

## "Thoughts on an Evolving Drug Discovery Strategy"

***Dr. Katerina Leftheris***

*Senior Director of Chemistry, Celgene*

**DATE:** Wednesday, June 3, 2015

**TIME:** 6:00 PM Social Hour, Light Supper  
7:00 PM Lecture

**PLACE:** Celgene  
Torrey Pines Conference Room  
10300 Campus Point Drive  
San Diego, CA, 92121

**RSVP:** By Tuesday, June 2, 2015  
<https://katerinaleftheris.eventbrite.com>



### ABOUT THE SPEAKER:

Katerina joined Celgene in January, 2013 as Sr. Director of Chemistry, San Diego. She has over 24 years of drug discovery experience in the Pharmaceutical industry, both in large pharma and biotech. Katerina has built and led successful teams with strong and creative problem-solving skills. This has resulted in over 8 agents entering the clinic for inflammatory disease, oncology, diabetes, and CNS.

At Celgene, Katerina oversees the San Diego Chemistry team and is responsible for the internal SD chemistry effort associated with delivering high quality small molecule clinical candidates. In building an industry-leading chemistry capability, Katerina has introduced high throughput medicinal chemistry, enhanced analytical resources and initiated chemical biology efforts. She has also focused on enhancing diversification of the internal chemical equity. To date, under her guidance, her team has advanced multiple compounds into Development. Katerina is a member of several JRC/JSC committees with Celgene alliance partners.

Prior to joining Celgene, Katerina was Sr. Director of Chemistry for Vitae Pharmaceuticals, where she built a chemistry team and supervised research groups in medicinal chemistry, structure based drug design and process chemistry. As part of an alliance program with Boehringer-Ingelheim, she led the successful discovery and advancement of the 11betaHSD1 inhibitor program, currently in clinical trials. She initiated and advanced compounds in programs targeting nuclear hormone receptors and contributed to the advancement of several additional Vitae compounds currently in early development. Prior to this role, Katerina spent 17 years at Bristol-Myers Squibb where she held positions of increasing responsibility in the Oncology and Immunology Chemistry Departments. She and her teams initiated over 15 programs encompassing diverse molecular targets such as kinase inhibitors, GPCR's, PDEs and protease inhibitors. She helped to establish Immunology Chemistry at BMS and was responsible for advancing multiple compounds from inception into clinical trials across both I&I and Oncology.

Katerina received her BA degree in Chemistry from Smith College and her PhD degree in Organic Chemistry from the University of California, San Diego, completing her postdoctoral training (NIH Postdoctoral Fellow) at the University of Pennsylvania. She currently has over 100 published papers and issued patents.

## CHAIR NOTES

Dear ACS Members:

This year's theme of "Chemistry Outside the Box" has been a great success thus far. With a wider range of topics being addressed at our monthly meetings, we have seen a lot of new faces. I hope that this will continue for the rest of the year and that the new faces will become regular attendees and active members of the ACS.

On April 7<sup>th</sup>, a wonderful talk by **Dr. Barbara Sawrey** on the advances in higher education was given at SDSU. This is the third year that the April event was held at SDSU and I would like to thank the organizers **Tom Beattie** and **Professor Bill Tong** for their work.

ACS and SABPA co-sponsored the 5<sup>th</sup> Annual Chemistry Symposium on April 10<sup>th</sup> featuring two fantastic speakers: **Dr. Shifeng Pan**, Director of Medicinal Chemistry at GNF, and **Professor John Hartwig** from UC Berkeley. Thank you to **David Wallace** for working with SABPA to organize this event.

The first annual ACS West Coast Analytical Chemistry Symposium was held on April 15<sup>th</sup> at Dart Neuroscience and drew over 100 analytical chemists and vendors. **Julann Miller** spearheaded the effort for the ACS and it was a full day event with lectures, posters, food and raffle prizes.

The San Diego Section of the ACS participated in two large science fairs in March; the Greater San Diego Science and Engineering Fair at Balboa Park and the San Diego Festival of Science & Engineering at PETCO Park. Thank you to **Jim Shih**, the students of Southwestern College, and an army of volunteers for making these events possible.

The next Executive Committee Meeting will be held on May 7<sup>th</sup>. Every Executive Committee Meeting this year will have a theme, featuring a different tasty treat or beverage. If you would like to become more involved in the San Diego ACS or have an idea for an event, please join us.

All of these events are made possible by the generous contributions of our event and outreach sponsors. As our thank you to our outreach sponsors, we offer benefits including a year of having a company logo featured on our home page ([www.sandiegoacs.org](http://www.sandiegoacs.org)) and in our newsletter. Please visit our website to view a list of our outreach sponsors and for more information about our upcoming events.

Best,

Ben Pratt

2015 Chair

American Chemical Society – San Diego Section

E-mail: [bpratt@sandiegoacs.org](mailto:bpratt@sandiegoacs.org)

Web: [www.sandiegoacs.org](http://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 2015 Chair, Ben Pratt, at [bpratt@sandiegoacs.org](mailto:bpratt@sandiegoacs.org). Once approved, Ben will see that your announcement is published on our website ([www.sandiegoacs.org](http://www.sandiegoacs.org)) and, if received by the 23<sup>rd</sup> 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](http://www.sandiegoacs.org) a separate notification is sent to the **2,400 members** of the ACS-San Diego Section, each potential customer for your products and services! **Quick turnaround:** Ad copy submitted by the 23<sup>rd</sup> of each month will be published by the end of that month. For more information, please contact: Renate Valois, [renate@sandiegoacs.org](mailto:renate@sandiegoacs.org).

**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 23<sup>rd</sup> 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 |          |          |
|--------------|--------------------------------|----------|----------|
|              | <b>1</b>                       | <b>3</b> | <b>6</b> |
| 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](mailto: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](mailto: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](mailto: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 2015

6:00 – 8:00 pm

|                 |                  |          |
|-----------------|------------------|----------|
| <b>Thursday</b> | <b>May</b>       | <b>7</b> |
| <b>Thursday</b> | <b>June</b>      | <b>4</b> |
| <b>Tuesday</b>  | <b>July</b>      | <b>7</b> |
| <b>Thursday</b> | <b>August</b>    | <b>6</b> |
| <b>Thursday</b> | <b>September</b> | <b>3</b> |
| <b>Thursday</b> | <b>October</b>   | <b>1</b> |
| <b>Thursday</b> | <b>November</b>  | <b>5</b> |

**Meetings will be held at:**  
**9381 Judicial Drive, Suite 160**  
**San Diego, CA 92121**



SCHRÖDINGER



SheppardMullin



Wilson Sonsini Goodrich & Rosati  
PROFESSIONAL CORPORATION



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 4<sup>th</sup> and 5<sup>th</sup> 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 in Balboa Park annually for the past 27 years. It features live stage demonstrations and interactive booths that teach kids about applied science. Last year over 1000 local students participated!

**Monarch Elementary School Program** - This unique school accommodates children who are impacted by homelessness, and who would otherwise have little or no exposure to hands-on science.

**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: **Gulin Erdogan**, Chair, Fundraising Committee, [gerdogan@sandiegoacs.org](mailto:gerdogan@sandiegoacs.org)

#### SHARE SCIENCE AS A CHEMISTRY AMBASSADOR

Become a compelling spokesperson for your profession, whether you have a lot of time, or a little. Present ACS's many and excellent resources to the audiences they are intended to serve. Connect with the people who live in your community.

By becoming a Chemistry Ambassador you can help educate people about the importance of chemists and chemistry while taking part in community activities that are engaging and fulfilling for you. The suggestions and tools in this program are largely designed for individuals on their own schedules, but there are resources for local section programming as well.

**Sign up** now to receive additional information and resources.



Some of the ACS - San Diego Section Ambassadors

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

The EnCorps STEM Teachers Program ([www.encorps.org](http://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 at our EnCorps 101 webinar on

Thursday, May 7th at 12:00 pm

<https://attendee.gotowebinar.com/register/4261303914057908225>

#### "KEELING CURVE"

##### NATIONAL HISTORIC CHEMICAL LANDMARK

Charles David Keeling was the first to confirm the accumulation of atmospheric CO<sub>2</sub> by very precise measurements over an extended span of years commencing in 1958 that produced a data set now considered one of the basic documents of climate change research. This "Keeling Curve" provided irrefutable evidence of the need to mitigate the contribution of human activity in the production of atmospheric CO<sub>2</sub>. Please see:

<http://www.acs.org/content/acs/en/education/whatischemistry/landmarks/keeling-curve.html>.

