theCHEMICALbulletin

DECEMBER • 2000

CHICAGO SECTION AMERICAN CHEMICAL SOCIETY

Joint Meeting with CHICAGO CHEMISTS CLUB

HOLIDAY PARTY/MEETING

FRIDAY, DECEMBER 15, 2000

Monastero's Ristorante
3935 W. Devon Ave.
Chicago, IL
773-588-2515

DIRECTIONS TO THE MEETING
Take I-94 (Edens Expressway) to either Touhy Avenue East or Peterson Avenue East exit. These exits drop you off at Cicero Avenue. If you exit at Peterson Avenue, go 1/2 mile north on Cicero to Devon Avenue. If you exit at Touhy Avenue, go south on Cicero one mile to Devon Avenue. Go east on Devon Avenue just past Pulaski Avenue (about 1/2 block). The restaurant is on the south side of the street.

Parking: The restaurant has convenient, free valet parking.

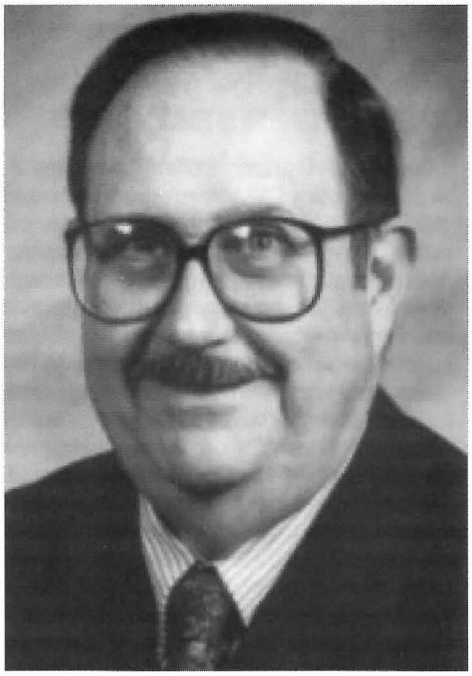
This is the Chicago Section ACS/Chicago Chemists Club Annual Holiday party/meeting. At this event, everyone is a chemist (either practicing or honorary)! Come join in the celebration with all your fellow chemists. So, in addition to our technical program, Santa will be bringing gifts! ENJOY!

SOCIAL HOUR **6:00- 7:00 PM**

Cash Bar Available with complimentary hors d'oeuvres

DINNER **7:00 PM**

Dinner reservations are required. The restaurant requests a count earlier than usual because of all the parties they need to accommodate during this season. Please make your reservations by Tuesday, December 5, 2000 with the Section office via phone (847-647-8405), fax (847-647-8364), or via our website (http://membership.acs.org/C/Chicago). For details and the dinner menu please see page 2.



MEETING **8:00 PM**

Dr. John J. Fortman, Professor and Associate Chair of the Department of Chemistry at Wright State University in Dayton, Ohio will present a talk entitled, "The Serious and Delirious Use of Chemistry in Movies."

Abstract: This presentation will begin with illustration of brief mentions of chemistry in films where you might not expect it like The Graduate; It's a Wonderful Life; 1776; and Bells on Their Toes. Movies which feature science will then be contrasted between then (the past) and now (the present); the real and the impossible; drama and comedy; and similar scenes in multiple movies. Featured clips will be selected from such films as Apollo 13; Dante's Peak; Chain Reaction; It Happens Every Spring; The Man in the White Suit; and Smoke. Several live chemical demonstrations relative to the movie scenes will be interspersed with the videos.

