

Silicon Valley Chemist

Santa Clara Valley Section

American Chemical Society

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DECEMBER 2006 NEWSLETTER TOPICS

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January Dinner Meeting

Date: Thursday, January 18, 2007

Time: 6:00 Social Hour

7:00 Dinner

8:00 Lecture

Location: Biltmore Hotel & Suites
2151 Laurelwood Blvd.
Santa Clara, CA 95054

Speaker: Dr. Peter Stang
"Dr. Bob Parry – Remembered"

Cost: \$27.00 with the choice of Chicken Parmesan or Pasta Primavera includes wine with dinner.

Reservations: www.scvacs.org
Shirley Radding
408-246-2564

Reservations should be made by January 15th, 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 Wednesday, January 17th, you will be invoiced following the dinner meeting.

January Dinner Meeting Chemical Publishing in the 21st Century Perspectives of a JACS Editor

Dr. Peter J. Stang

Abstract

In his presentation to the Santa Clara Valley Section of the ACS, Dr. Stang will provide an overview of the history of scientific publishing, and will then discuss the specific of challenges of publishing the Journal of the American Chemical Society (JACS). Founded in 1879, the Journal of the American Chemical Society is the flagship journal of the American Chemical Society and the premier worldwide medium for the publication of fundamental research in all areas of the chemical sciences. With 257,810 total citations in 2005, JACS is far and away the most cited journal in the field. Devoted to the publication of the best research papers in all fields of chemistry JACS published 3,391 articles in 2005, more than 18,000 pages of new chemistry for the year. It is thus important that the ACS and JACS in particular, keep abreast and take full advantage of the latest advances in publishing. It is with this in mind that in the last couple of years JACS has already introduced and will continue to make changes to keep at the forefront of chemical publications.

Biography

Dr. Peter Stang is Distinguished Professor of Chemistry at University of Utah, Dean of the College of Science at the University of Utah and Editor-in-Chief of the Journal of the American Chemical Society (JACS).

Peter Stang obtained his Ph.D. with Professor Andrew Streitwieser

at the University of California at Berkeley in 1966 and was a post-doctoral fellow with Professor Paul

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Robert W. Parry 2006 Harry and Carol Mosher Award Winner

The recipient of the 2006 Harry and Carol Mosher Award is Robert W. Parry, Distinguished Professor, Emeritus, University of Utah. Unfortunately, Dr. Parry recently passed away on December 1st due to a stroke suffered on November 23rd. Dr. Parry was 89 years old and is survived by his wife of 61 years, Marjorie; two sons; and five grandchildren. The local section sends its sincere condolences to Dr. Parry's family. We are comforted by the fact that Dr. Parry was aware that he was the recipient of this award prior to his death. Dr. Parry will be honored at the January SVACS dinner through a presentation given by his former colleague, Dr. Peter Stang current editor of the Journal of the American Chemical Society. The honorarium and Mosher award plaque will be presented to Dr. Parry's family at a future date.

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Schleyer and a Lecturer at Princeton University prior to arriving at Utah in 1969. His academic appointments include serving as department chair, and presently, Dean of the College of Science. Over the past 40 years, he has made numerous seminal contributions to diverse areas of physical organic and synthetic chemistry. His pioneering achievements include the first preparation of vinyl triflates in the late 1960's and 1970's; the first examples of highly strained alkyl-dienecycloproprenes in the 1980's and 1990's, and several major advances in supramolecular chemistry, self-assembly and organometallic chemistry from the 1990's to the present.

He has authored or co-authored nearly 400 publications, including six monographs and three dozen reviews. His record of service to the chemical community is also exemplary, including participation in numerous national and international panels and committees. He has mentored 43 postdoctoral associates, 31 PhD students, and 7 MS students. In 2006, Dr. Stang was awarded the Linus Pauling Medal. The Linus Pauling Medal is given annually by the Oregon, Portland and Puget Sound Sections of the American Chemical Society. The award recognizes outstanding accomplishments in chemistry in the spirit of and in honor of Linus Pauling. Dr. Stang's previous recognitions include the ACS George A. Olah Award in Hydrocarbon Chemistry, the ACS James Flack Norris Award in Physical Organic Chemistry, the 1994 ACS Utah Section Award, along with numerous other honors. He is a member of the US National Academy of Sciences and the American Academy of Arts and Sciences. Peter Stang was born in 1941 in Nürnberg, Germany and became a naturalized US citizen in 1962. He and his wife Christine have two daughters.