*The National Historic Chemical Landmark will be recognized at the Scripps Institution of Oceanography, UC San Diego, on **June 12, 2015**, and in a separate ceremony at NOAA's Mauna Loa Observatory. More information is available at [www.acs.org/landmarks](http://www.acs.org/landmarks).*

#### INAUGURAL ISSUE OF ACS CENTRAL SCIENCE NOW AVAILABLE ONLINE

ACS *Central Science*, the first fully open access journal from the American Chemical Society, has published its [first issue](#). These first articles cover a range of scientific disciplines, from theory to nanomaterials to catalysis, and are authored by leaders in these respective fields, including [John Gladysz](#), [Eric Heller](#), and Paul Alivisatos.

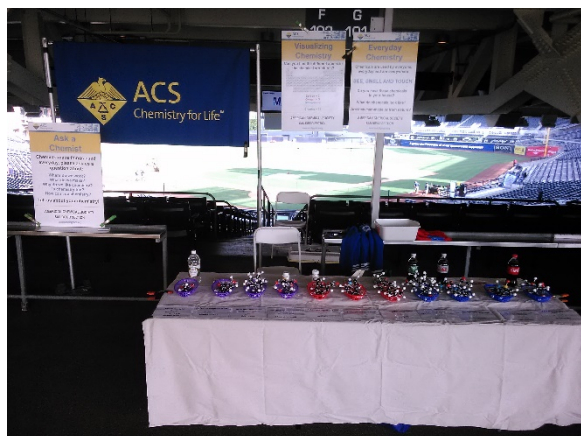
Led by Editor-in-Chief Carolyn R. Bertozzi, Ph.D., [ACS Central Science](#) is highly selective, publishing articles of exceptional quality and interest to the broad chemistry and scientific community. The journal will maintain the same rapid, high-quality and constructive review process that ACS Publications has refined admirably across its portfolio of journals. ACS *Central Science* heralds no subscription fees for readers and no article publishing charges for authors. Submit your research today!



## 2015 SAN DIEGO FESTIVAL OF SCIENCE AND ENGINEERING

The San Diego Section of the ACS hosted a booth at the 2015 San Diego Festival of Science and Engineering at PETCO Park on March 21<sup>st</sup>. The festival is a free, open to the public, event to promote STEM education and draws over 30,000 students and parents from the community. Our booth highlighted the way that chemistry and chemicals are all around us in the drinks, foods and medicines we have at home. Two-dimensional structural drawings were paired with 3-D molecular models that the students could hold, rotate and even make or break a few “chemical bonds”. Besides, the structures and models were common household items where the chemicals could be found.

Our booth had a steady flow of visitors who were greeted by our energetic “Chemistry Ambassadors”. A special thanks to the students of Southwestern College who were able to instantly connect with the festival’s student attendees. I would also like to thank the other volunteers who helped conceive of the booth’s design and its presentation during the event, and our ACS Outreach Sponsors for making this booth possible.



Ben Pratt  
Photo credits: Ben Pratt

**Congratulations to Winners of the ACS Science Awards  
at the 2015 Greater San Diego Science and Engineering Fair  
March 25, 2015**

**Senior Division**

- 1<sup>st</sup> Paul Gauvreau: *"Artificially Formed Stable Interaction through E-Cadherin Plasmid Transfection"*  
Canyon Crest Academy; Grade 9
- 2<sup>nd</sup> Diego Cervantes & Malida Hecht: *"The Effects of Amino Acid Substitution on Protein Structure"*  
Bonita Vista High; Grade 12

**Junior Division**

- 1<sup>st</sup> Kayla Vale Cruz: *"A Little Too Mulch"*  
Good Shepherd; Grade 8
- 2<sup>nd</sup> Georgina Madok: *"Got Mayo?"*  
St. Gregory the Great; Grade 7

We thank our volunteers who gave their time at the Greater San Diego Science & Engineering Fair to act as judges for the ACS Chemistry Awards.



Back – l to r: Jim Shih, Jerry Albert, Ken Ajayi, Derek Hook, Margaret Tessier  
Front - l to r: Kendra Hailey, Holly Dembinski, Romila Mukerjea, Lindsay Dawson

Jim Shih

**Obituary**

The San Diego Section notes the passing on January 16, 2015, of one of its two oldest members, Prof. Andrew Alm Benson, at the age of 97. He joined the Scripps Institution of Oceanography in 1962, having worked in Melvin Calvin's laboratory at UC Berkeley on elucidating the complete pathway of carbon fixation in photosynthesis, which became known as the Calvin-Benson cycle. A more detailed biographical tribute can be found at <https://scripps.ucsd.edu/news/obituary-notice-andrew-benson-world-renowned-scripps-plant-biochemist>



**YOUR AD HERE!**

Place your ad in the next issue of  
[The San Diego Chemist](#).

Please contact Renate Valois at [renate@sandiegoacs.org](mailto:renate@sandiegoacs.org)



## ***AN EVENING WITH BARBARA SAWREY***

On Tuesday, April 7<sup>th</sup>, **Barbara Sawrey**, Associate Vice Chancellor for Academic Affairs and Dean of Undergraduate Education at UCSD, spoke at the 3<sup>rd</sup> Annual San Diego ACS/SDSU Chemistry Department meeting at SDSU. Barbara reviewed demographics, aspirations and expectations of students. Teaching methodology is changing rapidly, and technology and social media are at the root of the changes.

The audience included quite a number of Barbara's former SDSU teachers, mentors and classmates as well as teachers and others with interest in education of students. Pictures below capture the camaraderie of a pleasant evening.



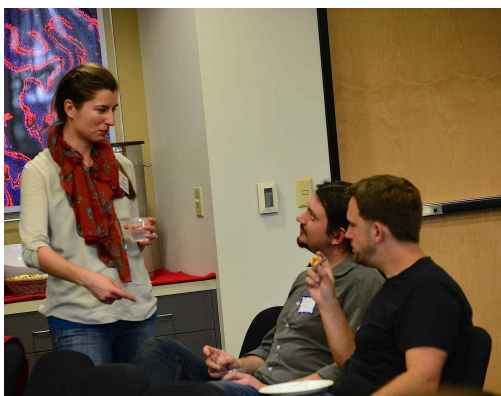
Barbara Sawrey



Bill Tong, SDSU



Tom Beattie



Gulin Erdogan, David Marelius, Erik Paulson



Bill Tong, Steve Welter (VP Research, SDSU)



Jack Stewart, Vince Landis



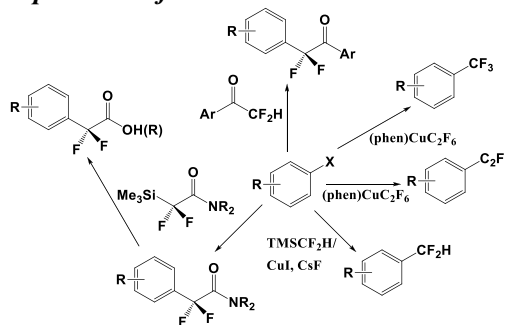
Bill Richardson, Steve Welter, Bill Tong

Tom Beattie  
Photo credits: Jim Shih

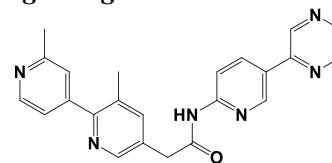
## 5<sup>th</sup> SABPA/ACS Chemistry Symposium

Friday, April 10, 2015, marked the 5<sup>th</sup> SABPA/ACS Chemistry Symposium. The event was held at Knobbe Martens Olson & Bear LLP with more than 120 people attending to hear talks given by **Professor John F. Hartwig**, U.C. Berkeley, and **Dr. Shifeng Pan**, Director of Medicinal Chemistry, GNF.

