theCHEMICALbulletin

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OCTOBER • 2002

CHICAGO SECTION AMERICAN CHEMICAL SOCIETY

JOINT MEETING OF NORTHWESTERN UNIVERSITY DEPARTMENT OF CHEMISTRY AND THE CHICAGO SECTION ACS

BASOLO MEDAL AWARD LECTURE, DINNER AND PRESENTATION FRIDAY, OCTOBER 18, 2002

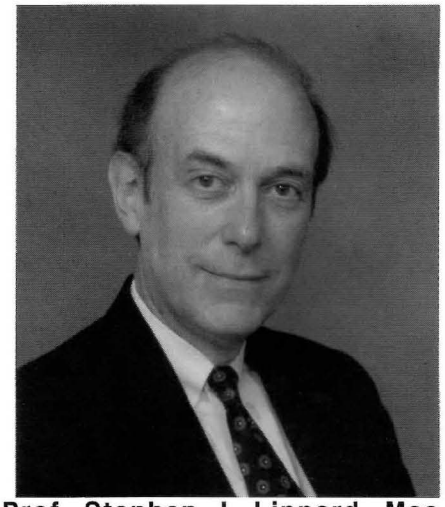
BASOLO MEDAL LECTURE LOCATION:
Northwestern University
Technological Institute
2145 Sheridan Road
Evanston, IL
Lecture Room 3

DIRECTIONS TO THE TECH INSTITUTE:
From the city: Take Lake Shore Drive North to Sheridan Road into Evanston. Continue on Sheridan Road to the Tech Institute. From the west: take I-88 east to 294 north to Dempster east. Proceed east on Dempster into Evanston. Turn left onto Chicago Ave. and proceed to Sheridan Road. Take Sheridan Road north to the Tech Institute. The Technological Institute is at the intersection of Sheridan Road and Noyes Street in Evanston.

To those attending the Basolo Medal lecture, parking after 4:00 p.m. is available in the lot across from the Technological Institute at the corner of Noyes Street and Sheridan Road. Parking is also available on the side streets just west of this lot — however, observe the posted signs. Car-pooling is always encouraged.

Lecture room 3 is on the first floor of the Technological Institute and is most easily reached by entering through the main doors facing Sheridan Road. The lecture room is clearly marked and there will be signs at the entrance to guide you to the room.

Basolo Medal Lecture: **4:30 — 5:45 P.M.**
The Medalist Lecture is open to the public and admission is free to all those wishing to attend.



Prof. Stephen J. Lippard, Massachusetts Institute of Technology, Cambridge, MA.

Title: Three Avenues in Bioinorganic Chemistry: Cisplatin, Methane Monoxygenase, and Metalloneurochemistry

Abstract: The interface between inorganic and biological chemistry is broad and expanding. Metal ions are extensively applied in diagnostic and therapeutic medicine. The simple coordination compound cis-diamminedichloroplatinum(II), also known as cisplatin, has contributed significantly to the management of testicular cancer. This and related platinum anticancer drugs kill cancer cells through a multifactorial mechanism. The first step is activation to facilitate DNA binding. Structures of the major platinum-DNA adduct reveal distortions of the double helix that trigger the interaction of proteins involved in gene activation. Inhibition of the key cellular processes of transcription and nucleotide excision repair ensues. These processes are being investigated using site-specifically platinated DNA in a nucleosome. A means of applying this information has afforded a new approach to treat ovarian cancer that is the basis for a clinical trial.

Metal ions are also key components of enzymes. In methanotrophic bacteria, which use methane as their sole source of carbon and energy, a hydroxylase enzyme (MMOH) housing a carboxylate-bridged non-heme diiron unit activates dioxygen for the selective conversion of methane into methanol. This remarkable reaction proceeds in a stepwise fashion, the details of which have been delineated through structural studies of the enzyme and its partner proteins required for activity, mechanistic studies of intermediates, and experimental and theoretical analyses of the C-H bond activation step. The transition state involves a bound radical that evolves products through both concerted insertion and recoil/rebound steps. Analogs of the active site have been synthesized that afford insight into the structures and chemistry of MMOH.

Neurochemistry is similarly replete with inorganic ions essential for function. New fluorescent sensors for zinc and nitric oxide have been obtained that have the potential to map neural networks in the hippocampus, the center of learning and memory.

NOTICE TO ILLINOIS TEACHERS

The Chicago Section-ACS is an ISBE provider for professional development units for Illinois Teachers. Teachers who register for the October meeting will have the opportunity to earn up to 5 CPDU's.

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Biography: Professor Lippard was born in Pittsburgh, PA, was an undergraduate at Haverford College (B.A., 1962) and completed his graduate work at M.I.T., receiving the Ph.D. in 1965. After a postdoctoral year as an NSF Fellow at M.I.T., he joined the faculty of Columbia University as an Assistant Professor in 1966, was appointed to Associate Professor with tenure in 1969 and to full Professor in 1972. He returned to M.I.T. as Professor of Chemistry in 1983, was appointed Arthur Amos Noyes Professor in 1989, and Head of the Chemistry Department in 1995.

Professor Lippard has received many fellowships and prizes, including the Henry J. Albert Award of the International Precious Metals Institute for his work on platinum metals and their interactions with nucleic acids, election as Fellow of the American Academy of Arts and Sciences, the ACS Award in Inorganic Chemistry sponsored by Monsanto Company, the Remsen Award sponsored by the Maryland Section of the ACS, an Alexander von Humboldt Senior U.S. Scientist Award, election to the National Academy of Sciences, election to the National Institute of Medicine, the John C. Bailar, Jr. Metal of the University of Illinois, the ACS Award for Distinguished Service in Inorganic Chemistry sponsored by Mallinckrodt Company, the William H. Nichols Metal sponsored by the New York Section of the ACS, an Honorary D.Sc. Degree from Texas A&M University, an honorary membership in the Italian Chemical Society, scientific membership in the Max-Planck-Gesellschaft, an honorary D.Sc. degree from Haverford College, and the Richards Metal of the Northeast Section of the ACS.

