

# Silicon Valley Chemist

Santa Clara Valley Section

American Chemical Society

Volume 32 No. 9

## SEPTEMBER 2010 NEWSLETTER TOPICS

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## 2010 Mosher Award

Dr. Tobin Marks, Professor of Chemistry at Northwestern University, has been selected as the 2010 Harry and Carol Mosher Award recipient. The award will be presented at our dinner meeting of Thursday, January 20, 2011.

Dr. Marks is an organometallic chemist with a research emphasis on the f-elements. He has been chair of the ACS Division of Inorganic Chemistry, active in the Chicago local section, and will be serving as the US team leader (on behalf of the ACS office of International Activities and NSF Chemistry Division) at an upcoming Chemical Sciences and Society Symposium on Sustainable materials involving the US, UK, German, Japanese and Chinese Chemical societies.

Further details about Dr. Marks' talk and the January dinner meeting will appear later in the year.

## October Dinner Meeting

### Career Opportunities in Biotechnology

Dr. Toby Freedman and Debbie Brennan

The October dinner meeting will include a short introductory talk on EnCorps by Debbie Brennan, followed by our featured October speaker, Dr. Toby Freedman.

#### *Toby Freedman Biography*

Toby is an author and the Founder and President of Synopsis Search. A scientist by training, she transitioned into business as a recruiter, writer, and entrepreneur.

Her book "Career Opportunities in Biotechnology and Drug Development", published by Cold Spring Harbor Laboratory Press, provides a comprehensive overview of the many careers in the life sciences industry. It covers over twenty vocational areas ranging from venture capital to marketing to discovery research.

She founded her own recruiting firm, Synopsis Search, which is focused on executive R&D and business placements in the life sciences industry. She previously worked at BioQuest, an executive search firm, placing VP to CEO-level executives, and as Director of Business Development at SLIL Biomedical, a drug discovery company developing therapeutics for cancer and other diseases.

Toby earned her B.S. from the University of California, a Ph.D. in molecular biology from the University of North Carolina at Chapel Hill, and as an NIH Fellow, conducted postdoctoral research at Harvard University and at the University of Texas-Austin.

Toby is the Program Chair for the BioScience Forum, a non-profit educational forum serving the Bay Area biotechnology community, and she also teaches classes in career development for the life sciences at



UC Berkeley extension.

Toby's talk is titled "Career Opportunities in Biotechnology and Drug Development."

#### **Abstract**

There is a vast array of career opportunities for scientists in academia, biotechnology, pharma, medical devices, biofuels, health

*continued on next page*

## October Dinner Meeting

**Date:** Thursday, October 14, 2010

**Time:** 6:00 Social Hour  
6:45 Dinner  
7:45 Presentation

**Location:** Cañada College  
Building 9, Room 251  
4200 Farm Hill Blvd.  
Redwood City, CA

**Speaker:** Dr. Toby Freeman  
Debbie Brennan  
Career Opportunities in  
Biotechnology

**Cost:** South of the Border Fajita Buffet  
Only \$20 for members  
\$10 for job seekers  
Free for students!

**Reservations:** [www.scvacs.org](http://www.scvacs.org)  
Sally Peters 650-812-4994

Reservations should be made by October 11th stating your name, address, company affiliation, number of people in party. Watch the web site for more information. If you are unable to honor your reservation and do not cancel by Tuesday, October 12, you will be invoiced following the dinner meeting.

*Dinner Meeting, continued from front page*

care and government. Toby will discuss the findings of her book, based on interviews with over 200 industry executives.

She will speak about the many opportunities in the life sciences discussed in the book, and talk about the current economy. If there is time remaining, she will talk about job search tips. With so many options available, it is important to identify the career that best matches your interests, skills, values and professional goals so that you can identify and embark on a fulfilling and meaningful career.

#### **Debbie Brennan Biography**

As the Community Development Consultant for EnCorps, Debbie Brennan performs a myriad of recruiting and placement activities:

- Building relationships with corporations, professional organizations, school districts and educational programs, and introduces the benefits of EnCorps partnership
- Counseling interested Science, Technology, Engineering and Mathematics (STEM) professionals through the EnCorps process
- Reviewing applications and encouraging participation in preliminary assessment days
- Strengthening the core of new math and science teachers

Debbie has a background of technology and education experience, having been both a COBOL programmer for several years as well as a high school volunteer mentor and tutor for many years.

