Zheng

**2016 EXECUTIVE COMMITTEE & COMMITTEE MEMBERS
SAN DIEGO SECTION OF THE AMERICAN CHEMICAL SOCIETY**

EXECUTIVE COMMITTEE

<i>Chair</i>	Graeme Freestone, Dart NeuroScience LLC, gfreestone@sandiegoacs.org	(2016)	858-246-8137
<i>Chair-Elect</i>	Jonathan Lockner, Calibr, jlockner@sandiegoacs.org	(2016)	858-688-8143
<i>Past-Chair</i>	Ben Pratt, Akarna Therapeutics, bpratt@sandiegoacs.org	(2016)	858-945-7893
<i>Secretary</i>	William Tolley, Seacoast Science, Inc., b_tolley@juno.com	(2016)	858-780-0978
<i>Treasurer</i>	Bill Szabo, bszabo@sandiegoacs.org	(2016)	858-550-0306

Councilors

Thomas R. Beattie	(2018)	858-587-1210
Hui Cai, WuXi AppTec	(2016)	858-361-8838
Desiree Grubisha, CSUSM	(2018)	858-254-5497
John Palmer, UCSD	(2017)	858-534-5906
Ken Poggenburg	(2016)	760-635-2573
David Wallace, Wallace Scientific Consulting	(2018)	858-638-1866

Alternate Councilors

Paul Bruinsma, HP Inc.	(2017)	858-655-8322
Surya K. De, Sanford-Burnham Medical Research Institute	(2016)	858-337-4961
Julann Miller, Waters Corporation	(2017)	800-252-4752 x6802
John Schindler	(2016)	858-353-3943
Jim Shih, Eli Lilly & Co	(2017)	626-826-3561

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Ryan Clark, Inception Sciences, Inc.	(2017)	858-774-2095
Mark Rosen, Aetheria Therapeutics	(2017)	858-692-0639
Joann Um, Southwestern College	(2016)	510-823-8637
Mark Wentland	(2016)	518-257-2735

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ChemExpo

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Julann Miller, Waters Corporation	800-252-4752 x6802

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Ken Poggenburg	760-635-2573
David Wallace, Wallace Scientific Consulting	858-638-1866
Renate Valois (Newsletter Editor)	619-692-0638

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Joann Um (Co-Chair), Southwestern College	510-823-8637

EarthFair

Julann Miller, Waters Corporation	800-252-4752 x6802
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John Schindler	858-353-3943

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Jonathan Lockner (Interim Chair)	858-688-8143
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Ken Poggenburg	760-635-2573

Law Committee

Ryan C. Smith, Duane Morris LLP	619-744-2220
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Mad Science Program

Thomas R. Beattie	858-587-1210
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MedChem Symposium

Mark Tichenor (Co-Chair), Janssen Pharmaceuticals, Inc.	858-334-8914
David Wallace (Co-Chair), Wallace Scientific Consulting	858-638-1866

Membership Committee

Mark Rosen, Aetheria Therapeutics	858-692-0639
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Nominations Committee

Jim Shih, Eli Lilly & Co.	626-826-3561
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Picnic Committee

Jim Shih, Eli Lilly & Co.	626-826-3561
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Professional Development Committee

OPEN

Public Relations Committee

John Schindler	858-353-3943
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Retired Chemists Committee

Ken Poggenburg (Chair)	760-635-2573
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Seniors Breakfasts

Thomas R. Beattie	858-587-1210
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Women Chemists Committee

OPEN

Younger Chemists Committee

Jean-François Brazeau (Co-Chair), Celgene	858-882-5263
Corey Anderson, (Co-Chair), Vertex Pharmaceuticals	858-405-4734

Voice Mail – San Diego Section

619-687-5570