He is author or co-author of over 550 articles in professional and scholarly journals, has written or edited two textbooks, and holds several U.S. and foreign patents. He has published a book with Jeremy Berg entitled "Principles of Bioinorganic Chemistry."

Dr. Lippard's research activities span the fields of inorganic and biological chemistry. Included are structural and mechanistic studies of platinum anticancer drugs and of methane monooxygenase, the synthesis of carboxylate-bridged dimetallic complexes as models for redox-active enzymes and metallohydrolases, and probes for the neurochemical function of zinc, calcium and nitric oxide. Also among his many activities he is an avid harpsichordist, an early morning jogger, and occasional horseback rider.

DINNER LOCATION:
Kendall College Culinary School
2408 Orrington Avenue
Evanston, IL
The Dining Room
847-866-1300

DIRECTIONS TO KENDALL COLLEGE:
Kendall College is located just a short walk (about 3 blocks) from the Tech Institute. If you are not attending the lecture and, instead, driving directly to Kendall College Culinary School, the following are directions from the Edens Expressway. Take the Edens to the Old Orchard Road exit. Proceed straight east to Green Bay Road and turn north two blocks to Central Street. Turn right onto Central Street and go two streets beyond Ridge Road to Orrington Avenue. Turn south onto Orrington Avenue 1.5 blocks. The culinary school has limited parking in the lot adjacent to the dining room. Parking is also available on the neighborhood side streets. Observe the posted signs.

Reception: **6:00 - 7:00 P.M.**
Complementary wine, soft drinks, and hors d'oeuvres served butler style. Hors d'oeuvres selection: Salmon Canapes (Scottish salmon with chive spread and caviar), Shrimp Fritters (Battered rock shrimp with fresh ginger, corn, soy and cilantro and chutney), Lamb Tenderloin with mint yogurt and couscous, Spinach and Feta Cheese wrapped in a phyllo purse.

Dinner: **7:00 P.M.**
Kendall College is the site of the premier culinary school in the Midwest, training chefs to work in the finest and most expensive restaurants. The first course will be Pumpkin Soup (roasted pumpkin with allspice served with vanilla bean cream). The second course will be a pear and walnut salad (poached pears and toasted walnuts served with mesclun greens, port wine vinaigrette, and blue cheese). The main course is a choice of Lavender Chicken (Lavender honey-glazed chicken served with creamy goat cheese polenta and caramelized red onions and escarole), Scaloppini of Grouper (Almond herb crusted grouper pan fried and served with mushroom risotto and tomato coulis), or Vegetarian free-form Pasta (Egg pasta layered with eggplant, portabella mushrooms, saute spinach, sun-dried tomatoes and ricotta cheese and tomato basil sauce; an assortment of breads with butter, and beverage. Wine will be served throughout the evening. The Dessert will be Fruit Charlotte with raspberry sauce.

Dinner reservations are required and should be received in the Section Office via **phone** (847-647-8405), **fax** (847-647-8364), website (http://membership.acs.org/C/Chicago), or **email** to **chicagoacs@ameritech.net**. Because of the special nature of this program and its location, we are asking that you make your reservations earlier than usual and, if possible, by Wednesday, October 9, 2002.

The dinner cost is $35.00. The cost to students and unemployed members is $17.50. PLEASE HONOR YOUR RESERVATIONS. The Section must pay for all dinner orders. No-shows will be billed.

This is the third year we have had the Basolo Medal dinner and presentation at Kendall College. All those attending can look forward to a wonderful evening and a truly fine dining experience.

General Meeting: **8:00 P.M.**
Presentation of the Basolo Medal and remarks: Susan Shih, Chair, Chicago Section American Chemical Society; Michael R. Wasielewski, Chairman, Chemistry Dept., Northwestern University; Prof. Stephen J. Lippard, 2002 Basolo Medalist, MIT, Cambridge, MA.

REGISTER TO ATTEND MONTHLY SECTION MEETINGS ON LINE
at
http://membership.acs.org/C/Chicago

IN THIS ISSUE

Features

In Every Issue

"CHEM SHORTS" For Kids

COOKIE COAL MINING

Kids, there are many things that we use every day that are mined from the ground. Things you may never think of such as portland cement which is used to make concrete, or sulfur, or salt, are mined. Illinois mines provide primarily crushed stone, portland cement, sand, gravel, and coal. The website will let you click on any state to see what is mined there. Coal is our most abundant fossil fuel resource. It is a complex mixture of organic chemical substances containing carbon, hydrogen, and oxygen, with small amounts of nitrogen and sulfur. The degree of coalification, also called the rank of coal, increases from lignite (brown coal) to low rank coal (sub-bituminous), to high rank coal (bituminous), to anthracite. Carbon goes up and oxygen and hydrogen go down along the series. The hardness increases and the reactivity decreases. Different heats and pressures during geochemical development cause these differences in rank. It is not due to the kind of plants the coal is formed from.

U.S. coals range from lignite with 30% carbon and a heating value of 7,000 Btu per pound to anthracite with 85% carbon and a heating value of 12,750 Btu per pound. Sub-bituminous and bituminous coals are between these values. There are two methods of mining coal, surface mining and underground mining. There are over 1,000 mines of each type in the U.S. Underground mining is more difficult and requires more miners, but much of our best coal is underground. Lately, surface mining in Wyoming has made it the top coal producer at almost 300,000 tons per year. West Virginia and Kentucky, the traditional leaders, each produce around 170,000 tons. Last year about 1 billions tons of coal was mined in the U.S. with almost 60% used by electric utility companies. Coal is also used to make plastic and steel. When used as a fuel, coal can be burned just as it comes from the ground or converted into fuel liquids.

Here is your activity. Get a chocolate chip cookie, a chocolate chunk cookie, an oatmeal raisin cookie, and two toothpicks. Think about how these cookies represent mining the 3 major types of coal. The raisins represent the soft coal lignite, the chocolate chips are the hardest coal anthracite, and the slightly softer chocolate chunks are most like bituminous coal. All of them are embedded in cookie dough "rock". Using your toothpicks as jackhammers and picks, separate the coal from the rock. Make neat piles of chips, chunks, raisins, and cookie crumbs. Now put the cookie crumbs back together. How, and why, you say? Reclamation is an important part of the mining process in order to be good stewards of the land. Some stone quarries that are now recreation areas are Centennial Beach in Naperville and Quarry Beach in Batavia. (By the way, don't forget to eat the fruits of your labor!).

