Newsletter November 2002

Silicon Valley Chemist

Santa Clara Valley Section American Chemical Society

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Chair's Message

At the time of this writing, we have yet to celebrate National Chemistry Week, so you'll have to wait for December's newsletter to see how things went. This month's dinner meeting speaker is James P. Collman, the George A. and Hilda M. Daubert Professor of Chemistry at Stanford. Prof. Collman will speak on the topic of his book, Naturally Dangerous: Surprising Facts About Food, Health and the Environment (for more information on the book see ***www.uscibooks.com***, and for an informative review see ***www.stanford.edu/dept/news/report/news/september26/ dangerous-926.html***). The book aims to dispel the myth that "all natural" means safe. The talk will be Thursday, November 21 at the Biltmore Hotel. For more information and reservations, see the "meetings" page at our web site: ***www.scvacs.org***.

I just read the cover story in the Autumn edition of the ACS newspaper Chemistry (***http://chemistry.org/Chemistry***). It's entitled "Building a Better Battery," and chronicles the development of and recent advances in battery technology. It reminded me of the days when the Handbook of Batteries & Fuel Cells sat within reach on my desk. I was a post doc working on the fuel cell Holy Grail: a catalyst that would lower the overpotential for methanol oxidation. In theory, methanol should be oxidized at a potential very close to where hydrogen is oxidized. A catalyst that could make theory reality would allow for a direct methanol fuel cell. This would be a fuel cell where the fuel itself is oxidized, instead of being reformed into hydrogen. Such a fuel cell could be small, light, and inexpensive to produce. But it all depends on having the right catalyst. We didn't make that catalyst, and I'm not sure we were meant to. The promise of a direct methanol fuel cell stimulated the research and the funding, but the science was basic science. Nevertheless, the promise of a wildly efficient, simple fuel cell kept me day dreaming of a future of silent cars, where methanol stations replaced gasoline stations, and where the United States was free from its dependence on foreign oil. Now I'm not so sure that a direct methanol fuel cell would usher in a problem free future.

Time has given me perspective on some of the difficulties that would accompany large-scale implementation of such a power plant. It's hard enough to remediate leaks and spills of gasoline, imagine the clean up issues of a water-soluble molecule. A gleaming new age methanol station, while friendly to the air, could do damage to the water. We have certainly seen the difficulties involved in removing MTBE from contaminated water sources. Come to think of it, while the byproducts of methanol oxidation would probably be less of an air pollution hazard than gasoline's combustion products, methanol itself

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Reminder
November Dinner Meeting

On Thursday, November 21st Dr. Collman will speaking on his recently published book, "Naturally Dangerous, Surprising Facts About Food, Health, and the Environment". The dinner and the lecture will be held at the Biltmore Hotel and Suites in Santa Clara. Social hour will start at 6:00 pm.

Please join us! Register by November 18th, using the section's website (***www.scvacs.org***) or by contacting Shirley Radding (408-246-2564, 408-296-8625 FAX).

Call for Volunteer Judges and Assistants

Dr. George Washington Carver Recognition Day Science Fair and Carver Kidvention

Date: Saturday, January 4, 2003
Time: 8:00 am - 1:30 pm
Place: Santa Clara Convention Center
(includes continental breakfast/coffee and lunch)

The local section has assisted these important events for the past four years; now, you can too! If you can help, please contact Dr. Howard Peters as soon as possible for more information (peters4pa@aol.com or 650-324-1677 x3).

Chair Message, continued from front page

would certainly pose an air pollution hazard. Maybe the promise of a direct methanol fuel cell isn't as perfect as I remember, but that doesn't mean that achieving one is not a worthwhile goal. In fact, a quick Google search appears to show that JPL has developed "a micro direct methanol fuel cell" for running portable electronic devices (***www.jpl.nasa.gov/releases/2002/release_2002_94.html***).

At the time I started the project, the U.S. had just started the bombing campaign in the Gulf War. Energy independence was just as attractive then as it is now. Maybe we can achieve this with alternative fuels and new fuel cell technology. The less sexy approaches would probably help to: conservation plus building and buying cars with greater fuel economy.