In his presentation titled “*Metal-Mediated and Metal-Catalyzed Incorporation of Fluorine into Aromatic Molecules*”, **Professor Hartwig** started the lecture by introducing us to the copper-catalyzed trifluoromethylation of aryl/heteroaryl halides using (phen)CuCF<sub>3</sub>. He then showed us a one-pot Pd-catalyzed synthesis of difluoromethylarenes, and Pd-catalyzed arylation of  $\alpha$ ,  $\alpha$ -difluoroamides. He ended his fascinating lecture by introducing us to a new methods of C-H fluorination of heteroaryls with AgF<sub>2</sub> and how the methods can be used to assist the medical chemist.



**Dr. Pan's** talk was titled “*Discovery of Porcupine Inhibitors Targeting Wnt Signaling in Cancer*”. He talked about how their co-culture HTS assay identified GNF's initial Wnt secretion inhibitor, GNF-1331. Dr. Pan then presented the evolution of the SAR of GNF-1331, from a compound with poor pK to their current clinical candidate, WNT974. In vivo data were presented that shows that WNT974 inhibited tumor growth in pancreatic cancer models with RNF43 LoF mutations.



WNT974

On behalf of the organizing committee, I would like to thank all volunteers and sponsors of the event: **Pfizer**, **Biotage**, **Teledyne Isco**, our distinguished speakers, and the attendees for making the 5<sup>th</sup> SABPA/ACS Chemistry Symposium another successful event.



Professor John F. Hartwig, of U.C. Berkeley



Dr. Kevin Bunker, co-organizer, introducing Prof. Hartwig



Dr. Shifeng Pan, Director of Medicinal Chemistry, GNF



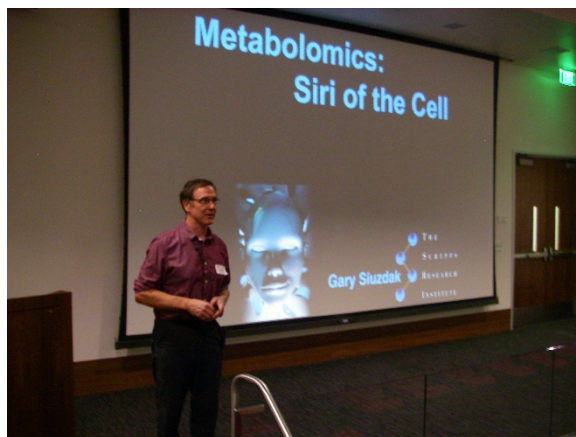
Dr. David Wallace, Committee Chair, opening remarks

~David Wallace



## **FIRST ANNUAL ACS WEST COAST ANALYTICAL CHEMISTRY SYMPOSIUM**

The first annual ACS West Coast Analytical Chemistry Symposium was held on April 15<sup>th</sup> at Dart NeuroScience LLC. The event was conceived as a forum to facilitate a discussion of current topics in analytical chemistry. With that spirit in mind, the organizers felt it essential to provide an opportunity for scientists at all levels (from undergraduate students to department directors) to present their research. The full day event featured 8 lectures and an equal number of posters presented by a diverse array of analytical scientists. The keynote lecture was provided by **Professor Gary Siuzdak** from The Scripps Research Institute. Overall, more than 100 attendees filled the lecture hall and foyer at the new Dart facility. The event was made possible from the generous support of the Founding Sponsors, Pic Solution and Waters Corporation and through an ACS Innovative Projects Grant written by **Julann Miller**. The organizers, **Christina Aurigemma**, **William Farrell**, **Julann Miller**, **Ben Pratt** and **Gerard Rosse** look forward to next year's event to further tap into the valuable analytical chemistry knowledge present here in Southern California. Volunteer and presentation opportunities are available for next year's event. Please contact one of the organizers to get involved.



Ben Pratt  
Photo credit: Ben Pratt





# Family Picnic

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

**DATE:** Sunday, June 28, 2015

**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 24<sup>th</sup>**, by registering at <http://sdacs2015picnic.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.

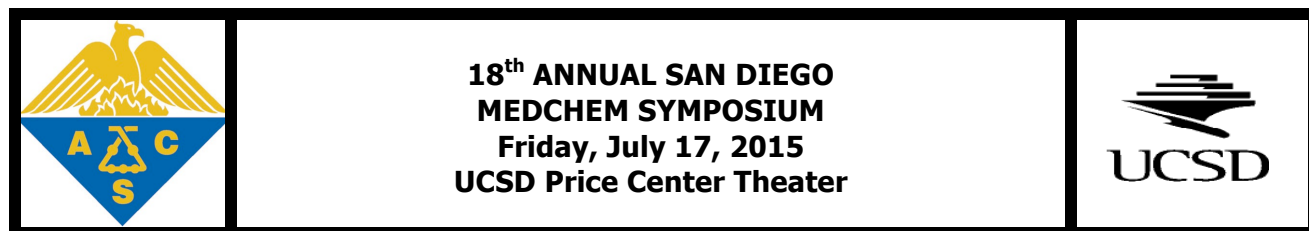
- **Younger Chemists:** Schmooze and network! Invite your friends! Make it **WORK** for you!
- **Women Chemists:** Meet and greet! Make this event a "Meeting Within a Meeting"! Share your ideas!

**Please contact Jim Shih to sign up:**

**tel. 626-826-3561 e-mail: [jimshih@earthlink.net](mailto:jimshih@earthlink.net)**



**Chef Jim**



Organized by

**Dr. Mark Tichenor and Dr. David Wallace, San Diego Section of the American Chemical Society**  
**Dr. Emmanuel Theodorakis, UCSD Department of Chemistry and Biochemistry**

- 8:30 AM      **Registration and Continental Breakfast**
- 9:00      **Opening Remarks by Dr. Emmanuel Theodorakis**
- 9:05      **Dr. Dale Boger**, The Scripps Research Institute  
"Redesign of Vancomycin"
- 9:45      **Dr. Nick Carruthers**, Janssen Research & Development L.L.C.  
"Discovery of Selective Orexin-2 Antagonists for the Treatment of Primary Insomnia"
- 10:25      **Coffee Break**
- 11:05      **Dr. Ali Al-Mourabit**, Institute of Chemistry of Natural Products, CNRS, France  
"Marine Secondary Metabolites, Isolation, Synthesis and Bioactivity"
- 11:45      **Dr. Scott Hecker**, Rempex Pharmaceuticals/The Medicines Company  
"Discovery of RPX7009, a Cyclic Boronic Acid Beta-lactamase Inhibitor with Utility vs. Class A Serine Carbapenemases"
- 12:25 PM      **Lunch Break**
- 1:30      **Opening Remarks by Dr. Mark Tichenor**
- 1:35      **Dr. Neal Devaraj**, University of California San Diego  
"Advancing Bioorthogonal Tetrazine Ligations for Applications in Cellular Imaging"
- 2:15      **Dr. Tom Wu**, Medicinal Chemistry, GNF  
"Small Molecule Immune Potentiators"
- ~3:00      **Symposium Conclusion**

To register please visit

**<http://chemistry.ucsd.edu/go/medchem>**

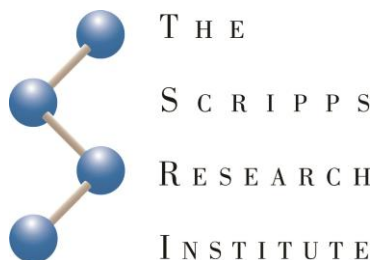
and follow the link to the Registration page.

Register online early and we will buy your lunch at Price Center food court on Friday, July 17.



