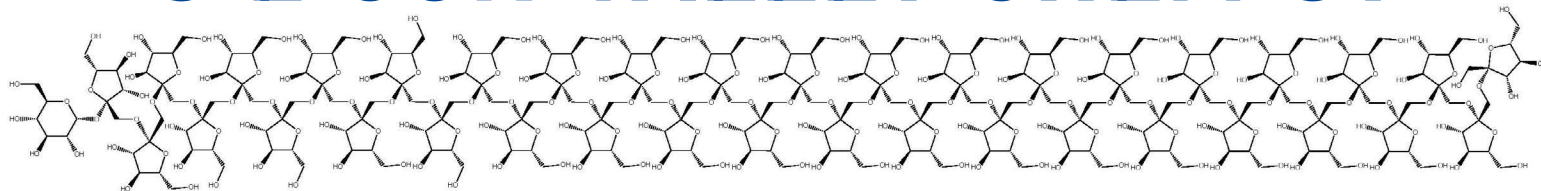


# SILICON VALLEY CHEMIST



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AMERICAN CHEMICAL SOCIETY  
FALL 2020 VIRTUAL MEETING & EXPO

August 17–20 ♦ #ACSFall2020

Registration is Open. [Register Now](#)

### Share & Discover Research:

Participate in 250+ broadcasted sessions, live daily kickoffs, interactive poster presentations, and more. Gain access to cutting-edge research with over 6,000 papers presented.

Recorded presentations will be available **'On Demand'** with only a click anywhere in the world from August 17 - August 28, 2020. Attendees can customize schedules and bookmark all presentations they want to view at their convenience.

### Connect:

Networking is crucial at any meeting. The ACS is hosting virtual networking events to help you connect and share ideas with your peers

from around the world. In addition to robust chat and messaging features, video rooms will be available throughout the meeting for deep dive conversations and social events.

### Virtual Expo:

The ACS Expo is going virtual too. Meet and interact with exhibitors, make connections, and discover new technological developments in our industry.

The ACS Booth will be interactive and full of fun times and useful information. The ACS Store will be fully available for all your chemistry gifting and self-gifting needs.

To take advantage of all this great activity, you must [register](#) for the national meeting.

## Chair's Message

Matt Greaney



Hello! The dog days of summer are upon us. For many, that would usually mean backyard BBQs, baseball games, and last-minute preparations for attending the Fall ACS National Meeting. The BBQs and baseball games are still possible, with fewer guests and no in-person fans. Considering the current pandemic, this month's National Meeting that was scheduled to be held at the Moscone Center in San

Francisco has been transitioned into the ACS Fall 2020 Virtual Meeting & Expo. While we will surely miss the in-person opportunities to see acquaintances, attend technical presentations, and network with other scientists, many of the appealing features of ACS National Meetings will still be available on a virtual basis. The meeting will run from Monday, August 17–Thursday, August 20, and the preliminary program is available at <https://www.acs.org/content/acs/en/meetings/national-meeting/agenda/program.html>. The theme for the meeting is "Moving Chemistry from Bench to Market", which is incredibly relevant considering the gargantuan efforts currently being undertaken to develop treatments and vaccines for COVID-19. Two of the pharmaceutical companies that have been all over the recent news and are

*continued on next page*

## UPCOMING EVENTS

- Aug 10** **Webinar:** Diversity in Chemistry Career Panel: Making the Transition from Academia to Industry  
Co-sponsored by the [ACS California Section](#) and [Atomwise](#)  
12:00 pm – 1:30 pm; Free, [Zoom registration](#)
- Aug 11** **Webinar:** Enabling Computer-Aided Drug Discovery: How and For Whom?  
Sponsored by the [ACS Bay Area COMP Together](#)  
6:00 pm – 8:00 pm; Free, [Zoom registration](#)
- Aug 11** ACS Silicon Valley Section Executive Committee Meeting  
8:00 pm – 9:00 pm; online via Zoom  
Guests are welcome to join us. Please contact the [Chair](#)
- Aug 17-20** [ACS Fall 2020 Virtual National Meeting & Expo](#)  
[Registration](#) is open.
- Aug 26** **Webinar:** Polymer Processing and Property Enhancements via Polyhedral Siloxane Additives  
Prof. Sarah Morgan, University of Southern Mississippi  
Sponsored by the [Golden Gate Polymer Forum \(GGPF\)](#)  
6:30 pm – 9:00 pm; Free, [Registration required](#)