Reference: www.osmre.gov, and J. Licandro (Scullen Middle School, Naperville) from 8/4/02 "School Rocks" article in the Naperville Sun by D. DeFalco.
Submitted by Dr. K. A. CARRADO.
All past ChemShorts: http://membership.acs.org/C/Chicago/ChmShort/kidindex.html.

CHAIR'S LETTER

NOTES FROM BOSTON

This summer the Section was notified that it was a finalist in three categories for ChemLuminary awards at the National meeting in Boston. They were Most Innovative Use of Technology by a Local Section (Milt Levenberg), Local Career Service Program Activities (Allison Aldridge) and ACS President's Award for Local Section Government Affairs (Barb Moriarty). Our thanks and congratulations go to Milt, Allison and Barb and the members of their committees for the work that led to these nominations.

Some of you may not be aware that National Chemistry Week dates have changed. This year it is scheduled for October 20 to 26 with the theme of "Chemistry Keeps Us Clean". We are fortunate to have two activities scheduled to celebrate NCW, one organized by ChemWest and one by the Chicago Section.

On Saturday, October 19th, ChemWest in conjunction with the Chicago Section is planning a day of activities for high school teachers at Glenbard South High School in Glen Ellyn. The day begins with a Technology Workshop in the morning. 3 CPDUs are available for attending this. After lunch is a ChemWest meeting and demonstrations by teachers. 3.5 CPDUs are available for this. For more information, to register for this opportunity or to volunteer to do a demonstration, contact Mike Heinz at **Michael_Heinz@glenbard.org**.

The following Saturday, October 26, the Chicago Section is hosting Chemistry Day at UIC. The presentations start at 10am in Science & Engineering South, 845 W. Taylor St. Several speakers will be talking about the various ways chemistry keeps us clean. There will be demonstrations going on throughout the day, many hands-on activities for younger children and numerous exhibitors. We hope to see many of you there.

This month's dinner speaker is Dr. Stephen Lippard of MIT presenting the 2002 Basolo Lecture. The Basolo Medal was established by former students of Dr. Fred Basolo and is given annually to an eminent inorganic chemist in Dr. Basolo's honor.

As always, we hope that you find one or more of our activities interesting and join us. We are always looking for new faces and new ideas. Feel free to contact me through the office or by email if you have any concerns or suggestions.

SUSAN SHIH
CHAIR

CONTACT THE CHAIR

Do you have any questions, suggestions, ideas, gripes, or complaints, relating to the Chicago Section? Do you want to volunteer to help with Section programs or activities? Then contact your Chair. Simply log onto the Section's Web Page at http://membership.acs.org/C/Chicago, 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. I look forward to hearing from you.

SUSAN SHIH
Chair

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

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 will win one.

FRAN KAREN KRAVITZ
HOSPITALITY COMMITTEE CHAIR

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RESPONSES OF REPUBLICAN AND DEMOCRATIC US SENATE CANDIDATES TO QUESTIONAIRE ON SCIENCE POLICY ISSUES

In 1992 the Public Affairs Committee of the Chicago ACS began a program of submitting a questionnaire on public policy issues to candidates for major offices in Illinois. Members could then use the answers in their voting deliberations. In 1992, 1996, and 1998 we submitted questions to candidates for US Senate from the two major political parties. In 1994 and 1998 we submitted questions for gubernatorial candidates from the two major political parties. As was the case in 1998, there are elections in 2002 for both governor and US Senate and we have submitted separate questionnaires to candidates for both offices. We published responses for one candidate in the gubernatorial race in the September edition of *The Chemical Bulletin* and are publishing responses for the Senate race in this issue.

Unfortunately, we were unable to obtain answers from one of the candidates for US Senate in time for the print bulletin. We are hoping to be able to get answers from the Republican candidate and post the responses on our website. In the meantime, we invite you to read the responses from the Democratic candidate and use these responses, along with other information in your deliberations on Election Day. The candidates for the US Senate seat are James Durkin (Republican) and Richard Durbin (Democrat).

BARB MORIARTY
JIM SHOFFNER
Co-Chairs, Public Affairs Committee

QUESTIONS FOR ILLINOIS SENATORIAL CANDIDATES

1. In recent years, the scientists and engineers who have chosen this country for their training have tended to stay in this country after receiving their degrees. In fact over half the graduate students in this country getting advanced degrees in science and engineering are not from this country. What plans do you have to maintain the supply of scientists and engineers needed for economic growth in this country (without limiting economic opportunity for American scientists)?

Durbin: I recognize the important role that many immigrant scientists and engineers play in American businesses today. At the same time, I believe Congress needs to craft a long-term policy to help ensure that American workers have the education and training necessary to fill technology positions in the future. We need to increase funding for math, science, and technology programs.

In 2001, I offered an amendment to the education reform bill, to increase federal funding for math and science education, including partnerships with the private sector designed to improve instruction and enhance students' mastery of these subjects. The amendment was adopted, and the final version of this bipartisan legislation authorized $450 million for math and science education. I am working to ensure that this program receives substantial funding in the coming year and will continue to support education and training measures that help students and American workers acquire the skills they need to compete in our economy.

Finally, I introduced the Homeland Security Education Act (S.1799), which would establish a program to forgive interest payments on student loans for selected borrowers who have obtained undergraduate degrees in science, mathematics, engineering, or specified foreign languages as an incentive for study of such subjects. It would set up a grant program for local educational agencies to build or expand mathematics and science programs, upgrade laboratories, and purchase equipment.

2. There has been significant support for the federal funding of research during times of national crisis. The events of 9/11 can be considered a national crisis. With the expected shortfall in the budget, should funding for research be increased? How will you fund research and what areas do you feel should have top priority in funding?