PATENT TRUTHS
Wills, Gifts, Trust and Estate

1. Much as been made in the business news recently concerning the Hershey Chocolate Company and the fabulously wealthy trust that still owns and controls the largest chunk of the voting stock. One of A Kind Milton S. Hershey, a local German Mennonite, was originally considered a ne'er-do-well who finally focused and created a caramel candy company. He sold out this candy company in Lancaster, PA about 1898 for about $1 million. These funds were used to create the Hershey Chocolate Company in Hershey, PA in 1903. At about age 40, he married Catharine (Kitty) Sweeney. To the surprise of everyone, she was a fun-loving vivacious Irish-American Roman Catholic girl from New York State - and probably a diabetic. They had no children and together they created the Hershey Industrial School in Hershey for homeless boys. She died in 1915 and, soon thereafter, Hershey transferred most of his ownership of the stock to the Trust for the Industrial School. He never remarried. During World War II he single-handedly made a Hershey bar a part every Allied soldier's daily C-rations - and created a very loyal following. He died still running Hershey in 1945 at age 88. The School and the Trust continued to prosper.

About 1960, the State of Pennsylvania took the trust to court charging that they were not spending the trust income fast enough. The Trust complied and created the Milton S. Hershey Medical School and Center with a $50 million gift in Hershey, which is now operated by Penn State University. After the recent news events, I think we will soon see the State go again to the Trust to distribute another large part of its $5,000,000,000 endowment.

Milton Hershey had one U.S. Patent No. 1,740,693. If you can understand it, then you are a better patent attorney than I. He preferred trade secrets to protect his chocolate products. Remember this is the same man who refused to advertise and said, "Why advertise? Doesn't everyone see our candy wrappers on the ground?"

2. Gordon Battelle's will in the 1920's left significant funds to improve the welfare of the citizens of Columbus and Ohio. The trustees in 1925 created Battelle Memorial Institute (BMI) in Columbus to provide technology, jobs, etc. - very important during the 30's. By 1950s, Battelle had joined a risky commercial development effort with Chester Carlson and Haloid, a small Rochester NY printing firm to automate dry ink copying. The project was a huge success and the company changed its name to XEROX. At one point in time, Battelle was the single largest holder of XEROX stock. It was such a burden the State of Ohio stepped forward in the courts to reinterpret Battelle's will - the welfare of the citizens of Columbus needed to be more improved. The $80,000,000 Columbus Convention Center was built almost entirely with XEROX stock proceeds. Battelle continues to prosper as a non-profit research institute (***www.battelle.org***).

Division of Business Development and Management

The Technical Division of Business Development and Management (BMGT– we know, the acronym isn't obvious to us either) is one of two business-focused divisions in the ACS (the other is the Division of Small Chemical Business) and is the only one to address general business issues. Its mission is straightforward: to champion improved business development and management of the chemical enterprise.

BMGT traces its roots back over 50 years. In the early 1940s, a group of chemical engineers formed the Technical Service Group of the Chemical Industry (later the Commercial Chemical Development Association). During 1946, members of the Technical Service Group tried to get the membership requirements lowered to bring in younger people working in field service and chemical marketing. The move failed, but the interested members then explored the possibility of setting up a parallel group in the ACS, with the Technical Service Group to provide guidance. The result was the formation, in 1947, of the chemical marketing section of the ACS Division of Industrial & Engineering Chemistry. The section became a subdivision of the I&EC division in 1950. Membership grew and the ACS Division of Chemical Marketing and Economics was formed in September 1952 becoming today's BMGT.