Her introductory talk is titled "Career Opportunities from the Encorps Teachers Program."

#### **Abstract**

Are you ready to inspire the next generation of engineers, mathematicians and scientists?

The EnCorps Teachers Program offers training and support to STEM professionals interested in transitioning to teaching math and science.

EnCorps is a nonprofit dedicated to increasing the number of credentialed math and science teachers in under-served middle and high schools in California. Because the California credentialing process can be confusing and overwhelming, EnCorps provides

assistance to transitioning professionals who've applied and been selected to join the EnCorps Teachers Program. The EnCorps Teachers Program presents a pathway for EnCorps

educators to gain classroom experience while becoming eligible for teaching credentials. Well prepared teachers are more likely to become successful educators.

**Reminder**

**September Dinner Speaker**

**Reminder**

## **Macromolecular NMR for Drug Discovery: From Curcumin to Taxol**

**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 analogues (mapping binding of antibiotics in intact cells), and bacterial amyloid inhibitors (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 chemistry 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 bio-physics, 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.

## **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  
180 Oyster Point Boulevard  
South San Francisco, CA 94080  
650- 877-0900

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

**Menu:** Pasta Pronto

**Cost:** \$27

**Reservations:**

[www.scvacs.org/Local\\_Folder/din\\_mtg.html](http://www.scvacs.org/Local_Folder/din_mtg.html)  
Sally Peters 650-812-4994

Reservations should be made by September 20th 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 22nd, you may be invoiced following the meeting.

## Celebrate National Chemistry Week 2010!

National Chemistry Week (NCW) 2010 is almost here! October 17th to 23rd is designated as our special week this year and we hope you will join our celebration of "Behind the Scenes with Chemistry!" This year we've got two great activities planned to help you celebrate National Chemistry Week 2010.

Our fun annual public outreach booth will take place on Saturday, October 23rd from 10 a.m. - 1 p.m. at the Martin Luther King, Jr. Library in downtown San José (150 E. San Fernando St.). Of course, the crowd-favorite Wheel of Chemistry Fortune will be spinning for all kids to win a prize, and we'll have fun hands-on activities for kids to explore chemistry and to celebrate NCW. This will also be your opportunity

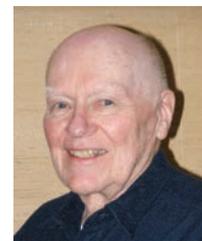
to pick up your free copy of "Celebrating Chemistry," the NCW newsletter for elementary-aged children.

The highlight event for NCW this year will be a free public show by "Doctor Wow" (Donald Showalter) and Dr. C. Marvin Lang premier chemistry demonstrators for kids. This show will be held at adjacent San José State University, immediately following the public outreach booth during the afternoon of Saturday, October 23rd. Actual time and room details will be announced online at [www.scvacs.org](http://www.scvacs.org) and in the October newsletter, so stay tuned.

If you would like to volunteer to plan or assist at either of these two events, please email our NCW Coordinator, Abby Kennedy, at [akennedy@exelixis.com](mailto:akennedy@exelixis.com).

## Chair's Message

I hope you all had a relaxing and enjoyable summer. And it is time to return to school for our scholars from kindergarten to graduate school.

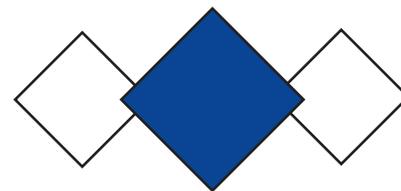


The September calendar shows Monday, September 13 for the next meeting of the Executive Committee. Bring your concerns to us for consideration.

Our next section dinner meeting will be Thursday, September 23; check the newsletter or our dinner meeting page for information.

The election for 2011-2013 officers will be in November. We encourage you to consider submitting one or more petition candidates. See our website for further information on the ballot and petition process.

Stay tuned for information about National Chemistry Week (NCW) in October featuring Drs. Showalter and Lang. Abby Kennedy is working on plans for NCW. If you are interested in helping her with NCW, please contact her at [akennedy@exelixis.com](mailto:akennedy@exelixis.com).



