theCHEMICALbulletin
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JUNE • 2005

CHICAGO SECTION AMERICAN CHEMICAL SOCIETY

Regular Monthly Meeting

FRIDAY, JUNE 24, 2005

Steven's Steak House
476 N. York Road
Elmhurst, IL
630-834-6611

DIRECTIONS TO THE MEETING:
From Downtown Chicago: Take Eisenhower Expressway (290) west to York Road. Turn right on York Road (south) to Steven's, which is on the right side of street.
From the North: Take 294 south to 290 West (Rockford). Exit 290 at York Road and turn right (south). Proceed to Steven's.

PARKING: Free

JOB CLUB **5:00 - 6:00 P.M.**
(See Page 5)

TOPICAL GROUP: **5:15 - 6:15 P.M.**

"Enantioselective Catalysis" presented by Dr. Vince S. C. Yeh, Senior Research Chemist, Abbott Laboratories

See page 2 for more information.

RECEPTION **6:00- 7:00 P.M.**
Complementary Hor d'horves cash bar

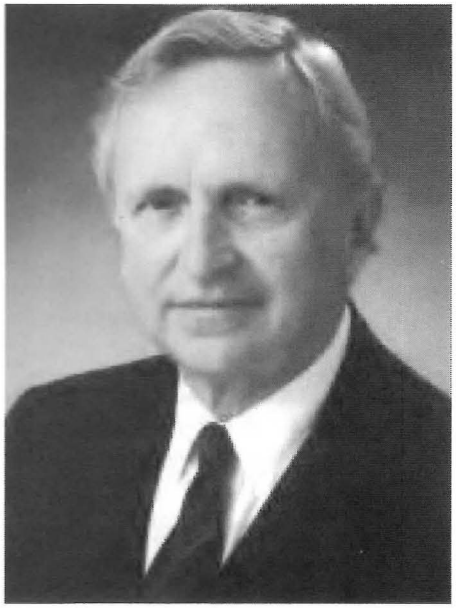
DINNER **7:00 P.M.**

Dinner reservations are required and should be received in the Section Office via phone (847-647-8405), fax (847-647-8364), email (chicagoacs @ameritech.net) or website (http://chicagoacs.org) by noon on Tuesday, June 21. PLEASE HONOR YOUR RESERVATIONS. The Section must pay for all dinner orders. No-shows will be billed.

Menu: Gaspacho (a Mediterranean-style vegetable soup served cold); Fresh garden salad with choice of dressing; Choice of: New York Strip Steak or Broiled Salmon — both served with baked potato, green beans, red & yellow peppers. Also Vegetarian Pasta entree may be selected. Dessert is vanilla ice cream with choice of topping. **Please choose your entree at the time of your reservation!**

The cost is $32.00 to Section members who have paid their local section dues, members' families, and visiting ACS members. The cost to non-Section members is $34.00. The cost to students and unemployed members is $16.00. Seating will be available for those who wish to attend the meeting without dinner.

GENERAL MEETING **8:00 P.M.**



Professor Ronald Breslow, Samuel Latham Mitchill Professor of Chemistry and University Professor, Department of Chemistry, Columbia University, New York, NY; 2004 Willard Gibbs Medalist

Title: "Progress on a New Approach to Cancer Chemotherapy"

Abstract: We have developed a group of potent molecules that accomplish a number of important goals in cancer therapy with a wide range of cancer types. 1) The cancer cells cease growth. 2) They can differentiate into normal non-cancerous cells. 3) In some cases, they undergo apoptosis, programmed cell death. The compounds do not show significant toxicity, are orally active, and the lead compound has successfully finished phase 1 and 2 clinical trials. The intellectual path that led to the potent compounds will be described, as well as the evidence on how they work and the results of animal and human trials.

Biography: Ronald Breslow was born in Rahway, New Jersey on March 14, 1931. He received his undergraduate and graduate training at Harvard University, where he did his Ph.D. research with Professor R.B. Woodward. He then spent a year in Cambridge, England as a postdoctoral fellow with Lord Todd, and came to Columbia University in 1956 as Instructor in Chemistry. He is now the Samuel Latham Mitchill Professor of Chemistry at Columbia and one of twelve University Professors, and a former Chairman of the Department.

Professor Breslow's research interests can be described generally as involving the design and synthesis of new molecules with interesting properties,

(continued on page 2)

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.

(continued from page 1)

and the study of these properties. Examples include the cyclopropenyl cation, the simplest aromatic system and the first aromatic compound prepared with other than six electrons in a ring.

His work establishing the phenomenon of anti-aromaticity has involved the synthesis and study of novel molecules. Even in work on purely mechanistic questions, such as his discovery of the chemical mechanism used by thiamine (vitamin B-1) in biochemical reactions, the synthesis and study of novel molecules played an important role.

Although he continues his interest in unusual conjugated systems, his major emphasis in recent years has been on the synthesis and study of molecules that imitate enzymatic reactions. This work has included the development of remote functionalization reactions and the development of artificial enzymes. Recently, he has developed a new group of cytodifferentiating agents with potential use in cancer chemotherapy. He is the author of over 400 publications.