Chair's Message

Well, 2007 is upon us. As we embark on a new adventure into a new year and as I assume the chair position of our local section, I want to thank Dave Parker for his guidance and leadership throughout 2006 as Section Chair. And thanks also to the Executive Committee and Volunteers who helped make 2006 a successful year.

Our program for 2007 is shaping up nicely with a number of guests from the ACS Speakers' Service planning to address us with a variety of topics, such as, Impact!, The H. L. Hunley, Energy in the 21st Century, Molecular Frontiers, Glitter and Forensics, Atmospheric Chemistry and Chemical Magic and maybe even a talk from our local 2006 Nobel Prize winner in Chemistry. The annual picnic for members and families will be in July. Plan to attend.

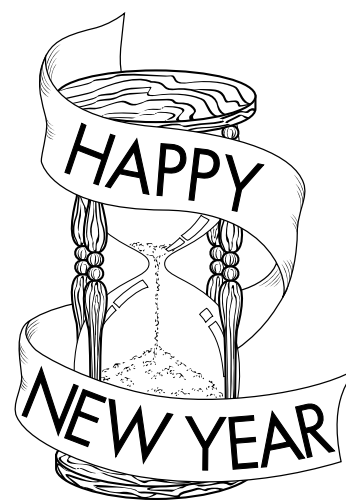
If you remember the survey we took in 2005, a variety of program topics was considered to be very important when members considered attending a dinner meeting or the talk afterwards. I tried to address this in the selection of topics listed above. The speakers are popular within ACS and come with good credentials. Please keep your focus on our monthly meetings and events by checking the website frequently. If you can, please plan to participate by offering your presence and assistance. We need help with National Chemistry Week activities, judging for science fairs, the Teachers' Workshop at Roche, Chemistry Olympiad, ChemPloyment and volunteers on the various section committees. Contact someone on the Executive Committee if you have any questions or offerings. There are opportunities for Women Chemists,

Young Chemists, Retired Chemists, and chemists in many other areas: analytical, biotech, pharmaceutical, environmental, medicinal, and computational. Don't forget about those chemists teaching chemistry at various levels, or chemists involved with polymers, organic, inorganic, and physical chemistries, and even emerging chemistry, such as in the area of nanotechnology. I didn't mention ALL chemistries, but then, doesn't just Chemistry cover it all?

The Executive Committee recently approved the development of electronic voting within the Section to help make voting for officers and on other Section matters easier and less costly. So, watch for a report next month on the status of this effort. The process will require that the membership vote on the issue via the regular, old, mail ballot method—hopefully one last time. For those who do not have electronic capabilities, i.e., a computer with Internet connection, make sure we know so that you will be kept in the "loop." We need your input. Watch for details.

I look forward to meeting you at a dinner meeting or at one of our events during the year.

George Lechner
Chair - 2007



SUPPORT OUR LOCAL SCIENCE FAIRS and Put a Human Face on Chemistry - YOURS!

Howard Peters

Change happens. In the last century ACS at the national level has not been particularly active in supporting science fairs. However, three years ago ACS made a historic vote to change the ACS Constitution and Bylaws to encourage and welcome high school chemistry teachers into ACS. Since then a sea change has occurred. 2005 ACS President Bill Carroll repeatedly states that high school teachers motivate many students to pursue the study of the chemical sciences. He also adds that over 50% of present day high school teachers don't have a degree in chemistry. Consider also that over 50% of present ACS members only receive and read C&E News - period. That is - over 80,000 ACS members take part in no other ACS service or function - not even voting. Fortunately, this is changing. The Hach Foundation of Loveland CO has helped develop a brand new program to assist chemist to become high school teachers (see www.hachscientificfoundation.org). I also encourage our local section and division members to increase their outreach and programs to welcome this important new group of high school teachers. Similarly, some ACS local sections and individual ACS members have been involved with science fairs for years - and they are to be commended and encouraged to continue. In many cases, the first practicing chemist that a high school student will meet will be the judge at the local science fair.