Chair's Message, continued from front page

at the forefront of COVID-19 therapeutics and vaccine development will be represented in the virtual meeting's opening session. Richard Mackman (VP of Medicinal Chemistry at Gilead) and Melissa Moore (Chief Science Officer at Moderna Therapeutics) will make up half of the 1-hour panel that will help kick off the week of presentations, workshops, and events. In addition, nearly all ACS governance meetings will be conducted virtually throughout the week. Your SVACS representatives will be in attendance, and we will report on the meeting highlights and happenings in our September newsletter. Even though this ACS National meeting is virtual – you still need to [register](#).

In our local SVACS section, we are planning events for the remainder of 2020 and beyond. With the change in event mode from in-person to virtual, we've stepped up efforts in cross-promoting events with other local professional groups such as the Golden Gate Polymer Forum (GGPF), ACS COMP Together, the California local ACS section, and the American Institute of Chemical Engineers (AIChE). Check out the Upcoming Events section of this newsletter and our website for more information. The Bay Area Chemistry Symposium (BACS) was scheduled to be one of our feature events in November 2020, but it has now been postponed to Friday, April 16, 2021 to (hopefully!) hold as a full in-person event. This second annual one-day symposium will be held at Gilead Sciences in Foster City and will feature keynote speakers from industry (Gilead, Genetech, Novartis) and academia. Check out our redesigned website with more information: <https://www.bayareachemistrysymposium.com/>.

Preparation for our 2020 SVACS elections are in full swing, and the candidate ballot has been approved by the Executive Committee. A separate article with the ballot can be found in this newsletter, together with a clearly described process to petition to add additional candidates to the ballot if anyone else would like to run for an open position. Please vote!

Our next Executive Committee meeting is scheduled for Tuesday, August 11th. We meet virtually, so please [reach out to me](#) or another member of the SVACS Executive Committee if you'd like to join us. All are welcome!

Stay well.

**Matt Greaney**

2020 SVACS Chair

2020-2022 SVACS Councilor

ACS Committee on Economic and Professional Affairs member

## National Inventors Hall of Fame 2020 Inductees

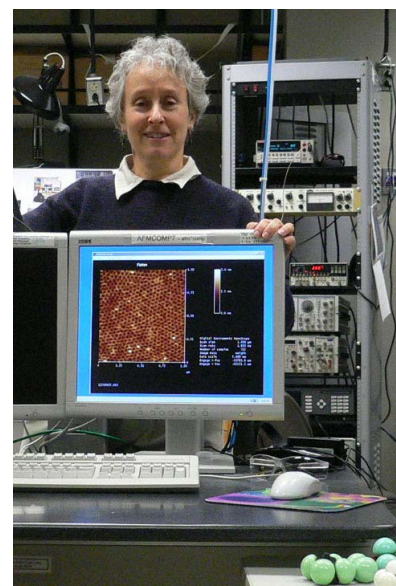
The 2020 Class of Inductees to the National Inventors Hall of Fame was selected and announced in February. This type of important recognition has been occurring regarding invention and innovation since 1973. The web site is [www.invent.org](http://www.invent.org) for an overview and the history. This year's Inductees include several chemistry-related inventions and inventors. For example, see for 2020 specifically <https://www.invent.org/inductees/search?combine=2020> for ibuprofen, synthetic lubricants, special optical fibers, etc. The NIHF Induction Ceremony usually held by the US Patent and Trademark Office ([www.uspto.gov](http://www.uspto.gov)) in May was postponed due to the coronavirus to May 6, 2021.

By Howard Peters (SVACS Chemical Patent Attorney – Retired & Long-Term Member of the ACS Committee on Patents and Related Matters)

## 2020 Abraham Ottenberg Award

Dr. Jane Frommer

Dr. Jane Frommer has served the Silicon Valley ACS as the section chair and as a councilor. She was the driving force behind the very successful series of NoBelles theater performances in 2018 that would not have happened without her dedication, fundraising and tenacious support. She organized four performances of the stage presentation “No Belles - the legends of female scientists who have and have not received the Nobel Prize.” The series took place on four college campuses in the Silicon Valley ACS region. With a target audience of school groups & local community organizations



(AWIS, AAUW, WiSE), in addition to the hosting campuses, over 1,000 attendees benefitted from learning the stories of determined women in science. To broaden access to the events, admission was free, accomplished through creative fundraising. For this successful effort, the section received two Chemluminary Awards from ACS National.