Durbin: While every program must compete in a difficult fiscal environment, I believe there is room in the federal budget for increases in research, including both basic research and more applied fields such as biomedical research. Considering the wide range of terrorist acts that our country could encounter, we must ensure that we have the most up-to-date and technologically advanced tools to identify and thwart terrorist attacks. Research often paves the way for those kinds of advances that can enhance our security and well-being and must not be left out in the rush to meet other priorities.

3. With the many technological advances in the last 50 years, science and technology continues to play a big role in our society. What value do you see in having scientists and engineers involved in government? If you do see a need for scientists and engineers in government, how will you include them in government? If you don't see a need for scientists in government, why don't you see a need and how will you get advise on issues involving science and technology?

Durbin: Scientists and engineers have an important role to play in government. By bringing their expertise to the debates about the issues we face, they can help us develop more informed responses. I have personally benefited from the scientific knowledge and thoughtful advice of a number of science fellows I have brought onto any staff through the American Association for the Advancement of Science (AAAS) fellowship program.

More broadly, I have worked to attract top-notch science talent to the federal workforce in a number of ways. I introduced the Homeland Security Federal Workforce Act (S. 1800) as a bipartisan, long-term approach to recruiting more people into government with critical national security skills, including skills in science and engineering. The bill would increase student loan forgiveness programs for those who work in positions of national security with the federal government and would offer fellowships for graduate students pursuing advanced degrees in mathematics, science, engineering, and other fields critical to national security. Eligibility for the fellowships would be conditioned on working for the federal government for a minimum of three years.

The Homeland Security Education Act (S. 1799) I introduced would commission a study of the long-term math and science needs of the national security workforce and the larger federal workforce.

I also sponsored legislation signed into law in 2000 which encourages federal agencies to use student loan repayment as a recruitment and retention incentive, expanded eligibility for the student loan repayment program to a broader range of executive branch employees, and established a similar program for U.S. Senate employees.

4. Strong intellectual property protection provides a significant incentive for innovation in science and engineering. In the past few years, there have been some significant changes in the laws governing intellectual property. Do you think that the laws governing intellectual property are sufficient to maintain our country's competitive edge with respect to technology? Furthermore, since 1992, Congress has diverted a portion of the user-fee revenue to deficit reduc-

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tion and to other government programs. Should the PTO have the use of all the fees it collects or should fees continue to be diverted to other government programs?

Durbin: One of the reasons for the United States' strength axed leadership position in global business is the innovation of American inventors and entrepreneurs. Americans have invented literally millions of products and services that people around the world are able to enjoy today because of our strong intellectual property laws, which protect inventors' patent nights while allowing the public to utilize their inventions. Our trademark laws protect the goods and services that American companies produce and market throughout the world, while our copyright laws protect the music, artwork, literature, movies, and other performances that spring from the creativity of American artists, writers, and entertainers. However, as the digital age transforms the way Americans live and do business, I believe the laws governing intellectual property — which were drafted before computers and the Internet were ubiquitous - need to be revised and updated to match the needs of today's businesses and artists. Specifically, I believe some changes in copyright laws are necessary to provide stronger protection for digital products that are easily pirated, both here and abroad.

While the United States Patent and Trademark Office (PTO) is subject to Congress' appropriations process, the user fees generated from its customers far exceed the agency's annual budget. In other words, the PTO does not cost the taxpayer any money to operate, arid instead generates revenue that is diverted to other governmental programs. I support allowing the PTO to use the fees it collects because excessive diversion of the fee revenues can impair the agency's ability to meet increased workload demands and add to the continuing serious backlog of patent and trademark applications.

5. The idea of using stem cells to perform research, which could result in major medical advances, is ethically and politically controversial because human embryos were destroyed to harvest the stem cells. Where do you stand on the use of stem cells in research?

Durbin: I support federal funding for a number of areas of scientific inquiry, including stem cell research, with appropriate safeguards. These research endeavors have the potential to expand our understanding of and potential cures for many devastating diseases. I support a balanced approach to this controversial issue that would allow embryonic stem cell research to continue with appropriate safeguards against abuse. We should draw a clear line in prohibiting "human cloning" while not eliminating valuable, life-affirming stem cell research opportunities, which can show us how to transform embryonic cells into healthy new adult cells. Time is precious for those individuals suffering from debilitating diseases. Imposing arbitrary constraints on non-reproductive embryonic stem cell research may cost many the chance of a cure or treatment.

6. With the recent Enron controversy, what, if any, reform should be made to laws governing retirement pensions?

Durbin: I am working to protect pension funds by deterring those who would raid such funds, by increasing the ability of employees to manage and protect their pension fund investments, and by holding employers snore accountable to their employees in bankruptcy proceedings.

For example, I recently introduced the Employee Abuse Prevention Act of 2002. (S. 2798) to deter those who might raid or interfere with pension funds. This package of reforms to the Bankruptcy Code is designed to discourage the filing of a bankruptcy petition as an easy way out of employer responsibilities to employees and to help protect employees and retirees from actions by corporate insiders that rob workers and retirees of their earnings and retirement savings when businesses collapse into bankruptcy.

I also introduced separate legislation, the INFORM Act of 2002 (S. 2032), which would establish stricter rules for notifying employees of "lockdown" periods when stock may not be bought or sold, limit the duration of lockdowns, and ensure employees are properly informed regarding the level of diversification of their retirement plan.

Finally, I joined with Sen. Kennedy in introducing the Protecting America's Pensions Act of 2002 (S. 1992), which would expand employees' rights to put retirement funds in investments other than company stock, allow employees to serve on company boards that oversee retirement plans, require disclosure to employees of company stock sales by executives, allow employees to diversify out of employer contributions of employer stock after three years of service, and hold employers accountable for misleading investment information provided to employees and retirees. This measure has been approved in committee and is awaiting action by the full Senate.

BOOK REVIEW

FROM COELLO TO INORGANIC CHEMISTRY: A LIFETIME OF REACTIONS, *by Fred Basolo, Kluwer Academic/Plenum Publishers, 2002, 245 pages*

Dr. Fred Basolo, Professor Emeritus, Northwestern University, shares his personal and professional odyssey in this engaging autobiography. Fred introduces us to the world of inorganic coordination chemistry through his experiences in teaching and research.