A Newsweek article three years ago argued that American students are no longer interested in science and engineering. This was echoed in the 2005 report from the National Academy of Sciences Report "Rising Above the Gathering Storm." However, judges at science fairs are able to see first-hand the incredible level of focus, energy, sophistication, intelligence, commitment and diversity in the entrants' projects. These are our science stars of tomorrow and

they need to be encouraged now.

ACS members can learn when and where science fairs will be held by calling their local schools or by going on the web. For instance, in our local area of the Silicon Valley we have many science fairs and activities to choose from over the next few weeks. I have been active for the past 7 years in local and national science and engineering fairs. It started when I became a member of the organizing committee, as well as a judge at the local George Washington Carver Science Fair in 2000. My participation expanded when I was invited to be a judge at the Intel ISEF in San Jose in 2001. (Many thanks to the arm-twisting of one Dr. Roy Okuda of SJSU - to get me out of my comfort zone.) I have since been an invited judge at ISEF in Louisville, KY, Cleveland, OH, Portland, OR, Phoenix AZ, and Indianapolis IN from 2002-2006. I recently learned that I have been approved to be a judge at ISEF in Albuquerque.

What is involved with being a judge? You can be approved in a matter of days if you have 6 or more years of technical experience. A Ph.D. is useful, but is not a requirement. Historically chemists have been the largest and broadest group of judges - and they can be relied upon to show up! You travel and volunteer on your own time and at your own expense. The format for the upcoming ISEF fair in Albuquerque should follow that of past years. Twelve hundred students from around the world along with teachers, parents and chaperones arrive and set up their projects. The judges show up at the Albuquerque Convention Center on a Tuesday to register. By then the exhibits are up and can be viewed and studied without the students present. After a quick box dinner, the judges have the opportunity to ask questions of a panel of 5-6 invited scientists, all of whom are holders of a Nobel Prize. Dr. Dudley Herschbach, Chemistry

Professor Emeritus at Harvard (Nobel, 1985), is a trustee of ISEF and is always present. (FYI-He grew up in San Jose and received his BS from Stanford before moving on to Harvard.)

Next, there is a detailed discussion of the judging process to make certain the judges understand the uniform criteria that are to be used. On Wednesday the science projects are then judged with the students present until about 6 pm followed by a dinner and later a reception-mixer for the judges. On Thursday the public is invited to view the exhibits and the national organizations and universities doing the special judging make their award presentations. On Friday the Intel sponsored and funded Grand Awards are made - the top three students over all the categories receive a \$50,000 scholarship and an all-expense paid trip in December to the Nobel Prize Award ceremony in Stockholm. ACS will again have an information booth at the upcoming ISEF for student attendees, teachers, judges, and for the general public. The ACS annual student awards for projects at ISEF now total over \$10,000.

On a personal level, my education, specifically my chemistry education, has been the basis for my career as a chemical patent attorney. The ability to analyze and understand technical data and take it apart and recombine it in new ways are important skills honed in chemistry that have great value in many professions. And as a high school student nearly 50 years ago in Pennsylvania, I was a science fair participant at Penn State and Bucknell. I never won anything, but the technical lessons I learned were and are invaluable.

Again, I encourage you to take part in our local, state and international science fairs. I have always gotten more value back from my volunteer-

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ing as a judge for science fairs than my time, money and energy investment - and so will you. Below is a list of 2007 science fairs and activities in and near our Silicon Valley:

- San Carlos Science Fair (Jan. 20-24) at the Tierra Linda old Gym in an Carlos <http://treasure.sancarlos.k12.ca.us/2005ScienceFairweb/index.html>
- Monterey Bay Science and Engineering Fair (March 16-18) at CSU-Monterey Bay <http://www.montereycountysciencefair.com/>
- Santa Cruz County Science Fair (March 17) at Santa Cruz City Auditorium at the Santa Cruz Science Center <http://science.santacruz.k12.ca.us/>
- Sciencepalooza (March 3 morning) Santa Clara County Fair Grounds <http://www.outreach1oundation.org/judges.html>
- Synopsis Championship (March 14 judging) at the San Jose Convention Center in San Jose <http://synopsys.championship.googlepages.com/>
- San Francisco Science Fair (March 24 for judging) at the San Francisco County Fair Building <http://home.pacbell.net/sfbasf/>
- Intel International Science and Engineering Fair (May 15-16) at the Convention Center in Albuquerque NM <http://www.sciserv.org/isef>
- California State Science Fair (May 21-22) at the Cal Science Center in Los Angeles <http://www.usc.edu/CSSF>