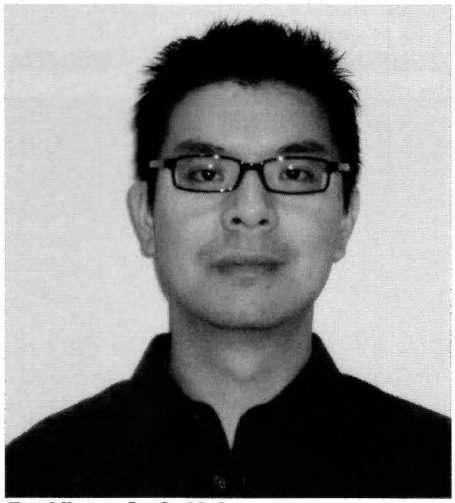
He is a member of the U.S. National Academy of Sciences (Chairman of the Chemistry Division 1974-77), of the American Academy of Arts and Sciences, and of the American Philosophical Society (member of the Council, 1987-92), as well as other scientific societies including the New York Academy of Sciences. He is a Foreign Fellow of the Indian National Science Academy, an Honorary Member of the Korean Chemical Society, an Honorary Member of the Royal Society of Chemistry of Great Britain, a Foreign Member of the Royal Society of Britain, a Fellow of the World Innovation Foundation, an Honorary Member of the Chemical Society of Japan, and an Honorary Professor of the University of Science and Technology of China.

He has been the Chairman of the Board of Scientific Advisors of the Alfred P. Sloan Foundation, and a member of the Board of Trustees of Rockefeller University. He is on the Editorial Board of a number of scientific journals, and has held over 200 named and visiting Professorships.

His major scientific awards include the American Chemical Society Award in Pure Chemistry (1966), the Fresenius Award of Phi Lambda Upsilon (1966), the Baekeland Medal (1969), the Centenary Medal (1972), the Harrison Howe Award (1974), the Remsen Prize (1977), the Roussel Prize in Steroids (1978), the James Flack Norris Prize in Physical Organic Chemistry of the American Chemical Society (1980), the Richards Medal (1984), the Arthur C. Cope Award (1987), the Kenner Award (1988), the Nichols Medal (1989), the National Academy of Sciences Award in Chemistry (1989), the Allan Day Award (1990), the Paracelsus Award and Medal of the Swiss Chemical Society (1990), and the U.S. National Medal of Science (1991). He was named one of the top 75 contributors to the chemical enterprise in the past 75 years by Chemical & Engineering News (1997), and won the Priestley Medal (1999). In 2000, he won the New York City Mayor's Award in Science and, in 2002, he has received the ACS Bader Award in Bioorganic or Bioinorganic Chemistry and the Esselen Award for Chemistry in the Public Interest. In 2003, he received the Robert Welch Award in Chemistry. In 2004, Professor Breslow was the Chicago Section's Willard Gibbs Medalist. In 2005, he was elected to the European Academy of Science.

He has also received the Mark Van Doren Medal of Columbia University and the Columbia University Great Teacher Award. He was President-Elect of the American Chemical Society (1995), ACS President (1996), and ACS Immediate Past President (1997).

TOPICAL GROUP SPEAKER



Dr. Vince S. C. Yeh

"Enantioselective Catalysis"

Abstract: Enantioselective catalysis is a critical area of organic chemistry research that involves the conversion of prochiral starting materials into enantiomerically enriched products using a sub-stoichiometric amount of a chiral catalyst. Since 1971, when it filled only a few pages of Morrison and Mosher's classic book "Asymmetric Organic Reactions", the area of enantioselective catalysis has enjoyed an explosive pace of expansion. There are now numerous reviews, monographs and books written on the subject. Aside from academic interests, man-made chiral catalysts are utilized by the chemical industry to produce pharmaceuticals, agrochemicals, flavors and fragrances. In 2001, three of the pioneers of the field, William Knowles, Barry Sharpless, and Ryoji Noyori, were awarded the Nobel prize in chemistry in recognition of their groundbreaking contributions.

This talk is a brief summary of some of the latest highlights in this exciting area of chemical research.

Biography: Vince S. C. Yeh received his BS degree (1994) from the University of British Columbia where he participated in undergraduate research under the late Professor L.Weiler. He completed PhD (2001) from the University of Alberta under the guidance of Professor D. L. Clive, where he studied the asymmetric syntheses of alkaloids. After postdoctoral research (2003) with Professor B. M. Trost at Stanford University on asymmetric aldol catalysts, he joined Abbott Laboratories as a Senior Research Chemist working in the area of metabolic diseases. His research interests include asymmetric catalysis and natural product synthesis.

In This Issue

Features

In Every Issue

"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 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.

Making Sandstone

Kids, how would you like to make your own rock? There are three major types of rock: sedimentary, metamorphic and igneous. This particular activity concerns sandstone, which is a type of sedimentary rock. You will need 1/2 cup (118 ml) of water, 2 paper cups, 2-1/2 tablespoons of Epsom salts (hydrated magnesium sulfate, $MgSO_4$ which can be bought at drugstores), and 1/2 cup (100 gm) of dry sand. Armed with these items you can perform your own geochemistry experiment!

