

# Silicon Valley Chemist

Silicon Valley Section

American Chemical Society

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## OCTOBER 2019 NEWSLETTER TOPICS

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## Connect with Chemists

An early morning chat with fellow chemists

**Thursday, October 17, 2019, at 7-8 am**

Coupa Café, 538 Ramona Street, Palo Alto  
 Contact Ean Warren ([ewarren@scvacs.org](mailto:ewarren@scvacs.org))  
 for more information or ask for ACS at Coupa.

## Councilor Report

### ACS Meeting in San Diego

George Lechner

San Diego is such a great place to have an ACS meeting. The weather was great as was the cuisine. There's lots to do and see.

In my role as a Councilor, I attended the meeting of the Committee on Constitution & Bylaws (C&B). I find C&B to be very interesting and challenging as they discuss various changes in both the ACS Constitution and Bylaws, which we will vote on in the upcoming 2019 ACS election. Be sure to check out C & E News for details and VOTE when the ballot comes. We will be electing a new President-Elect and voting to approve significant changes in both the Constitution and Bylaws as well as adding a new set of governance rules called "Standing Rules". The intent of these changes is to streamline and simplify the current ACS governing documents (Bulletin 5). Some provisions in the Constitution will be moved to the Bylaws and from the Bylaws to the new Standing Rules. Future changes to the Standing Rules will require Council and Board approval but faster than amending either the Constitution or the

Bylaws. There would be little to no effect on governing Local Sections, Divisions, or International Chemical Science Chapters. If the measure fails, we go back to the "old way".

The Western (District 6) Caucus meeting, chaired this year by Matt Greaney, was held on Sunday evening. We were briefed on ACS meeting details and other matters, such as the ACS budget report, membership affairs, nominations and elections and California

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## Ballots Coming Your Way!

Attention all Silicon Valley Section Members: Our annual election is starting later this month. Be on the lookout for the ballot for your SVS Executive Committee. We hope you all will read the bios, get to know our candidates, and VOTE!

## Chair's Message

Grace Baysinger

Greetings! With a new academic year comes excitement, energy, and exploration. For users who have already graduated from high school and have limited access to information resources, one free data database worth checking out that includes more than 107 million articles is

*Dimensions*. (The paid version also includes grants, patents, clinical trials, and policy documents.) For people who are interested in the intersection of technology and education,



Educause's *Horizon Report: 2019 Higher Education Edition* summarizes key trends, significant challenges, and important developments by an expert panel of leaders from across the higher education landscape.

**Upcoming events include:**  
*SVACS' National Chemistry*

*Week on Marvelous Metals* will be held on October 5th, *Bay Area Chemistry Symposium* will be held on November 8th, and Wendy Young from Genentech will be

giving a talk on *Delivering Innovative Medicines: Small Changes Can Have a Large Effect* on November 14th. For more details and to register, please see the *SVACS website*.

New and noteworthy: A new digital-first edition of the *ACS Style Guide to Scholarly Communication* will be launched in January 2020. As one of the co-editors, I expect this ACS Guide to be helpful to students and authors at all stages of their careers. On the topic of preprints, the Chinese Chemical Society and Chemical Society of Japan recently joined the American Chemical Society, the Gesellschaft Deutscher Chemiker (German

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ACS Meeting, continued from front page

legislature resolution recognizing IYPT.

The Council meeting on Wednesday resulted in several actions:

- Sally Peters, Anne Gaffney, Lydia Hines, Will Lynch and DEE Ann Casteel were elected to the Council Policy Committee (CPC)
  - Michelle Buchannan, Charles Cannon, Alan Hazari, Amber Hinkle and Thomas Lane were elected to Committee on Nominations and Elections (N&E)
  - Lisa Balbes, Richard Cobb, Emilio Esposito, Jason Ritchie, and Stephanie Watson were elected to the Committee on Committees (ConC)
  - Creation of an ACS International Chemical Sciences Chapter in the Republic of Georgia
- Ballots for the 2019 fall national election will be distributed starting on September 30 with a voting deadline of October 25. Be sure to VOTE.

