theCHEMICAL bulletin

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NOVEMBER • 2006

CHICAGO SECTION AMERICAN CHEMICAL SOCIETY

Joint Meeting of the University of Chicago Department of Chemistry and the Chicago Section ACS Julius Stieglitz Award Lecture, Dinner and Presentation **WEDNESDAY, NOVEMBER 15, 2006**

The Parthenon Restaurant 314 South Halsted Street Chicago, IL 312-726-2407

DIRECTIONS TO THE MEETING From Kennedy (I-90) or Edens (I-94): Head downtown and exit at Adams Street. Turn right to Halsted. Turn left at Halsted. Restaurant is approximately 1-1/2 blocks on the west side of the street.

From Eisenhower (I-290): Head east to Chicago. Exit at Racine and turn left. Go to Jackson Boulevard and turn right. Take Jackson to Halsted. Turn right at Halsted. Restaurant is approximately 1/2 block on the west side of the street.

PARKING: Free valet parking. Parking is also available on the nearby streets or in a nearby lot for a charge.

UNDERGRADUATE RESEARCH SYMPOSIUM: 4:00-5:00 p.m. Columbia College Chicago - Rm 405 Benedictine University students

JOB CLUB: 5:30-6:30 p.m

SOCIAL HOUR: 6:00-7:00 p.m.

(Cash Bar)

DINNER 7:00 p.m.

Dinner reservations are required and should be received in the Section Office phone (847-647-8405), via (847-647-8364), fax email (chicagoacs@ameritech.net), or website (http://ChicagoACS.org) by noon on Monday, November 13. PLEASE

HONOR YOUR RESERVATIONS. The Section must pay for all dinner orders. No-shows will be billed.

MENU: Greek Family Style Dinner--Appetizers: Saganaki (Kaseri cheese flamed in brandy), Gyros (roasted slices of lamb and beef), Taramosalata (fish roe blended with lemon and olive oil); traditional Greek salad. Main course: Vegetarian Spinach-Cheese Pie, Vegetarian Pastitsio (Macaroni baked with broccoli, Bechamel sauce and Kefalotiri), Dolmades (vine leaves stuffed with rice, meats and herbs), Rotisserie-roasted lamb served with rice pilaf and roasted potatoes. Desserts: Baklava (flaky layers of Phyllo baked with nuts and honey) and Galaktobouriko (flaky layers of Phyllo with vanilla custard and baked with syrup. Beverages, bread and butter.

The cost is \$28 to Section members who have paid their local section dues, members' families, and visiting ACS members. The cost to non-Section members is \$30. The cost to students and unemployed members is \$14. Seating will be available for those who wish to attend the meeting without dinner.

NOTICE TO ILLINOIS TEACHERS

The Chicago Section ACS is an ISBE provider for professional development units for Illinois teachers. Teachers who register for this month's meeting will have the opportunity to earn up to 4 CPDU's.

PRESENTATION OF STIEGLITZ LECTURE 8:00 p.m.



Dr. Samuel J. Danishefsky, Professor of Chemistry, Columbia University: Director of the bioorganic lab. Sloan-Kettering Institute for Cancer Research

Title: "On the Power of Chemical Syntheses"

Abstract: As a consequence of major advances at the level of methodology, the power of the science of chemical synthesis has grown enormously. These huge advances in enabling reactions, often involving transition metal catalysts, have had a major impact on strategic planning in chemical synthesis. Structures hitherto perceived to be

(continued on page 2)

(continued from page 1)

unavailable from a practical standpoint through chemical synthesis might, in fact, be quite available nowadays.

Similarly, extraordinary advances in isolation techniques, purification techniques and above all assignment of structure to complex molecules have allowed for the identification and determination of exciting new natural products in very smallscale (milligrams or less). By combining these two advances with extraordinary advances in the science of screening for biological properties, the natural products field emerges in highly enhanced form as a potential resource in the discovery of new pharmaceutical agents of value. Regrettably, many Pharma organizations have seen fit to de-emphasize their involvement in Natural Products, just at the time when its prospects were the most promising ever.

In this lecture we show, by example, how advances in synthetic methodology, structure determination, and screening have created extraordinary opportunities for natural products as resources in the discovery of new drugs and vaccines.

Biography: Samuel Danishefsky is a native of Bayonne, NJ, receiving his B.S.degree from Yeshiva University in 1956. He then attended Harvard, where he received his doctorate in 1962, later doing an NIH postdoctorate at Columbia University, from 1961-1963. He then spent 1964-1979 at University of Pittsburgh, where he became University Professor in 1978. He then went to Yale University, where he was Eugene Higgins Professor (1983-1989) and Sterling Professor (1989-1993). In 1993, he returned to Columbia as professor of Chemistry, Eugene Kettering Professor, and director of the bioorganic laboratory of the Sloan - Kettering Institute for Cancer Research, a position that he holds presently.

He has received world-wide acclaim for his work in organic total synthesis of some of the most complex natural products, most of which are known to have significant physiological activity. Most of the syntheses require numerous stereoselective steps in order to obtain the desired stereospecificty. Some of his most recent work — an account of which was given recently in Chemical & Engineering News, Jan. 23, 2006, p. 7, -- described the synthesis of a telomerase inhibitor, known as UCS 1025A. Telomeres, telomerase and telomerase inhibitors are believed to be intimately involved in chromosomes, cancer, cell death and renewal, stem cells, ageing, i.e., some of life's most vital processes. Having a known inhibitor readily available will allow scientists to study these very important processes at the molecular level.