# DEPARTMENT OF CHEMISTRY

## TWO-DAY SEMINAR SERIES



*Presenting:*

## Dr. Robert M. Hazen

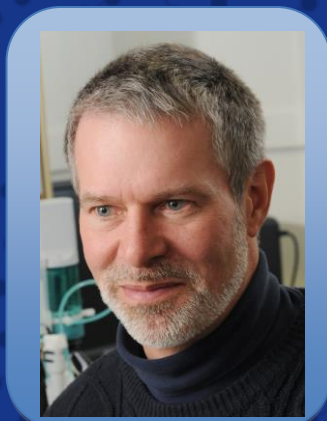
Geophysical Laboratory, Carnegie Institution of Washington  
5251 Broad Branch Road, NW, Washington, DC 20015

### *Genesis: The Scientific Quest for Life's Origins*

**Tuesday - April 28, 2015**

**4:00pm – 5:00pm**

[W. M. KECK FOUNDATION AMPHITHEATER, BCC1]



**Abstract:** Is life's origin a cosmic imperative manifest throughout the cosmos, or is life an improbable accident, restricted to a few planets (or only one)? Lacking observations of ecosystems beyond our own world, scientists seek experimental and theoretical frameworks to deduce the origin of life. In this context the concept of emergent systems provides a unifying approach. Natural systems with many interacting components, such as molecules, cells or organisms, often display complex behavior not associated with their individual components. The origin of life can be modeled as a sequence of emergent events – the synthesis of biomolecules, the selection and organization of those small molecules into functional macromolecules, the emergence of self-replicating molecular systems, and the initiation of molecular natural selection – which transformed the lifeless geochemical world of oceans, atmosphere and rocks into a living planet. This framework guides origin experiments, which can be designed to focus on each emergent step.

### *Mineral Ecology: Chance and Necessity in the Mineral Evolution of Terrestrial Planets*

**Wednesday - April 29, 2015**

**11:00am – 12:00pm**

[COMMITTEE LECTURE HALL, MBB2]



**Abstract:** Three factors contribute to the roles played by necessity and chance in determining mineral distribution and diversity at or near the surfaces of terrestrial planets: (1) planetary stoichiometry; (2) crystal chemical characteristics; and (3) the probability of occurrence for rare minerals. Measurements of stellar stoichiometry reveal that stars can differ significantly from the Sun in relative abundances of rock-forming elements, which implies that bulk compositions of some extrasolar Earth-like planets likely differ significantly from those of Earth. The most abundant elements generally have the largest numbers of mineral species, though several elements that mimic other more abundant elements are less likely to form their own species. Statistical analysis of mineral frequency distributions suggests that thousands of plausible rare mineral species await discovery or could have occurred at some point in Earth's history, only to be subsequently lost by burial, erosion, or subduction. Were Earth's history to be replayed, and thousands of mineral species discovered and characterized anew, it is probable that at least 25% of those minerals—more than 1000 species—would differ from species known today.

HOSTED BY: Professor Donna G. Blackmond

CONTACT: Joseph Gassert • (858) 784-2709 • joeyg@scripps.edu

LOCATION ADDRESS: 10550 North Torrey Pines Road, La Jolla, CA 92037



**SUMMARY OF SAN DIEGO SECTION  
EXECUTIVE COMMITTEE MEETING MINUTES, APRIL 2, 2015**

**Treasurer's Report** – Since last meeting, received sponsorships amounting to \$1000 for analytical symposium, \$1000 ads for Newsletter; expenses: Earth Fair - \$500 deposit; \$2900 for councilor travel, \$500 to UCSD for Undergraduate Research Symposium; YTD \$1300 deficit; IPG grant money for Analytical Symposium has yet to come; expecting ~\$26K for allotment, dues; Q1 \$318K in assets up \$18K in past year

**Motion:** Maintain Section dues at \$10 and authorize for National to collect Section dues - **Approved**

**March Monthly Seminar** – Donna Blackmond - 86 attended (80% of registrants), good discussion after presentation

**UCSD STEM Symposium** – 150 attendees, 36 speakers, recent graduates finding serious unemployment

**SD Festival of Science & Engineering** – Good support from SW College, 6-7 students at all times; ~30,000 attended the festival

**Greater SD Science and Engineering Fair** – 9 judges, projects and originality seemed not good as for previous years (several projects with duplicate titles); awarded only 2 in each division

**ACS National Meeting Review** – ~14K attendees but only about half paying full registration, student attendance increasing; Council selected the two candidates to run for president for next year; report on redistributing councilors puts San Diego on the edge of losing a councilor; National had to reserve an extra \$60MM for retirement accounts; number of exhibits at National Meetings is shrinking, cost for technical presentations becoming more expensive and loss for putting on meeting is growing; planning to charge for printed meeting programs in the future to reduce deficit; time to start planning for Section's participation in National Meeting next Spring in San Diego, Section should contact National with our plan; unemployment among BS chemists dropped but still ~14%, salaries also dropping; Western Region Steering Committee – 7 exhibitors & two special events slated for meeting in Nov.; speakers and demonstrations arranged for Educator Day & hoping to stream education presentations to reduce costs for participants; WR Meeting website getting updated

**SABPA-ACS Meeting** – Apr 10, @Knobbe Martens Olson & Bear LLP

**April monthly meeting** – Dr. Barbara Sawrey @SDSU, 29 registered

**UCSD Career Panel** – 4/8 6 pm, panel discussion with Ben & Mark Tichenor to field questions on how to get a job after college

**West Coast Analytical Symposium** – 81 registered, @ Dart, need list of authorized attendees to get past security, raised \$4000 +\$2500 IPG

**Earth Day** – on schedule

**May Monthly** – Speaker from Celgene, last week of May, will confirm

**Picnic** – Getting reservations on chairs, etc.; will hold committee meeting in ~1 month

**50-60 yr Luncheon** – At Vi at La Jolla Village, Sat July 11

**MedChem Symposium** – Speakers confirmed, working on sponsors

**Law Committee** – Ryan Smith with Duane Morris LLP has accepted as Law Committee chair, working on presentation regarding legal aspects of biosimilars

**Long-term planning** – Suggestion for meeting on gemology to involve Gemological Institute

**Sr Chemists Breakfast** – April 7, Coco's UTC (Nobel & Genesee)

**Mad Science** – Presenter had surgery, so no presentations until May; working to make a presentation at Monarch School

**Project SEED** – TSRI sent thank you note

**Website Use** – Website getting few views compared to the number of members in the Section

Next meeting: May 7

**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/>.

**2015 Drug Design and Delivery Symposium  
Symposium Schedule**

**Module 2: Activity/Potency Screening for Drug Lead and Candidate Optimization**

- 5/28/2015 PAINS (Pan-Assay Interference Compounds)
- 6/25/2015 Positron Emission Tomography (PET) Labeling in Drug Discovery
- 7/30/2015 X-ray Crystallography in Drug Discovery

**Module 3: Enabling Drug Delivery**

- 8/27/2015 Choices and Trends in Solid Dosage Form Section (Salt, Cocrystal)
- 9/24/2015 Delivery Options to Support Dose Escalation in Preclinical Toxicology and Pharmacodynamic Activity Studies

**Module 4: Pharmacokinetics**

- 10/29/2015 Pharmacokinetic Considerations in Drug Design and Development
- 11/19/2015 Prodrugs in Drug Discovery

Visit the site to register for the monthly series:  
<http://www.acs.org/content/acs/en/events/upcoming-ac-s-webinars/drug-design-2015.html>

**2015 ACS REGIONAL MEETINGS**

|                                     |            |                  |
|-------------------------------------|------------|------------------|
| <a href="#">Central (CERM)/GLRM</a> | May 27-30  | Grand Rapids, MI |
| <a href="#">Northeast (NERM)</a>    | June 10-13 | Ithaca, NY       |
| <a href="#">Northwest (NORM)</a>    | June 21-25 | Pocatello, ID    |
| <a href="#">Midwest (MWRM)</a>      | Oct. 21-24 | St. Joseph, MO   |
| <a href="#">Southeast (SERMACS)</a> | Nov. 4-7   | Memphis, TN      |
| <a href="#">Western (WRM)</a>       | Nov. 6-8   | San Marcos, CA   |

**Research Resources for ACS Members**

Jump-start your research by taking advantage of exclusive member rates and access on these top-shelf scientific resources from ACS:  
[ACS Member Universal Access](#)  
[ACS Member Articles on Command](#)  
[ACS Member E-Passport](#)  
[ACS Member E-Subscriptions](#)  
[SciFinder®](#)

ACS Members, get the most out of your membership.

Find complete details about member benefits from ACS Publications and the Chemical Abstracts Service, as well as many other resources, at:

[www.acs.org/memberhandbook](http://www.acs.org/memberhandbook).