The Society's 2019 financial performance through July 31st yielded a Net from

Operations of \$30.1 million. This is \$10 million favorable to the Approved Budget, and \$1.7 million less than the same period in 2018. Total revenues are right on budget at \$338 million. Total expenses are \$308 million, which is \$10 million favorable to budget.

#### San Diego Meeting:

Theme: "Chemistry and Water."

Attendance (as of Tuesday evening, August 27)

Attendees	7,488
Students	3,095
Exhibitors	995
Expo only	430
Guest	401
Total	12,409

#### 2019 Career Navigator live data

Participating Employers	31
Number of Open Positions	81
Job Seeker Profiles	239
Lightning Talk Attendees	270
Career Pathway Registrations	1,180
Career Consultant Interactions	555

For more detailed information, please

click [here](#).

Chair's Message, continued from front page

Chemical Society), and the Royal Society of Chemistry as co-owners of [ChemRxiv](#).

International Year of the Periodic Table: Please see the article in this issue of the newsletter by Maria Dulay on Chemists with Disabilities 3D Periodic Table. ACS' [Gallery of Periodic Tables](#) includes [Important Elements Discovered by Chemists with Disabilities](#) (PDF).

Please contact us: Let us know how we are doing or if you would like to become more involved in the ACS Silicon Valley Section activities. A volunteer organization, we have jobs that are large and small. Please fill out this [contact us form](#) or send me an email message. Stay connected - like us on [Facebook](#) and follow us on [Twitter](#).

Many thanks for being a member of ACS!

Grace Baysinger

ACS Fellow

[graceb@stanford.edu](mailto:graceb@stanford.edu)

<https://profiles.stanford.edu/grace-baysinger>



## The American Chemical Society Silicon Valley Local Section

hereby recognizes

**Elizabeth Pollom Migicovsky**

with a

### Salute to Excellence

For her inspiring activity in Chemists Celebrate Earth Week  
For sharing the excitement of chemistry and inspiring future scientists  
For her commitment to motivating the public to learn and inquire

Through creative approaches of  
'The Chemistry of Your Seafood' at Whole Foods Market  
'The Chemistry of Paper ChemCatchers' at MLK Library  
The ACS Student Illustrated Poem Contest  
2018 - 2019

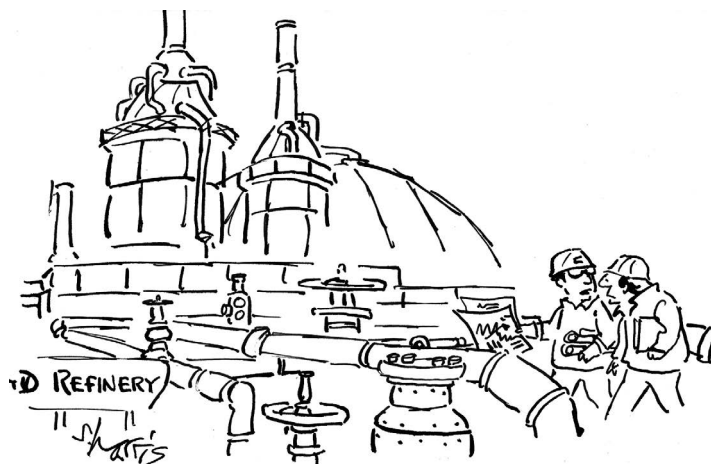


Jane Frommer presented the award to Elizabeth Migicovsky on August 8, 2019

## Sidney Harris Cartoon

All chemists know that refineries really separate mixtures of molecules into highly purified versions of oil, sugar, natural gas, etc., on a scale that is suitable for society-wide consumption. However, the public's image of chemistry is too often associated with industrial refineries, and the accompanying smoke stacks, sulfurous smells and, more recently, the impact of CO<sub>2</sub> and methane on climate change. Perhaps the refineries for the future will be images of CO<sub>2</sub> removal and mineralization, or the cleansing of drinking water on a global scale. From a Scotsman's perspective, however, my favorite refinery will always be the Glenfarclas distillery in Speyside Scotland — sustainable, beautiful and one of the greatest man-made products on earth.