Put 1-1/2 inches (4 cm) of water in one of the paper cups. Dissolve the Epsom salts in this water. Stir with a spoon until almost all the salt has dissolved. These salts will act to cement the particles of sand together, just like certain minerals cement sand grains together in real sandstone. Now put 1-1/2 inches (4 cm) of sand in the bottom of the other paper cup. Pour the salt mixture into the sand and stir until the sand is completely wet. Let this slurry sit undisturbed for an hour. Then carefully pour off any clear water that has risen to the top. Repeat this several times throughout the day as needed until no clear water is left. Now set the cup aside, uncovered, and let it sit undisturbed for at least one week.

When your sandstone has dried completely, you will be able to tear the paper cup away from it. If anything is still damp when you try this, let the sandstone dry for a few more days and then try again. This might seem like a long time to wait, but it is eons shorter than the time it takes for real sandstone to form!

In nature, all kinds of sediment — pebbles, sand, clay, tiny dead animals, shells, plants — can be turned into rock. Most sedimentary rocks form under water. The process may take millions of years as sediment is slowly buried by more piling on top. As the pile gets heavier, particles on the bottom are squeezed and warmed by the heat of the earth. In addition to that, water that has minerals dissolved in it seeps in between the pieces and then evaporates. The minerals that are left behind cement the particles together into a larger rock. A geochemist can see the results of these processes using a microscope. Sedimentary rock grains are smoothed by their journeys through water and are surrounded by the mineral cements. Using a magnifying glass, see if you can make out any of these features. Igneous rocks, on the other hand, are jagged and interlocked without any cement.

Reference: "Geology Crafts for Kids: 50 Nifty Projects to Explore the Marvels of Planet Earth" by A. Anderson, G. Diehn, & T. Krautwurst. Sterling Publishing Co., NY, 1998, pg. 63. Also **http://www.coaleducation.org/lessons/sme/elem/17.htm**.

EDITED BY K. A. CARRADO, ARGONNE NATIONAL LABORATORY

All past "ChemShorts": **http://membership.acs.org/C/Chicago/ChmShort/kidindex.html**

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.

June, 2005 Vol. 92, No. 6. Published by the Chicago Section of The American Chemical Society, Editorial Staff: Cherlyn Bradley, Editor; Fran Kravitz, Copy Editor; Fadwa Al-Taher & Richard Treptow, Proofreaders; Avrom Litin, Publications Business Manager. Address: 7173 North Austin, Niles, Illinois 60714; 847/647-8405. Subscription rates: $15 per year. Frequency: monthly-September through June.

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 Section's Web Page at **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 5,100 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.

RUSS JOHNSON
Chicago Section Chair

STARTING WITH SAFETY AVAILABLE ONLINE

The highly popular ACS Video Course, *Starting with Safety*, has been adapted for delivery via the Internet. The Internet version includes all of the materials from the original Video Course, including the video scenes and the *Teacher's Guide*. As an added bonus, the complete ACS Video Course, *Seeing the Light — Eye* and *Face Protection*, is also included in this ACS Internet Course. Now you and your students can access this valuable training program from any computer connected to the Internet at any time—day or night. It is the ideal complement to a standard high school or introductory college chemistry curriculum that is taught by an experienced chemistry teacher for introductory laboratory safety training. Go to the ACS home page at **chemistry.org** and search using the keyword safety.

REPORT OF COUNCIL MEETING HELD ON MARCH 16, 2005 IN SAN DIEGO, CA

The 229th National Meeting of the ACS was held in San Diego, CA from March 13 — 17, 2005. The Chicago section was fully represented by 14 councilors. The councilors who attended for the section were: Allison Aldridge, Roy Bible, Cherlynlavaughn Bradley, Charles E. Cannon, David Crumrine, Nathaniel L. Gilham, Russell W. Johnson, Fran K. Kravitz, Thomas J. Kucera, Claude A. Lucchesi, Barbara E. Moriarty, Seymour H. Patinkin, Marsha Anne Phillips and Stephen Sichak. James Shoffner was also present at the meeting.

Budget: The Committee on Budget and Finance reported that the Society ended 2004 with a net contribution from operations of $5,099,000 on revenues of $419,200,000 and expenses of $414,700,000. This was $3,628,000 favorable to the approved budget. After including the results of selling the Belmont Conference Center, recorded as a discontinued operation, and the Member Insurance Program, the Society's overall net contribution for 2004 was $4,465,000, which was $3,229,000 favorable to the approved budget.

The Council voted to set the member dues for 2006 at the fully escalated rate of $127. However, the Board reviewed the temporary assessment for 2006 and, in light of the Society's strong financial performance, voted to reduce it to $5, rather than proceeding with the scheduled $6 assessment.

Governance: At the Spring meeting, the Council chooses the candidates who will run for the office of President-Elect for 2006. The Council selected Catherine T. Hunt and John W. Kozarich as candidates for 2006 President-Elect. They join George E. Heinze, who was certified as a petition candidate for 2006 President-Elect.

Membership Affairs: Membership in the American Chemical Society was 158,127 as of year-end 2004. Compared to the previous year, this represents less than a 1% decrease. In 2004, more than 13,000 new members were added to the membership rolls.

Meetings and Expositions: The 229th ACS national meeting attracted 15,385 registrants as of March 15, 2005. The meeting had the most student members in attendance (4,160 students attended); this represents more than 1,000 more than in Philadelphia. Regional meetings held in 2004 attracted more than 6,000 attendees, with 3,581 abstracts.