The book, written in conversational tone, succinctly chronicles the emergence of inorganic chemistry and relates the interesting personalities of pioneering chemists who have contributed significantly to its growth. Fred's recount of his childhood, family life, and career experiences shows his personable and humorous side to which people who know him testifies. The book is enjoyable not only for the Fred it reveals but also for the vivid way it reflects the places and times from which chemistry in general, and inorganic chemistry, specifically, has grown in importance.

Fred's research group at Northwestern contributed significantly to the advancement of inorganic chemistry. There is a chapter summarizing specific research done by his students, post docs, collaborators, and himself with anecdotes displaying both the discipline and the humanity of science. There is also a section on his NAS (National Academy of Sciences), ACS, and other professional organization activities, including brief histories of these organizations and his time as President of ACS.

The book is the first volume in the series "Profiles in Inorganic Chemistry", series editor John P. Fackler, Jr. You can order it online at www.wkap.com or call Kluwer Academic Publishers at 1-888-640-7378.

CHERLYN BRADLEY

HOSPITALITY MENTORS

The Hospitality Committee is looking for Chicago Section members who enjoy helping new members become acquainted with the Section. You will be paired up with a new member who would like to learn about the Chicago Section and have a person to join them at a monthly meeting. It is always hard to feel comfortable when you are new and don't have anyone to talk to at a monthly meeting. Let's show others how warm the Chicago Section can be! If you are interested please contact Fran Kravitz at (630) 293-4122 or e-mail FK1456@aol.com.

FRAN KAREN KRAVITZ
HOSPITALITY COMMITTEE CHAIR

2002 ACS GREAT LAKES REGIONAL HIGH SCHOOL CHEMISTRY TEACHER AWARD

Ann Levinson, Chicagoland Jewish High School

Congratulations to Ann Levinson the 2002 winner of the ACS Great Lakes Regional High School Chemistry Teacher Award. This prestigious award is given annually to no more than 10 teachers across the nation. Ann is a member of the ACS Chicago Section and has contributed many years of service as the Chair of the High School Education Committee. As Chair she dedicated time and effort to organizing teacher activities, the ACS Scholarship Exam, and the U.S. National Chemistry Olympiad.

In addition to winning this Great Lakes Regional Award, Ann's commitment to excellence in teaching was recognized by The Chemical Industries Council of Illinois when she was honored with the 1996 Davidson Award as the Outstanding Illinois Chemistry Teacher. Ann has also been selected to serve as a judge for the U.S. National Chemistry Olympiad Committee and she qualified for the James Bryant Conant Award, the ACS National Award for Chemistry Teachers.

There are many reasons Ann has been recognized with these awards. Ann has high expectations for her students. She believes that "all can learn chemistry," and the achievements of her students demonstrates the reality of her belief. She provides plenty of support and motivation, while challenging students with a rigorous chemistry curriculum. Her approach in the classroom is guided by the ACS Olympiad standards. Ann combines basic drill in classical chemistry with computer-based laboratory sessions. She provides an atmosphere of cooperative learning as a self-directed process, and she finds ways to constantly emphasize scientific writing skills.

While it may be Ann's attitude and effort that always make her a qualified candidate for an award, I believe that ultimately the students' achievements are the measurable results of Ann's success. During her teaching career she helped nine of her students place in the top 20 in the National Chemistry Olympiad. Two of those students went on to compete internationally and to win gold and silver medals. In addition, her students consistently achieved top scores on the A. P. Chemistry exams, worked in university research and laboratory programs, earned scholarships, and volunteered to work with the "Demos for Grade Schools" program.

In 2000 after 30 years of service in Niles Township High School District 219, Ann retired. Retirement to most individuals means to stop working or at least slow down. However, Ann, continues to exhibit her tireless dedication to education. She is a teacher in and the director of the Science Department at the Chicago land Jewish High School in Morton Grove, Illinois. As she has done in the past, Ann continues providing effective instruction, inspiring students, stimulating interest in chemistry, and contributing to the advancement of the profession.

(Thank you **Paul Adlaf**, the 2001 ACS Awards Chair. Your time and effort to making Ann Levinson's nomination a success is appreciated.)

CHEMISTRY MAKES CLEANING POSSIBLE! ACS STUDENT AFFILIATE CONTEST RULES

Student Affiliate Chapters are invited to participate in the "Chemistry Makes Cleaning Possible!" drive as part of the National Chemistry Week 2002 celebration. This collection drive for personal hygiene items such as soaps, detergents, toothpaste, toothbrushes, shaving cream, washcloths, and sponges is meant as a way to highlight the contributions of chemistry while giving back to the community. **Donated items should be given to a local food bank or charity**.

To make the event even more fun, ACS will have a contest to see which student affiliate chapter can collect the greatest total weight (in pounds) of cleaning products during or before National Chemistry Week, October 20-26, 2002.

Contest Rules:

- Completed entry forms must be received by the Office of Community Activities by close of business on Friday, November 15, 2002. Contact the section office at 847-647-8405 or the Office of Community Activities at the phone number below for an entry form.
- Student affiliate chapters are encouraged to work with their local section during the drive, but they can claim credit only for the weight of products collected by the chapter.
- Chapters are asked to submit a photograph showing themselves and the products collected. Digital photographs can be emailed directly to ncw@acs.org.
- Contest entry constitutes consent to use contestant names and/or likenesses for editorial advertising and publicity purposes.

Prizes:

- The student affiliate chapter collecting the greatest total weight of products (measured in pounds) will receive a $350 gift certificate to the local restaurant of their choice.
- The student affiliate chapter collecting the second greatest total weight of products (measured in pounds) will receive a $150 gift certificate redeemable for products purchased at the ACS online store (chemistry.org/store).

For further information, contact the ACS Office of Community Activities, 1-800-227-5558, x6097; ncw@acs.org.

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

CONTINUINING EDUCATION SEMINARS

The Continuing Education and Professional Relations Committees are again starting the series of short courses on Saturday mornings, 9:00 to 12:00, at Loyola University, 6525 N. Sheridan Rd., Cudahy Science Building (building with the green dome), room 202.