—David MacMillan — Princeton University



"IN OTHER WORDS, IT BREAKS LARGE MOLECULES INTO SMALL ONES."

# The Periodic Table for Everyone

by Maria T. Dulay, PhD

Stanford University, Department of Chemistry, and ACS Chemists With Disabilities Committee Member

The periodic table is a classic image that nearly everyone has seen at some time in their lives on posters, t-shirts, and mugs. At the San Diego national meeting, the ACS Chemists with Disabilities (CWD) Committee displayed, for the first time, an enormous 3D interactive version made accessible with Braille and sign language 3D-printed onto every element tile. The mission of the CWD Committee to promote educational opportunities “in the chemical sciences and other fields that require the knowledge of chemistry for persons with disabilities” catalyzed the idea to create this 3D interactive periodic table to coincide with Unesco’s International Year of the Periodic Table and acknowledges the scientists with disabilities whom have greatly contributed to the creation of the periodic table since its discovery 150 years ago by Dmitri Mendeleev. By acknowledging scientists, including Joseph Priestly (speech impairment) who discovered O; Sir Humphrey

Davy (chronic health impairment and blindness) who discovered Na, K, Cl, B, Mg, Ca, Sr, and Ba; and Pierre Janseen (physical disability) who discovered He, CWD put forth its vision of “a time when all individuals, including those with disabilities will advance the chemical enterprise for persons with disabilities. Many attendees visited the display, including Sir Martyn Poliakoff, known for The Periodic Table of Videos. Everyone had the opportunity to see and touch each of the element tiles, which were designed in a year-long collaboration with students from Michigan State University’s K-12 STEM program in Midland, MI, and with funding from DOW. The element tiles were created by over 30 students aged 7 to 17 years who were home-schooled or attended local public and private middle and high schools in Midland. In the STEM program, the students learned about 3D printing, including the use of CAD to design the tiles, and with the guidance of the CWD periodic

table subcommittee, the final tile design was chosen, printed and assembled into the display. The letter symbols that easily identify the elements were intentionally absent from each tile to simulate the challenges that a person with a disability may encounter in accessing the table. Young and old were awed and inspired by the table, including Adam Mody, a Bay Area high school sophomore who is visually impaired. “People with disabilities are people with abilities,” said Adeleye Okewole, an educator from Nigeria. (*C&EN article*)

## Warr Reports for Members in Pharma

Dr. Wendy Warr prepares reports after ACS National Meetings for talks from the Chemical Information Division and Computers in Chemistry Division. These informative reports are very useful to chemists, especially those working in pharma. While the ACS Meeting reports are available for purchase (Stanford’s Science Library has a copy if you want to see them), the report she prepared after attending the *ChemAxon European User Group Meeting Budapest, May 20-22, 2019* is available for free. To learn more about reports that are available, please go to <https://www.warr.com/>. In recognition of all of her contributions, Dr. Warr is being awarded the Herman Skolnik Award for 2020 by the ACS Chemical Information Division.

## Welcome to the Silicon Valley Section of ACS

Each month, the section receives a spreadsheet from national ACS with the names of members new to our section. The members are either new to ACS, have transferred in from other areas, or are the newest members -- students. To welcome you to the section and get to know you, the Executive Committee offers new members a free dinner! To encourage you to attend a monthly section seminar meeting, we would like you to be our guest. When you register, make certain to mention that you are a new member and you and a friend will be our guests. The seminar meetings are held at a number of local venues. If you are unable to attend in the evening, perhaps you would join us for an outreach event, like judging a science fair, proctoring the Chemistry Olympiad or participating in a National Chemistry Week event in October. Then, there is our annual wine tasting and awards picnic in July. The local section is a volunteer organization. Please attend an event, volunteer to help and get to know your local fellow chemists. Welcome!