There are very few areas involving the

synthesis of physiologically-active organic molecules that have not come under attack by Dr. Danishefsky at some time during his long and productive career: anti-tumor carbohydrate vaccines, several classes of anti-tumor chemotherapeutic agents, antibiotics, antivirals, angiogenesis agents, antiimmune agents, and on and on. In general, he is at the forefront of those approaches that blend the best chemical and biological science to obtain solutions to some of the most pressing problems of our time that involve disease treatment and prevention.

For his work and the more than six hundred publications that have resulted from it, he has received many awards, including most of the ACS Awards related to organic chemistry, including just to name a few, the Hudson Award in Carbohydrate Chemistry, Arthur Cope Scholar and Medal, the Guenther Prize, and the Aldrich Award for creative work in Organic Chemistry. He is a member of the National Academy of Sciences, the American Academy of Arts and Sciences and is a fellow of numerous foreign academies. He has received the Wolf prize in Chemistry, and has been chosen for many named lectures. It is in that role, as our Stieglitz Lecturer, that we welcome him on this occasion. We are indeed pleased and honored to have this most distinguished chemical scien-

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VOLUNTEERS NEEDED

The ACS Illinois Sections Cooperative State Fair Project needs volunteers for Community Day at Carson Pirie Scott in Aurora, Illinois.

- The date is Saturday, November 11, 2006 at 970 Lake Street, Aurora, IL 60506.
- We will have a table to sell coupon booklets for \$5 each.
- Carson Pirie Scott provides our organization with coupon booklet at no charge. Our organization keeps the money for the State Fair project.
- Each booklet contains a \$10 coupon good on almost any merchandise item of \$10 or more (customers spend \$5 for the booklet and get \$10 back on their first purchase), eight 20% off coupons and offers for two great bonus items, available on Community Day only. All coupons are valid on top of the already low One Day Sale prices. It's a great day to shop!

Please come, shop and volunteer to help at the table to raise funds for the State Fair project! Carson Pirie Scott is open from 7am to 11pm.

Thank you, MARSHA ANNE PHILLIPS

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"CHEM SHORTS" For Kids

The Elementary Education Committee of the Chicago Section ACS presents this column. They hope that it will reach young children and help increase their science literacy. Please cut it out and pass it on to your children, grandchildren, or elementary school teachers. It is hoped that teachers will incorporate some of the projects in this column into their lesson plans.

Leafy Chromatography

Kids, did you ever wonder about the chemistry of autumn leaf colors? Most plants contain several pigment molecules. If you experiment with different leaves in this activity you will see the wide range of pigments.

You will need leaves, baby food jars with lids, rubbing alcohol, coffee filters (preferably the Melitta type), hot water, and a shallow pan. Take 2-3 large leaves (or the equivalent with smaller leaves), tear them into tiny pieces, and place them into small jars with lids. Add enough alcohol to just cover the leaves. Loosely cover the jars and set them into a shallow pan containing an inch or so of hot tap water. Let the iars sit in the hot water for at least a half hour. Replace the hot water as it cools and swirl the jars from time to time. The jars are "done" when the alcohol has picked up color from the leaves. The darker the color, the brighter the chromatogram will be. Cut a long, thin (1/2") strip of coffee filter paper for each jar. Place one strip of paper into each jar, with one end in the alcohol and the other outside of the jar. As the alcohol evaporates, it will pull the pigment up the paper, separating pigments according to their molecular size. Pigments with the largest size will move the shortest distance. After 30-90 minutes, remove the strips of paper and allow them to dry. From the information below, can you identify which pigments are present?

The color of a leaf results from the different pigments produced by the plant. The main pigment classes responsible for leaf color are porphyrins, carotenoids, and flavonoids. The color depends mostly on the amount and types of these pigments. The pigment porphyrin has a compound called chlorophyll that is green. The pigment carotenoid has compounds carotene and lycopene that are yellow, orange, and red, as well as xanthophyll, which is yellow. The pigment flavonoid has compounds flavone and flavonoi (yellow) and anthocyanin that can be red, blue, purple, or magenta.

When leaves are green, it is because they contain a lot of chlorophyll. Chlorophyll masks all other pigment colors. The

anthocyanins will mask carotenoids. As summer turns to autumn, decreasing light levels cause chlorophyll production to slow and the green color will fade. At the same time, anthocyanin production in leaves increases in response to increasing sugar concentrations. Leaves with a lot of anthocyanins will turn red. Leaves with good amounts of both anthocyanins and carotenoids will be orange, and leaves with carotenoids but little or no anthocyanins will turn yellow. In the absence of these pigments, other plant chemicals can affect leaf color. An example is tannins, which cause the brownish color of some oak leaves.

Options: Does the season in which the leaves are picked affect their colors? Also try using frozen chopped spinach leaves. If your chromatogram is pale, the next time use more leaves and/or smaller pieces.

References:

Dr. Anne Marie Helmenstine at http://chemistry.about.com/cs/howtos/ht/paperchroma.htm and http://chemistry.about.com/library/weekly/aa082602a.htm

EDITED BY K. A. CARRADO, ARGONNE NATIONAL LABORATORY

All past "ChemShorts": http://member ship.acs.org/C/Chicago/ChmShort/kid index.html

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Northuprts@aol.com www.toxconsultants.com November, 2006 Vol. 93, No. 9. Published by the Chicago Section of The American Chemical Society, Editorial Staff: Cherlyn Bradley, Editor; Fran Kravitz, Copy Editor; Fadwa Al-Taher and Richard Treptow, Proofreaders; Frank Jarzembowski, Publications Business Manager. Address: 7173 North Austin, Niles, Illinois 60714; 847/647-8405. Subscription rates: \$15 per year. Frequency: monthly-September through June.

