

# Silicon Valley Chemist

Santa Clara Valley Section

American Chemical Society

Volume 32 No. 8

## AUGUST 2010 NEWSLETTER TOPICS

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## September Dinner Speaker

### Novel Strategies in Drug Development

Dr. Lynette Cegelski



#### Abstract

The genomics and proteomics revolutions have been enormously successful in generating full genome sequences for an increasing number of organisms and in predicting and determining the structures of a steadily increasing number of proteins. In essence, these data provide crucial "parts lists" for biological systems. Yet, formidable challenges exist in generating complete descriptions of how the parts function and assemble into macromolecular complexes and how small-molecule inhibitors influence and inhibit assembly processes.

My research program integrates chemistry and biophysics with chemical biology to investigate assembly processes

in molecular and atomic-level detail to drive the discovery of new therapeutics. I will highlight the novel strategies we are developing using examples of taxol (determining the bio-active conformation of an anti-cancer drug), vancomycin ana-

logues (mapping binding of antibiotics in intact cells), and bacterial amyloid inhibi-

*continued on next page*

## September Dinner Meeting

A joint meeting  
with the California Section

**Date:** Thursday, September 23, 2010

**Time:** 6:30 Networking  
7:00 Dinner  
8:00 Presentation

**Location:** Elan Pharmaceuticals  
800 Gateway Boulevard  
South San Francisco, CA 94080  
650- 877-0900

**Speaker:** Dr. Lynette Cegelski  
Stanford University

**Menu:** Pasta Pronto

**Cost:** \$27

**Reservations:** [www.scvacs.org](http://www.scvacs.org) or  
Shirley Radding 408-246-2564  
408-296-8625 Fax

Reservations should be made by September 20 stating your name, address, company affiliation, number of people in party, and menu selection. If you are unable to honor your reservation and do not cancel by Tuesday, September 22, you may be invoiced following the meeting.

For latest updates about the meeting, please see our dinner meeting page at [www.scvacs.org/Local\\_Folder/din\\_mtg.html](http://www.scvacs.org/Local_Folder/din_mtg.html).

## Chair's Message

The July picnic was an enjoyable event. Our thanks to Floyd Hobbs for arranging the wine tasting featuring differences between three Chardonnays and three Pinot Noirs grown in different regions of California. For dinner we had pork and chicken BBQ, accompanied by some of the wines. We completed the evening by acknowledging members who have accumulated 50, 60 and 65 years of service in the ACS.

Our September dinner meeting speaker will be Dr. Lynette Cegelski of the Stanford University Department of Chemistry. Her topic will be "Novel Strategies in Drug Development". The meeting will be a bit later in the month



than usual: Thursday, September 23, and it will be a joint meeting with the California Section. The location will be at Elan Pharmaceuticals in South San Francisco. See our dinner meeting page for further details

(URL on this page).

Our Chair Elect, Abby Kennedy, is working on plans for National Chemistry Week. Let her know if you are interested in helping with it. Her e-mail address is [akennedy@exelixis.com](mailto:akennedy@exelixis.com), and her phone number is 209-640-2005.

I hope you are having a pleasant summer with recreation and vacation opportunities. I look forward to meeting with you in the Fall.

*Novel Strategies, continued from front page*

tors (developing novel anti-amyloid and anti-biofilm agents).

### **Biography**

Lynette Cegelski is an Assistant Professor in the Department of Chemistry at Stanford University. Dr. Cegelski received her Ph.D. in Chemistry from Washington University, St. Louis, where she trained as a solid-state NMR spectroscopist at the interface of chemis-

try and biology. She switched disciplines and trained as a postdoctoral fellow in Molecular Microbiology and Pathogenesis at Washington University School of Medicine where she defined the importance of bacterial amyloid fibers in biofilm formation and identified inhibitors of amyloid and biofilm assembly. Dr. Cegelski is the recipient of a Burroughs Wellcome Fund Career Award at the

Scientific Interface and has been an Assistant Professor in the Department of Chemistry at Stanford since 2009. She is blending her expertise in biophysics, microbiology, and chemical biology to make discoveries regarding the fundamental chemistry of biological systems that will impact health and the environment and drive the development of new therapeutics to ameliorate disease.

## **Green Chemistry Conference**

Mission College, in Santa Clara, is sponsoring a Green Chemistry workshop for teachers on Thursday and Friday, August 19-20.

The main speaker will be Dr. John Warner, who recently chaired the 14th Annual Green Chemistry and Engineering Conference in Washington, D.C. He also gave the keynote address at the High School day at the ACS national meeting in San Francisco last spring.

There is room for just a few more teachers to sign up for the complete workshop. But Jackie Slabaugh of Mission College is sending a special invitation to members of the Santa Clara Valley Section of the ACS:

"We are hoping you have members who would be interested in spending the morning (or a portion of the morning) with us on August 19th, listening and discussing the future of 'green' with Dr. Warner and observing the actual work in the labs with the teachers and instructors. There is no charge. We will start at 8:15 a.m. on August 19th in the TAV (Telecom). At 9 am, the teachers and instructors will move to the Sciences Building."