## CHEMISTRY FOR YOU AND YOUR KIDS

### THROUGH THICK OR THIN

Some additives used in foods are called *thickeners* which, as you might guess, make certain foods thicker. Scientists who work with foods need to be able to measure thickness. Try the following activity and see if you're ready to become a *WonderScience* food scientist!

#### You will need

Eye protection - Cornstarch - Flour - Unflavored gelatin - Milk - 3 small paper or plastic cups - Measuring spoons - 2 spoons for stirring - 1 Straw - Blunt-tip scissors - Wax paper - Tape - Cardboard - Paper towels or newspaper - Crayon - Stack of books

1. Cover your work surface with paper towels or newspaper. Put 2 tablespoons of milk into each of two cups. With your masking tape and crayon, mark one cup "flour" and the other cup "cornstarch."
2. Add one tablespoon of flour and one tablespoon of cornstarch to their labeled cups and stir each one with a separate spoon. Does the liquid in either cup seem thicker than before? Do you think that looking at the liquid is a good test for thickness?
3. Add one more tablespoon of flour and cornstarch to their labeled cups and stir thoroughly. Do the liquids seem to be getting thicker? Does one liquid seem to be getting thicker than the other?
4. Let's try a common test for thickness. Cut your straw in half and see in which cup a half straw will stand up. In which liquid were you able to keep the straw standing?
5. Another test for thickness is the flow test. Get a piece of cardboard about 30 cm wide and about 60 cm long. Use tape to cover one side of the cardboard with wax paper. Make a ramp from the cardboard by placing one end on a stack of old books about 10 to 15 cm high.
6. Place several sheets of newspaper at the bottom of your ramp. Add 2 more tablespoons of cornstarch to its cup and stir very thoroughly. Now you have two liquids of similar thickness. Let's use the flow test to see which one is thicker! Take one cup in each hand and quickly pour all the liquid from each cup out in separate streams at the top of the ramp. Which liquid flows the fastest? Which liquid is the thickest?
7. Touch the trails left by the liquids on your wax paper. Does one feel thicker than the other? Does the way they feel match how fast they traveled down the ramp?
8. See if you and your adult partner can design your own liquid thickness test based on how fast liquids drip drop by drop. Think about the equipment you will need and how you will set up your experiment. Good luck!
9. And now for something really thick! Place 2 tablespoons of milk in a cup. Add one packet of dry unflavored gelatin and stir. Even though the mixture is getting thicker, keep stirring until it gets very thick.
10. When the mixture is like a thick dough, take it out with your hand and roll it into a ball. Try bouncing your milk and gelatin ball. Now that's THICK!

Excerpt: "The Best of WonderScience," pp. 162-163, Delmar Publishers, 1997



CoSMoS will be held at the Sheraton San Diego Hotel & Marina from August 17-19, 2015. Full conference details will be available soon on: [www.CoSMoScience.org](http://www.CoSMoScience.org)

#### 2015 Session Highlights:

**4<sup>th</sup> Method Development Olympics** – compete against other labs to solve an analytical problem

**Complex Mixture sessions** – multi-dimensional chromatography, extractables & leachables, modern natural product research

**Analytical Quality by Design (QbD)** - and more!

Presented by The Society for Small Molecule Science – A volunteer 501(c)(3) nonprofit for the advancement of analytical science

#### Founding Sponsors



**NuMega Resonance Labs**  
 FAST TURNAROUND, ACCURATE RESULTS  
**\* NMR 500MHz \* Mass \* Elemental Analysis**  
 TEL: (858) 793-6057      [www.numegalabs.com](http://www.numegalabs.com)

Extend  
Your  
R&D

**Analytical Chemistry**

**CHEMIR** 800.506.9892  
 EVANS ANALYTICAL GROUP [www.chemir.com](http://www.chemir.com)

**Don't Miss NERM 2015**

Abstract submissions, registration, and housing reservations are now open for the **40<sup>th</sup> ACS Northeast Regional Meeting (NERM), June 10-13, 2015**, hosted by the ACS Cornell Section, at Ithaca College, Ithaca, NY. Program details, registration, housing, and all the latest meeting information can be found on the [NERM 2015 website](http://www.nerm2015.org). Register today, and join us in June!

**SHARE YOUR IDEA  
AND TRAVEL  
TO BERLIN**

BE PART OF THE FALLING WALLS LAB SAN DIEGO  
 ON JUNE 20, 2015

**APPLY  
NOW!**  
[www.fallingwalls.com/lab](http://www.fallingwalls.com/lab)

Share your research project, business plan, or entrepreneurial or social initiative in 3 minutes.

Top-class jury of academic and business leaders selects 1-3 winners to present their idea in Berlin at a gathering of world-renowned scientists and statespeople.

Eligibility: anyone under 35 years of age

Apply online at [www.falling-walls.com/lab](http://www.falling-walls.com/lab) by **May 30, 2015**

**June 20, 2015** at 10 am, **HSEC Auditorium**, UCSD campus  
**QUESTIONS?** [cdegracialux@ucsd.edu](mailto:cdegracialux@ucsd.edu); [j1moore@ucsd.edu](mailto:j1moore@ucsd.edu)

**PACIFICHEM 2015 IN HONOLULU**

The seventh [International Chemical Congress of Pacific Basin Societies \(Pacificchem 2015\)](http://www.pacificchem.org)

**December 15-20, 2015, in Honolulu, HI.**

**Registration opens June 25.**

Please visit: <http://www.pacificchem.org/>

**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](mailto:trischma@csusm.edu) 760-750-4206

**Palomar College**

Greg Elliott  
[gelliott@palomar.edu](mailto:gelliott@palomar.edu) 858-531-1149

**Point Loma Nazarene University**

Sara Choung  
[SaraChoung@PointLoma.edu](mailto:SaraChoung@PointLoma.edu) 619-849-2627

**San Diego Mesa College**

Dwayne Gergens  
[dgergens@sdccd.edu](mailto:dgergens@sdccd.edu) 619-388-2609

**San Diego Miramar College**

Linda Woods  
[lwoods@sdccd.edu](mailto:lwoods@sdccd.edu) 619-388-7434

**San Diego State University (SDSU)**

Mikael Bergdahl  
[bergdahl@sciences.sdsu.edu](mailto:bergdahl@sciences.sdsu.edu) 619-594-5865

**Southwestern College, Chula Vista**

David Hecht  
[dhecht@swccd.edu](mailto:dhecht@swccd.edu) 619-421-6700x5461

**University of California, San Diego**

Joe Cribari  
[jcribati@ucsd.edu](mailto:jcribati@ucsd.edu) 858-822-4055

Gourisankar Ghosh  
[gghosh@ucsd.edu](mailto:gghosh@ucsd.edu) 858-822-0469

Judy Kim  
[judyk@ucsd.edu](mailto:judyk@ucsd.edu) 858-534-8080

**University of San Diego**

Tammy Dwyer  
[tdwyer@sandiego.edu](mailto:tdwyer@sandiego.edu) 619-260-4030



**LOOKING FOR A CHEMIST?**

**CHEMPLOYMENT IS THE ANSWER!  
THE SAN DIEGO CHEMIST**

is read by nearly 3000 chemists and biochemists in San Diego and Imperial counties.

A two-month ad costs only \$80.00!

For information contact:  
 Renate Valois - [renate@sandiegoacs.org](mailto:renate@sandiegoacs.org)



**American Chemical Society  
249<sup>th</sup> ACS National Meeting  
Denver, Colorado  
March 22-26, 2015**

**Councilor Talking Points and  
Summary of Governance Issues and Actions**

The following summary is provided to help Councilors report to their Local Section and Division on key actions of the [ACS Council Meeting](#) and Board of Directors Meetings at the 2015 spring national meeting in Denver, Colorado.

**Actions of the Council**

**Election Results**

The Committee on Nominations and Elections presented to the Council the following nominees for selection as candidates for President-Elect, 2016: G. Bryan Balazs, Allison A. Campbell, David J. Lohse, and Christopher J. Welch. By electronic ballot, the Council selected **G. Bryan Balazs** and **Allison A. Campbell** as **candidates for 2016 President-Elect**. These two candidates, along with any candidates selected via petitions, will stand for election in the Fall National Election.