Jane has also obtained several successful ACS National Innovative Program Grants (IPG) for the section, including grants to support the inaugural Bay Area Chemistry Symposium in 2019, to organize and host the NoBelles program in 2018, and to launch a new ACS subsection in the Monterey Bay in 2016. Through her extensive network of colleagues, students, and lab interns, she has recruited many new members to the ACS and to participate in its leadership on the Silicon Valley ACS Executive Committee. New membership is critical to the long-term success of the section and is one of the areas many other local sections struggle to solve. Central to her efforts to reinvigorate our section, during her term as chair she re-established a Younger Chemists Committee (YCC), dormant for years in our section, recruiting Matt Greaney as its leader. Matt is our current chair and, in addition to staying active in the YCC, is the section's champion and co-founder of the highly successful Bay Area Chemistry Symposium. Seeing the value of cross-fertilization between the memberships of different scientific organizations, in 2016 she initiated the annual SVACS-GGPF (Golden Gate Polymer Forum) dinner lecture that celebrated its fifth year in 2020.

Dr. Frommer is very involved with outreach to mentor underserved high schools in East San Jose, an area of predominantly non-native English-learners. She also works with students from California's agricultural central valley, creating summer research internship programs in her IBM Research labs serving primarily Latino communities from Salinas (and Brazil!). While chair of the local section, she invigorated chemistry activity in the Monterey Bay and Salinas areas, particularly targeting the coastal community colleges, by establishing the Monterey Bay ACS subsection of the Silicon Valley ACS section. She put together programs that brought together teachers, researchers and students from Monterey Peninsula College, Cabrillo College, Hartnell College, Cal State University Monterey Bay, UC Santa Cruz, Monterey Bay Aquarium Research Institute (MBARI), Moss Landing Marine Labs (MLML), and the Naval Postgraduate School.

Jane championed the section's name change from Santa Clara Valley ACS to Silicon Valley ACS in 2016 during her tenure as section chair, motivated by our location's highly regarded name-recognition among scientists worldwide.

## 2020 Shirley B. Radding Award

Dr. Thomas R. Beattie

The Silicon Valley Section announces Dr. Thomas R. Beattie as the 2020 Radding Award recipient. Dr. Beattie was selected based on the following award criteria:

- Member of the American Chemical Society for more than twenty (20) years
- Demonstrated dedicated and unselfish service to ACS members over a sustained period of time
- Provided leadership through elected and appointed ACS positions at local, regional and national levels
- Made significant contributions to industrial, applied or academic chemistry

Dr. Beattie is truly deserving of the Radding Award. He has served in the San Diego ACS Section since 2004 as a Councilor and prior (2001-3) as an Alternate Councilor. He was Section Chair In 1999, the year the San Diego local section received the ACS National Outstanding Large Section Award.

He was a Consultant in 2019 to the ACS National Senior Chemists Committee (SCC), having been Chair (2015-18), Vice Chair (2014-5), and member since its formation in 2013. Previously he was a member of the National



Senior Chemists Task Force (2009-12) and Chair of the ACS National Silver Circle (seniors) Working Group (2005-09), progenitors of SCC. From 2004 to 2012 he was a member of the National Local Section Activities Committee (LSAC) and served as chair of its Local Section Assistance and Development Subcommittee. Currently, he is an Associate on the

Committee on Economic and Professional Affairs (CEPA).

In the San Diego ACS Section he chairs the annual Distinguished Scientist Award Selection Committee (21 years) and was the initiator in 2000 and organizer of the annual San Diego Medchem Symposium until 2016. In 2014 he initiated and continues to manage the section's quarterly seniors/retirees/consultants/part-timers breakfasts.

