

Silicon Valley Chemist

Santa Clara Valley Section

American Chemical Society

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SEPTEMBER 2014 NEWSLETTER TOPICS

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September Seminar Meeting

Sequence-based Exploration of Microbial Communities

Abstract:

Microbial communities are critical to biogeochemical cycling in all parts of the biosphere as well as plant and animal health, but are difficult to study due to their complexity and our inability to culture most organisms. DNA sequencing is a valuable tool for characterizing microbial community membership and functional potential, and the dramatic increases in sequencing capacity that have come with next-generation technologies allow us to explore these communities at unprecedented depth. I will discuss the history of metage-



nomics and its applications to environmental, host-associated and engineered microbial communities of importance to industry, agriculture, climate and medicine.

Biography:

Dr. Tringe is head of the Metagenome Program at the Department of Energy Joint Genome Institute, where she oversees research using DNA sequence data to study communities of microbes from diverse environmental niches. Her major research interests relate to microbial influences on greenhouse gas uptake and

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Connect with Chemists

Meet fellow, local chemists for an early morning coffee
Look for Ean at a table with CH₄ and CO₂ molecular models

Tuesday, September 16 at 7 a.m.

Specialty's Cafe

3399 Bowers Avenue, Santa Clara

Thursday, September 18 at 7 a.m.

La Boulange

151 University Avenue, Palo Alto

Chair's Message

I have been running Connect with Chemists (CwC) for over 6 months now. As you may have read in previous newsletters, CwC is where chemists meet over coffee and tea in the morning before work to discuss anything that comes up. I have scheduled these meetings on different days of the month in the morning for those members who cannot attend the seminars and dinners in the evening. Many of the members who come are unemployed or looking for a different job. All of these members were looking for positions in the local area because they have ties keeping them here. Restricting a search to local positions means that many fewer positions are available for



which to apply.

The ACS devotes considerable resources towards helping members find jobs. If you went to the National Meeting in San Francisco (which is free for unemployed members), you might have attended the ACS Career Navigator (www.acs.org/content/acs/en/meetings/fall-2014/career-development.html) where you could participate in career development workshops, classes and the career fair. The fair provides registrants with the opportunity to have people review applications and resumes, meet employers, get personal career counseling, and more.

The ACS also offers help on a national

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September Seminar Meeting

Date: Thursday, September 25, 2014

Time: 6:00 p.m. Social Hour
7:00 p.m. Dinner
8:00 p.m. Presentation

Speakers: Dr. Susan Tringe
DOE Joint Genome Institute
Sequence-based Exploration of
Microbial Communities

Location: Biltmore Hotel & Suites
2151 Laurelwood Boulevard
Santa Clara, CA

Cost: \$26.00, Teriyaki Steak or
Pasta Primavera

Reservations: www.scvacs.org
or Sally Peters 650-854-4614

Reservations should be made by Monday, September 22nd 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 Wednesday, September 24th.

September Seminar, continued from front page

release in wetlands and how microbes interact with plants to affect growth, health and disease resistance.

Dr. Tringe received her undergraduate degree in Physics from Harvard University then went on to a Ph.D. in Biophysics from Stanford University. From there she spent a few years in a yeast genetics lab at the University of New Mexico before joining Dr. Edward Rubin's group at Berkeley Lab as a

postdoc in 2003. There she developed techniques for using DNA sequence data for comparative analysis of whole microbial communities, rather than individual organisms, a field now known as metagenomics. In 2011, she was awarded an Early Career Research grant from the Department of Energy to study microbial communities in wetlands and the potential for wetland restoration to serve as an effective carbon sink.

Chair's Message, continued from front page

scale (www.acs.org/content/acs/en/careers.html) by offering professional development and leadership classes, career services, and job market research. For local searches, they have an interactive map with job locations (<http://chemistryjobs.acs.org/jobs/explore>). As of August 11, 2014, there are 179 jobs listed for California. Unfortunately, you cannot limit your search to the Bay Area. However, you can further refine your search with job function, type (i.e., full-time, part-time, contract,

fellowship) or level of experience.