Call for Nominations: The Patterson-Crane Award

Do you have a colleague whom you feel should be acknowledged for their work in chemical information? The Dayton and Columbus Sections of the American Chemical Society, which sponsor the Patterson-Crane Award, would like to hear from you. The biennial award consists of a \$2,000 honorarium and a personalized commendation and is to be presented in the Spring of 2007 at an awards dinner to be held in Columbus, Ohio. The recipient is expected to give an address at the time of the award presentation.

Award Criteria

Nominees, who need not hold ACS membership, should demonstrate outstanding achievement in the field of chemical information science. Contributions of international significance may relate to:

- Design, development, production, or management of chemical information systems or services.
- Electronic access to and retrieval of chemical information; critically evaluated data compilations.
- Information technology applications in chemistry or other significant chemical documentation, including production of original works, editorial work, or chemical library work.

Nominations for the award must be in writing and may be sent either hard copy or via email.

They should discuss the nominee's contributions to the field as well as an evaluation of accomplishments. Materials supporting the nomination should include a biography and bibliography of publications and presentations. Seconding letters are required and may also be sent either hard copy or via email.

Send the nomination materials to Dr. Theresa Huston, Chair of the Patterson-Crane Award Committee, (thuston@cas.org or CAS, P.O. Box 3012, Columbus OH 43210) for receipt by 31 January 2007. To receive more information about this award, contact Dr. Huston (614-447-3600, ext. 3354).

Nominations will be judged by a seven-member selection committee consisting of Dayton and Columbus Section members as well as the Chair of the American Chemical Society's Division of Chemical Information.

The Patterson-Crane Award is international in scope and given in honor of two outstanding members of the Sections: Austin M. Patterson (1876-1956) and E.J. Crane (1889-1966), who were both Editors of Chemical Abstracts Service.

Busy High School Chemistry Students in Salinas

John Chipley and his chemistry students at Palma High School have a really ambitious year planned! (Palma is a 50+ year-old Catholic college prep school located in Salinas.) In 2006 John single-handedly organized the first Palma Junior and Senior High Science Fair at the school. It was so successful that they are repeating it in February, 2007. This year the event will be spread over several afternoons the week of the 5th through the 9th. John is training his 'upper level' students and last years winners to be judges this year. If you have some free time that week, they could use some additional adult judges in the science/chemistry area. Contact John for more information at chipley@palmahs.org

Bruce Raby and Sally Peters participated as judges last year. It was my first time to judge a science fair and I found it to be fun and educational! So, if you are in the Salinas area help John and his students by volunteering to be a judge.

In addition, the boys have formed one of the first "Chemistry Clubs" in the area and have 20 members. A trip to the Tech Museum is planned. Do not be surprised if some of them attend one of our dinner meetings! John's Chemistry Olympiad team is meeting frequently to become prepared for the rigors of the tests in March and April. Palma had a finalist at the regional meeting in 2006! The school currently does not offer AP Chemistry, but John is working on that, too!

Sally Peters



ACS Launches Social Networking Site

In late 2006, the American Chemical Society launched a new social networking site targeted to professionals, students, and researchers interested in and working in biotechnology.

BiotechExchange.org provides individuals the opportunity to meet, dialogue, discuss, debate, and interact with other researchers and professionals involved in discovery and process development for the pharmaceutical and bio-based materials industries. BiotechExchange.org provides a forum to share information, identify opportunities, and seek collaborations with fellow scientists and industry professionals.

Features on the site include:

- Pre-meeting information from event organizers
- On-site blogs from event attendees
- Virtual poster sessions (including peer-review)
- Audio casts, news feeds, and journal article summaries

In addition, the site will permit the creation of special interest groups.

These enable smaller collections of individuals to gather and share spe-

cialized information of interest. More information regarding the creation of groups may be found at www.biotechexchange.org.