The program on **November 16, 2002** will be a continuation of last year's course on combinatorial chemistry which was on solid phase combinatorial chemistry. **Dr. Irini Zanze** of Abbott Laboratories will discuss The History of the Solution Phase Combinatorial Chemistry.

The cost for the course is $10 (free for students and unemployed chemists). The course carries three hours of CPDU credit for teachers. A parking garage is available on the Loyola campus (free parking) and it is also easily reachable by public transportation.

For further details or to register call the section office, 847-647-8405 or **Fred Turner**, 847-619-8686.

The registration deadline is Monday, November 11.

BASOLO MEDAL

The Fred Basolo Medal is given for outstanding research in Inorganic Chemistry. It was established by the former students of Fred Basolo in appreciation of his contributions to inorganic chemistry at Northwestern University. Basolo arrived at Northwestern in 1946 and was able to help make the Department of Chemistry one of the very best in inorganic chemistry in the U.S., a position it still maintains today.

Basolo is internationally recognized for his original contributions to the syntheses and reaction mechanisms of transition-metal Werner complexes. He has also done innovative work in the developing fields of organometallic and bioinorganic chemistry.

Many of his former students occupy prominent academic and industrial positions. He has influenced students worldwide to study inorganic chemistry, and received the 1992 ACS Pimental Award in Chemical Education.

Among his numerous awards are the 1996 Chicago Section Willard Gibbs Medal and the ACS 2001 Priestly Medal.

Previous Basolo Medalists:

Ralph G. Pearson	1991
Henry Taube	1992
Jack Halpern	1993
Harry Gray	1994
Lawrence Dahl	1995
Richard H. Holm	1996
Kenneth N. Raymond	1997
Malcolm Green	1998
Thomas J. Meyer	1999
James P. Collman	2000
M. Frederick Hawthorne	2001

CHEMISTRY DAY 2002

Theme: "Chemistry Keeps Us Clean"

Come celebrate

Chemistry Day Chicago-style

University of Illinois at Chicago
October 26, 2002

contests..hands-on experimentation
demonstrations..exhibits..speakers

Need further information?
Want to volunteer to help?

Contact Tom Kucera at tjkucera@interaccess.com
or phone the Section office (847) 647-8405

NEW CHICAGO SECTION MEMBERS—WELCOME!

DAN BARRETT
YURI A. BERLIN
DAVID BROOKS
KELLY DEYO
MRUNALINI S.DHAMDHERE
TINAMARIE FOSCO
JEFFERY J. FOSTER, Sr.
JOSEPH W. FREDERIC II
RENITA FREEZE
ROBERT M. GARDNER II
IZABELA M. GAWRONSKA
NICO GENET
SHAWN GIERTHY
INNA GORELIK
DANIEL HAY
KEVIN L. HENDREN
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LAUREN ANN KRANCE
BINGGANG LIU
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MICHAEL C. MYERS
DAVE NOTTER
CLAYTON R. PERRY
MICHAEL M. RADTKE
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TANIA RUSSELL
JACQUES SALIBIAN
KATHY SARRIS
CAROLINE SCHEKELS
VANDA SHULGA
JULIE SLAWIKOWSKI
KRISTINE C. SMITH
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JASON H. TRULLINGER
MICHAEL WALTERS
GENE WARD
LESLIE G. WEST
KORIN WHEELER
KENNETH JOHN WILSON
DAVID WONG
HISASHI YAMAMOTO
JUNLIAN ZHANG
LINLIN ZHAO

HIGH SCHOOL EDUCATION COMMITTEE WEBSITE

The Chicago Section's High School Education Committee now has a website at http://www.glenbard.dupage.k12.il.us/south/southstaff/heinz/ACS/acshome.htm. There is a link for the site on the Section's Website Home page.

SCHOLARSHIPS

The Illinois Chemical Education Foundation Scholarship Program provides $2,000 Undergraduate Scholarship Awards for qualified Illinois residents enrolled in chemistry, biochemistry or chemical/environmental engineering at post-secondary educational institutions located in Illinois. For more information contact the Chemical Industry Council of Illinois at 847-823-4020, http://www.cicil.net

ALMA E-NEWS

Dealing with change

Over the past few years, I have been amazed by the number of managers who are working for a different company each time that I meet them-same job, same location but a new company. The chemical industry is consolidating and with each new owner, we are faced with the challenge of reorganizing, "right-sizing", or otherwise changing to satisfy the new bosses. Having personally experienced this type of change during the past year, I found the recent article entitled "A Survival Guide for Leaders" (Harvard Business Review, June 2002) to be most interesting. The authors offer suggestions for managing potentially destructive career issues and for dealing with the stress of change. Some of the ideas mentioned are:

— Leadership is an improvisational art so you need to maintain a tactical view of the situation as well as a strategic view of the objectives. Unanticipated effects of today's decisions need to be noticed and addressed by new decisions tomorrow. You need to be both an observer of and a participant in the change.

— Recruit partners to help you manage the change process and keep the opposition close at hand to keep an eye on them. Win over the uncommitted by letting them know that you personally understand their sacrifices.

- Recognize your own resistance to change and set an example by showing the organization how you personally deal with it.

— Provide a safe place for airing clashing viewpoints while managing acrimonious behaviors and attitudes. You need to promote a level of distress that arouses the passion to change while keeping it from escalating to counterproductive turmoil.

— Trust others in the organization to handle transformation and problem solving-if you alone drive the change, the organization may come to view you as the threat and use their energies to eliminate you rather than accept the change.

— Recognize your own needs and vulnerabilities and deal with them so that you don't contribute to your own self-destruction.

— Provide yourself with a "safe harbor" where you can unwind and reflect on the situation each day; develop a confidant to listen and help keep you grounded in reality. Don't take things personally-criticism, even personal attacks, comes with the position.

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

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

WAYNE COLLINS
wayne.collins@bpsolvaype.com)

YOUNGER CHEMISTS COMMITTEE — HAPPY HOUR

Chicago-area younger chemists are invited to another Happy Hour on Wednesday, October 16. This time it will be at the **RAM Restaurant & Brewery in Wheeling**. We will meet at 6:00 p.m., but make it there whenever you can! RAM is located at 700 N. Milwaukee Ave. (aka Rt. 45), just south of Lake Cook Road. To get there from I-294: from the south, exit at Willow Road west and take Rt. 45 north. From the north, exit at Lake Cook Road west, and take Rt. 45 south. Please RSVP to ensure that we save enough tables , **email Jen Horne at jenhorne@att.net or call 847-615-0392**.