Berkeley, valued at \$32,000, for all of her undergraduate years.

She also got eight other scholarships valued from one to five thousand dollars that were mostly community service based. And last but not least, she got a \$5,000 scholarship from the ACS national office, thanks to her participation in Project SEED.

She notes that Spakowitz and Cordella helped her a lot throughout her college application process, and provided her with lots of advice, something she will never forget. She says that thanks to the Stanford staff, she is now successful at Berkeley!

The members of the Executive Committee are extremely pleased with her success, and are glad they had a hand in it, and we hope that our general membership is, too!

## SEED Success Story

Project SEED (the acronym has been defined in a variety of ways) was established in 1968 by the ACS to help economically disadvantaged high school students expand their education and career outlooks. The program provides opportunities for students entering their junior or senior years in high school, who historically lack exposure to scientific careers, to spend a summer conducting hands-on research with scientists in academic, industry, and government research laboratories. For many Project SEED students, it provides their first chance even to see such a laboratory, let alone actually work in one.

In 2009 and again in 2010, the Santa Clara Valley Section, through the Executive Committee (ExComm), has contributed to the financial support for Project SEED students working in the Chemistry and Chemical Engineering Departments at Stanford University.

Kaye Storm, Director of the Office of Science Outreach at Stanford, has coordinated the project. Kaye wrote an inspiring

note to one of the ExComm members about Jen Cabello, one of the 2009 interns. Jen has just completed her senior year at Sequoia High School in Redwood City, and will enter U.C. Berkeley this fall as a freshman. She is a Latina first-generation immigrant from a very low income family and "smart as all get-out: a wonderful and deserving young lady."

For her internship, Jen worked with the Spakowitz Chemical Engineering Laboratory on a collaboration with the school at the Lucile Packard Children's Hospital (LPCH) at Stanford to develop a science curriculum for middle school and high school students being treated for childhood cancer and other life-threatening illnesses. Jen implemented computer models into the chemistry teaching modules, developed computer-based "laboratory" protocols, and assessed the use of computer models as a teaching tool. She helped test and refine many lessons and also developed at least one science lesson herself for use in the LPCH school. The collaboration is described at [www.stanford.edu/~ajspakow/page20/page20.html](http://www.stanford.edu/~ajspakow/page20/page20.html)

Jen herself writes that she is already at Berkeley for summer school. She says that it has been a great experience with a heavy load of work, but awesome nevertheless. She received numerous scholarships, thanks to letters written by Andrew Spakowitz (her faculty host) and Nick Cordella (her graduate student mentor) at Stanford, including the Incentive Award, a full scholarship to



# Fourteen SCVACS Members That Were Honored at Our Annual Picnic Congratulations to All of These Members for Their Dedication to Science

Photos courtesy of Lois Durham and Karl Marhenke



Carlyle Shoemaker, 65 yrs.



Carol Mosher, 65 yrs.



Saul Chaikin, 65 yrs.



William Stanley, 65 yrs.



Robert Landel, 60 yrs.



Robert Perry Jr., 60 yrs.



Le Roy Johnson, 50 yrs.



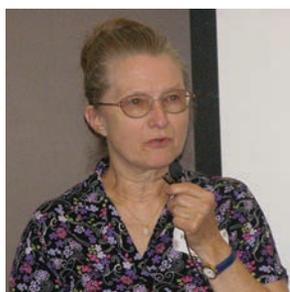
David Myhre, 50 yrs.



Don DeJohng, 50 yrs.



Herman Weyland, 50 yrs.



Mary Jane Wegener,  
50 yrs.



Oleg Jardetzky, 50 yrs.



Paul Barkan, 50 yrs.



Robert Schwaar, 50 yrs.