JULIUS STIEGLITZ AND THE STIEGLITZ LECTURES

Dr. Julius Stieglitz, (1867-1937) was born in Hoboken NJ. After attending private and public schools in New York during his early years, both he and his twin brother Leopold were sent to Germany for their higher education. Julius received his doctorate in chemistry from the University of Berlin in 1889. Following a short period of study with Victor Meyer at Gottingen, he returned to the U.S. in 1890. In 1892, he came to the University of Chicago as a docent, lecturing without salary, his only compensation coming from student donations. In 1893, he was appointed an assistant professor, and moved up through the ranks to become professor of chemistry in 1905. He served as department chair from 1915-1933.

In 1933 he was named professor emeritus but continued to teach and serve in the department until his death in 1937. His last doctoral student was Herman Bloch, who went on to have a very distinguished career with UOP and served as Board Chair of the American Chemical Society. Dr. Stieglitz was very active in ACS, serving as Chicago Section Chair in 1904, and ACS President in 1917. He helped to establish the Willard Gibbs Medal, and received the Gibbs Medal himself in 1923. He received honorary doctorates from Clark University (D.Sc.), the University of Pittsburgh (Ph.D.).

Dr. Stieglitz was an organic chemist with a major interest in pharmaceutical and medicinal chemistry. During the early stages of his career, he worked for Parke Davis & Co. in Detroit as a toxicologist. If he were alive today, he would undoubtedly be very much involved with the areas of chemical biology that have been a major interest of this year's lecturer. Upon his death in 1937, the Stieglitz Lecture Series was established, with cosponsorship by the University of Chicago and the Chicago Section. The first lecture was given in 1940, and except for an occasional pause, they have been held each year since. We are honored this year to have Dr. Sam Danishefsky as the 58th Stieglitz lecturer.

REPORT OF COUNCIL MEETING HELD IN SAN FRANCISCO, CA

The 232nd National Meeting of the ACS was held in San Francisco, CA from September 10-14, 2006. The Chicago section was represented by ten councilors and three alternate councilors. The councilors who attended for the section were: Roy Bible, Cherlynlavaughn Bradley, Charles Cannon, Mark Cesa, David Crumrine, Russell Johnson, Fran Kravitz, Claude Lucchesi, Barbara Moriarty, and Marsha Anne Phillips. The alternate councilors representing the section were Susan Shih, Inara Brubaker, and Herb Golinkin.

As is the custom, the council had a moment of silence for recently deceased councilors. The council remembered past Chicago councilor Steve Sichak.

The council also recognized Seymour Patinkin for his service on the Local Section Activities Committee and Fran Kravitz for her 15 years of service as a councilor.

Finances: The Committee on Budget and Finance reported that the Society is expected to end 2006 with a net contribution from operations of \$7.9 million, which is expected to be \$3.5 million favorable to the approved budget.

Governance: The council selected members for the Committee on Nominations and Elections, the Committee on Committees and the Council Policy Committee for 2007-2009. None of the Chicago Section councilors ran for election, and so no one from the section was elected. The candidates for District V director are John E. Adams and Judith L. Benham.

The Council voted to continue the Committee on Public Relations and Communication, the Committee on Environmental Improvement, and the Committee on International Activities subject to concurrence by the Board of Directors. The Council also voted to support the request of the Committee on Community Activities that its status be changed from an "other committee" of the Board to a joint Board-Council Committee.

The Governance Review Task Force, appointed at the last meeting, generated 23 ideas following initial interaction with the Board, Council, Committees and other interested members. The 23 ideas were discussed and prioritized into three categories: to advance the idea as worthy of further consideration by the cognizant committee and/or

interested groups; to refine the idea which will be sent back to the Governance Review Task Force for further consideration; or to place the idea in a "stop" category as an idea that will receive no further consideration as part of the governance review. Some of the ideas that were advanced concern including student affiliates as members and eliminating the Associate member category, making all applicants with a science degree or work experience eligible for membership and providing additional staff support to local section volunteers. If you are interested in the full list of 23 ideas and the disposition of the 23 ideas, contact me.

Meetings and Expositions: The 232nd ACS national meeting attracted 15,603 registrants as of September 12, 2006. This included 3,350 students. The Committee on Meetings and Expositions reported that national meeting financial targets continue to be met, and therefore recommended to the Board of Directors that there be no increase in national meeting registration fees for 2007.

Economic and Professional Affairs: As of the end of Tuesday, there were 1202 job seekers at Chemjobs Career Center and 290 posted positions available from 104 employers. This was the largest number of employers at a national meeting in three years.

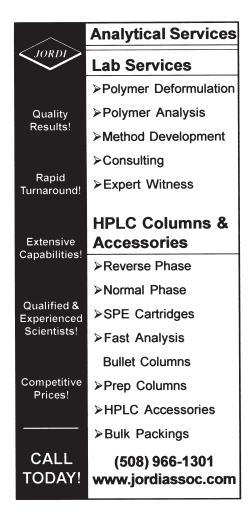
Safety: Volume 1 of the popular *Safety in the Academic Chemistry Laboratories* (SACL) is available in Spanish by downloading from the website: http://membership.acs.org/c/ccs/pubs/SACL_Spanish.htm.

Special Discussion Topic – Engaging the Future Leaders of Tomorrow, Today: The discussion focused on ensuring the American Chemical Society's future by engaging younger members throughout the Society's volunteer leadership. ACS President E. Ann Nalley framed the discussion by presenting the results of a councilor survey on the topic and many councilors offered useful comments and suggestions.

If you have any questions and/or comments about the above actions, please contact me by email at **bmoriarty @nalco.com**.

BARBARA MORIARTY

The mission of the Chicago Section of the ACS is to encourage the advancement of chemical sciences and their practitioners.