### New SVACS Members

Somaya Abdelrahman	Felix Gandara-Guzman	Yingqing Ran
Patricia Jayne Alexander	Thomas Griffin	Nachiket Raravikar
Daniel Auerbach	Eric He	Golbon Rezaei
Aldo Carrascoso	Possu Huang	Jessica Catalina Rodarte
Dr. Haoqing Chen	Michael Lin Huynh	Dr. Edward W. Rutter
Dr. Leanne D. Chen	Dr. Saeed Izadi	Kristin Schmidt
Soo Young Choi	Tamara A. Kale	Dr. Dipiti Shingnapurkar
Wan-Yi Chu	Travis Lantz	Marc Stevens
Terry Crawford	Jiang Li	Anantha Sudhakar
Chunlei Dai	Dr. Bin Ma	Alex Thompson
Jessica Nhu Doan	James Clayton Morris	Aaron Tran
Daniel Droegge	Heather Murphy	Julia Quynh Mi Vu
Bridget I. Foley	Hoang Truc Do Nguyen	Dr. Marisa Weaver
Russell Furr	Dr. Christian Nilewski	Olica Xu
Sayed Habibul Gafur	Alessandra Paul	

## Chemistry Quiz

What is the melting point of tungsten?  
The answer will appear in next month’s newsletter.

### Last Month’s Chemistry Quiz

What element is used in home smoke detectors as a source of alpha particles and gamma radiation?

**Ionization-based smoke detectors use Americium-241 (half-life 432 years). <sup>241</sup>Am decays mainly via alpha-decay with a weak gamma ray byproduct.**



The ACS values its volunteers' efforts, recognizing major contributors with ChemLuminary Awards. The Silicon Valley Local Section was selected as a finalist for five 2019 ChemLuminary Awards:

- **Outstanding Local Section Industry Event** for YCC speed-networking sessions on college campuses with local industry professionals and undergrads
- **Outstanding Local Section Programming Related to the Promotion of Ethics in Chemistry** for the impact of four *No Belles* performances on four SVACS college campuses in October 2018
- **Local Section Partnership Award** together with the California section on creating the week of *No Belles* performances across the SF Bay Area
- **Best New Public Relations Program of a Local Section** for the creative use of theater to interface with the public on scientific and social issues via performances of *No Belles*
- **Outstanding Women Chemists Local Section Event** for providing the public forum of a series of *No Belles*

*performances about legends of women scientists who have and have not won the Nobel Prize*

At the ACS Fall 2019 National Meeting in San Diego on August 27, 2019, the Silicon Valley section received awards for (1) the promotion of ethics in chemistry and (2) the best local section new public relations program.



The award for the Best New Public Relations Program of a Local Section was accepted by *No Belles* co-organizers Natalie McClure and Jane Frommer from ACS President Bonnie Charpentier and Public Relations and Communications Committee Chair Amber Charlebois. (photo credit: Scott Henrichsen Photography)

The Ethics Award recognized our efforts through the medium of theater to enhance awareness of hidden biases that impede inclusion and diversity. Well-stated by medical physicist Rosalyn Yalow on receiving the 1977 Nobel Prize:

*"The failure of women to have reached positions of leadership has been due in large part to social and professional discrimination. ... We must believe in ourselves or no one else will believe in us ... The world cannot afford the loss of the talents of half its people if we are to solve the many problems which beset us."*

Yalow's lines - spoken confidently center stage in the *No Belles* performances - inspired Silicon Valley's diverse audiences to follow through on Yalow's entreaty to overcome social and professional discrimination.