Speaker Information: John Fortman is Professor and Associate Chair of Chemistry of Wright State University, where he has taught all levels of freshman chemistry as well as senior inorganic chemistry for over 30 years. In 1998, he was appointed the Robert J. Kegerreis Distinguished Professor of Teaching. Dr. Fortman received his B.S. from University of Dayton in 1961 and his Ph.D. in physical inorganic chemistry from the University of Notre Dame in 1965 where he was a Shell Scholar for two years. He had a part time appointment at the Aerospace Research Labs at Wright-Patterson Air Force from 1966 to 1970 and was a visiting associate professor at Purdue in 1973-74. Dr. Fortman is a two-time recipient of the outstanding teaching award of the College of Science and Mathematics, and the 1991 recipient of the WSU presidential award for teaching. In 1993 he received the Dean's Award for Excellence in Teaching and in 1994 he shared The College's Collaborative Teaching Award for his work in developing a new multi-discipline science sequence for elementary education majors. He is a 1998 recipient of the CMA "Responsible Care" Catalyst Award for Outstanding educational interest including chemical demonstrations and teaching analogies. With Dan Ketcha he does at least fifteen chemical demonstrations outreach programs reaching more than 7,500 high school or junior high students per year. With Rubin Battino he has produced three sets of videotapes which contain a total

(continued on page 2)

(continued from page 1)

of ten hours of chemical demonstrations for use at middle schools through college levels. He has done demonstration workshops for teachers on pyrotechnics and on simple demonstrations using readily available and inexpensive materials. He is the author of a series of thirteen articles featuring pictorial analogies which began appearing in the January 1993 issue of the Journal of Chemical Education. He has designed a one-year course in chemistry for non-science majors, which organizes principles around occurrence and use instead of vice-versa and incorporates extensive use of videotapes as well as demonstrations. The course has been cited as a model in the AAAS report on "The Liberal Art of Science" and is the subject of a featured article which appeared in the November, 1990 issue of the 2YC3 Distillate. John was a member of the General Chemistry Task Force of the ACS Division of the Chemical Education from 1991 to 1997. In the fall of 1992 he began teaching an experimental offering for science majors of an alternative general chemistry sequence containing the core material identified by the General Chemistry Task Force but organized on the framework of his successful course for non-science students, starting with organic and biochemistry, moving to materials, and concluding with energy. The course is sometimes characterized as being taught inside out, upside-down, and backwards. Dr. Fortman designed an applied science curriculum and served as a master teacher in the WSU Summer Upward Bound Program for disadvantaged high school students showing promise in science. In addition to teaching chemistry courses, he now teaches the chemistry component of a physical science sequence for elementary education majors focusing on those topics appropriate for grade school children and modeling hands-on activities. He has been an ACS member since 1962 and is currently Councilor for the Dayton Section and a member of the Local Section Activities Committee. He has given over 150 local section talks visiting 133 of the 188 different local sections and doing each of the 28 speaking tours at least once.

DINNER INFORMATION

Holiday Menu: Monastero's Signature Minestrone Soup, fresh tossed salad with choice of dressing, choice of either roast tenderloin of beef medallions or broiled Filet of Salmon, oven-roasted potatoes with assorted fresh vegetables, rolls and butter, Torta Gelata (a special Italian desert), and a glass of wine in addition to the usual beverage. The vegetarian entrÈe is Spinach Lasagna and is available upon request at the time of reservation.

Dinner reservations are required and should be received by Tuesday, December 5, 2000. Reservations can be made by contacting the Section office via phone (847-647-8405), fax (847-647-8364), or via our website (http://membership.acs.org/C/Chicago). The cost to Section members who have paid their local section dues, members' families, and visiting ACS members is $35.00. The cost to non-Section members is $37.00. Tables of 8 or 10 are available and may be reserved at this time. PLEASE HONOR YOUR RESERVATIONS. The Section must pay for all dinner orders. No-shows will be billed.

ACS CAREER SERVICES

The ACS Career Services offers a wide selection of information for new graduates , well seasoned chemists, or those somewhere in-between. If you need assistance in planning your career or tips on job searching, the Employment Information section can help. The information includes publications, workforce analyses, videos, workshops and presentations.

Career Services offers an Employment Clearing House at regional and national meetings and the national website lists jobs that appear in the Chemical and Engineering News. You can also post employment profiles and place situation want ads through career services. Other websites that list jobs in chemistry are also listed on the site.