Since 2001 he has managed the section's educational programs in elementary schools. Since 2004 the programs have focused on science shows for 4th/5th graders in which >84,000 school children have viewed >490 Mad Science shows. In 2012 this program received a San Diego Science Alliance Award.

Tom was the Program Chair of the San Diego ACS Section-sponsored ACS Western Regional Meeting (WRM) in 1995, which may still hold the record as the largest ACS regional meeting ever. For the 2007 San Diego WRM he was Technical Program Advisor and a session chair.

He received the San Diego Section's Outstanding Service Award in 1996, 2004 and 2013, the 2015 Outreach Volunteer of the Year Award, the 2018 Outstanding Committee Chair Award, and the 2011 E. Ann Nalley ACS Western Region Service Award. In 2011 he was named an ACS Fellow.

Apart from ACS, Tom spent a 27-year career at the Merck Research Labs in Rahway, NJ in various roles as a medicinal chemist in early stage drug discovery. After retiring from Merck in 1993, he moved to San Diego and worked at Amylin Pharmaceuticals and then IRORI/ChemRx/Discovery Partners. Since 2001 he has been doing biopharmaceutical consulting for many organizations within and outside of San Diego, has taught at UCSD, Mesa College and U. Kansas, and served on several advisory boards. He has a B.S. (U. Pennsylvania), Ph.D. (U. Wisconsin) and was a postdoctoral fellow at M.I.T. Please join us in congratulating Dr. Thomas Beattie for his long-standing contributions to ACS and for being selected as this year's Radding Award recipient.



## A message from the Nominations Committee Elections for 2021 Silicon Valley ACS Leadership

This fall you have the opportunity to elect members of our section to the 2021 Silicon Valley ACS Executive Committee, the leadership group of our local ACS section. The official online ballot will be sent out in September by email to all eligible section members, accompanied by biographies and statements from each candidate. We take this opportunity to present this year's candidates and to remind all of you that if you are interested in joining the leadership team, you can still petition to be on the ballot if you submit your petition by September 1, 2020 (instructions below).

We have six open positions on this year's ballot: Chair-Elect, Secretary, Councilor (2), and Alternate Councilor (2). Descriptions of these positions are available on [our website](#).

On behalf of the current Silicon Valley Section Executive Committee, the Nominations Committee is pleased to present the following group of candidates. We hope to get strong voter turnout. Feel free to reach out to any of the Executive Committee members if you have questions about the election process - our contact

information is always located at the end of each monthly newsletter.

### [Our slate of candidates](#)

**Chair-Elect** (the first year in a sequence of Chair-elect/Chair/Immediate-Past-Chair for a total of 3 years)

Stephanie Benight

**Secretary** (2-year position)

Prasad Raut

**Councilor** (2 open positions; the two candidates with the most votes will fill 3-year positions. Vote for two.)

Grace Baysinger

Natalie McClure

**Alternate Councilor** (2 open positions; the two candidates with the most votes will fill 3-year positions. Vote for two.)

Howard Peters

Dipti Shingnapurkar

### [How to petition to be on the ballot](#)

This is a call for nominations of petition candidates. Properly completed petitions received by the due date of September 1, 2020 at 5 p.m.

local time will appear on the ballot. Petitions can be sent to the attention of the SVACS section secretary, Laura Yeager, [laura.yeager123@gmail.com](mailto:laura.yeager123@gmail.com). You may also contact Laura with questions.

The petition must include the following:

- the name of the proposed candidate
- the proposed position
- 15 supporting SVACS member names, signatures, and ACS membership numbers
- submission by email of the completed petition (as a PDF) by September 1, 2020 at 5 p.m. local time to the SVACS Secretary.

All candidates must be members of the Silicon Valley ACS local section and must be willing to serve. According to ACS bylaws, affiliate members may not participate in the election. Student members may vote and sign petitions, but they may not run for office.