The award for the Promotion of Ethics in Chemistry was accepted by SVACS ExComm members from ACS past President Peter Dorhout and Ethics Committee chair Judith Currano. (photo credit: Scott Henrichsen Photography)



The Silicon Valley ACS is excited to promote the upcoming Bay Area Chemistry Symposium (BACS) in partnership with the California ACS. BACS is the culmination of long-term planning and coordination between SVACS, CalACS, Merck, AbbVie, Gilead, Novartis, Cytokinetics, UC Berkeley, Stanford, and UCSF structured as a full day symposium featuring keynote speakers Bonnie Charpentier (2019 ACS President), Carolyn Bertozzi (Stanford), Richmond Sarpong (UC Berkeley), and Bill Degradó (UCSF). The technical program, list of sponsors, organizing committee, and application to attend can be found at

[www.svacs.org/bacs](http://www.svacs.org/bacs).

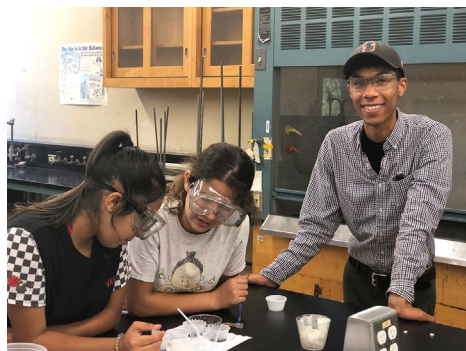
The event will be held on Friday, November 8, 2019, from 8:30am-7:00pm at Merck in South San Francisco. Companies interested in participating and/or being featured as corporate sponsors should email [bacs@scvacs.org](mailto:bacs@scvacs.org). Students, post-docs, faculty and industrial attendees who would like to attend should complete the application at [www.svacs.org/bacs](http://www.svacs.org/bacs). Those wishing to present a poster should reach out directly to Matt Greaney (SVACS Chair-Elect, 2019) at [greaney19@gmail.com](mailto:greaney19@gmail.com). Frequent updates will be provided at [www.svacs.org/bacs](http://www.svacs.org/bacs).

The award for Outstanding Local Section Programming Related to the Promotion of Ethics in Chemistry was launched this year, making the Silicon Valley ACS its inaugural recipient.

The Best New Public Relations Program Award recognized our reaching over 1000 community members with an awareness not only of the issues impeding the recognition of female scientists, but also of the ACS itself. By bringing the enjoyable and impactful *No Belles* performances to the public, the ACS now stands in high regard by over 1000 grateful students, teachers, colleagues, and families who did not know about the ACS before the *No Belles* performances.



## Tech Trek Event



## Call for Submissions

### Top Ten New Emerging Technologies in Chemistry for 2020

Because there is so much cutting edge research being done by members in the Silicon Valley Section, we wanted to let you know about IUPAC's 2020 call for submissions to the Top Ten New Emerging Technologies in Chemistry. To submit ideas for consideration, go to <https://iupac.org/what-we-do/top-ten/> to access the form and see the Top Ten that were selected for 2019. The final date for submissions is Oct. 31, 2019. The next group will be published in the April 2020 issue of *Chemistry International*.



## CSA Trust Grants for 2020

### Early Career Researchers Invited to Submit an Application

For early career researchers, the CSA (Chemical Structure Association) Trust has issued an *invitation to apply for grant applications for 2020*. The application deadline is March 28, 2020 and applicants will be notified no later than May 7, 2020. The grant program was created to provide funding for the career development of young researchers who have demonstrated excellence in their education, research, or development activities that are related to the systems and methods used to store, process, and retrieve information about chemical structures, reactions, and compounds. One or more grants will be awarded annually up to a total combined maximum of ten thousand U.S. dollars (\$10,000).

## CHEMPLOYMENT ABSTRACTS

### CHEMPLOYMENT ABSTRACT 4006

*Position Title:* Chemist

*Job Description:* We are seeking a chemist to join a team of scientists and engineers working at the interface of biology, chemistry, and electronics to develop novel therapeutic monitors.