Even if you can't join us this time, please sign up for the YCC e-mail/mailing list to keep informed of upcoming activities — use the contact information above. One of our upcoming events is Chicago Chemistry Day. E-mail Jen for more information on participating. Also see our web page at http://membership.acs.org/C/Chicago/ycc.html.

CHICAGO SECTION'S PROJECT SEED 2002 PROGRAM

This year the Chicago Section's Project SEED program had four students participate in summer research programs. **Delliah Redd**, a senior at Farragut Career Academy, completed summer I research at the University of Illinois at Chicago. Her research project involved multidose study of lycopene metabolism in men with high serum prostate-specific antigen (PSA) concentrations. Delliah's mentors were Phyllis Bowen and Maria Sapuntzakis of the Department of Human Nutrition and Dietetics. Delliah plans to attend college and go either into medicine and/or an entrepreneur science/business combination.

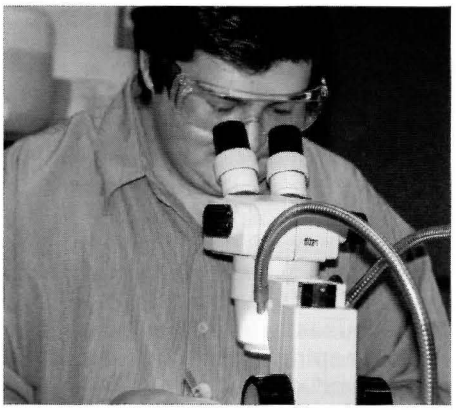
Salvador Gutierrez and **Jesus Gutierrez**, juniors at Waukegan High School, did summer I research at Finch University of Health Sciences/Chicago Medical School. Their research projects involved studying the control of ion transport and cell volume in excitable nerve and muscle cells and identifying changes in specific proteins involved in mammalian and bacterial cell growth, respectively. Their SEED mentors were Hector Rasgado-Flores of the Department of Physiology and Biophysics and Ken Neet of the Department of Biochemistry and Molecular Biology, respectively.

Jesus Ruiz, a graduate of Waukegan High School and a former SEED I and SEED II student with Hector Rasgado-Flores at Finch/CMS returned this summer to continue his research. Jesus' research involved studying the effects of electrical stimulation on parameters such as cell volume and intracellular pressure in skeletal muscle cells. Jesus is a junior at Loyola University, majoring in chemistry. He plans to go to Finch/CMS for a MD/Ph.D.

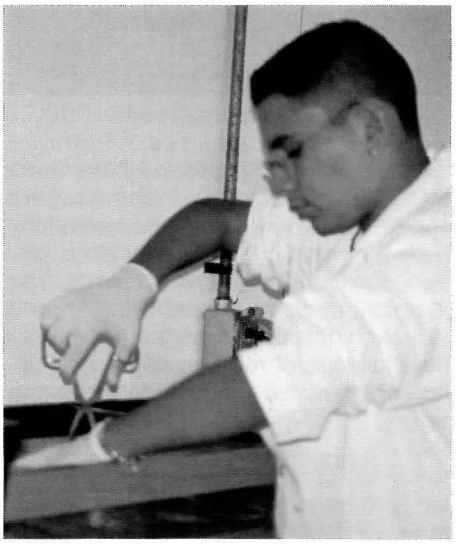
Another graduate of Waukegan High School and former Finch/CMS SEED II student, **Victor Sanchez**, won a 2002 SEED scholarship. His summer research project involved studying the effects of various metal ions on nerve growth factor receptor binding. Victor is currently attending the College of Lake County. Following completion of his course work there, Victor plans to transfer to Loyola to finish his last two years.

Next month — Chicago Section's Project SEED students at the National ACS meeting in Boston.