Economic and Professional Affairs: As of the end of Tuesday, there were 1,344 job seekers at Chemjobs Career Center and 189 posted positions available. The number of interviews conducted in San Diego, as of the end of Tuesday, was 1,410. In addition, there were 32 workshops were held.

Constitution and Bylaws: The Council voted to establish a Committee on Ethics as an Other Committee of the Council. The charge of this committee would be as follows: To coordinate the ethics-related activities of the Society, serve as an educational resource and clearinghouse, but not as an adjudication body, for ACS members seeking guidance on ethics issues; raise awareness of ethics issues through meeting programming and columns/editorials; review recognition opportunities for acknowledging ethical behavior; and to develop and oversee such other ethics-related activities as will serve ACS members and promote the Society's standards of ethical conduct within the profession of chemistry and its related disciplines.

Special Discussion Topic - Enterprise 2015: Bill Carroll's presidential agenda for 2005 is Chemistry Enterprise 2015. A white paper on the Chemical Enterprise 2015 is available on the web. (See the ACS website for the report.) As part of this discussion, the Council discussed the topic "Enterprise 2015: Where will our students come from in the next ten years, and where will they go?" The issue was framed as follows: Currently the U.S. has a strong university system and U.S. graduate education in science is widely recognized as the best in the world, but problems loom on the horizon, especially when we consider K-12 education. The discussion at Council was lively and served to intensify awareness of this issue and provide some ideas for solutions. One idea presented was that the ACS could be a phenomenal resource that should be used. For instance, it was suggested to leverage our local section activities using the web presence of the ACS.

If you have any questions and/or comments about the above actions, please contact me by email (**bmoriarty@nalco.com**) or one of the other councilors.

BARBARA MORIARTY

SECTION SPEAKERS' BUREAU

The Section is trying to rejuvenate its Speakers' Bureau. We have had some individuals volunteer to speak at schools, service organizations etc and a few requests for speakers or demonstrators. We are in need of someone willing to take responsibility for compiling a list of volunteer speakers and topics and for getting this information out to area schools, libraries and service organizations. One person has volunteered to help organize this but cannot take on the project without assistance. If you can possibly fit this task into your busy schedule, please call or e-mail the Section office. If you cannot do this but are interested in speaking, please also let us know.

SUSAN SHIH, CO-CHAIR
LONG RANGE PLANNING

REGISTER TO ATTEND MONTHLY SECTION MEETINGS ON LINE
at
www.ChicagoACS.org

JOB CLUB

The next meeting of the **Chicago Section ACS Job Club** will be held on **Friday, June 24 at Steven's Steak House at 5 p.m.** The meeting will include a review and discussion of some of the fundamental 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 what kind of job you would like to find.

Several participants have received outsource help with resume preparation and marketing strategies to present their best attributes to prospective employers. The group actually 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 for unemployed members is $16 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. So when you can't get to the Job Club, you can still find out about job openings and other information.

WEIRD SCIENCE WORKSHOP FOR CHEMISTRY TEACHERS

The University of Illinois at Chicago Department of Chemistry will present "Weird Science and Wade, Edition 10," a workshop course in chemistry for high school and junior high school teachers, from 8:30 a.m. to 5 p.m., Aug. 8-12, on the UIC campus.

Weird Science consists of documented chemistry demos, labs, compute applications, make-and-takes, and lectures that chemistry teachers can use. The course is offered as Chem 572 (Teaching Methods in Chemistry), a three-semester-hour, graduate-level course. For details, contact Wade Freeman at UIC, 312-996-3161, **Wfreeman@uic.edu**., or go to **www.chem.uic.edu/marek/**

WCC ARTICLE AUTHORS NEEDED

Chicago Section Women Chemists Committee has been working on a project to highlight women, both current and historical, and topics of interest to women since January 2004. The project has been very successful, and we would like to invite anyone, women or men, to join us in this endeavor. There are slots to fill to write articles, starting in November 2005, remembering that the deadline for the November 2005 *Chemical Bulletin* is in September. The article needs to be about 500 words long and will be published in the *Chemical Bulletin* and put on the Chicago Section website. The author also needs to design a poster for the corresponding monthly meeting. Our office manager, Gail Wilkening, will help with the poster, which can be primarily a large font version of what you wrote, if you wish. The following women have already been chosen to be highlighted: Alice Hamilton, Madeleine Jacobs, Kathleen Carrado, Ka Yee Lee, Alanah Fitch, Linda Brazdil, Susan Shih, Gerty Cori, Jennifer Holmgren, Catherine Wojtowicz, Rosalind Franklin, Lin Chen, Edith Flanigen and Hoylande Young. We welcome new authors and those who have already discovered what a pleasure this project is. Whether you interview a current chemist or research an historical chemist on the web, please join us in this stimulating activity.

CO-CHAIRS MARGY LEVENBERG

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! **Congratulations to T-shirt winner Shannon Nebolsky, Pioneer Patent, LLC (April meeting)**

CHICAGO SECTION AMERICAN CHEMICAL SOCIETY
PROFIT AND LOSS STATEMENT
JANUARY THROUGH DECEMBER 2004

This Profit and Loss Statement and the following Balance Sheet comprise the financial report for the 2004 fiscal year.