After several dormant years, the division held a planning session in 2000 and began to lay groundwork for revitalization. Officers were elected in 2001, and the Division sponsored programming at both ACS National Meetings in 2002: a section of the Industrial Pavilion in Orlando and both general paper sessions and a Technology Transfer workshop in Boston. There are currently over 1100 members from chemical companies around the world. A new website was established in 2001, as well (***www.chemicalenterprise.com***). Currently, there are links to sites and articles of interest and discussion boards for members will launched soon. The division is planning its programming for 2003, and is looking for both ideas on topics of interest to ACS members and volunteers to assist with the many activities involved in revitalizing the division. If you are interested, please visit the website, or contact Tom Lenk, our Chair-Elect for 2003 at tlenk@prtm.com.

CHEMPLOYMENT ABSTRACTS — NOVEMBER 2002

CHEMPLOYMENT ABSTRACTS 3698

Position Title: Laboratory Technician

Job Description: Preparation & analysis of Pheromone-based formulations & microbiological testing.

Qualifications Desired:
Education: BS
Experience: Microbiology and/or Chemistry background. Basic laboratory skills. Experience with GC/HPLC desirable. Demonstrated discipline with record keeping and reasonable communication skills.

LOCATION, SALARY, MAIL ADDRESS
Location: Monterey area (Salinas)
Salary: Competitive salary and benefits
Description of Employer: Leading supplier of pheromone-based products globally, conducts R&D, manufactures and markets a wide range of related products.

Application Instructions: Send resume and salary requirements to:
Richard Todd
Trece, Incorporated
P.O. Box 6278
Salinas, CA
Fax: (831) 759-4837
Email: rtodd@trece.com

CHEMPLOYMENT ABSTRACTS 3699

Position Title: Analytical Chemist

Job Description: Preparation & analysis of pheromone-based formulations & pesticide residue analyses.

QUALIFICATIONS DESIRED
Education: BS or Masters Degree in Chemistry
Experience: Minimum three years analytical laboratory experience. Formulations experience desirable. Exp with GC/MS/HPLC/other. Demonstrated discipline with record keeping & communications skills

LOCATION, SALARY, MAIL ADDRESS
Location: Monterey area (Salinas)
Salary: Competitive salary and benefits
Description of Employer: Leading supplier of pheromone-based products globally, conducts R&D, manufactures and markets a wide range of related products.

Application Instructions: Send resume and salary requirements to:
Richard Todd
Trece, Incorporated
P.O. Box 6278
Salinas, CA 93912
Fax: (831) 759-4837
Email: rtodd@trece.com

CHEMPLOYMENT ABSTRACT 3700

Position Title: Sr. Scientist/Asst. Director, Medicinal Chemistry CH003

Job Description: Responsible for directing the efforts of a med chem team to discover & optimize novel small molecule drugs directed toward cancer & immune-mediated disease targets. Will work in multi-disciplinary setting to establish res goals along with planning & implementing new drug discovery projects.

QUALIFICATIONS DESIRED
Education: Ph.D degree in org chem, 5 yrs of ind exper or 8 yrs of acad exp after post doc
Experience: Small molecule drug discovery exp, proven success record of scientific achievement evidenced by patents, publications, and participation in clinical candidate selection in one or more med chem progs. Must have strong leadership abilities, excellent communication skills, and exp with modern techniques of parallel synthesis & purification.

LOCATION, SALARY, MAIL ADDRESS
Location: Palo Alto, CA
Salary: Open
Description of Employer: Affymax, Inc. is a privately held biopharm company.

Application Instructions: Send your CV to:
Affymax Inc., Attn: HR
4001 Miranda Avenue,
Palo Alto, CA 94304
EMAIL: careers@affymax.com,
FAX: 650-424-0832, www.affymax.com

CHEMPLOYMENT ABSTRACT 3701

Position Title: Scientist, Req. # 2-208

Job Description: You will join our drug metabolism department in supporting ADME studies of preclinical drug candidates. This position will be responsible for developing and conducting LC/MS/MS assays for samples from biological matrices (plasma, tissues and excreta) and from in vitro metabolism studies; identifying metabolites using mass spectrometry; operating and maintaining LCMS systems; and organizing and documenting bioanalytical data & reports.