DEADLINES FOR CHEMICAL BULLETIN

Please submit all Chemical Bulletin copy to the editor before the deadlines listed below for each issue. Articles can be emailed to the editor, Cherlyn Bradley, cbrad1027@aol.com.

Since we like the Bulletin to be as timely as possible, we need the lead time indicated. You can help by early planning and submission of your information or articles.

2007 Issue	Deadline
January	November 25
February	December 29
March**	January 12
April	February 23
May	March 23
June	April 27
September	July 13
October	August 24
November	September 21
December	October 12

** The March issue will be the special National Meeting in Chicago issue. IT WILL ALSO CONTAIN THE REGULAR MARCH MONTHLY DINNER MEETING INFORMATION.

WCC COLUMN

Members of the Chicago Section's Women Chemists Committee (WCC) are developing outreach plans for Chicago Area section members and the community. These plans include a column in The Chicago Bulletin covering topics such as networking, career development, and vignettes of women in chemistry. This month's topic is about **Dr. Margaret Cavanaugh**.

Dr. Margaret (Marge) Cavanaugh is currently the Deputy Assistant Director for Geosciences at the National Science Foundation (NSF) in Arlington, Virginia. Marge has been at NSF for 17 years. She enjoys interacting with the many people who work and visit NSF and especially mentoring the young scientists who intern there. Marge also likes "knowing where science is going and what may come in the future. Science administration is fun!" She likes to enable things and to meet the dedicated people who interact with her.

Prior to joining the staff at NSF, Marge was Professor of Chemistry and Chairman of the chemistry department at Saint Mary's College in Notre Dame, Indiana. She was at Saint Mary's for 14 years. She found that she enjoyed administration at Saint Mary's, and realized that her opportunities at the small college had prepared her to take on additional challenges. She moved into government when the opportunity presented itself.

This Ohio native received her undergraduate degree from the University of Pittsburgh and her Ph.D. degree from Catholic University of America. She followed this with a postdoctoral appointment with Dr. Mary Good at Louisiana State University in New Orleans in inorganic chemistry. Marge says she entered the field of chemistry because a good female high school chemistry teacher had instilled her own love for it into Marge. When she entered college freshman chemistry she had a wonderful male chemistry teacher. Her college professor paid attention to the all the women chemistry students and made them feel special. Marge reported that a number of these freshman chemistry students have stuck together over the years.

She elected to enter the academic field and teach because she "liked the interactions with students and thought that it was neat!" While she was doing her post doc work, she had the opportunity to do some teaching and enjoyed the interactions with the other professors and the group meetings where senior professors and instructors would coordinate instruction and learn from

each other. In the post doc setting the entire group of instructors were using common tests and texts. Marge said, "Her philosophy of chemical education includes hands on inquiry and accommodating multiple learning styles." She recognizes that individuals have different learning styles and need a variety of experiences. She feels that it is important for women to be involved in academia because "Young people need role models and mentoring. The academy is open to everyone! If it is too narrow in people or ideas, it won't be as exciting or as powerful as it could be!"

When asked about her honors, Dr. Cavanaugh said she is proud that she was the first recipient of the American Chemical Society Award for Encouraging Women in Science in 1995. She has over 25 refereed publications. Members of lota Sigma Pi know Margaret Cavanaugh as having served as National President of lota Sigma Pi from 1990 to 1993.

She stated that her interesting plans for the near future include attending conferences in a variety of disciplines and the National American Chemical Society Meetings. When she is not doing science or chemistry Marge enjoys time with her husband, Joe, and Mitzi, their Bichon Frise dog, and continuing to work on learning Spanish.

Next time you are at a conference or National Chemical Meeting, look to see if you can talk with Dr. Margaret Cavanaugh.

ANNE T. SHERREN

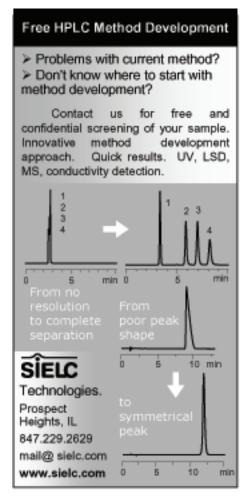
ATTENTION HIGH SCHOOL TEACHERS: SUBSCRIBE TO CHEMMATTERS!

Renew or begin your subscription to *ChemMatters*, the ACS magazine for high school chemistry students! A one-year subscription to *ChemMatters* is \$14.00. Buy 5 or more subscriptions and the cost is \$7.00 per subscription. Multi-year discounts are also available. Each one year subscription includes 4 issues of the magazine.

ChemMatters is an award-winning quarterly magazine for high school chemistry students. Each issue includes articles which reveal chemistry at work in everyday life.

ChemMatters was designed for teachers to use as a supplement to their first year high school chemistry course. A free teacher's guide is available online which provides additional information on articles, follow-up hands-on activities, classroom demonstrations, and additional resources.

See http://www.chemistry.org/education/chemmatters.html.



2007 SECTION DINNER MEETING DATES

January 19

February 22 (a Thursday) (Jointly with AIChE)

March 16 (Public Affairs)

April 20 (Distinguished Service Award) **May 18** (tentative) (Gibbs Award)

June 21 (a Thursday) (Jointly with YCC)

September 28

October 18 (Basolo Medalist Lecture) November 16 (Education Night)

December 7 (Holiday Party)

REVISION TO CHEMICAL EDUCATION GUIDELINES

The symposium "Revising the ACS Guidelines for Two-year and Four-year Programs: A Community Dialog of Issues and Opportunities" was held August 1, 2006 at the 19th Biennial Conference on Chemical Education. Faculty from both two and four-year programs heard presentations on the proposed changes to the ACS Guidelines for Bachelor's degree programs, discussed the potential impact the proposed changes could have, and considered ways in which these guidelines and those for two-year chemistry programs could be better aligned.