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## 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 August

Dr. Dane A. Boysen  
Ellie Brockman  
Eda Canales  
Emma M. Cating  
Ka Lee Chau  
William S. Coats  
Britton K. Corkey  
Oliver B. Filipinas  
Elaine T. Grief  
Chaitanya Gupta  
Dr. Chong Han

Steven Paul Hananouchi  
Huiyong Hu  
Lan Hua  
David E. Kage  
Afram Kirmiz  
Isha Leigh Kuhns  
Dr. Hsien-Ming Lee  
Christopher Kroboth Materese  
Jianguo Mei  
Kathy Nakamatsu  
Dr. Thierry Nivaggioli

Daniel A. Poulsen  
Dr. Ramani R. Ranatunge  
Andrew V. Razgulin  
Jean M. Sanabria-Chinchilla  
Kumuda Padavu Shenoy  
Dr. Vickie Tsui  
Sunandini Velpula  
Dr. Xiaoyan Wang  
Remus Wong  
Dr. Jianyu Zhu

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## 2010 Election Information

In this year's election, we need to choose a new Chair Elect, and we need to elect or re-elect a Secretary and a Treasurer.

We also have two Councilors and two Alternate Councilors whose terms end on Friday, December 31, 2010, so we have to fill or refill those vacancies, too.

The Nominations and Elections Committee has put Natalie McClure on the ballot for Chair Elect. They have also put our present Secretary, Karl Marhenke, and our present Treasurer, Ihab Darwish, on the ballot for re-election. Finally, the Committee has put George Lechner and Herb Silber on the ballot for re-election as Councilors, and Mark Kent and Harry Ungar for re-election as Alternate Councilors.

Thus, again this year, all candidates will run unopposed. That is, they will be unopposed unless you do something

about it. Every year we receive complaints about our unopposed races. We believe that our election turnouts would be larger if we had some contested races, so we feel that the complaints have some merit. So here's what you can do: run for one of these positions yourself, or get a friend, acquaintance, or colleague to run.

Getting on the ballot is simple: you file a petition by mailing it to the Secretary. It takes the signatures of only 15 Santa Clara Valley Section members to place a name on the ballot. One of the 15 can even be the candidate herself or himself. All we need is a sheet of paper with the name of the office, the name of the proposed candidate, and the signatures and printed names (so that we can read them and verify their eligibility to sign) of 15 or more Section members.

Send your petitions to: Karl Marhenke, Secretary, Santa Clara Valley Section, ACS, 1710 Wilshire Dr., Aptos,

CA 95003-2836.

Petitions must be received by Thursday, September 30, 2010.

Section Affiliates are ineligible to participate in the election in any way.

Student Members cannot run for Councilor or Alternate Councilor, but can run for Chair Elect, Secretary, or Treasurer, and they can sign petitions and they can vote.

All other members can sign petitions, run for any office, and vote.

The only candidate qualifications are that the candidate must:

- 1) be a member of the Santa Clara Valley Section, and
- 2) be willing to serve if elected.

Number 2 is the hard one! It's the main reason we have so many unopposed elections.

Why not see if you can do better than the Nominations and Elections Committee?

## CHEMPLOYMENT ABSTRACTS SEPTEMBER 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 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).





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

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<http://www.scvacs.org>

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

## SANTA CLARA VALLEY SECTION

### 2010 Section Officers

Chair	<b>Bruce Raby</b>	408-294-6718	bruceraby@att.net
Chair-Elect	<b>Abby Kennedy</b>	209-640-2005	akennedy@att.net
Past Chair	<b>Natalie McClure</b>	650-906-7831	nmclure@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	bruceraby@att.net
2010-2012	<b>Lois Durham</b>	650-322-3507	ldurham9398@sbcglobal.net
2010-2012	<b>Natalie McClure</b>	650-906-7831	nmclure@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

- Sep 23** SCV Dinner Meeting  
Dr. Lynette Cegelski,  
Stanford University  
Elan Pharmaceuticals  
South San Francisco, CA
- Oct 14** SCV Dinner Meeting  
Dr. Toby Freedman, Debbie Brennan  
Career Opportunities in Biotechnology  
Cañada College, Redwood City, CA
- Oct 23** National Chemistry Week Celebration  
Public Outreach 10 am to 1 pm  
Martin Luther King Jr. Library  
San Jose, CA
- Oct 23** Dr. Donald Showalter  
Dr. Marvin Lang  
Dazzling Chemistry Show  
Duncan Hall, San José State University
- Oct 23** Dr. Joe Francisco  
President of the American  
Chemical Society  
Teacher-Scholar Award Program  
Biltmore Hotel, Santa Clara, CA