The Chicago section has a local career services coordinator. Many of the publications from career services are available locally through the coordinator. There will also be career service activities throughout the year. There is a section on the local website that will list upcoming events from career services that is also linked to the national site.

The section also has a job club that meets once a month prior to the local general meeting. The resources offered by career services can help you whether you are a student, a new graduate, or a seasoned chemist.

Allison A. Aldridge
Local Section Career Services Coordinator

PARTICIPATE IN THE AMERICAN CHEMICAL SOCIETY ILLINOIS STATE CAPITOL DAY

The local sections in Illinois will be participating in the American Chemical Society Illinois State Capitol Day, in Springfield, Illinois on Wednesday, March 7, 2001. State Capitol Day is an opportunity for ACS members from Illinois to meet with state policymakers. This is a chance to build relationships and introduce the resources and expertise of ACS members to Illinois' officials. The event will focus on state government affairs and will provide participants with an opportunity to learn more about the ACS Office of Legislative and Government Affairs and ways they can become involved in government relations. The afternoon will focus solely on Illinois' K-12 science education policies.

You will have the opportunity to discuss such issues as the quality of science education, professional development for science teachers, and certification requirements. The ability of ACS, its local sections, and members to ensure that state laws and regulations are based on sound science and supportive of chemists and chemistry is key to the development of quality state policy.

ACS national staff will set appointments with key committee members for participants. Staff will also send information to you about ACS Public Policy Priorities, your state legislators, and how to make appointments to visit with them.

If you are interested please contact the section office at (847) 647-8405 or Barb Moriarty via email at bmoriarty@nalco.com.

"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 try to incorporate some of the projects in this column into their lesson plans.

Yeast Chemistry — Part I of III

Kids, did you know that yeast is a tiny living fungus that lives in many places, and that like all living things they need to eat? Here you will make your very own bubbly, gooey yeast for baking bread. The biochemical process is called fermentation, which begins as yeast eats the sugars in fruit and grain. This releases enzymes that decompose the food to make alcohol and carbon dioxide gas. Make a chart to keep track of the daily changes in color, smell, and texture (frothy, pasty, gooey). (Note: don't use metal bowls or spoons because metal interferes with the chemistry; wooden spoons are okay).

Remove 10 grapes from their stems, wash well to remove pesticides (which kill yeast), and tie them in a double layer of cheesecloth. Or use unwashed organic grapes. Using your hands, fold 4 cups of lukewarm water and 3-3/4 cups unbleached white bread flour in a large glass bowl until it's like lumpy papier-mache. Swish the grape bag through the mixture and push it to the bottom. Either cover the bowl tightly with plastic wrap or transfer the mixture to a plastic container with a tight lid. Store at 70-75oF. Remove the lid every day to record your observations. Fermentation has begun when you see bubbles and smell an odor. On day 4 you should see a yellow liquid with purple or brown spots. These are beneficial bacteria that also add unique flavor. Feed the yeast a cup of bread flour (which supplies sugar) and a cup of water. Mix well. On days 5-9 watch for any green, fuzzy mold. If it forms, remove it and add another cup of flour and water. On day 10, take out the grape bag and divide the mixture into two-cup "starter" portions. These can be given to friends and relatives, keeping one for yourself.

In a large glass bowl, add one cup of flour and one cup of water to your starter. Mix well. Cover loosely with a towel for about 8 hours. A lot of CO2 gas will be given off here so do not use a tight-fitting lid. Repeat this step and ferment 12-14 hours. Add flour and water in this manner twice a day through day 14. During these feedings the dough should rise as enzymes from the yeast break down the sugars in flour and release CO2 gas that is then trapped in the gooey gluten. In next month's column we'll bake the bread. If needed you can store your starter in a refrigerator, where it will become dormant.

Reference: Nancy Lang, Scientific American Explorations magazine, Fall 2000, p. 14.