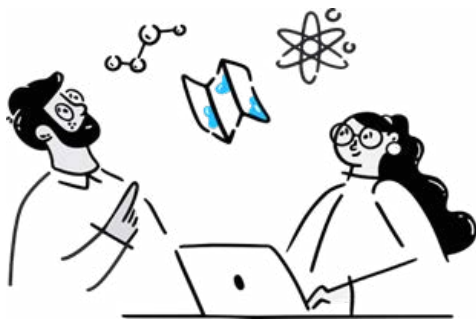
### **The Nominations Committee**

*Madalyn Radlauer (co-chair), Todd Eberspacher (co-chair), Howard Peters, Kathy Armstrong and Paul Karol*



## Worth Knowing About

Steve Boyer



Chemistry is a gateway science. Evidence for this is abundant in its relevance in the fundamentals of a wide range of scientific areas such as medicine, biology, physics, earth and atmospheric science, ecology, energy, etc. More than ever, interdisciplinary knowledge is essential, and central to this interdisciplinarity are computer skills for working with data, programming, modeling and prediction.

The challenge: how to become aware of computer science tools that benefit chemical pursuits.

One resource is [Kaggle](#) - an open source digital notebook platform that can be programmed for numerous tasks useful to the chemist. Think of Kaggle as a free programming platform, preconfigured as a [Jupyter Notebook](#) environment, with built-in free access to Graphic Processing Units (GPUs) and a huge repository of community-published data and code.

Kaggle accesses over 19,000 public datasets and 200,000 public notebooks to support users in many types of data analysis. To program Kaggle, some knowledge of the Python programming language is useful; however, non-programmers can easily use Kaggle notebooks that are pre-coded for specific tasks in a range of scientific disciplines.

An example:

[PubChem](#) - a resource provided by the US National Institutes of Health (NIH) - is one of the world's most vast and useful resources for chemical information. It houses open source information on over 103 million chemical compounds, 264 million substances, and related

properties such as their bioactivities.

Imagine querying the PubChem databases for a comprehensive list of different types of assays. Short answer: there are >1,320 different assay types (e.g., EC50, LD50, MIC) with >69 million assay values associated with >8 million compounds. A minimal knowledge of coding yields a short script that can serve as a template for non-coders to modify with desired search terms such as a list of targets (e.g., JAK 3, MDM2, SGLT2). Results are returned in a spreadsheet with all of the compound structures ([SMILES](#)), the type of assay data (EC50, LD5, etc.) and assay values associated with those compounds. The SMILES provided on the spreadsheet can further be used in a web search or in data-mining - see the [Worth Knowing About](#) articles in the [June 2020](#) and [July 2020](#) SVACS newsletters, respectively.

Give a try to the expanded world of interrelated science available from the awesome combination of a knowledge of chemistry and a Kaggle open source Python notebook.



## 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 beer & 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 ACS MEMBERS

Naing Aay

Angelica Alvarado

Spencer Garcia

Dr. Sayyeda Marziya Hasan

Richard Michael Jacobs

Dr. Toni Kline

Walter Kolbe

Dr. Tianyi Kou

Kenneth Ladwig

Dr. Michael Edward Moir

Christopher Moore

Marita E. Ocampo

Andrew W. I. Orbe

Thomas Przywara

Mariella Ann Ramos

Karl Adam Schoene

Alexandra Tan

Mai Tran

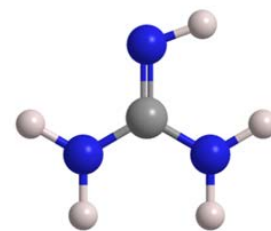
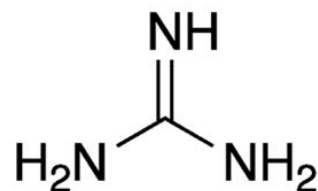
Prof. Rushia Turner

Rudy Wojtecki

CHEMISTRY

# Quiz

Explosives? COVID-19?  
I'm connected to both.



What molecule am I?

Answer

## Call for Award Nominations at our Community Colleges!

You probably know a community college science educator whose work is deserving of recognition. Celebrate them by submitting a nomination for this Silicon Valley ACS Award!

The 2020 Teacher-Scholar Award is given to community college science faculty members who have made an outstanding contribution to their chemistry students and communities.

This award is the first of its kind, and was established in 2008 by our ACS Section in recognition of the important role that community colleges are playing in science education. Did you know that over half of STEM graduates from UC and CSU started at a California community college?

Winners are recognized in a public ceremony and receive an ACS plaque and two \$500 checks - one for the awardee and one for the winner's

science department.