For more information see [www.scvacs.org/Local\\_Folder/Green.html](http://www.scvacs.org/Local_Folder/Green.html).

The page has links to the college, the college campus, and Dr. Warner.

If you decide to go, please contact Jackie Slabaugh at [jackie.slabaugh@wvm.edu](mailto:jackie.slabaugh@wvm.edu) to let her know, so that they can have a name badge ready for you.



## **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 -- the 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 dinner 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 dinner 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!!

### **New Members List for July**

Chequeta Allen	Dr. Beat Fierz	Gregory Ian Rudd
Dr. Yvonne Marie Angell	Dr. Adam W. Franz	Christopher Rundell
Dr. Nayan J. Ashar	Dr. Blaine Harrison	Dr. Hossein Saeedi
Dr. Katherine Augustyn	Mr. Shu Hu	Dr. Erika N. Segraves
Ms. Reena Bajpai	Dr. Roman A. Ivanov	Dr. Felix Studt
Rose M. Beeler	Dr. Darryl Kato	Jeffrey S. Stults
Aaron C. Burns	Dr. James Kellis	Judy Suh
Dr. Yuqin Cai	Robert A. Kucer	Anna Tsimelzon
Dr. Raja S. Chellappa	Dr. Mark C. Lefebvre	Shawne Van Deusen-Jeffries
Dr. Fan Chen	James Thomas Link	Dr. Xinmin (Sam) Xu
Seong Ho Choi	Sunnie Myung	Manuel A. Zancanella
Frenel F. Demorin	Chi K. Nguyen	Dr. Xin Zhang
Mr. Blake Erickson	Dr. Richard C. Quinn	Dr. Han Zheng

### **New Editor Needed!**

The Silicon Valley Chemist needs a new editor; the present editor's day job has become overwhelming.

This is a volunteer position. The editor gathers articles and columns, mostly from members of the Section, and requests timely submission of regular features. He or she corrects spelling and grammar to the best of his or her ability (this sometimes involves some rewriting) and forwards the material to our printer.

The work tends to come in monthly spurts. Everything is done via e-mail. The

final step each month is to proofread the draft of the PDF file that our printer composes.

The corrected PDF file becomes the master copy of the newsletter, which is then sent to members on our mailing list, and posted on our website.

The present volunteers will be more than happy to train and help you until you know the job!

Please contact either our Secretary, Karl Marhenke ([karlmar@armory.com](mailto:karlmar@armory.com)) or our outgoing (the sooner the better, she says!) editor, Stephanie Gehling ([s\\_gehling@hotmail.com](mailto:s_gehling@hotmail.com)).

# Happy Times at the Annual Family Picnic and Awards Ceremony

Photos courtesy of Lois Durham and Karl Marhenke



Note: More picnic photos next month.

## CHEMPLOYMENT ABSTRACTS AUGUST 2010

For a complete list of current abstracts, please visit: [www.scvacs.org/Local\\_Folder/abstract.htm](http://www.scvacs.org/Local_Folder/abstract.htm)

### CHEMPLOYMENT ABSTRACT 3954

*Position Title:* Senior Organic Laboratory Chemist

*Job Description:* The organic laboratory chemist will perform analyses including GC-MS, TD-GC-MS, FTIR, Raman and thermal techniques (TGA, DSC, TMA) as well as other methodologies on a variety of matrices important to the semiconductor and other high technology industries. The chemist will take a lead role in the day-to-day analyses in the lab and maintain sample flow through an active production laboratory. Method development for new materials and unique problems will also play a major role in the day-to-day functions.

#### QUALIFICATIONS DESIRED:

*Education:* MS or Ph.D. in chemistry is preferred but not mandatory.

*Experience:* Successful 3-5 year minimum experience in an organic analysis laboratory with knowledge of sample preparation, instrument maintenance and data interpretation is strongly desired. Experience and knowledge with analysis of semiconductor materials for organic contaminants is preferred but not required. Ability to work successfully in a high-throughput production laboratory setting is a must. The candidate must have excellent verbal and written communication skills, have initiative and be self-motivated..

#### LOCATION, SALARY, EMPLOYER:

*Job Location:* Fremont, California

*Salary:* Negotiable

*Employer:* Air Liquide Electronics - Balazs NanoAnalysis, a division of Air Liquide Group ([www.airliquide.com](http://www.airliquide.com)), maintains a multi-faceted laboratory that focuses on analyses, contamination characterization and problem-solving for the semiconductor, solar, and other high technology industries.