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ACS-DAC Contributed Sessions

- Analytical Methods for Determining Environmental
- · Clinical and Biomedical Applications of Microfluidics: Towards Point of Care Testing
- Teaching Analytical Chemistry at the Boundaries
- · Success Strategies for Undergraduate Research
- Nanobiotechnology: From the Single Cell to the Single
- Nanoscale Self-Assembled Systems

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hosting important symposia. contributed sessions and an undergraduate poster.



Mark your calendar for Pittcon: February 25–March 2, 2007

STIEGLITZ LECTURERS, 1940-2006

<u>Lecturer</u>	<u>Year</u>
Edward A. Doisy	1940
Fred C. Koch	1941
Carl S. Marvel	1943 1944
Linus Pauling Wm. Draper Harkins	1944
Dan M. Yost	1946
Dorothy Wrinch	1947
Vincent du Vigneaud	1948
E.S. Cohn	1949
Herman I. Schlesinger Christopher K. Ingold	1950
Robert B. Woodward	1950 1952
Frank R. Mayo	1953
Paul D. Bartlett	1954
Frank C. Westheimer	1956
Henry B. Hass	1957
Herbert C. Brown	1958
H.A. Lardy Louis P. Hammett	1959 1960
Nelson J. Leonard	1962
William S. Johnson	1963
Paul Doty	1964
Charles C. Price	1965
H. Gobind Khorana	1966
Wm. von Eggers Doering George Hammond	1967 1968
D.J. Cram	1969
Jerome A. Berson	1970
Carl Djerassi	1971
Jerrold Meinwald	1972
Andrew Streitwieser	1973
Derek H.R. Barton	1974
E.J. Corey Bengt Samuelson	1975 1976
James Collman	1977
Joseph Chatt	1978
Gilbert Stork	1979
Robert H. Abeles	1980
Barry Trost	1980
Roald Hoffman Yoshita Kishi	1981 1982
David Evans	1983
W. Clark Still	1984
Malcom Green	1985
Ronald A. Hites	1988
R. Ernst	1989
George Olah George Whitesides	1990 1991
William Jorgenson	1992
Peter Kim	1993
Tobin Marks	1994
Frederic Menger	1999
Joanna Fowler Patrick R. Gruber	2000 2002
Eric Jacobsen	2002
Eloy Rodriguez	2003
Amos B. Smith, III	2005
Samuel Danishefsky	2006

The Chicago Section's e-mail address is chicagoacs@ameritech.net

HIGH SCHOOL TEACHERS DAY 2007

The 233rd American Chemical Society National Meeting & Exposition will be in Chicago during March 2007. Ami LeFevre and Lee Marek are planning the High School Teachers Day program. This event, taking place on Sunday, March 25 from 8:30 a.m. - 4:30 p.m., will feature programming that addresses topics relevant to the teaching of high school chemistry. The location is yet to be determined. Sunday morning coffee, lunch, and materials will be included as part of the registration fee.

Here is the tentative program:

Chicago March 25 2007: "Inquiring Minds Want to Know"

8:30 a.m. — Introductory Remarks

8:35 a.m. — James Bryant Conant Awardee for Teaching High School Chemistry, Eleanor Siegrist, "39 Years of Enjoying and Motivating Students"

9:20 a.m. — John Fortman from Wright State University, "Demonstrating Carbonate Chemistry from the Pyramids to Soda Pop"

9:50 a.m. — Jim Spencer from Franklin & Marshall College and Patrick Daubenmire from Loyola University Chicago, "Process Oriented Guided Inquiry Learning (POGIL): A Student Centered Approach to Teaching"

10:50 a.m. — Intermission

11:00 a.m. — Bill Deese from Louisiana Tech, "Demos of the Dead Chemist Society."

12:00 p.m. — Intermission

12:10 p.m. —Luncheon entertainment: Ken Spengler, former department head Palatine High School – "A Skeptical Look at Administration in High School" [20 minutes]

1:30 p.m. —Afternoon keynote speaker, George Bodner from Purdue, "Eternal Verities"

2:20 p.m. — Mary Harris and Linda Fanis from polymer ambassadors and JCE, "JCE for the High School Teacher: Recycling Resources for Earth Day 2007"

2:50 p.m. — Intermission

3:00 p.m. — Jim Spencer from Franklin & Marshall College, "AP Chemistry: Redesign of the Curriculum and Exam, What Does it Mean?"

3:25 p.m. — Lynn Hogue and Mickey Sarquis from Miami of Ohio University, Center for Chemistry Education, "Lowering Student Activation Energy for Learning Chemistry" [1 to 1.5 hours]



FOOD DRIVE

We will be collecting canned goods for charity at the December Holiday Party. Please bring at least one can of food to donate when you come.

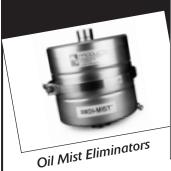
Last year you donated about 500 pounds of food that went to the Loaves and Fishes Community Pantry for distribution. Let's beat last year's record!

DID YOU KNOW?

The ACS Education Division provides programs and activities that promote lifelong chemistry education, professional activities, and scientific matters of interest to chemists and chemical engineers worldwide.

To find out more about ACS Education programs, visit chemistry.org and go to ChemunityNews, check out our web site at http://www.chemistry.org/portal/a/c/s/1/acsdisplay.html?DOC=education%5cindex.html, or write to us at education@acs.org.