Despite all these resources, chemists can still have a difficult time finding positions. I think the local section may be able to help. I am looking for people to help us help our members. I would like to convene a task force to work on this issue. Would you like to participate? Send me an email at ewarren@scvacs.org.

Connect with Chemists for September will be on Tuesday, September 16 at 7 a.m. at Specialty's Cafe, Santa Clara and Thursday,

PETER K. DORHOUT
FOR
ACS PRESIDENT-ELECT

== VOTE IN ==
OCTOBER

- ACS leadership experience
- Focused on careers in chemistry
- Access to higher education
- Membership needs and benefits

EMAIL PKDorhout@cox.net
TWITTER [@PeterDorhoutACS](https://twitter.com/PeterDorhoutACS)
WEB www.peterdorhoutacs.com

SCAN TO VISIT MY WEBSITE

September 18 at 7 a.m. at La Boulange, Palo Alto. Look for me there – I'll have molecular models of methane and carbon dioxide in front of me.

Welcome to the Santa Clara 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 spouse (or friend) will be our guests. The seminar meetings are often the 3rd Thursday of the month at a local spot, somewhat convenient to the entire section. If you are unable to attend in the evening, perhaps you would join us for an outreach event, like judging a science fair, participating in the Chemistry Olympiad, or 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!

James Archbell
Kaitlyn Baab
James Barry
Danial Beaudry
Borislava Bekker
Oren Berger
Lars Boettger
Dr. Stephen Carroll
Brian Chang
Xi-Jun Chen
Jawahar Chigurupati
Andrei Chtchemelinine
Evan Cohen
Alexander Colbert
Paul Vincnt Contreras
Dr. Nick Cox
Dr. Lina Cui
Sneha Dugar
Dr. Joshua R. Dunetz
Jacob Greenberg Englander
Dr. Edgar G. Estupinan
Justin A. Fisher
Courtney Fox
Michael Ghebreab
Dr. Dipankar Ghosh
Jingli Hu
Niveen Ismail

New Members for August

Dr. Gunilla B. Jacobson
Dr. Gavin O. Jones
Dr. Velvet Journigan
Mallory Kato
Dr. Yong-Jae Kim
Emily Kong
Anna Koster
Jae Kyoo Lee
Hailian Li
Dr. Wen Li
Miss Winnie Liang
Diana Lin
Dr. Yue Julie Liu
Alicia Luhrs
Nikhil Malkani
Sueann L. Mazer
Sarah Karen McKee
Dr. Mukund M. Mehrotra
William Mitch
Dr. Michael Morelli
Chris Murphy
Kashi Nath
Mary Noe
Ayako Ohoka
Kanwal Palla
Axel Palmstrom
Lauren Porter
Tyler P. Price
Baixin Qian
Scott Savage
Michael V. Schaefer
Richard Schneeberger
Stephanie Shaw
Dr. Bernard G. Sheldon
Qi Shen
Dr. Tatiana Y. Shvareva
Dr. David A. Siler
Navid Singhrao
Jack Leider Sloane
Paige Solomon
Dr. Robert Street
Jennifer Tang
John W.F. To
Chad Townsend
Benjamin Ueng
Anna Wagner
Dr. Peter Wagner
Louise Wallace
Arif Wibowo
Mengling Wong
Nicholas Wong
Weiwei Wu
Michiharu Yamamoto
Dr. Xiongwei Yan

Councilor's Update From the 248th ACS Meeting

By Ean Warren

The 248th Fall ACS Meeting in San Francisco went smoothly last month. Attendance was high, symposia were especially good, the exhibition was well attended, and the weather was, well, typical for San Francisco!