*Application Instructions:* Interested applicants should send their resumes to Hugh Gotts at [hugh.gotts@balazs.com](mailto:hugh.gotts@balazs.com)

### CHEMPLOYMENT ABSTRACT 3955

*Position Title:* Assistant Professor in Biophysical Chemistry

*Job Description:* Establish an externally-funded and productive undergraduate research program, contribute to departmental research and teaching objectives, and demonstrate the ability to effectively teach physical chemistry, general chemistry, and courses for non-science majors. Specific responsibilities are posted at <http://www.scu.edu/cas/chemistry/Job-Opportunities.cfm>

#### QUALIFICATIONS DESIRED:

*Education:* Ph.D. and postdoctoral experience in physical chemistry, biophysical chemistry or closely allied field

*Experience:* College teaching experience is highly desirable, and experience in teaching a diverse student population is preferred.

#### LOCATION, SALARY, EMPLOYER:

*Job Location:* Santa Clara, California

*Salary:* Competitive, depending on experience

*Employer:* Santa Clara University, a highly ranked Catholic Jesuit institution in the Silicon Valley with an ACS-approved undergraduate program and a housing program. It is an EO/AA employer committed to excellence through diversity, and welcomes applications from women, persons of color, and members of historically underrepresented groups.

*Application Instructions:* Submit a cover letter, curriculum vitae, copies of undergraduate and graduate transcripts, personal statement(s) covering research plans, teaching philosophy, a representative example of scholarship (in-press or published article, sample syllabi and teaching evaluations for any lecture course taught), and three letters of recommendation. All materials should be sent in electronic form (Word and/or PDF format) to [ChemApp@scu.edu](mailto:ChemApp@scu.edu).

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## SANTA CLARA VALLEY SECTION

### 2010 Section Officers

Chair	<b>Bruce Raby</b>	408-294-6718	alanice811@att.net
Chair-Elect	<b>Abby Kennedy</b>	209-640-2005	akennedy@exelixis.com
Past Chair	<b>Natalie McClure</b>	650-906-7831	nmccclure@drugregulatoryaffairs.com
Secretary	<b>Karl Marhenke</b>	831-688-4959	karlmar@armory.com
Treasurer	<b>Ihab Darwish</b>	650-594-1654	darwishis@yahoo.com

### Councilors

2008-2010	<b>George Lechner</b>	408-226-7262	glechner@aol.com
2008-2010	<b>Herb Silber</b>	408-924-4954	hbsilber@science.sjsu.edu
2009-2011	<b>Abby Kennedy</b>	209-640-2005	akennedy@exelixis.com
2009-2011	<b>Howard Peters</b>	650-854-4614	peters4pa@sbcglobal.net
2009-2011	<b>Ean Warren</b>	650-329-4554	ewarren@scvacs.org
2010-2012	<b>Linda Brunauer</b>	408-554-6947	lbrunauer@scu.edu
2010-2012	<b>Sally Peters</b>	650-812-4994	Sally.Peters@parc.com
2010-2012	<b>Peter Rusch</b>	650-961-8120	pfrusch@aol.com

### Alternate Councilors

2008-2010	<b>Mark Kent</b>	408-736-0989	markkent@yahoo.com
2009-2011	<b>Ihab Darwish</b>	650-594-1654	darwishis@yahoo.com
2009-2011	<b>David Parker</b>	408-615-4961	dparker@santaclaraca.gov
2009-2011	<b>Bruce Raby</b>	408-294-6718	brida954@comcast.net
2010-2012	<b>Lois Durham</b>	650-322-3507	ldurham9398@sbcglobal.net
2010-2012	<b>Natalie McClure</b>	650-906-7831	nmccclure@drugregulatoryaffairs.com
2010-2012	<b>Stephanie Gehling</b>	408-429-9681	s_gehling@hotmail.com
2010	<b>Harry Ungar</b>	831-708-2049	haungar@cruzio.com

### Newsletter

Editor	<b>Stephanie Gehling</b>	408-429-9681	s_gehling@hotmail.com
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### ChemPloyment Abstracts

Director	<b>Charles Sullivan</b>	650-728-7034	cdansullivan@sbcglobal.net
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## FUTURE MEETINGS

- Aug 18** BioScience Forum  
Dr. Marc Tessler-Lavigne  
Chief Scientific Officer, Genentech  
[www.biosf.org/programs.htm](http://www.biosf.org/programs.htm)
- Aug 22-26** Fall 2010 National Meeting  
Boston, MA
- Sep 23** SCV Dinner Meeting  
Dr. Lynette Cegelski, Stanford  
University; Elan Pharmaceuticals  
South San Francisco  
[www.scvacs.org/Local\\_Folder/din\\_mtg.htm](http://www.scvacs.org/Local_Folder/din_mtg.htm)
- Oct 14** SCV Dinner Meeting  
Dr. Toby Freedman of EnCorps  
Cañada College, Redwood City  
[www.scvacs.org/Local\\_Folder/din\\_mtg.htm](http://www.scvacs.org/Local_Folder/din_mtg.htm)
- Oct 17-23** National Chemistry Week (NCW)  
"Behind the Scenes with Chemistry"  
<http://tiny.cc/npefy>
- Oct 23** Local NCW Event  
Donald Showalter and Marvin Lang  
(both of the University of Wisconsin)  
A dazzling chemistry show at the  
San José State University Library