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ALMA E-NEWS

The Use of Back Belts

With the growing prevalence of ergonomic and back injuries in the work-place, some labs are considering personal protective equipment that might reduce the risk to workers. The use of back belts when performing tasks requiring lifting or moving heavy objects has grown over the past few years and may even be required by procedure for some tasks within some organizations. These belts were initially used by doctors to provide additional support during rehabilitation of injuries and were later adopted by athletes for weight lifting.

The "industrial back belt" has been in use for a few years with more than 70 versions now on the market. Numerous organizations associated with worker safety have investigated the effectiveness of these belts and the results thus far have been inconclusive. There are no accepted scientific studies that demonstrate a clear benefit derived from wearing a back belt. In fact, there is concern that wearing a belt will give the worker a false belief that they are protected and may lead them to even greater risk by lifting more weight than they normally would attempt.

The National Institute for Occupational Safety and Health (NIOSH) recommends that rather than relying solely on back belts, companies and workers should minimize risk by developing and implementing a comprehensive ergonomics program. Such a program would include assessment of all work activities, training on lifting mechanics and techniques, a surveillance program to identify work-related problems, and a medical management program. NIOSH also recommends that the use of these belts should always be optional rather than mandatory.

If you have any comments, cost saving suggestions, or opinions, contact me at the email address below.

Past ALMA (Analytical Laboratory Managers Association) e-News articles by Dr. Wayne Collins, a former ALMA President, are available at the website http://www.labmanagers.org/. This one is from the July 2000 edition.

WAYNE COLLINS wayne.collins@thermo.com

2005-2006 SCIENCE TEACHING RESOURCES

Get your today by calling 1-800-227-5558 or by sending an email to education@acs.org!

REMEMBRANCE OF SECTION MEMBERS

During 2006, we have seen the passing of a number of section members. We would like to remember these section members at the January 2007 Section meeting. The chair will read the names of the section members who have passed and we will observe a moment of silence. If you know of persons you want to add to this list, please let the office know by either phone (847-647-8405) or email (chicagoacs@ameritech.net).

In addition, if you have pictures or other memorabilia, we will be preparing a poster for display at the front table at this meeting. Please send any information you would like to see added to this display. If at all possible, please provide duplicates, as we cannot ensure that we can return submissions.

SECTION DUES

Members are urged to pay the \$15 Section dues with your annual ACS membership dues statement. The Section needs this revenue to help support its activities.

ACCA CHEMISTRY COURSE/SEMINAR

The Associated Colleges of the Chicago Area (ACCA) continues the series of chemistry lectures on "Forensic Chemistry," that started in September. Olivet Nazarene University (ONU) will be offering graduate credit to anyone who already has a bachelors degree, provided he/she has not previously received credit during one of the years when the course title was the same.

Although anyone is welcome to attend one or more sessions without taking the series for graduate credit, anyone wanting graduate credit through ONU should contact Dr. Douglas Armstrong at darmstrg@olivet.edu or at 815-939-5393.

The remaining sessions for November will be held on Tuesday nights from 7:00-9:00 PM at Benedictine University, Birck Hall of science, Room 112. The speakers and their affiliations, are as follows:

Date Speaker/Affiliation

11/7 Michael Kopina/ISP
11/14 Patrick O'Neal/Coroner

Anyone taking this series for graduate credit will need to attend a certain percentage of the above sessions, and write a report/summary on each session attended. Contact Dr. Armstrong for details.

CONTACT THE CHAIR

Do you have any questions, suggestions, recommendations, ideas, gripes, complaints, or pet peeves relating to the Chicago Section? Do you want to volunteer, help out, or lend a hand with Section programs or activities? Then contact your Chair. Simply log onto the Web Page Section's http://chicagoacs.org, find the green button "Contact the Chair", and send me an e-mail. If I can answer your query I will respond personally. If I can't I will forward your e-mail to someone who can, or try to provide you with a contact — all in a timely manner. The Section belongs to you and the other 4,600 ACS members who reside in the Chicago area (northeast Illinois and northwest Indiana). Only you can make it work for you by being involved. But you can also make it fail by not being involved. I look forward to hearing from you.

BARBARA MORIARTY CHICAGO SECTION CHAIR

REGISTER ONLINE for

Chicago Section monthly meetings www.ChicagoACS.org

The New Frontier for Proteomics



Come hear about Hitachi's new NanoFrontier LCMS system at the ACS Chicago Section Meeting!

Date: Friday, June 23, 2006

Time: 6:00 pm

Place: Monastero's Ristorante and Banquets, Chicago, IL

Hitachi has announced the release of the NanoFrontier, a new LCMS system designed, manufactured, and serviced by Hitachi.

Our LCMS product manager, **Jennifer Krone**, **Ph. D.**, will discuss the wonders of the new technologies culminated in the NanoFrontier at this month's ACS Chicago Section Meeting, during the cocktail hour sponsored by Hitachi.

Join us to learn about Hitachi's new NanoFrontier LCMS System while you enjoy a beverage on us!

NEW! Hitachi NanoFrontier LCMS System



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PROJECT SEED — A PROGRAM THAT WORKS

You and your organization are invited to apply to participate in Project SEED, the American Chemical Society's social action program that places economically disadvantaged high school students in academic, industrial, and governmental research laboratories for eight-to-ten weeks during the summer.

Project SEED offers high school students two exciting research opportunities:

- The Summer I program will provide first-time participants (rising juniors and seniors) a fellowship award of \$2,600.
- The second-year program, Summer II, provides Project SEED Summer I students an additional summer of scientific research. These students will receive a fellowship award of \$3,000. Additionally, Summer II students will be eligible for a travel grant of up to \$100 to present their research at an ACS or other scientific meeting.

Each student does a scientific research project in chemistry or related field under the direct supervision of a scientist/mentor. The students must be economically disadvantaged and must be enrolled in high school or be recent high school graduates; no student who has matriculated in college is eligible. The students must have taken one year of high school chemistry.

