

Silicon Valley Chemist

Silicon Valley Section

American Chemical Society

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JANUARY 2018 NEWSLETTER TOPICS

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Connect with Chemists

An early morning chat with fellow chemists

Thursday, January 18, 2018, at 7 a.m.

Coupa Café

538 Ramona Street, Palo Alto

Contact Ean Warren (ewarren@scvacs.org)

for more information
or ask for Ean at Coupa.

SVACS January Dinner Seminar Cognitive Computing

Dr. Stephen Boyer



Dr. Boyer and a quantum computer

Abstract:

The future of chemistry is changing. Machine-learning, cognitive computing, and contracted services are moving in. Chemists are as likely to be found in front of screens connected to labs around the world as in lab coats at benches. Knowledge management and computer exploitation of molecular data are the reagents of future chemical reactions. Emphasis shifts from making stuff to knowing what to make. Soon, that too will likely be dictated by computationally derived algorithms. This talk will address technologies that are changing the landscape of chemistry as we've known it.

Biography:

Stephen Boyer is a researcher in the interdisciplinary space of chemistry and computer science. He pioneered the use of computers to automatically curate patents and the scientific literature, expanding for the scientific com-

munity their understanding and utility of published information in medicine, the physical sciences and intellectual property.

Dr. Boyer has served as an advisor and presenter to numerous national and international organizations. In this capacity, he continues to lecture on technical issues for

improving international access to intellectual

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SVACS January Dinner Seminar

Date: Wednesday, January 17, 2018

6:00 p.m. Social Hour

7:00 p.m. Dinner

8:00 p.m. Presentation

Speaker: Dr. Stephen Boyer
Cognitive Computing

Location: Michael's at Shoreline Park
Mountain View, CA

<http://michaelsatshoreline.com/>

Cost: \$30/ACS member/guest

\$15/student

Breast of Chicken, Marsala

Grilled Vegetable Brochette

Registration: www.scvacs.org

Reservations should be made by January 13th, stating your name, address, company/school affiliation, number of people in party. Watch the web site for more information. If you are unable to honor your reservation please cancel by Monday, January 15th.

Chair's Message

Melody Esfandiari



I hope you had a relaxing holiday. For those of you who don't yet know me, I'm Melody Esfandiari, the new chair of the ACS, Silicon Valley Section. I teach chemistry at San Jose State (SJSU). I received my bachelor degree from SJSU and my Ph.D. from University of California, Irvine. After grad school, I moved right back to the bay area to teach at San Jose State. I'm fortunate to teach chemistry alongside supportive faculties who once were my mentors. I look forward to serving as the chair of our local section and working with a passionate group of chemists. I would like to thank everyone who helped us have a memorable 2017. In particular, I want to thank our past chairs, Todd Eberspacher and Jane Frommer for their committed service and continued support.

Our program committee has been hard at work organizing a series of events for the New

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Cognitive Chemistry, continued from front page
property and its integration with scientific content.

Dr. Boyer combines ten years of experience in the pharmaceutical industry (Ciba-Geigy / Novartis) with 25 years working in technical and management capacities at IBM. He has authored numerous publications and patents in the areas of new drug syntheses and text- and image-analytics. He holds a B.A. from Temple University in Philadelphia and a Ph.D. in synthetic organic chemistry from Tufts University.

Chair's Message, continued from front page

Year. I'd like to direct your attention to a few upcoming events. On January 17th, Steve Boyer from IBM will kick off our monthly dinner meeting with a talk on cognitive chemistry. Steve is a chemist who has never let categories limit him, and his talk is sure to be memorable. Steve's talk will focus on how technologies are changing the landscape of chemistry and shaping a different future than the one we may have expected. Later in February, we are hosting a talk on the significance and history of the flu as this year marks the 100th anniversary of the influenza pandemic of 1918. The 1918 Spanish Flu has been cited as one of the most devastating epidemics, taking more lives than World War I. You won't want to miss this talk. In March, we'll be presenting our Mosher award. I'd like to thank Natalie McClure for chairing the Mosher award. More information will be given in our next newsletter.

Let's make a New Year's resolution together to attend more local ACS meetings and events. Best wishes for a great year ahead, and I hope to see you on January 17th for Dr. Boyer's talk.

ACS Book Club

Interested in joining the ACS Book Club? Add yourself to the email list svacs-book-club+subscribe@googlegroups.com or contact Ean Warren (ewarren@scvacs.org).