Council Election Results

- The Committee on Nominations and Elections presented to the Council the following slate of candidates for membership on the Committee on Committees beginning in 2015: Spiro D. Alexandratos, Mark A. Benvenuto, Mitchell R.M. Bruce, Judith N. Currano, Jetty L. Duffy-Matzner, Kathleen Gibboney, Helen A. (Bonnie) Lawlor, Zaida Morales-Martinez, Robert A. Pribush, and Patricia A. Redden. By electronic ballot, the Council elected Mitchell R.M. Bruce, Judith N. Currano, Helen A. (Bonnie) Lawlor, Zaida Morales-Martinez, and Robert A. Pribush for the 2015-2017 term.
- The Committee on Nominations and Elections presented to the Council the following slate of candidates for membership on the Council Policy Committee beginning in 2015: Lawrence Barton, Dwight W. Chasar, Lynne P. Greenblatt, Martha G.

Hollomon, Peter C. Jurs, Pamela D. Kistler, Doris I. Lewis, Christopher Masi, Andrea Twiss-Brooks, and Linette M. Watkins. By electronic ballot, the Council elected Lawrence Barton, Lynne P. Greenblatt, Peter C. Jurs, and Linette M. Watkins, for the 2015-2017 term, and Andrea Twiss-Brooks for the remainder of a 2014-2016 term.

- The Council Policy Committee presented to the Council the following slate of candidates for membership on the Committee on Nominations and Elections beginning in 2015: Anthony W. Addison, John W. Finley, Lydia E.M. Hines, Roland F. Hirsch, Robert L. Lichter, Mamie W. Moy, Anne T. O'Brien, Eleanor D. Siebert, Herbert B. Silber, and Ralph A. Wheeler. By electronic ballot, the Council elected Lydia E.M. Hines, Robert L. Lichter, Mamie W. Moy, Anne T. O'Brien, and Eleanor D. Siebert for the 2015-2017 term.

Nominations and Elections (N&E)

N&E announced the candidates for the fall 2014 ACS national election as follows:

Candidates for President-Elect, 2015

- *Peter K. Dorhout*, Dean of Arts & Sciences

and Professor of Chemistry, Kansas State University, Manhattan, KS

- *William A. Lester, Jr.*, Professor of the Graduate School, Department of Chemistry, University of California, Berkeley, CA
- *Donna J. Nelson*, Professor, Department of Chemistry and Biochemistry, University of Oklahoma, Norman, OK

Candidates for Directors-at-Large, 2015-2017

- *Dawn A. Brooks*, Director, Lilly Research Laboratories, Eli Lilly and Company, Indianapolis, IN
- *William F. Carroll, Jr.*, Vice-President, Occidental Chemical Corporation, Dallas, TX
- *Barbara A. Sawrey*, Associate Vice Chancellor, Academic Affairs, and Dean of Undergraduate Education, University of California, San Diego, La Jolla, CA
- *Ellen B. Stechel*, Deputy Director, ASU-LightWorks, Tempe, AZ, Arizona State University

Candidates for District VI Director, 2015-2017

- *Paul W. Jagodzinski*, Dean, College of Engineering, Forestry & Natural Sciences, Northern Arizona University, Flagstaff, AZ
- *Lee H. Latimer*, Consultant, Oakland, CA



CHEMPLOYMENT ABSTRACTS SEPTEMBER 2014

For a complete list of current abstracts, please visit: www.scvacs.org/Local_Folder/abstract.htm

CHEMPLOYMENT ABSTRACT 3969

Position Title: Research Associate/Senior Research Associate

Job Description: Genentech is seeking a Research Associate/Senior Research Associate to support drug discovery and development in the Small Molecule Discovery Chemistry department. Incumbent will join a high energy team that is responsible for all aspects of small molecule analysis from routine analyses using LCMS and ¹H NMR to detailed structural analysis using high resolution accurate mass LCMS.