QUALIFICATIONS DESIRED
Education: MS degree with 2+ years of exp or PhD with less than 2 years of experience.
Experience: Should be skilled in LC/MS/MS analysis of small molecules in biol samples & be experienced in biol sample prep techniques. Must be a team player and be able to think critically with strong attention to details. Must be highly motivated & be capable of working independently.

LOCATION, SALARY,MAIL ADDRESS
Location: Foster City, CA
Description of Employer: Gilead Sciences is a biopharm company that discovers, develops and commercializes therapeutics.

Application Instructions:
Apply online today at
www.gilead.com

CHEMPLOYMENT ABSTRACT 3702

Position Title: Sr. Research Scientist, Req. # RF1-329

Job Description: Direct and conduct the method development & characterization efforts for both drug substances and drug products to ensure successful completion of IND, CTX, NDA and MAA submissions.

QUALIFICATIONS DESIRED:
Education: PhD in Chem, Analytical Chem or Pharmaceutical Chemistry
Experience: 4-8 years in the pharmaceutical industry is desired. Will consider candidates with 0-3 years of exp at a non-supervisory level. The ability to characterize solid-state properties of active ingredients is a necessary skill. Development and validation of HPLC, GC and other analytical techniques is desired.

LOCATION, SALARY, MAIL ADDRESS
Location: Foster City, CA
Description of Employer: Gilead Sciences is a biopharmaceutical company that discovers, develops and commercializes therapeutics to advance the care of patients

Application Instructions
Apply online today at
www.gilead.com

CHEMPLOYMENT ABSTRACT 3703

Position Title: Analytical Chemistry Associate

Job Description: Will run HPLC & GC methods for research & QA/QC analyses of products. Will also be responsible for methods validation & custodianship of the HPLCs, GCs, and NMR.

QUALIFICATIONS DESIRED
Education: BS/MS in Chem or Analytical Chemistry
Experience: At least 2 years applicable pharmaceutical industry exp required. Exp with methods of chiral analyses (CE or HPLC) & some familiarity with NMR/MS and/or GLP/GMP desirable. Must be detail-oriented, flexible and have good verbal and written communication skills.

LOCATION, SALARY, MAIL ADDRESS
Location: Redwood City, CA
Salary: Depends on experience
Description: Wholly-owned subsidiary of Maxygen, Inc. Provider of high-value chemical products & services to the worldwide life science & fine chemical industry.

Application Instructions:
Email resume, referencing Job.#CDX-273, to jobs@maxygen.com
or mail to: Maxygen, Inc. Human Resources
Job #CDX-273,
515 Galveston Drive, Redwood City, CA 94063.
Visit our website at www.maxygen.com for further information.

CHEMPLOYMENT ABSTRACT 3704

Position Title: Analytical Chemist

Job Description: Will develop & implement HPLC/GC methods for research & QA/QC analyses of products. Will also be responsible for optimizing lab for analytical support as well as selecting & installing new additional analytical instrumentation & capabilities.

QUALIFICATIONS DESIRED
Education: MS/PhD in Chem or Analytical Chemistry
Experience: At least 5 years pharmaceutical exp with methods of chiral analyses (CE or HPLC) and mass spect. Familiarity with GLP/GMP desirable. Must be flexible, detail-oriented and have excellent verbal and written communication skills.

LOCATION, SALARY, MAIL ADDRESS:
Location: Redwood City, CA
Salary: Depends on experience
Description: Codexis is a wholly-owned subsidiary of Maxygen, Inc. & is a provider of high-value chem products and services to worldwide life science fine chem industry.

Application Instructions:
Email resume, referencing Job #CDX-274, to jobs@maxygen.com
or mail to: Maxygen, Inc., Human Resources
Job #CDX-274,
515 Galveston Drive, Redwood
City, CA 94063.
Please see our website at www.maxygen.com

CHEMPLOYMENT ABSTRACT 3705

Position Title: Process Chemist

Job Description: Will research, develop, & validate processes for prep & scale-up of pharmaceutical chemicals using biocatalysis.