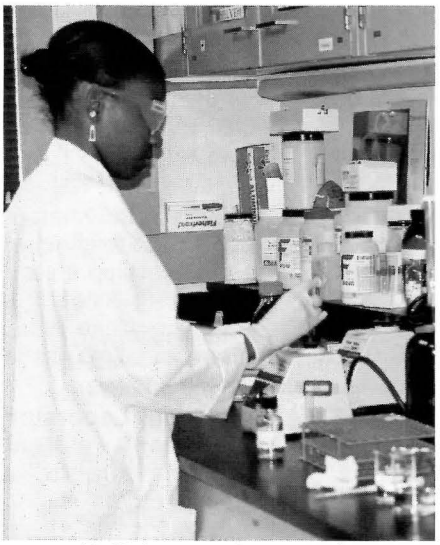
MARSHA ANNE PHILLIPS
CHERLYN BRADLEY



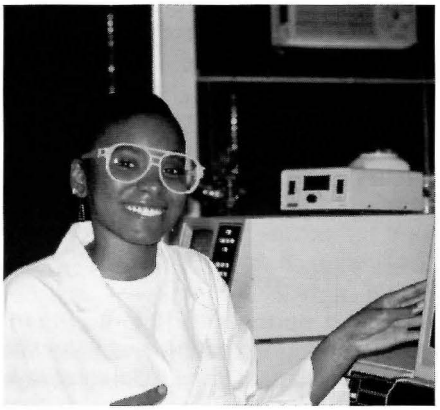
Jesus Ruiz viewing a cell



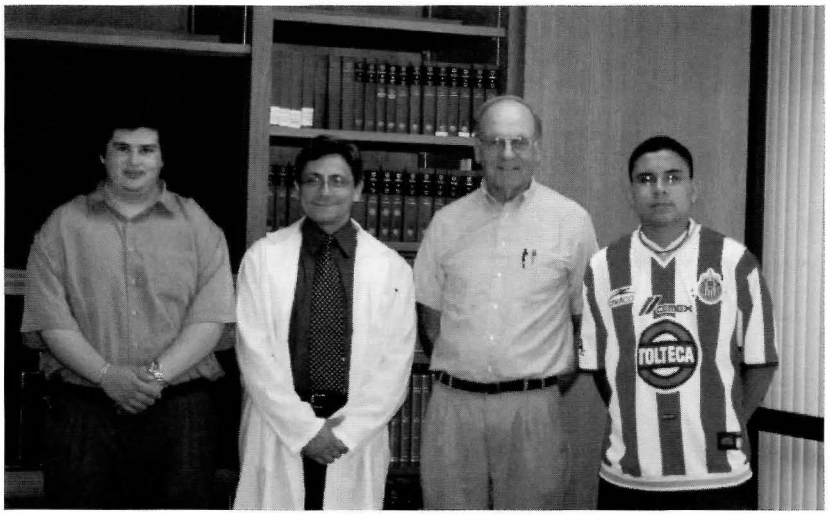
Salvador Gutierrez at barnacle tank



Delliah preparing sample



Delliah Redd with LC instrument



FUHS/CMS group photo (left to right)
Jesus Ruiz (post-SEED II)
Hector Rasgado-Flores (mentor)
Ken Neet (mentor)
Salvador Gutierrez (SEED I)
(Not shown- Jesus Gutierrez (SEED I))

(continued on page 11)

(continued from page 10)

UIC Group Photo (left to right)
Phyllis Bowen (mentor)
Maria Stacewicz-Sapuntzakis (mentor)
Delliah Redd (SEED I)
Eun-Sung Hwang (grad student/mentor)

NEW ELEMENTARY TEACHER PROFESSIONAL DEVELOPMENT PROGRAM

Wonder & Explore, a multifaceted resource designed to help K-8 elementary teachers better understand physical science concepts and develop an inquiry-based teaching approach, will be available this summer from the ACS. The components of this resource include both in-person and online professional development workshops for teachers, a physical science activity book with accompanying CD-ROM, and an extensive archive of activities on the web. For more information on the Wonder & Explore program, teachers should contact elemsci@acs.org to receive information on a special introductory offer.

CHEMISTRY DAY 2002

Chemistry Day Chicago style will be celebrates this year at UIC on October 26, 2002. The National Chemistry Week theme for 2002 is "Chemistry Keeps Us Clean". The Chicago program will include contests, hands-on experimentation, demonstrations, exhibits, and speakers. An active committee chaired by Tom Kucera and Dave Crumrine together with volunteers helps make this day enjoyable and educational for the visitors. If you are interested in helping to celebrate Chemistry Day 2002, please email Tom Kucera at tjkucera@interaccess.com or phone the Section office (847) 647-8405.

CONTINUING EDUCATION COMMITTEE

The task of the Continuing Education Committee is to present programs that keep the practicing chemist informed of recent developments in the various fields of chemistry. The format has varied from a series of lectures over a number of weeks on a single theme, such as analytical instrumentation, to full day or half day programs. The committee has also worked with the national ACS Continuing Education Division in giving short courses and with the topical group and program committees of our section.

The Continuing Education Committee needs the help of the section members to suggest various topics and/or speakers. We would also like to know what formats would be preferable. **Please send your suggestions to Fred Turner, (fturner@roosevelt.edu) or call the section office, 847-647-8405.**

Advertising Index

CALENDAR

September 29-October 2, 2002: The 15th International Ion Chromatography Symposium (IICS 2002) will be held in Baltimore, MD. For additional information, visit the web site at www.icsymposium.com, e-mail century@fiam.net, or call 508-359-8777.

October 8-9, 2002: Human Error Prevention Seminar, Boston, MA. This seminar will also be held on Oct. 22-23, 24-25 & Nov. 7-8 in Toronto, Pittsburgh, & Washington, DC, respectively. For further information, call Ben Marguglio at (845) 265-0123 or e-mail at b.marguglio@att.net.

October 13-17, 2002: The 29th Annual Conference of the Federation of Analytical Chemistry & Spectroscopy Societies will be held in Providence, RI. For more information, go to website http://facss.org.

October 16-18, 2002: ALMA (Analytical Laboratory Managers Association) will have its 23rd annual conference at the Adam's Mark Hotel in St. Louis, MO. This year's theme is "Bringing Your Analytical Laboratory to Success". More information is available at the website www.labmanagers.com.

October 16, 2002: Younger Chemists Committee is hosting a Happy Hour at the RAM Restaurant & Brewery in Wheeling starting 6 pm. RAM is at 700 N. Milwaukee Ave. Contact Jen Horne at jenhorne@att.net or call (847)615-0392. See article in this issue for further information.

October 19, 2002: A workshop will be presented at Glenbard West High School in Glen Ellyn offering chemical activities high school teachers can do each day of Chemistry Week. Stay tuned for further information as the date approaches.

October 23-25, 2002: ACS 37th Midwest Regional Meeting, Lawrence, KS. Contact Robert G. Carlson at rcarlson@ukans.edu.

October 26, 2002: The Chicago Section will celebrate Chemistry Day at the University of Illinois at Chicago.

November 3-8, 2002: 2002 AIChe Annual Meeting will be hold in Indianapolis, IN. Go to website http://www.asiche.org/annual or phone (212) 591-7338 for further information.

November 8-10, 2002: A free ACS Mentoring Workshop will be held at the Washington Terrace Hotel in Washington, D.C. Call 1-800-227-5558, ext. 16243 or send email to lsmentoring@acs.org for further information.

November 16, 2002: A Continuing Education short course on combinatorial chemistry will be a continuation of last year's course. Dr. Irini Zanze of Abbott Labs will discuss "The History of the Solution Phase Combinatorial Chemistry". The course will be held at Loyola University, 6525 N. Sheridan Rd., Cudahy Science Building (building with the green dome), room 202 from 9:00 a.m. to 12:00 p.m. See article in this issue.

November 18-21, 2002: 2002 Eastern Analytical Symposium in Atlantic City, NJ. Contact the Executive Secretary at easinfo@aol.com or go to the website www.eas.org.

CHICAGO SECTION, AMERICAN CHEMICAL SOCIETY
THE CHEMICAL BULLETIN
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