QUALIFICATIONS DESIRED:

Education: B.S. or M.S. degree in Chemistry

Experience: Candidates must have at least 2 years' experience in the pharmaceutical industry. Candidates must have good theoretical knowledge of analytical chemistry, hands-on experience in LCMS and other analytical techniques (NMR, GCMS, Ion Chromatography, Karl Fischer, DSC, TGA) as well as excellent computer and analytical instrumentation skills

LOCATION, SALARY, EMPLOYER:

Job Location: South San Francisco, CA

Salary: DOE

Employer Description: For more than 30 years, Genentech has been at the forefront of the biotechnology industry, using innovative science to develop breakthrough medicines that improve the lives of people with serious or life-threatening diseases.

Application Instructions: Join us as we continue to tackle medicine's most challenging problems and live a life inspired. To apply visit gene.com/careers/find-a-job and search job # 432904.

Chemistry Quiz

What is the only letter of the alphabet that does not appear in the periodic table?



In 1934, this professor emigrated to work at Stanford University. His work on "the development of new ways and methods for nuclear magnetic precision measurements" earned him the 1952 Nobel Prize, shared with Edward Mills Purcell.

— *Felix Bloch*



SANTA CLARA VALLEY SECTION
AMERICAN CHEMICAL SOCIETY
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<http://www.scvacs.org>

To receive an email when our newsletter
is published on our web site, sign up at:
<http://www.scvacs.org/newsletter/>

SANTA CLARA VALLEY SECTION

2014 Section Officers

Chair	Ean Warren	650-329-4554	ewarren@scvacs.org
Chair Elect	Ashley Piekarski	408-855-5269	ashley@scvacs.org
Past Chair	Peter Rusch	650-961-8120	pfrusch@aol.com
Secretary	Karl Marhenke	831-688-4959	karlmar@armory.com
Treasurer	Ihab Darwish	650-594-1654	darwishis@yahoo.com

Councilors

2012-2014	Abby Kennedy	209-640-2005	akennedycali2007@yahoo.com
2012-2014	Ean Warren	650-329-4554	ewarren@scvacs.org
2013-2015	Linda Brunauer	408-554-6947	lbrunauer@scu.edu
2013-2015	Sally Peters	650-854-4614	sallybrownpeters@gmail.com
2013-2015	Peter Rusch	650-961-8120	pfrusch@aol.com
2014-2016	George Lechner	408-226-7262	glechner@aol.com
2014-2016	Herb Silber	408-924-4954	hbsilber@science.sjsu.edu

Alternate Councilors

2012-2014	David Parker	408-615-4961	drdrparker@comcast.net
2014-2014	Howard Peters	408-854-4614	peters4pa@sbcglobal.net
2014-2014	Ashley Piekarski	408-855-5269	ashley@scvacs.org
2013-2015	Stephanie Bachmann	408-429-9681	s_gehling@hotmail.com
2013-2015	Lois Durham	650-322-3507	ldurham9398@gmail.com
2013-2015	Natalie McClure	650-906-7831	nmclure@drugregulatoryaffairs.com
2014-2016	Mark Kent	408-736-0989	markkent@yahoo.com

Newsletter

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ChemPloyment Abstracts

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

- Sep 16** Connect with Chemists
Specialty's Cafe, Santa Clara
- Sep 18** Connect with Chemists
La Boulange, Palo Alto
- Sep 25** September Seminar and Dinner
Dr. Susannah Tringe
DOE Joint Genome Institute
Biltmore Hotel & Suites
Santa Clara, CA
- Oct 4** CuriOdyssey's Lift Off Festival
Coyote Point Recreation Center
San Mateo, CA
www.bayareascience.org/calendar/index.php?eID=13000
- Oct 10** 29th Annual Johnson Symposium
Department of Chemistry
Stanford University
<https://chemistry.stanford.edu/story/annual-william-s-johnson-symposium>
- Oct 11** Teach the Teachers Workshop
Juanita Ryan and RAFT
Mission College, Santa Clara, CA