Income	
AG Edwards Dividends	29,475.43
Chem. Bull. Advertising	18,115.00
Chem. Bull. Misc. Revenues	90.00
Donations	
Donations-Cash	8,000.00
Total Donations	8,000.00
Gibbs Meeting Registrations	4,202.00
Investment Transfer	0.00
Local Section Dues	39,803.54
Meeting Registrations	11,465.04
Miscellaneous Revenues	14,387.43
Nat'l Allottments & Commissions	26,052.00
National ACS Reimbursments	21,349.17
State Fair	3,897.65
Total Income	**176,837.26**
Expense	
Awards	80.01
Chair	335.53
Chair-Elec	105.00
Chem. Bull. Mailing	8,145.18
Chem. Bull. Misc. Expenses	297.74
Chem. Bull. Production	32,612.77
Chemistry Week	752.59
College Education	932.00
Dinner Meetings	13,378.70
Dinner Subsidies	1,643.00
Environ. & Lab Safety	83.98
Gibbs Arrangments	8,605.40
Great Lakes Reg. Mtg.	176.60
High School Education	2,217.83
Hospitality	395.45
House	4,842.45
Insurance	1,966.76
Jr High/Middle School Education	83.17
Membership Affairs	529.12
Minority Affairs	2,104.44
Miscellaneous Expenses	139.48
Office	1,211.23
Payroll Expenses	
Federal WH	1,320.60
FICA	2,599.21
Medicare	607.88
Payroll Expenses - Other	28,716.36
Total Payroll Expenses	33,244.05
Payroll TAXES	0.00
Payroll tax--Federal	0.00
Payroll tax--FICA	0.00
Payroll tax--State	0.00
Payroll tax-Medicare	0.00
Total Payroll TAXES	0.00
Postage	463.98
Program	2,067.20
Project SEED	1,750.00
Public Affairs	639.13
Rent	4,500.00
Scholarships	10,000.00
Secretary	2,795.37
Telephone	1,935.86
Topical Group	120.00
Travel (Councilor)	28,756.56
Treasurer	1,077.73
Web	106.74
Total Expense	**168,095.05**
Net Income	**8,742.21**

CHICAGO SECTION AMERICAN CHEMICAL SOCIETY
BALANCE SHEET
AS OF DECEMBER 31, 2004

ASSETS	
Current Assets	
Checking/Savings	
adjustment	300.00
Northern Trust Bank	13,815.60
Total Checking/Savings	14,115.60
Accounts Receivable	
Accounts Receivable	3,129.50
Total Accounts Receivable	3,129.50
Other Current Assets	
Gibbs Medal Inventory	6,534.50
Petty Cash	400.00
Prepaid Expenses	750.00
Stifel-Nicolaus Cash Account	-15,897.25
Stifel-Nicolaus Earnings	29,078.91
Stifel-Nicolaus Equities	324,325.61
Stifel-Nicolaus Gen Money Mkt.	03,007.40
Stifel-Nicolaus Mutual Funds	77,229.04
Stifel-Nicolaus Other Invests.	32,319.00
Stifel-Nicolaus Preferreds	57,689.00
Stifel-Nicolaus Taxable Bonds	30,896.20
Stifel-Nicolaus Unr. Cap. Gains	133,033.32
Total Other Current Assets	921,207.91
Total Current Assets	938,453.01
TOTAL ASSETS	**938,453.01**
LIABILITIES & EQUITY	
Liabilities	
Current Liabilities	
Other Current Liabilities	
Contingency Reserve Fund	57,111.61
Freud Trust Endowment Fund	9,573.08
General Endowment Fund	34,544.67
Holding Fund	1,603.66
Ipatieff Library Endowment Fund	20,941.85
Lishka Scholarship Endow. Fund	54,119.95
Marshall S. Smoler Endowment	22,032.68
Meeting Place Reserve Fund	253,988.35
Payroll Liabilities	
Payroll Liabilities - State WH	1,153.21
Payroll Liability--FICA	2,638.92
Payroll Liability--Medicare	599.98
Payroll Liability - Federal WH	3,011.40
Total Payroll Liabilities	7,403.51
Schaar Scholarship Fund	13,088.02
Scholarship Endowment Fund	504,365.31
Scholarship Operating Fund	46,206.82
W. Gibbs Medal Endowment Fund	40,523.13
Total Other Current Liabilities	1,065,502.64
Total Current Liabilities	1,065,502.64
Total Liabilities	**1,065,502.64**
Equity	
Opening Bal Equity	7,473.46
Retained Earnings	-143,265.30
Net Income	8,742.21
Total Equity	**-127,049.63**
TOTAL LIABILITIES & EQUITY	**938,453.01**

ELECTRONIC NOSE

A Chem Shorts for Kids article (April 2005 issue of the *Chemical Bulletin*) demonstrating how molecules that affect our olfactory sense can escape from rubber balloons presumably via small holes in the sheet rubber reminded me of some work done at IIT.