**CANDIDATES FOR PRESIDENT-ELECT 2016**

|                      |     |
|----------------------|-----|
| *G. Bryan Balazs     | 330 |
| *Allison A. Campbell | 194 |
| David J. Lohse       | 111 |
| Christopher J. Welch | 182 |

The Committee on Nominations and Elections announced the results of the election to select *candidates* from the list of *nominees* to serve as Directors from District I and District V on the Board of Directors for the term 2016-2018. By internet ballot, the Councilors from these districts selected **Thomas R. Gilbert** and **Laura E. Pence** as **District I candidates**; and **John E. Adams** and **Kenneth V. Fivizzani** as **District V candidates**. Ballots will be distributed on October 2, 2015 to all ACS members in District I and District V for election of a Director from each District.

**CANDIDATES FOR DIRECTORS DISTRICTS I and V**

**District I**

Perry L. Catchings, Sr. 9  
\*Thomas R. Gilbert 36  
Gerard F. R. Parkin 7  
\*Laura E. Pence 19

**District V**

\*John E. Adams 31  
Debbie C. Crans 18  
\*Kenneth P. Fivizzani 22  
Donna G. Friedman 21

**Candidates for Directors-at-Large**

The Committee on Nominations and Elections announced the selection of the following **candidates for Directors-at-Large** for 2016-2018 terms: **Willem R. Leenstra**, **Ingrid Montes**, **Mary Jo Ondrechen**, and **Thomas W. Smith**. The election of two Directors-at-Large from among those candidates and any selected via petition will be conducted in the fall. Ballots will be distributed to the Council on October 2, 2015.

**Committee Continuance**

As part of a regular performance review, the Council voted unanimously to continue the Committees on Ethics and on Science. Continuation of the Committee on Science also requires Board concurrence.

**2016 Member Dues**

The Council voted to set the member dues for 2016 at the fully escalated rate of \$162. This rate is established pursuant to an inflation-adjustment formula in the ACS Constitution and Bylaws.

**National Meeting Long-Range Financial Plan**

Following a discussion on the revenue supporting National Meetings, the ACS Council respectfully requested that the Board of Directors delay the implementation of the technical meeting additional fee to the meeting registration fee, until the Board presents an analysis (preferably at the Boston national meeting) of the projected break even fee, including and excluding the net revenue from the National Meeting Exposition.

**New International Chemical Sciences Chapters**

On recommendation of the Committee on International Activities and subject to the concurrence of the Board of Directors, the Council voted to approve petitions to charter the India International Chemical Sciences Chapter and the Taiwan International Chemical Sciences Chapter.

Reports of Elected Committees (Highlights)

**Council Policy (CPC)**

As required by the Society's Bylaws, CPC has set the divisors which will be used to determine how many Councilors each Local Section and Division is entitled for 2016-2019. Official notification will be sent to Local Sections and Divisions within two weeks of the Council meeting, well in advance of the Bylaws required May 1 deadline, in order to accommodate the units' conduct of their elections in 2015. CPC's Long Range Planning Subcommittee is forming a task force to consider whether changes are in order for the calculations and policies, and to implement any recommendations in time for the 2020 election cycle.

In its continuing efforts to assist the Society in finding ways to reduce expenses, CPC is considering alternatives to reduce the printing and mailing costs of the Council Agenda. CPC will be conducting surveys to evaluate potential strategies.

**Committees (ConC)**

All Councilors, including new Councilors, are reminded to complete their online committee preference form for 2015, during the period March 30 – June 5, 2015 at <https://www.yellowbook.acs.org> (log in required).

**Nominations and Elections (N&E)**

The committee introduced the candidates for Directors-at-Large, 2016-2018: Willem R. Leenstra (Green Mountain Section), Ingrid Montes (Puerto Rico Section), Mary Jo Ondrechen (Northeastern Section), and Thomas W. Smith (Rochester Section).

N&E solicits Councilors' input of qualified individuals for President-Elect and/or Directors for future consideration. Suggestions may be sent to [nonelect@acs.org](mailto:nonelect@acs.org).

Reports of Society Committees and Committee on Science (Highlights)

### **Budget and Finance (B&F)**

In 2014, ACS generated a Net from Operations of \$17.9 million, which was \$4.2 million favorable to budget. Total revenues were \$499.0 million, \$0.7 million or 0.1 percent higher than budget. Expenses ended the year at \$481.1 million, \$3.5 million favorable to the budget. This variance was largely attributable to a continued emphasis on expense management across the Society. Despite favorable operating results, the Society's financial position weakened in 2014, with Unrestricted Net Assets declining \$62.3 million, to \$144.7 million at year-end. This decline was the result of a significant accounting charge related to the Society's two closed postretirement benefit plans.

Additional information can be found at [www.acs.org](http://www.acs.org), at bottom, click 'About ACS', then 'ACS Financial Information'. There you will find several years of the Society's audited financial statements and IRS 990 filings.

### **Education (SOCED)**

SOCED reported that more than 1,900 individuals have joined the [American Association of Chemistry Teachers \(AACT\)](http://www.aact.org) which launched last year, 88 percent of whom are K-12 teachers of chemistry. The Dow Chemical Company was announced as the Sole Founding Partner of AACT with a gift of \$1 million.

### **Science (ComSci)**

ComSci has collaborated with several ACS committees to develop five public policy statements which were approved by the Board in December 2014. More recently ComSci led the development of a new draft ACS policy statement on hydraulic fracturing, which will be considered by the Board. Current collaborations include revising ACS policy statements on energy, climate change and forensic science.

### **Reports of Standing Committees (Highlights)**

#### **Committee on Meetings and Expositions (M&E)**

M&E recommends that the Early Member Registration Fee for 2016 national meetings be \$415, per the National Meeting Long-Range Financial Plan.

As part of the continuing ACS sustainability effort and to encourage the use of the ACS mobile app and online program, M&E has decided to discontinue free distribution of the hard copy program book starting in 2016. Those who pre-register for the meeting may purchase a copy of the program book for \$10 (pick up on site), and copies will be available at the meeting for \$20. The PDF version of the national meeting program will be more prominently displayed on the ACS website for those who would like to print portions for themselves.

M&E reported on the attendance as of Tuesday evening, March 24:

|              |               |
|--------------|---------------|
| Attendees    | 7,307         |
| Students     | 5,141         |
| Exhibitors   | 847           |
| Expo only    | 360           |
| Guest        | 285           |
| <b>Total</b> | <b>13,940</b> |

#### **Committee on Divisional Activities (DAC)**

DAC voted to fund ten Innovative Project Grants (IPG) totaling \$54,000. The committee will consider another set of IPG proposals during the Boston National Meeting in August, 2015; the deadline for that round of submissions in July 1, 2015.

National meeting attendees were recently surveyed for their views on the Society's policy governing the use of devices to capture and/or disseminate content delivered at our meetings. While expressing support for the policy, the respondents also expressed interest in amending the current policy to permit presenters – at their discretion – to authorize audience members to capture and disseminate content.

#### **Committee on Local Section Activities (LSAC)**

LSAC awarded 15 Innovative Project Grants for a total of \$38,389, and is continuing to offer a mini-grant to Local Sections that attended the 2015 Leadership Institute to partner with neighboring sections to host an activity that would bring value to all members in a specific region.

The committee is also planning to fund 16 grants totaling \$4000 for the Bridging the Gap: Teachers of Chemistry K-12 Nano-Grants. More information about all LSAC grants, and those of other committees, is available at [www.acs.org/getinvolved](http://www.acs.org/getinvolved).

#### **Committee on Membership Affairs (MAC)**

MAC approved a recommendation from staff to ask individuals who have been receiving the 50 percent Graduate Student Discount for four years or more if they are still graduate students so they can receive the correct dues renewal. The current process does not provide an opportunity for graduate students to change their status after graduation except by contacting ACS Member Services.

MAC has endorsed President Diane Schmidt's campaign to invite faculty from PhD granting U.S. institutions to give ACS membership as an award to outstanding students in chemistry. Schmidt will match each gift by paying a student's membership from her Presidential funds.