GOLDEN GATE POLYMER FORUM



Golden Gate Polymer Forum Short Course Failure Analysis of Plastics

Date: March 5 and 6, 2018

Location: Michael's at Shoreline Park, 2860 N Shoreline Blvd., Mountain View, CA

Industry experts from The Madison Group (www.madisongroup.com) will describe common failure mechanisms of polymeric materials, problem-solving techniques, and test methods, including microscopy, spectroscopy, thermal analysis, molecular weight analysis, analytical chemistry and physical property testing. Practical examples will be presented wherein multiple methods were used to determine how and why different types of polymeric components failed. Several exhibitors will show the latest analytical instrumentation used for problem solving plastics-related failures and characterizing materials for new applications. For more information and to register, visit www.ggpf.org.

Local Science Fairs in 2018

by Susan Oldham-Fritts

Haven't decided on a New year's resolution yet? How about encouraging middle and high school students to participate in the world of STEM – science, engineering, math, and science? It takes just one day of your time to judge at your local science fair. The following area science fairs need **category awards judges**, especially in the areas of botany, biology, chemistry, microbiology, and behavioral science. In addition, we need more **chemists March 15, 2018, on our SVACS sponsored special awards judging team** at the Santa Clara County science fair, the **Synopsys Championship**. The latter is a qualifier for the International Science and Engineering Fair, ISEF.

Please contact me at sfritts@gmail.com to join our team of dedicated chemists at the Synopsys Championship on March 15th.

No matter which fair is close to home, **please volunteer now!**

South Valley Science Fair* (Oakwood School, Morgan Hill), January 11
svsfsrc@gmail.com

Sciencepalooza* (Santa Clara County Fairgrounds), February 3
www.outreach-foundation.org/judges/

San Mateo County Science, Math, and Technology Fair
(San Mateo Events Center, Fiesta Pavilion), March 4
<https://www.stemfair.net/app/signup/judges>

Santa Cruz County Fair (Santa Cruz County Fair Grounds), March 10
http://www.science.santacruz.k12.ca.us/judges_registration_new.html

Monterey County Science and Engineering Fair
(California State University, Monterey Bay, University Center, Bldg.29), March 17
www.montereycountysciencefair.info

Synopsys Championship (San Jose Convention Center), March 15
<https://science-fair.org/judges-3/category-judges/judging-registration/>

Golden Gate STEM Fair
(San Francisco County Fair Bldg., 9th and Lincoln, Golden Gate Park), March 19
<http://sfbasf.org>

*Many students at these competitions are first time science fair participants.

2017 Harry and Carol Mosher Awardee

Dr. Nicola Pohl

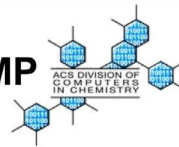
by Natalie McClure

I am pleased to announce that the Mosher Award Committee (Howard Peters, Sally Peters and I) has selected Dr. Nicola Pohl as the recipient for the 2017 Harry and Carol Mosher Award. Dr. Pohl is the Joan and Marvin Carmack Chair of Bioorganic Chemistry at Indiana University. Nicola Pohl received her B.A. degree from Harvard College in 1991 and her Ph.D. in chemistry from the University of Wisconsin-Madison in 1997. Following an NIH Postdoctoral Fellowship in the Department of Chemical Engineering at Stanford University in Khosla's group, she joined the faculty at Iowa State University in the fall of 2000.

The Pohl research group is finding new ways to make and analyze sugars to dissect their important roles in plant, animal, and human biology and to design therapeutics. One major long-term goal is to rationally design therapeutic interventions such as vaccines and glycoproteins based on a deeper knowledge of the role of carbohydrates. Most recently, they have created the first automated solution-phase method to readily synthesize oligosaccharides and are now working to expand the scope of these methods and tackle the equal challenge of providing building blocks to feed our automated oligosaccharide synthesis machines. This automated method circumvents key problems encountered with the solid-phase approaches that allowed commercial automated synthesis of other biopolymers like DNA and peptides. Concurrently, they have created the first methods to use mass spectrometry—a technique that uses very low sample volumes—to identify a range of carbohydrates that share molecular weights as a first step in designing a full process for de novo carbohydrate sequencing.