When Joe Stetter joined our chemistry faculty (at IIT), I approached him about inviting a group of undergraduates to design and build an electronic nose. He agreed and six students worked with us. The sensors for our nose were small electrical cells — cylinders about half an inch diameter and about one inch long. One end contained the electrical connectors, but the other end was a thin membrane such that the molecules passing over that end could diffuse into the cell and in so doing change the electrical properties of the cell (much as the cited aromatic molecules diffused through the balloon rubber sheet).

In so doing the diffused molecules affected the EMF of the cell. With eight such cells — each with a different electrolyte — we got a pattern of EMF changes that was different for every different mixture of gases that passed through the Electronic Nose. We stored each pattern in a library so we could take an unknown mixture and compare that with the olfactory spectra in the library.

One student brought a bag of coffee beans to the lab; we ground some up and passed the aroma through the Electronic Nose. We called Starbucks research lab in Seattle and found the Manager of Coffee Sciences. We chatted, he was intrigued, and sent us three five-pound bags of coffee beans from Malasia, Kenya and Columbia. We collected the olfactory signature of each and presented the students with one of the samples (identity unknown to the students). They identified it correctly.

Subsequently, a Ph. D. student in Microbiology who had observed us, went to his new job as manager of a microbiology lab in a local hospital. He noted that whenever a patient came in with a fever, it was attributed to a bacterial infection. They would draw blood, filter out the solids and put the serum into a tube filled with nutrients (incubated at body temperature, 37 degrees Celsius) until a sufficient number of bacteria had grown so that they could identify the bacterium via a staining technique. He came to visit us and we devised an experiment where we measured the olfactory spectrum of the gases given off by the feeding bacteria. We did that for two Gram positive and two Gram negative bacteria and were able to distinguish any one from all the others. We published the results in the *Journal of Microbiology*, September, 2001, p 213-218. That was the first instance where bacteria were identified by an Electronic Nose.

PETER LYKOS

SUCCESSFUL JOB SEARCH WORKSHOP

At the recent Job Search Workshop on April 23, over 20 attendees from at least three states gained important advice on evaluating the job market and finding one's place in it. A sampling of points included:

Resumes: An academic CV is longer and more detailed than an industrial resume, while a resume for a government position usually should list qualifications more than accomplishments.

Networking: Network is a noun and a verb; you must take deliberate actions to develop and maintain a network of people who will transmit information that is useful to you. Keep in touch with people you meet and form partnerships with them.

Interviewing: The fit of your skills with the requirements of the job is only part of the employment decision. The interviewer is evaluating your energy, enthusiasm, and potential fit in the company culture. Be prepared and even rehearse answers to possible questions. Understand personality types, and tailor your responses accordingly; a "thinker" type will like details that would annoy an "intuitive" type.

Special thanks to Dorothy Rodmann for customizing this presentation and putting on a great workshop. I also want to thank Allison Aldridge for initiating and organizing the entire event.

The workshop was a tremendous success.

Contact me if you would like copies of the pamphlets or handouts.

PAUL YOUNG
dadheldenleben@aol.com

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 column is about **Hoylande Denune Young**.

Every month a member of the Women's Chemist Committee is asked to choose a female chemist that they would like to write an article about for the *Chemical Bulletin*. Well, my month came and went as I tried to select someone for whom I felt a kinship. At first, my thoughts were to find a chemist who was a working mother like me, but in the back of my mind I wasn't comfortable. I have always been active in the Chicago Section, so I wondered who was the first female chair of this Section. I looked through the names of the chairs of this section and thought that it was Margaret Houston (1980). I felt comfortable since she was probably the first female chemist to make me feel welcome in the Section. I reached for the phone and gave her a call and asked her permission to write an article about her. During our conversation, I found out she wasn't the first female chair but the second. She informed me that **the first female chair of the Chicago Section was Hoylande Denune Young**.

I began my search for information about this woman. I thought how hard could this be. This article is based on several months of research since over the years Dr. Young, like many other women chemists of her time, fell through the cracks and very little was recorded about her life.

Before I begin her tale, I would like to thank the many people who helped in my search: Margaret Houston, the second chair of the Chicago Section; a reference librarian at the Wheaton Public Library; Catherine Foster of Argonne National Labs; Carolyn L. Herzenberg who co-authored the book "Their Day in the Sun: Women of the Manhattan Project"; Deter Gruen; Margaret Butler; Gail Wilkening, office manager of the Chicago Section; and finally Andrea Twiss-Brooks of The John Crerar Library of The University of Chicago. Most of the biographical material for this article was taken from "Their Day in the Sun: Women of the Manhattan Project" by Ruth H. Howes and Caroline L. Herzenberg, Temple University Press, Philadelphia 1999, pgs. 75-76, 187 and 194.

Hoylande Denune Young was born June 26, 1903 in Columbus, Ohio. Her interest in chemistry began in high school. In those days, girls usually were not allowed to take as rigorous a course as boys took in chemistry. During high school, she was allowed to take the boys' chemistry course only because she could not fit the girls' course into her schedule. She went on to receive her B.S. in chemistry from Ohio State University in 1922. Young went on to earn her Ph.D. in organic chemistry from The University of Chicago in 1926. Her dissertation was under Julius Stieglitz and was titled "Stereoisomeric Bromoimino Ketones". The worked involved hand separation of individual crystals and the distillation of bromine. Records show that she joined the American Chemical Society and the Chicago Section prior to earning her Ph.D.