#### **Committee on Economic and Professional Affairs (CEPA)**

CEPA reported the 2014 New Graduate Survey Results which show the unemployment rate for new graduate chemists has dropped from 14.9 percent in the 2013 survey to 12.4 percent as of 2014. The drop is principally due to more new bachelor's degree chemists finding employment. ACS members experienced three successive years of lowered unemployment, which could hint at a positive outlook for chemists in coming years. While unemployment is down, salaries have been overall stagnant.

The ACS Career Fair had 715 seekers, 27 employers, 85 positions, and 10 booths. The Virtual Career Fair had 918 seekers, 6 employers, and 38 positions. Additionally, 368 resume reviews, 218 mock interviews, and 23 Career Pathway workshops were conducted during the meeting.

#### **Committee on Constitution and Bylaws (C&B)**

C&B certified 23 bylaws in 2014, the second largest number certified in any year. Additionally, the committee has reviewed bylaws for 10 Local Sections and 5 Divisions since fall 2014. Certified bylaws and a status report are posted on [www.acs.org/bulletin5](http://www.acs.org/bulletin5)

New petitions to amend the Constitution or Bylaws must be received by the Executive Director no later than April 29 to be included in the Council Agenda for consideration at the fall meeting in Boston. Contact C&B with any questions or requests for information at [bylaws@acs.org](mailto:bylaws@acs.org)

### **Reports of Other Committees (Highlights)**

#### **Women Chemists (WCC)**

WCC celebrated ten early-to-mid-career women chemists as recipients of the Fourth Annual WCC Rising Star Awards, and eight WCC/Eli Lilly Travel Grant awardees. WCC is also collaborating with Merck to develop a new Research Award that will fund eight women graduate students to present their research at the fall national meeting in Boston.

Members of WCC have been involved as contributing authors and editors for the second more diverse and inclusive edition of "Mom, the Chemistry Professor" being published by Springer.

#### **Professional Training (CPT)**

At this meeting, CPT reviewed 39 periodic reports from currently approved programs and held conferences with two departments beginning the process of applying for ACS approval. CPT also reviewed four site visit reports and approved three new programs. There are currently 681 colleges and universities offering ACS-approved bachelor's degree programs in chemistry.

The new [2015 ACS Guidelines for Bachelor's Degree Programs](http://www.acs.org/bachelor) were approved at CPT's winter meeting and recently published on the ACS website.

### **International Activities (IAC)**

At this meeting, the committee received, reviewed, and approved annual reports from ACS International Chemical Sciences Chapters in Hong Kong, Hungary, Malaysia, Romania, Saudi Arabia, and Shanghai. Additionally, the committee reviewed and approved new chapter applications initiated by members in Brazil, Nigeria, Peru, and the United Arab Emirates.

### **Environmental Improvement (CEI)**

At this meeting CEI awarded Local Section Sustainability Grants to three Local Sections: Cornell, Kalamazoo, and Midland.

The committee has established working relationships with several technical divisions. The committee cosponsored with Division of Chemical Education the symposium featuring the winners of the ACS-CEI Award for Incorporation of Sustainability into Chemical Education. CEI and the Division of Environmental Chemistry have jointly established a project to provide grant support for programming around climate change at regional meetings.

CEI continues to review existing ACS policy statements, and at this meeting approved recommendations to the Board to establish new public policy statements on Hydraulic Fracturing and on Water Treatment and Conservation.

### **Chemistry and Public Affairs (CCPA)**

The committee highlighted the power of ACS member engagement in government affairs by relating the bipartisan effort, despite partisan roadblocks, to secure a resolution for National Chemistry Week in the United States Senate by Senator Chris Coons, a Democrat from Delaware, and Republican Senator Pat Toomey of Pennsylvania. The extra effort invested by ACS members in Pennsylvania to ensure that the resolution had bipartisan sponsorship helps to underscore that science is an issue where both parties can come together.

### **Resolutions**

The Council passed two resolutions: in memory of former ACS Secretary Rodney N. Hader and other deceased Councilors, and another in gratitude for the officers and members of the Colorado Local Section, host Section for the 249<sup>th</sup> National Meeting; the divisional program chairs and symposium organizers; and ACS staff.

\*\*\*\*\*

### **Actions of the Board of Directors**

#### **The Board's Executive Session**

#### **The Board's Committees**

The Board of Directors received and discussed reports from its Committees on Grants and Awards (G&A), Professional and Member Relations (P&MR), Executive Compensation, and Corporation Associates; the Society Committee on Education (SOCED); and the Joint Board-Council Committee on Publications.

On the recommendation of the Committee on Grants and Awards and of the Committee on Science, the Board voted to approve a Society nominee for the National Medal of Science.

On the recommendation of the Committee on Professional and Member Relations, the Board voted to provide nominal sponsorship, without financial commitment, for the "[Frontiers of Science Research and Education in the Middle East: A Bridge to Peace](#)" (Malta VII) to be held in Rabat, Morocco, November, 2015.

The Board received an extensive briefing and approved several recommendations from its Committee on Executive Compensation. The compensation of the Society's executive staff receives regular review from the Board.

On the recommendation of the Society Committee on Education, the Board voted to approve a procedure for the establishment of the inaugural Governing Board for the [American Association of Chemistry Teachers \(AACT\)](#).

On the recommendation of the Joint Board-Council Committee on Publications, the Board voted to approve the reappointment of an Editor-in-Chief for an ACS journal.

#### **The Executive Director/Chief Executive Officer's Report**

The Executive Director/CEO offered a review of his initial month in the position, and his direct reports updated the Board on the activities of Chemical Abstracts Service (CAS), the ACS Publications Division, the Society's Treasurer, and the Society's General Counsel.

#### **Other Society Business**

The Board heard reports from the Presidential Succession on their current and planned activities for 2015.

As part of its ongoing commitment to consider the most important strategic issues facing the Society, the Board held a discussion on improving governance agility.

#### **Board Retreat**

The Board received an update on its retreat, planned as part of the June 2015 Board meeting.

#### **Resolutions**

The Board passed two resolutions, one in memory of former ACS Secretary Rodney N. Hader, who died in January 2015, and another for the U.S. Air Force Academy for 31 years of continuous support of the U.S. National Chemistry Olympiad.

#### **The Board's Open Session**

The Board held a well-attended open session which featured Bibiana Campos Seijo, Editor-in-Chief, *C&EN*. Dr. Campos Seijo's topic was "Getting Bang for Your Buck in Science Communications." Prior to the presentation, members of the presidential succession and the new Executive Director and CEO offered brief reports on their activities. The officers provided more extensive reports on their activities and/or future plans as part of their reports to the Council.

\*\*\*\*\*

### **ADDITIONAL INFORMATION FOR COUNCILORS**

The following is a list of URLs and email addresses presented in reports or on slides at the Council meeting.

Diane Grob Schmidt, President-Elect [d.schmidt@acs.org](mailto:d.schmidt@acs.org)

Donna Nelson, President-Elect [djnelson@ou.edu](mailto:djnelson@ou.edu)

Budget and Finance [www.acs.org](http://www.acs.org) → About ACS → ACS Financial Information

Career Navigator [www.acs.org/careernavigator](http://www.acs.org/careernavigator)

Committee Preference Forms <https://www.yellowbook.acs.org>

Constitution and Bylaws [bylaws@acs.org](mailto:bylaws@acs.org) / [www.acs.org/bulletin5](http://www.acs.org/bulletin5)

Local Section Activities [www.acs.org/getinvolved](http://www.acs.org/getinvolved)

Nominations and Elections [nomelect@acs.org](mailto:nomelect@acs.org)

Online Information for Councilors <http://www.acs.org/content/acs/en/about/governance/councilors.html>



## **UPCOMING EVENTS**

**DR. KATERINA LEFTHERIS**  
*Senior Director of Chemistry, Celgene Corporation*  
*Torrey Pines Conference Room*  
*10300 Campus Point Drive*  
*San Diego, CA, 92121*  
*Wednesday, June 3, 2015*  
\*\*\*\*\*