In addition to hands-on research, Project SEED students receive guidance on their career and personal development. Mentors provide strategies for helping students reach their objectives, give feedback, and allow opportunities for growth that may include exposure to key members of an organization. Students who have completed a Summer I program and have not matriculated in college can return a second summer and do more research. On completion of a Summer II research program, the students also have the opportunity to apply for one of the Project SEED college scholarships.

You need not have a student yet in order to apply to be a mentor. Apply now to sponsor a student and the local Project SEED Committee will work with you to obtain a student. Funding for the student will come from the National Project SEED office and some funds from the local Section.

Be sure to visit the Project SEED website for more information: www.acs.org/education/SEED.html

You can also obtain an application form, program guidelines, and other information from your local Section Project SEED co-chair, Cherlyn Bradley (cbrad1027@aol.com) or from the

National ACS Committee on Project SEED staff at 1-800-227-5558, ext. 4380.

APPLICATIONS FOR THE 2007 SUM-MER PROGRAM WILL BE AVAIL-ABLE IN NOVEMBER.

APPLICATION DEADLINE WILL BE FEBRUARY 2007.

If you are NEW to the Project SEED program, your willingness to expose students to a scientific environment is one of several steps that will allow students to discover the world of chemistry. The Council Committee on Project SEED office looks forward to reviewing your application.

Since Project SEED's inception in 1968, more than 8,000 talented high school students nationwide have spent the summer conducting research in local chemistry laboratories under the guidance of mentors. Both students and the community benefit from the program. The students, while earning a stipend, find out what chemistry research or development is about and whether it might interest them as a career. These students become role models for younger students and almost all attend college.

For the Chicago area, less than 100 students have participated---not because we don't have students that qualify or aren't interested in the program (each year we can find plenty of students), but due to lack of academic, industrial, and governmental scientists willing to be mentors. We continue to have the few, dedicated scientists who have been involved in the program several years-- and we salute you!

In order to get more Chicagoland students involved in the program, we need two things: 1) more scientists willing to participate as mentors/preceptors to foster the successful continuance and growth of this worthy program in the Chicago area for scientifically promising, but economically disadvantaged high school students and 2) more funding from Chicagoland corporations, foundations, and individuals to sponsor our students.

Scientists who are NSF, NIH, or PRF grant holders can get funding to sponsor a Project SEED student within their proposed research programs. Check with the ACS National SEED office at 1-800-227-5558, ext. 4380.

If you or your company would like to donate to your Chicago Section's Project SEED program to sponsor a local student, contact the Chicago Section office at (847) 647-8405.

CHERLYN BRADLEY

JOB CLUB

The next meeting of the Chicago Section ACS Job Club will be held on Wednesday, November 15 at 5:30 p.m. at The Parthenon Restaurant. The meeting will include a review and discussion of some of the tools that a chemist can use to conduct a job search.

The Job Club provides a continuing opportunity for unemployed members of the Section to meet with one another, share their experiences and develop a network that may help in identifying employment opportunities. Bring plenty of resumes and business cards to distribute to your colleagues. Be prepared to talk about the kind of job you are seeking.

Several participants have received outsource help with resume preparation and marketing strategies to present their best attributes to prospective employers. The group has critiqued some individual resumes and made suggestions for improvements in a positive way!

The Job Club is also for employers seeking chemists. Employers need to be prepared to describe the positions to be filled and requirements for these positions.

Should you wish to attend the Section's dinner meeting following the Job Club, the cost is \$14 and you can continue your networking activities. Please call the Section office for reservations and indicate that you are eligible for a discount.

Also, the Chicago Section's website has a link to the Job Club's yahoo job forum group. If you can't attend the Job Club, you can still find out about job openings and other information.

ATTENTION: PERSONS INTERESTED IN BECOMING SECOND CAREER CHEMISTRY TEACHERS

The Hach Scientific Foundation would like to offer second career chemical education scholarships to chemists. Scholarship money is available for second career chemistry teachers! The Hach Scientific Foundation is a private multi-million dollar foundation dedicated to chemistry and chemical education. The Hach Scientific Foundation is providing scholarships across the country to chemists interested in pursuing a Masters in education and teachers certificate. For more information, visit: http://www.hachscientificfoundation.org/teachers.shtml

ILLINOIS STATE FAIR PROJECT A SUCCESS!

As a follow-up to last month's article, here is further information on this activity.

We had another great success of the joint project at the Illinois State Fair in Springfield, IL. This was our third year having a tent there. There were 44 volunteers covering the time from the pre-Fair tent set-up through the actual 10 days of the Fair. Volunteers included members of 10 of the Illinois sections (Chicago, Decatur-Springfield, East Central Illinois, Heartland, Illinois-Iowa, Joliet, Mark Twain, Rock River, Southern Illinois, and St. Louis).

We saw over 13,000 people come through the tent during the Fair, including 375 teachers who signed-up and received teachers' bags. This broke last year's attendance record by almost 2,000 visitors. This year we had a bigger tent (20'x 30') so that we could spread out the activity stations better and have more standing room in the back for visitors to see the main attraction, the various demonstrations.

This year we had "Got Slime?" water bottles that were give-aways throughout each day (it's hot during the State Fair!) as well as a mole that was given each day to the first teacher that signed in to receive a special teacher's bag. We also had a computerized chemistry quiz.