After graduate school, she began her career in 1926 as research chemist at Van Schaack Brothers Chemical Works in the lacquer industry. She left Van Schaack Brothers in 1930 and accepted a position with the College of Industrial Arts of Texas State College for Women in Denton, Texas. Young was an assistant professor of chemistry from 1930 until 1934, teaching nutrition and biochemistry. She left to accept a research position at Michael Reese Hospital but lost the position when they learned she was a woman. She became a consultant from 1934 until 1938, at which point she was offered an industrial chemist position with Pure Oil Company. She worked there until 1942. During this time she collaborated with Cary Wagner to write a book on petroleum refining. She worked on it for six years, but the book was never published.

In 1942, she accepted a position with the University of Chicago as a scientific librarian with the Office of Scientific Research and Development in the toxicity labs, which was a site for research on chemical warfare. Her work included collecting information from British and American reports and putting together a "master index" of toxic compounds. This information was disseminated in American, British and Canadian chemical warfare laboratories. She remained there until 1945, where she was reassigned to the Metallurgical Laboratory as a senior chemist. This is when Young began her work as both a chemist and general editor on the Manhattan Project. She edited papers published in the National Nuclear Energy Series, the Atomic Energy Commission's report of wartime research on nuclear energy. She also participated in meetings of the laboratory council.

Dr. Young left the Manhattan Project in 1946 to become the first female division director at Argonne National Laboratory. Her official title was Director of Technical Information. She remained in that position until her retirement in 1964. During this time, she became the first woman chair of the Chicago Section, American Chemical Society, in 1956. She was also a fellow of the American Institute of Chemists, the American Association for the Advancement of Science and an active member of the Atomic Scientists of Chicago. Argonne established the Hoylande D. Young lecture series in 1963 in her honor under the auspices of the Research Society of America. Dr. Young went on to marry Crawford Failey who was a friend from her days in the Toxicity Laboratory.

Dr. Young was very involved with the Chicago Section. Records show that she served on many committees, including bylaws, endowment, nominating, office affairs and policy. She was a director for four years, as well as vice chair of the Section. She was also a councilor and alternate councilor between the years of 1948 to 1972. Dr. Young was also involved in setting up the award committee for the Distinguished Service Award and acted as chair of the nominating committee for this award. The Chicago Section presented Dr. Hoylande D. Young Failey with the Distinguished Service Award on April 25, 1975.

Dr. Young was very active in Iota Sigma Pi and on the National ACS Women's Service Committee. Margaret Houston, our second chair of the Chicago Section, describes her as a very intelligent, warm and friendly individual. She is described in the Distinguished Service Award Booklet as a non-woman's libber, but has done more to advance the cause and recognition for women chemist in the Society and the Section. Dr. Hoylande Denune Young Failey passed away January 12, 1986. It is a shame that the history of this woman is all but forgotten in the Chicago Section Archives but luckily for us saved by the authors of "Their Day in the Sun: Women of the Manhattan Project", Ruth H. Howes and Caroline L. Herzenberg.

FRAN KRAVITZ

Whether you spend your summer traveling, going to school, working, or playing....Have a wonderful summer and see you in the Fall with the September issue — Editorial Staff

ELEMENTARY EDUCATION COMMITTEE

The Elementary Education Committee will be meeting in June for a planning session. The date and location will be selected based on the geographical convenience of all members of the committee. We are currently looking for additional members to join the group. We are looking to develop a chemistry summer camp for kids in grades 2 thru 5. This camp would be modeled after other existing academic camps, but would be chemistry related. This committee would be involved in curriculum selection, program development, site location and training elementary teachers who would implement the program. The proposed date for this camp is summer of 2006. Other programs the committee would investigate would be to develop a program for chemistry clubs in elementary schools for grade 5. If you are interested in joining this fun and exciting committee please contact the Section office at (847) 647-8405; **chicagoacs@ameritech.net** or contact Fran Kravitz at (630) 293-4122; **fk1456@sbcglobal.net**. If you choose to send an email note, make sure you put the title "elementary education committee" in the subject line of your note.

FRAN KRAVITZ

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

HELP WANTED!!

A consortium of the Illinois Local Sections of the American Chemical Society seeks assistance at the **2005 Illinois State Fair** to be held **August 12-21** in Springfield. In 2004, over 7700 visitors came to the ACS tent, located in Conservation World, and we had over 50 volunteers. The State Fair is coming sooner that we might think and we need your help!

Your assistance is appreciated in any way you can give it, but we especially need help in the following areas:

- **Financially** – you, your company or organization, or your Local Section can all help and you will be duly acknowledged!
- **Time** – volunteer to work a shift at the fair, organize a day at the fair with your group/organization to work (we offer free admission and parking!), or join the committee!
- **Resources** – gifts-in-kind of materials for demonstrations, help assembling posters for display, give-aways, etc. are all appreciated

Interested? Visit **www.acsillinoisstatefair.org** or send an e-mail to Fran Kravitz (fk1456@sbcglobal.net) or Cherlyn Bradley (cbrad1027@aol.com).