Chemistry in Cancer Research A Vital Partnership

February 4-7, 2007 - San Diego, CA

Chemistry plays a critical role in research on cancer diagnosis, prevention, and treatment. The American Chemical Society (ACS) and the American Association for Cancer Research (AACR) have organized a joint conference to provide a forum for research discussions among chemists with cancer research interests. A major goal of the conference is to increase awareness in young chemists of the exciting career opportunities that exist in the field of cancer research.

This conference will feature research and educational lectures by prominent leaders in several key chemically oriented areas of cancer

research such as drug discovery, proteomics, the chemical biology of carcinogenesis, biomarkers and analytical chemistry, modeling and bioinformatics, and structural biology. Each session will include two symposium talks, followed by short presentations from abstracts submitted by young investigators. We anticipate that this conference will energize younger chemical investigators and inform them of the many opportunities to apply the power of chemistry to important problems in cancer research.

For more information and to view the conference program, please go to www.chemistryincancerresearch.org.

CHEMPLOYMENT ABSTRACTS JANUARY 2007

CHEMPLOYMENT ABSTRACT 3878

Position Title: Chemist

Job Description: In this pivotal role, you will design/synthesize novel organic molecules as drug candidates, interact with biologists & pharmacologists on project teams, & utilize bioassay results to expedite our drug discovery process.

QUALIFICATIONS DESIRED:

Education: BS/MS in chemistry with 5-10 years of medicinal chemistry experience, OR a Ph.D. in organic chemistry with 0-5 years of postdoctoral experience in organic synthesis or equivalent.

Experience: Excellent spectroscopic skills (NMR, MS) and a solid understanding of separation (HPLC, flash chromatography) methods are a must. Strong interpersonal & problem-solving skills are essential. Experience with process development/parallel synthesis is a plus.

LOCATION, SALARY, MAIL ADDRESS:

Job Location: Hayward, CA

Salary: DOE

Employer Description: Metabolex Inc., a privately held biotechnology company located in the San Francisco Bay area, is engaged in the discovery and development of novel therapeutics for the treatment of diabetes and related metabolic diseases.

Application Instructions: Metabolex, Inc., HR Department, 3876 Bay Center Place, Hayward, CA 94545 FAX: (510) 293-6857 email: jobs@metabolex.com

CHEMPLOYMENT ABSTRACT 3879

Position Title: Chemistry and Process R&D

Job Description: Participate in the development of new technologies for DNA microarrays using photolithography and solid-supported DNA synthesis chemistry. Responsibilities involve preparation and analysis of experimental reagents, equipment and procedures for array fabrication; planning and execution of experiments; and analysis and reporting of experimental results.

QUALIFICATIONS DESIRED:

Education: B.S. or M.S.

Experience: 3 years of relevant work experience demonstrating a hands-on proficiency in organic or analytical chemistry or biochemistry; an affinity towards instrumentation, and general competence with modern analytical methods. Also desirable is a familiarity with contemporary microlithography concepts and procedures. Excellent organizational, communication skills essential.

LOCATION, SALARY, MAIL ADDRESS:

Job Location: Santa Clara, CA

Salary: market/D.O.E.

Employer Description: Industry leader in high-density DNA microarray technology for genetic analysis.

Application Instructions: go to <http://www.affymetrix.com/corporate/careers>



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FUTURE MEETINGS

Mark your calendars for these great upcoming events.

- | | |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| Jan 18 | SCV Dinner Meeting
Biltmore Hotel & Suites
Santa Clara, CA |
| Jan 31 | CA Section Dinner Meeting
http://www.calacs.org/calendar/JanMeet07.html |
| Feb 5-9 | 2nd Annual Palma High
Science Fair
Salinas, CA |
| Feb 7 | “IMPACT! Evolution of Planets”
Dr. Steven Dutch, University of
Wisconsin – Green Bay
Location TBD |
| Feb 21 | BioScience Forum meeting
www.biosf.org/programs.btm |
| Mar – Apr | Chemistry Olympiad
Local Section exam administration |
| Mar 25-29 | 223rd ACS National Meeting
Chicago, IL |
| Apr 28 | 2007 UNCO National Exam
Santa Clara University |