**SUMMER PICNIC**  
*San Dieguito County Park, Solana Beach*  
*Sunday, June 28, 2015*  
\*\*\*\*\*

**SENIORS/RETIREEES/CONSULTANTS/ETC. BREAKFAST**  
*Coco's Bakery Restaurant*  
*4280 Nobel Drive, San Diego, CA 92122*  
*Thursday, July 9, 2015 at 9:30 AM*  
\*\*\*\*\*

**FIFTY-/SIXTY-YEAR MEMBER RECOGNITION LUNCHEON**  
*Vi at La Jolla Village*  
*8515 Costa Verde Blvd., San Diego, CA 92122*  
*Saturday, July 11, 2015*  
\*\*\*\*\*

**18<sup>TH</sup> ANNUAL SAN DIEGO MEDCHEM SYMPOSIUM**  
*Price Center Theater at UCSD*  
*Friday, July 17, 2015*  
\*\*\*\*\*

**250<sup>TH</sup> ACS FALL NATIONAL MEETING & EXPOSITION**  
*Boston, Massachusetts*  
*August 16-20, 2015*  
\*\*\*\*\*

**CHEMEXPO**  
*THEME: Exploring the Chemistry of Dyes, Pigments and Light*  
*San Diego Miramar College, 10440 Black Mountain Road, San Diego*  
*Saturday, October 24, 2015*  
\*\*\*\*\*

**HOLIDAY PARTY**  
*The Butcher Shop*  
*5255 Kearny Villa Road, San Diego, CA 92123*  
*Thursday, December 3, 2015*

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

Lisa Adamiak  
Emily Aguilar  
Brooke Anderson  
Roberto Brea Fernandez  
Gabriel Castro  
Yuwei Chen  
Brent Chicoine  
Sujin Cho-Schultz  
Michael Denny  
Christian Escobedo  
Dustin Fraley  
Charlene Furlow  
Chao Gao

Jian He  
Andrew Kleinke  
Taylor Kress  
Peggy Lai  
Jian Luo  
David Masters-Moore  
Jason Radany  
Ryan Robinson  
Andrew Rudd  
Jivomir Siarov  
Michael Symons  
Eric Villhauer  
Yunming Xu

**2015 EXECUTIVE COMMITTEE & COMMITTEE MEMBERS  
SAN DIEGO SECTION OF THE AMERICAN CHEMICAL SOCIETY**

**EXECUTIVE COMMITTEE**

|                    |  |        |              |
|--------------------|--|--------|--------------|
| <i>Chair</i>       | Ben Pratt, Akarna Therapeutics, <a href="mailto:bpratt@sandiegoacs.org">bpratt@sandiegoacs.org</a>                     | (2015) | 858-945-7893 |
| <i>Chair-Elect</i> | Graeme Freestone, Dart NeuroScience LLC, <a href="mailto:gfreestone@sandiegoacs.org">gfreestone@sandiegoacs.org</a>    | (2015) | 858-246-8137 |
| <i>Past-Chair</i>  | Mark Tichenor, Janssen Pharmaceuticals, Inc., <a href="mailto:mtichenor@sandiegoacs.org">mtichenor@sandiegoacs.org</a> | (2015) | 858-334-8914 |
| <i>Secretary</i>   | William Tolley, Seacoast Science, Inc., <a href="mailto:b_tolley@juno.com">b_tolley@juno.com</a>                       | (2015) | 858-780-0978 |
| <i>Treasurer</i>   | Bill Szabo, <a href="mailto:bszabo1@san.rr.com">bszabo1@san.rr.com</a>   | (2015) | 858-550-0306 |

**Councilors**

|  |        |              |
|--|--------|--------------|
| Thomas R. Beattie                            | (2015) | 858-587-1210 |
| Hui Cai, WuXi AppTec                         | (2016) | 858-361-8838 |
| Desiree Grubisha, CSUSM                      | (2015) | 858-254-5497 |
| John Palmer, UCSD                            | (2017) | 858-534-5906 |
| Ken Poggenburg                               | (2016) | 760-635-2573 |
| David Wallace, Wallace Scientific Consulting | (2015) | 858-638-1866 |

**Alternate Councilors**

|   |        |                    |
|---|--------|--------------------|
| Paul Bruinsma, Hewlett-Packard Company                  | (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       |
| Ruo Steensma, Steensma Consulting, Inc.                 | (2016) | 858-205-9371       |

**Members-at-Large**

|                                       |        |              |
|---------------------------------------|--------|--------------|
| Ryan Clark, Inception Sciences, Inc.  | (2017) | 858-774-2095 |
| Gulin Erdogan, Vertex Pharmaceuticals | (2015) | 619-540-8321 |
| Mark Rosen, Aetheria Therapeutics     | (2017) | 858-692-0639 |
| Patrick Andrew Staley                 | (2015) | 858-483-4297 |
| Jean Wang, IriSys Inc.                | (2015) | 858-623-1520 |

**STANDING & SPECIAL COMMITTEES**

**Awards Nomination Committee**

|                           |              |
|---------------------------|--------------|
| Thomas R. Beattie (Chair) | 858-587-1210 |
|---------------------------|--------------|

**ChemExpo**

|  |                    |
|--|--------------------|
| Paul Bruinsma (Chair), Hewlett-Packard Company | 858-655-8322       |
| Julann Miller, Waters Corporation              | 800-252-4752 x6802 |

**Communications Committee**

|   |              |
|---|--------------|
| Paul Bruinsma, (Chair), Hewlett-Packard Company         | 858-655-8322 |
| Surya K. De, Sanford-Burnham Medical Research Institute | 858-337-4961 |
| Desiree Grubisha, CSUSM                                 | 858-254-5497 |
| Ken Poggenburg  | 760-635-2573 |
| David Wallace, Wallace Scientific Consulting            | 858-638-1866 |
| Renate Valois (Newsletter Editor)                       | 619-692-0638 |

**Education Committee**

|   |              |
|---|--------------|
| Haim Weizman (Chair), UCSD                | 858-534-2963 |
| Joann Um (Co-Chair), Southwestern College | 510-823-8637 |

**EarthFair**

|                                   |                    |
|-----------------------------------|--------------------|
| Julann Miller, Waters Corporation | 800-252-4752 x6802 |
|-----------------------------------|--------------------|

**Finance Committee**

|   |              |
|---|--------------|
| Bill Szabo (Chair)                      | 858-550-0306 |
| Tom Beattie                             | 858-587-1210 |
| Graeme Freestone, Dart NeuroScience LLC | 858-246-8137 |

**Fundraising Committee**

|   |              |
|---|--------------|
| Gulin Erdogan (Chair), Vertex Pharmaceuticals | 619-540-8321 |
|---|--------------|

**Government Affairs Committee**

|                              |              |
|------------------------------|--------------|
| Hui Cai, WuXi AppTec (Chair) | 858-361-8838 |
| Ken Poggenburg               | 760-635-2573 |

**Law Committee**

|                              |              |
|------------------------------|--------------|
| Ryan Smith, Duane Morris LLP | 619-744 2220 |
|------------------------------|--------------|

**Mad Science Program**

|                   |              |
|-------------------|--------------|
| Thomas R. Beattie | 858-587-1210 |
|-------------------|--------------|

**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 |
|-----------------------------------|--------------|

**Nominations Committee**

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

**Picnic Committee**

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

**Professional Development Committee**

|   |              |
|---|--------------|
| Ruo Steensma, Steensma Consulting, Inc. | 858-205-9371 |
|---|--------------|

**Public Relations Committee**

|                |              |
|----------------|--------------|
| John Schindler | 858-353-3943 |
|----------------|--------------|

**Retired Chemists Committee**

|                        |              |
|------------------------|--------------|
| Ken Poggenburg (Chair) | 760-635-2573 |
|------------------------|--------------|

**Seniors Breakfasts**

|                   |              |
|-------------------|--------------|
| Thomas R. Beattie | 858-587-1210 |
|-------------------|--------------|

**Women Chemists Committee**

|   |              |
|---|--------------|
| Gulin Erdogan (Chair), Vertex Pharmaceuticals | 619-540-8321 |
| Abhi Sharma, Drug Delivery Experts            | 619-807-9044 |
| Jayashree Srinivasan, Accelerate-Research     | 619-826-8004 |

**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