WOMEN CHEMISTS COMMITTEE TRAVEL AWARDS - YEAR 2006

The Eli Lilly & Company is sponsoring a program to provide funding for undergraduate, graduate, and postdoctoral women chemists to travel to scientific meetings in 2006 to present the results of their research. Grants may be applied only for registration, travel, and accommodations, and are restricted to travel to meetings within the United States. Grant funds are limited, but there are some funds set aside for undergraduates. Only U. S. citizens and permanent residents are eligible.

Applications should be limited to one per research group. Awards will be given with preference to the following order: (1) any applicant who will be making her first presentation (regardless of format) at a national or major meeting, (2) graduate or postdoctoral applicants who have not presented at a national or major meeting since leaving undergraduate school. Women who have received a prior award under this program are ineligible.

The **deadline dates** for receipt of applications are as follows:

- September 15, 2005 — Meetings between January 1 and June 30, 2006
- February 1, 2006 - Meetings between July 1 and December 31, 2006

For detailed information about this award and how to apply visit the Women Chemists Web site at **http://membership.acs.org/W/WCC/** or contact the WCC office at **wcc@acs.org.**

ALMA E-NEWS

Management Principles

Dee Hock is a retired banker who was the driving force behind the creation of the Visa card. He is viewed as one of the most original thinkers on the subject of organizations. Some of his management principles expressed in his own words are listed below:

1) "Make a careful list of things done to you that you abhorred. Don't do them to others, ever. Make another list of things done for you that you loved. Do them for others, always."

2) "Hire and promote first on the basis of integrity; second, motivation; third, capacity; fourth, understanding; fifth, knowledge; and last and least, experience. Without integrity, motivation is dangerous; without motivation, capacity is impotent; without capacity, understanding is limited; without understanding, knowledge is meaningless; without knowledge, experience is blind. Experience is easy to provide and quickly put to good use by people with the other qualities."

3) "Never hire and promote in your own image. It is foolish to replicate your strength. It is idiotic to replicate your weakness. It is essential to employ, trust, and reward those whose perspective, ability, and judgment are radically different from yours. It is also rare, for it requires humility, tolerance, and wisdom."

4) "Money motivates neither the best people, nor the best in people. It can move the body and influence the mind, but it cannot touch the heart or move the spirit; that is reserved for belief, principle, and morality. As Napoleon observed, 'No amount of money will induce someone to lay down their life, but they will gladly do so for a bit of yellow ribbon'".

If you have any comments, cost saving suggestions, opinions, etc. let me hear from you.

Past ALMA (Analytical Laboratory Managers Association) e-News editions are available at the website **http://www.labmanagers.org/.**

WAYNE COLLINS
wayne.collins@thermo.com

ADVERTISING INDEX

CALENDAR

June 5-9, 2005: American Society for Mass Spectrometry will meet in San Antonio, TX. Go to **www.asms.org** for information.

June 13-July 29, 2005: SciTech's Center for Learning is offering summer camp for children six through thirteen years of age. The interactive hands-on science camps will run six weeks from 9am to 3pm M-F. For further information, call 630-859-3434, ext. 214 or go to **www.scitech.museum**.

June 15, 2005: "Safety Inspections" course sponsored by the Chicago Chapter of the National Safety Council, Chicago, IL. For information, go to **http://www.nsc.org/osh/safeinsp.htm**.

July 18-22, 2005: Gas Chromatography: Fundamentals, Troubleshooting, and Method Development course will be taught at Axion Analytical Laboratories, 14 North Peoria St., Suite 100, Chicago, IL. To register, call the ACS Department of Continuing Education, (800) 227-5558, ext. 4508. Contact Lee Polite at (312) 243-2153 or **lee@axionlabs.com** with questions about technical content.

August 1-5, 2005: High Performance Liquid Chromatography: Fundamentals, Troubleshooting, and Method Development course will be taught at Axion Analytical Laboratories, 14 North Peoria St., Suite 100, Chicago, IL. To register, call the ACS Department of Continuing Education, (800) 227-5558, ext. 4508. Contact Lee Polite at (312) 243-2153 or **lee@axionlabs.com** with questions about technical content.

August 8-12, 2005: The University of Illinois at Chicago Department of Chemistry will present "Weird Science and Wade, Edition 10," a workshop course in chemistry for high school and junior high school teachers, from 8:30 a.m. to 5 p.m. on the UIC campus. For details, contact Wade Freeman at UIC, 312- 996-3161, **Wfreeman@uic.edu**. or go to **www.chem.uic.edu/marek/**

August 12-21, 2005: Illinois Local Sections' cooperative program at the Illinois State Fair in Springfield. See article in this issue.

August 28 — September 1, 2005: The 230th ACS National Meeting will be in Washington, DC. Go to **http://www.chemistry.org.**

September 23, 2005: Chicago Section's monthly dinner meeting.

October 16-21, 2005: National Chemistry Week — Theme: "The Joy of Toys".

October 21, 2005: Basolo Medal Award joint meeting with Northwestern University.

October 30 — November 2, 2005: The American Oil Chemists Society (AOCS) will have the 6th Annual Soy Symposium at The Renaissance Chicago Hotel in Chicago. The symposium will have talks on the role of soy in preventing and treating chronic disease.

November 2-4, 2005: The AIChE/ACS Management Conference in Cincinnati, OH. Email **meetmail @aiche.org** for further information.

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