Dr. Pohl is currently on sabbatical at MIT and will come to the

SF BAY AREA COMP



Save the date: 01/23/18

ACS Bay Area COMP Together & UCSF Pharm Postdocs Present

Tuesday, January 23, 6-9 pm
UCSF Mission Bay - Genentech Hall Room GH114N
1700 4th St. San Francisco CA 94158

6 – 7 pm: Poster Session
(pizza and refreshments provided)
7 – 8 pm: Seminar & Discussion
8 – 9 pm: Networking

Registration

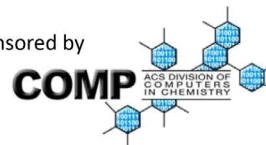
To get notifications of upcoming events, register on the COMP Together network:

http://app.acscomp.org/COMP_Together/reg_form.phpAlready

Already registered on the COMP Together network?

http://app.acscomp.org/COMP_Together/meeting_signup.php

Sponsored by



Silicon Valley dinner meeting on March 15, 2018 for the 2017 Mosher Award presentation.

Chemistry Quiz

European mistletoe (*Viscum album*), and to a lesser extent American mistletoe (*Phoradendron serotinum*), contain the toxic lectin viscumin.

What is the molecular basis for the toxicity of viscumin?

The answer will appear in next month's newsletter.

Last Month's Chemistry Quiz

Which amino acid is erroneously blamed for the soporific effect of a turkey dinner?

Tryptophan

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

Dr. Joseph Bailey
Dr. Norman A. Bonner
Megan Brunjes Brophy
Ferdinand Mayor Cadiente
Arjun Chakraborty
Shuvam Chaudhuri
Dr. Arlene Haffa
Zhongxing Huang
Dr. Jeffrey James Jackson
Dr. John Ketcham

Stephanie Lau
Jinxing Li
Jack Maung
Dr. David Vaughn Milligan
Seyedsina Moeinzadeh
Dr. Erin B. Murphy
Dr. Robin Nicol
Dr. Akinori Okano
Cameron Poole
Yagya Narayan Regmi

Dr. Omar Robles
Dr. Stanley Samuels
Sruthi Santhanam
Alexis Sarabia
Dr. Rhiannon Thomas-Tran
Virginia Castro Ventura
Dr. Joshua Wittenberg
Xu Zang
Dr. Dmitry Yu Zubarev



SILICON VALLEY SECTION
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SILICON VALLEY SECTION

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Past Chair	Todd Eberspacher	650-723-2505	eberspacher@stanford.edu
Secretary	Jigisha Shah	315-289-5115	jssheth@syr.edu
Treasurer	Ihab Darwish	650-624-1389	darwishis@yahoo.com

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2016-2018	Linda Brunauer	408-554-6947	lbrunauer@scu.edu
2016-2018	Sally Peters	650-447-3027	sallybrownpeters@gmail.com
2017-2018	Peter Rusch	650-961-8120	pfrusch@aol.com
2017-2019	George Lechner	408-226-7262	glechner@aol.com
2017-2019	Matt Greaney	510-410-0195	greaney19@gmail.com
2018-2020	Ean Warren	650-329-4554	ewarren@scvacs.org
2018-2020	Natalie McClure	650-906-7831	nmclure@drugregulatoryaffairs.com

Alternate Councilors

2016-2018	Alex Klevay	408-561-0087	alex.klevay@gmail.com
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2018-2018	Howard Peters	650-447-3027	peters4pa@sbcglobal.net
2017-2019	Elizabeth Pollom	408-924-5012	elizabeth.pollom@sjsu.edu
2017-2019	Slava Bekker	831-759-6005	sbekker@hartnell.edu
2018-2020	Madalyn Radlauer	408-924-5482	madalyn.radlauer@sjsu.edu
2018-2020	Jane Frommer	408-927-2225	jane@collabra.net

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ChemPloyment Abstracts

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

- Jan 17** SVACS January Dinner Seminar
Cognitive Computing
Dr. Stephen Boyer, IBM Almaden Research Center
Michael's at Shoreline Park, Mountain View, CA
- Jan 23** SVACS SF Bay Area COMP
UCSF Mission Bay-Genentech Hall GH114N
San Francisco, CA
- Jan 25** *Emission of Microbial Volatile Compounds by Bacteria and Fungi*
California ACS Section January Meeting
Dr. Pawel Misztal, USDA
- Feb 13** *23rd Annual Stauffer Lectureship*
Dr. Scott Denmark, Stanford University
- Feb 22** SVACS February Dinner Seminar
Influenza: Epidemic and pandemic in modern times
Jack Nguyen, Adamas Pharmaceuticals
Michael's at Shoreline Park, Mountain View, CA
- Mar 15** SVACS March Dinner Seminar
2017 Mosher Award Presentation
Biltmore Hotel, Santa Clara, CA

Click on links for more information or
see this newsletter at http://scvacs.org/?page_id=99