QUALIFICATIONS DESIRED:
Education: PhD in Organic or Process Chemistry
Experience: Expertise in synthetic or enzymatic methods for production and/or resolution of chiral molecules required. Pharmaceutical industry experience desirable.

LOCATION, SALARY, MAIL ADDRESS:
Location: Redwood City, CA
Salary: Depends on experience
Description: Codexis is a wholly-owned subsidiary of Maxygen, Inc. & is a provider of high-value chem products & services to worldwide life science and fine chemicals industry.

Application Instructions:
Email resume, referencing Job #CDX-275, to jobs@maxygen.com
or mail to:
Maxygen, Inc., Human Resources
Job #CDX-274, 515 Galveston
Drive, Redwood
City, CA 94063.
Please see our website at www.maxygen.com.

CHEMPLOYMENT ABSTRACT 3706

Position Title: Scientist/Immuno Chemist Bioanalytical Research & Development

Job Description: Use your expertise in bioanalytical assay development/implementation to support non-clinical & clinical studies of recombinant biopharmaceuticals. Measure drug levels,detect antibodies directed against therapeutic drug, & assess pharmacodynamic biomarkers in biological matrix.

QUALIFICATIONS DESIRED
Education: Requires PhD in Cell Biology, Immunology or equivalent.
Experience: Technical proficiency, 3-5 years of exp, & knowledge of immunochemical assay design, development & optimization fundamentals are required. Excellent organization, communication & interpersonal skills are necessary and experience with a broad range of assay formats is desired.

LOCATION, SALARY, MAIL ADDRESS
Location: South San Francisco
*Description:*Genentech is at the forefront of the biotech industry, using human genetic information to discover, develop, commercialize and manufacture biotherapeutics

Application Instructions:
Refer to Job # 02-0005256 and
apply online at www.gene.com

CHEMPLOYMENT ABSTRACT 3707

Position Title: Electrochemist or Electroanalytic Chemist for Nanotechnology Team

Job Description: NASA Ames Research Center is looking for an electrochem or electro-analytical chem to join a cross- disciplinary nanotechnol team for development of biosensors. NASA's world-class nanotechnol group, in collaboration with National Cancer Institute, is developing nanotechnol- based biosensors for cancer diagnostics for use in space missions.

QUALIFICATIONS DESIRED
Education: B.S or M.S. degree in Chemistry
Experience: Research exp in electro-chem, surface chem, and/or bioanalytical chemistry are favored. Dedicated researchers with strong motivation & hands-on exp are highly desired. U.S. Citizenship or permanent residency is required

LOCATION, SALARY, MAIL ADDRESS
Location: NASA Ames Research Center, Moffet Field (Mountain View) CA
Salary: Salary commensurate with exp
Description: Opening is a contract position, working at NASA Ames Research Center thru ELORET Corporation, a research and engineering firm providing contract and consulting services to clients in government, industry, and academia.

Application Instructions:
Interested candidates should forward a resume and statement of interest to Dr. Jun Li at jli@mail.arc.nasa.gov.

Happy Thanksgiving

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

NOVEMBER 2002 NEWSLETTER TOPICS:

http://www.scvacs.org

SANTA CLARA VALLEY SECTION

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Secretary: **Karl Marhenke**	831-479-6263	karlmar@armory.com
Treasurer: **Hong Gao**	650-564-5197	hong.gao@alza.com
Past-Chair: **Sally Peters**	650-812-4994	speters@parc.xerox.com

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ChemPloyment Abstracts

Director: **Shirley B. Radding**	408-246-2564	sradding@att.net

FUTURE MEETINGS

Nov 12-13	5th Symposium on Groundwater Contaminants Fresno, CA
Nov 21	SCV Dinner Meeting *Dr. Jim Collman*
Jan 17	SCV Dinner Meeting *Dr. C. Marvin Lang* Mosher Awardee
Jan 18	Chemistry Demonstration *Dr. C. Marvin Lang* University of Santa Clara
Feb 20	SCV Dinner Meeting *Juanita Ryan* Antarctica Research

For the latest information, please visit SCV/ACS web site: ***www.scvacs.org***

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