#### QUALIFICATIONS DESIRED:

*Education:* BS Degree required in Chemical or Biological Sciences or similar preferred

*Experience:* Fundamental laboratory skills along with a working familiarity with lab instrumentation and data logging, and an ability to work in a multi-disciplinary team environment. Product development experience is a strong plus.

#### LOCATION, SALARY, EMPLOYER:

*Job Location:* Menlo Park, CA

*Salary:* Commensurate with experience

*Description:* Bioelectric Devices is developing therapeutic monitors that are affordable, useful, and universally accessible and can personalize therapies to improve the lives of people living with chronic disorders.

*Application Instructions:* Please apply to Russ Potts at [potts@bioelectricdevices.com](mailto:potts@bioelectricdevices.com)





SILICON VALLEY SECTION  
AMERICAN CHEMICAL SOCIETY  
P.O. Box 395, Palo Alto, CA 94302



October 5, 2019

To receive an email when our newsletter  
is published on our web site, sign up at:

<https://svacs.org>

## SILICON VALLEY SECTION

### 2019 Section Officers

Chair	Grace Baysinger	650-725-1039	graceb@stanford.edu
Chair-Elect	Matt Greaney	510-410-0195	greaney19@gmail.com
Past Chair	Melody Esfandiari	408-924-4973	melody.esfandiari@sjsu.edu
Secretary	Jigisha Shah	315-289-5115	jssheth@syr.edu
Treasurer	Ihab Darwish	650-624-1389	darwishis@yahoo.com

### Councilors

2017-2019	George Lechner	408-226-7262	glechner@aol.com
2017-2019	Matt Greaney	510-410-0195	greaney19@gmail.com
2018-2020	Ean Warren	650-714-5133	ewarren@scvacs.org
2018-2020	Natalie McClure	650-906-7831	nmclure@drugregulatoryaffairs.com
2019-2021	Linda Brunauer	408-554-6947	lbrunauer@scu.edu
2019-2021	Jane Frommer	408-927-2225	jane@collabra.net
2019-2021	Sally Peters	650-447-3027	sallybrownpeters@gmail.com

### Alternate Councilors

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2019-2019	Dave Parker	408-605-2116	drdparker@gmail.com
2019-2019	Todd Eberspacher	650-723-2505	eberspacher@stanford.edu
2019-2021	Laura Yeager	626-826-3145	laura.yeager123@gmail.com
2019-2021	Sogol Teschler	408-896-2367	sgyahyazadeh@gmail.com

### Newsletter

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### ChemPloyment Abstracts

Director:	Liang Cao	liang.cao@aol.com
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## FUTURE EVENTS

- Oct 5** ACS National Chemistry Week  
Theme: Marvelous Metals  
MLK Library, San Jose, CA  
[elizabeth.migicovsky@sjsu.edu](mailto:elizabeth.migicovsky@sjsu.edu) or  
[akenedycali2007@yahoo.com](mailto:akenedycali2007@yahoo.com)
- Oct 17** *Silicon Valley Leaders Symposium*  
Dr. Patricia Becker  
San Jose State University
- Oct 26** *Science Saturday: Bats, Spiders, and Snakes*  
Pacific Grove Museum of Natural History  
Pacific Grove, CA
- Nov 2** Bay Area Science Festival  
Oracle Park, San Francisco, CA  
[mmcclure@regulatoryaffairs.com](mailto:mmcclure@regulatoryaffairs.com)
- Nov 8** ACS Bay Area Chemistry Symposium  
Merck Research Laboratories  
South San Francisco, CA  
[greaney19@gmail.com](mailto:greaney19@gmail.com)
- Nov 14** SVACS dinner lecture  
Dr. Wendy Young  
Genentech, Senior Vice President  
Small Molecule Drug Discovery, Stanford  
Faculty Club, Stanford, CA  
[graceb@stanford.edu](mailto:graceb@stanford.edu)

For more details and to register,  
go to the Calendar page at <https://svacs.org>