Eligibility criteria: Any faculty member from one of the 13 community colleges in the Silicon Valley Section's territory (San Mateo, Santa Clara, Santa Cruz, San Benito and Monterey Counties). Membership in ACS is not required.

Selection Criteria: Nominees must exemplify two or more of the following:

- Excellent teaching in lab and classroom
- Extensive mentoring and encouragement of students toward academic success
- Collaborations with local high schools and four-year colleges and universities, leading to more student transfers and better matriculation
- Supervision of undergraduate research
- Published articles and books related to chemistry education

- Participation in projects promoting innovative teaching methods and undergraduate research
- Development and dissemination of teaching innovations
- Exceptional contributions to the operation of the college's chemistry department
- Public outreach
- Contributions to the local community, for example through the K-12 system or local agencies
- Substantial service to the American Chemical Society and its affiliated groups

Nominating is easy! Please contact Kathleen Armstrong at [armstrongkathy@fhda.edu](mailto:armstrongkathy@fhda.edu) to receive a nomination form.

Deadline for nominations is September 25, 2020.



**ACS**  
Chemistry for Life®

### SF BAY AREA COMP TOGETHER

ACS Bay Area COMP Together invites you  
to (re)connect through Zoom

**Tuesday, August 11, 2020 6–8 pm**

*Enjoy scientific flash-talks and engage in a discussion on*

### **Enabling Computer-Aided Drug Discovery: How and for whom?**

*Perspectives especially suited  
to the work-from-home environment*

**Registration: Zoom link on  
Silicon Valley ACS website [SVACS.org](http://SVACS.org)  
Questions? Contact **COMP Together** organizers**

Sponsored by



## ACS Leadership Development System Courses: Free Online Courses Available On-Demand



The ACS Leadership Development System concentrates on four main areas of core leadership competency (personal capability, interpersonal skills, focusing on results and setting a clear direction) and the overarching character competency. These characteristics have been found to differentiate outstanding leaders in corporate and many other organizational environments. Watch video: [Why Leadership Development is Important to the ACS and its Members](#)

The ACS LDS curriculum includes both self-paced e-learning courses, and facilitated courses that provide hands-on learning and networking opportunities. Facilitated courses are offered throughout the year at national, regional and local section meetings as well as at the ACS Leadership Institute. As a pilot, ACS is using Zoom for a few of the professional in-person courses to determine if this delivery method is feasible. At this time, ACS is not charging members or non-members to take Leadership Development Courses.

### Online Courses

#### Personal Capability

- [ACS & You](#): This course will help you learn about ACS and begin to see where you fit, how you can benefit personally and professionally, and how you can contribute in setting the future direction of ACS.
- [Managing Projects Effectively](#): Learn a practical 5-step process that will improve your ability to lead projects to completion – on time, within budget, optimizing your resources, and achieving your goals.

#### Interpersonal Skills

- [Running Productive Meetings](#): Learn how to leverage this key leadership tool to make the most of their time, talents, and resources to effectively and efficiently accomplish team projects.

#### Focusing on Results

- [Becoming an Effective Contributor](#): This course helps you gain information about projects and volunteer assignments so that you can clearly understand the scope of the project, resources, timelines, and expectations, in order to make the best decision about volunteering opportunities.
- [Succession Planning](#): Learn practical skills necessary to ensuring the future success of your section, division, region or committee as the baton is passed. Leaders will create their own succession plans for the leadership role they currently hold.

#### Setting a Clear Direction

- [Matching Interests with Goals](#): Matching Interests with Goals is a unique online course that helps you gain a better understanding of what you want; what interests you; what will help you move your career in the direction you want; and what you can bring to the project.
- [Understanding Members' Interests](#): Learn about ACS membership both from data that is available and research techniques for gaining greater understanding of member interests.

Learn more. [View All Leadership Development System Courses](#)

**System requirements:** Courses can be taken on a laptop or personal computer. The On-Demand Leadership Development Courses are written in compliance with the SCORM format and use Flash. ([SCORM](#), which stands for Shareable Content Object Reference Model, is a set of technical standards for eLearning software products.) Flash isn't supported by iPhone or iPad. Android or other types of tablets, may work if Flash is supported. ACS is in the process of updating the Leadership Development Courses so hopefully they won't use Flash in the future.