A big thank-you to our section's volunteers who worked diligently this summer to make our "chemistry tent" project a real attraction at the State Fair: Charles Cannon, Morris Dalton, Julie Darby, Tom Darby, Louis DeFilippi, Steven Edelman, Ken Fivazzani,

2006 DIRECTORY OF EXPERIENCE OPPORTUNITIES

Each year, the ACS Experiential Programs in Chemistry (EPiC) activity produces the Directory of Experience Opportunities. This valuable resource lists internships, co-op programs, summer work, and fellowships for undergraduates in the chemical sciences. The 2006 Directory contains a guide to ethical behavior for interns and new hires which details behaviors to avoid during an internship and gives tips about appropriate business conduct for the inexperienced professional.

To search for positions, go to chemistry.org/education/epic. Or, you may purchase your personal copy for \$10 by e-mailing oss@acs.org. For more information or to list a program in the on-line edition of the Directory, e-mail epic@acs.org.

Chantel Kamm, Milt Levenberg, Margaret Levenberg, Avrom Litin, Mary Newberg, Steve Newberg, Woonkie Paik, Jennifer Peck, Marsha Phillips, Greg Sanchez, and Darryl Wesson.

Also, a big thank-you to all our sponsors: Abbott Fund, Robert Banzuly, BP, Chicago section, East Central Illinois section, Illinois Heartland section, Ingredient Source Corp., NorthStar Credit Union, Northup RTS, Rock River section, Unilever, and Wizardcraft. Contributors of materials and/or talent included ACS National, American Chemistry Council, BP Volunteers-Naperville chapter, Carus, Chemical Heritage Foundation, Continental Cement, Dan Edelman and Fran Kravitz, Flinn Scientific, Illinois Dept. of Natural Resources, John Burke and Richard Cornell.

The planning committee's wrap-up meeting will be scheduled before the end of the year and we are already planning for next year.

For more information about this project, including a description of some of the demonstrations, go to http://membership.acs.org/c/chicago/statefair/index.html

CHERLYN BRADLEY FRAN KRAVITZ CO-CHAIRS, IL STATE FAIR CO-OP PROJECT

CHICAGO TO SHOWCASE UNDERGRADUATE RESEARCH

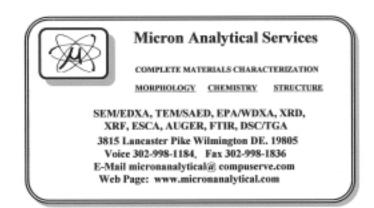
Undergraduate researchers are invited to attend the American Chemical Society's National Meeting in Chicago in March 2007 where they can present their results during the Undergraduate Research Poster Session (March 26, 2007), meet potential employers and graduate school advisors, and network with other chemistry undergraduates. All abstracts must be submitted online to the ACS online abstract submittal system by November 14, 2006. For more information, e-mail saprogram@acs.org.

FREE T-SHIRTS

The Hospitality Committee raffles one T-shirt at each monthly dinner meeting. The shirt has **CHICAgO** spelled out using the periodic table. So come to a monthly meeting and maybe you'll win one!

POP TOP RINGS COLLECTION

Instead of throwing away those pop top rings from your pop cans, please bring them to the dinner meeting so we can donate them to a program at Ronald McDonald House.



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CHICAGO SECTION, AMERICAN CHEMICAL SOCIETY THE CHEMICAL BULLETIN 7173 NORTH AUSTIN NILES, ILLINOIS 60714

CALENDAR

October 3 - November 14: Associated Colleges of the Chicago Area Chemistry Lecture Series on "Forensic Chemistry." The sessions will be held on Tuesday nights, 7-9 p.m. at Benedictine University, Birck Hall of Science, Room 112. Attend any or all of the lectures. Olivet Nazarene University will offer graduate credit to anyone who already has a bachelor's degree. For details contact Dr. Douglas Armstrong at darmstrg@olivet.edu or (815) 939-5393.

November 4: Chicago Section's Job Search Workshop for Chemical Professionals, 9:00 am - 3:00 pm, University of Illinois at Chicago, Room 238, SES (Science and Engineering South), 845 West Taylor Street, Chicago.

November 15: Chicago Section's Dinner Meeting/Julius Stieglitz Lecture. Prof. Samuel Danishefsky, Professor of Chemistry at Columbia University and Director of the bioorganic lab at Sloan - Kettering Institute for Cancer Research. Note that this is a Wednesday. See details in this issue.

December 8: Chicago Section's Holiday Dinner Party and Meeting at the Fountain Blue Banquets. The after-dinner speaker is Bassam Z. Shakhashiri, University of Wisconsin-Madison.

January 19, 2007: Chicago Section's monthly dinner meeting.

January 27-31: The Association for Laboratory Automation (ALA) will hold its LabAutomation2007 Conference in Palm Springs, CA. For more information, contact Anne O'Day at (630) 305-0003 or aoday@labautomation.org.

February 22: Chicago Section's monthly dinner meeting held jointly with AIChE. Note that this meeting is on a Thursday.

February 24: DuPage Engineers Week at IIT's Rice Campus, Wheaton, IL, beginning at 11:00 a.m. Further details later.

February 25 - March 2, 2007: PittCon Conference and Expo, McCormick Place, Chicago, IL. For information, go to www.pittcon.org.

March 16: Chicago Section's Public Affairs dinner meeting.

March 25-30, 2007: The 233rd ACS National Meeting, Chicago, IL.

April 20: Chicago Section's monthly dinner meeting.

May 18: Chicago Section's Gibbs Award banquet and meeting.

June 21: Chicago Section's monthly dinner meeting held jointly with YCC. Note that this meeting is on a Thursday.

September 28: Chicago Section's monthly dinner meeting.

October 18: Basolo Medal Award joint dinner meeting of the Chicago Section ACS and Northwestern University. Note that this meeting is on a Thursday.

November 16: Chicago Section's Education Night dinner meeting.

December 7: Chicago Section's Holiday Party and dinner meeting.

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