## Diversity in Chemistry Career Panel Making the Transition from Academia to Industry

**Monday – Aug 10th, 2020 – 12:00 to 1:30 PM PT**  
**Online Zoom Event**

Please join us for a co-sponsored event between ACS and Atomwise. We will hear from four speakers at various career stages at companies in the Bay Area. The panel will be moderated by Jenea Adams, founder of the Black Women in Computational Biology Network and PhD student at the University of Pennsylvania in the Genomics and Computational Biology Program of the Perelman School of Medicine

**[RSVP here!](#)**

Zoom link to be shared with attendees upon registration.

### Our Distinguished Panelists:



**Jenea Adams**  
**(moderator)**  
Founder of Black Women in Computational Biology Network



**Terrence O'Brien, PhD**  
Scientist, Computational Chemistry, Atomwise



**Danielle Augustin-Glenn, PhD**  
Senior Project Manager, R&D, 10x Genomics



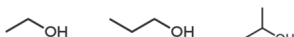
**Luigi Alvarado, PhD**  
Senior Scientist, Molecular Biology, R&D, 10x Genomics and TECHSUYO founding organizer

**The event is FREE and open to the community.**

More information at: [calacs.org](http://calacs.org) or email [aliciaataylor@gmail.com](mailto:aliciaataylor@gmail.com) or [sagee@atomwise.com](mailto:sagee@atomwise.com)

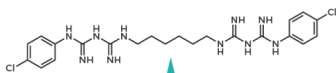
# HOW HAND SANITISERS PROTECT AGAINST INFECTIONS

## WHAT'S IN HAND SANITISERS?



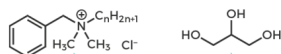
**ETHANOL**      **PROPANOL**      **ISOPROPANOL**

Alcohol-based sanitisers contain 60-95% alcohol. Most contain either ethanol, n-propanol, isopropanol, or a combination of these.



**CHLORHEXIDINE**

Chlorhexidine and benzalkonium chloride are also found in some sanitisers. Both are also used in non-alcohol-based sanitisers.



**BENZALKONIUM CHLORIDE**      **GLYCEROL**

Other ingredients include glycerol, which acts as a moisturiser to stop your skin drying out. Hydrogen peroxide is added to prevent bacterial contamination in the hand sanitiser.



## HOW DO HAND SANITISERS WORK?



Alcohols in hand sanitisers alter (denature) the structure of proteins. They destroy the cell wall and membranes of bacteria cells, and the envelope of viruses (including coronavirus). They're less effective against non-enveloped viruses. Non-alcohol-based sanitisers also kill bacteria but are less effective against viruses.

## HOW EFFECTIVE ARE THEY?



© Andy Brunning/Compound Interest 2020 - www.compoundchem.com | Twitter: @compoundchem | FB: www.facebook.com/compoundchem  
This graphic is shared under a Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 licence.



How hand sanitisers protect against infections [click to enlarge](#)

## 2020 Section Officers

Chair	Matt Greaney	510-410-0195	greaney19@gmail.com
Chair-Elect	Jigisha Shah	315-289-5115	jssheth@syr.edu
Past-Chair	Grace Baysinger	650-725-1039	graceb@stanford.edu
Secretary	Laura Yeager	626-826-3145	laura.yeager123@gmail.com
Treasurer	Ihab Darwish	650-624-1389	darwishis@yahoo.com

## Councilors

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
2020-2022	Matt Greaney	510-410-0195	greaney19@gmail.com
2020-2022	Madalyn Radlauer	408-924-5482	madalyn.radlauer@sjsu.edu

## Alternate Councilors

2019-2021	Sogol Teschler	408-896-2367	sgyahyazadeh@gmail.com
2019-2021	Laura Yeager	626-826-3145	laura.yeager123@gmail.com
2020-2022	Todd Eberspacher	650-723-2505	eberspacher@stanford.edu
2020-2022	Avni Gandhi	626-831-8230	avni.caltech@gmail.com
2020-2022	Heddie Nichols	310-435-2133	hnichols105@gmail.com
2020-2020	Howard Peters	650-447-3027	Peters4pa@sbcglobal.net
2020-2020	Peter Rusch	650-961-8120	pfrusch@aol.com

## Newsletter

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