Written by: K. A. Carrado, Elementary Education Committee.
Past "ChemShorts" are on the internet at: http://membership.acs.org/C/Chicago/ChmShort/kidindex.html

CHICAGO SECTION ADOPTS A MISSION STATEMENT

The Board of Directors of the Chicago Section of the American Chemical Society voted in May to adopt a mission statement. A mission statement tells the purpose of the organization. It is not designed to be a statement of all the activities of the organization, but all the activities of the organization should fit the organization's mission statement. A mission should not change substantially over time. On the other hand, the ways through which the organization meets its mission should change with time. The mission statement of the Chicago Section, as adopted by the Board is:

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

The Chicago Section has, over the years, provided many programs that advance the chemical sciences. Some of the most notable programs include Chemistry Day and the monthly section meetings. The word practitioners is used to describe all people who practice chemistry, including not just chemists, but teachers and chemical engineers, to name just a few examples.

The mission statement was put together by a task force of the Long Range Planning Committee. Members of the task force were Cherlynavaugh Bradley, Barbara Moriarty, Gayle O'Neil and Jim Shoffner.

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YOUNGER CHEMISTS COMMITTEE OF THE CHICAGO SECTION

The national younger chemists committee has three strategic goals:
1) Make the ACS relevant to younger chemists.
2) Increase the involvement of younger chemists in the ACS at all levels.
3) Develop mechanisms to integrate younger chemists into the profession.
The Chicago local section plans to accomplish this by getting younger chemists more active in our section by providing several activities that they would find relevant.

If you are a younger chemist or just beginning a new career in chemistry consider becoming involved with the YCC. We can help you network with other chemists in the Chicago area from both industry and academia. With your participation, you can help the ACS be more responsive to your needs. We have a section on the local Chicago ACS website that is also linked to the national site.

For the 2000-2001 year we plan to co-sponsor a topical group meeting in which the speaker is a former member of the Chicago YCC and a local research symposium for graduate and undergraduate students. We will also participate at the National Chemistry Day and have social functions as we have done in the past.

Allison A. Aldridge
Chair of the Younger Chemists Committee

ACS PUBLIC POLICY FELLOWSHIPS AVAILABLE

Applications for two ACS Public Policy fellowships are being accepted. The Congressional Fellow will have the opportunity to gain first-hand knowledge of the operation of the legislative branch of the federal government, make scientific and technical expertise available to the government, and forge links between the scientific and government communities. This program provides a unique opportunity for ACS members to work in the office of a United States Senator or Representative or congressional committee for one year beginning in September or January. A stipend, in the $45-55,000 range, is provided by ACS, and additional support from other sources, such as a present employer, is allowed. The Society also provides an allowance for relocation expenses and other travel expenses. The ACS Congressional Fellowship program is affiliated with the American Association for the Advancement of Science (AAAS) Congressional Science and Engineering Fellowship Program. Fellows attend a 2-week orientation in September run by the AAAS before looking for a congressional position.

The Fellow works under the direction of the Society's Office of Legislative and Government Affairs staff. The Fellow is currently responsible for the Science and the Congress Project, a series of balanced, educational briefings on topical issues organized for Members of Congress and their staff. The Fellow also supports the work of ACS committees and task forces.

In addition to OLGA activities and projects, the Fellow will have about 25 percent of time available to complete one special science policy project, which is mutually selected. The Fellow is encouraged to develop the special project for presentation, for example at an ACS meeting, or publication in a journal or as an OLGA report. Broad government policy areas to consider in selecting a special project include, but are not limited to, science education, environment, research funding, technology, economic competitiveness, and employment issues related to the science and engineering workforce. Past fellows' projects have focused on determining the state of science education, isolating and tracking federal investments in academic chemistry R&D, researching funding policy for science and technology in the European community, evaluating the dynamics of the government/university/industry relationship, and analyzing R&D trends in the chemical and pharmaceutical industries, with special emphasis given to international comparisons.

The second fellow, the Science Policy Fellow works as a staff member of the ACS Office of Legislative and Government Affairs (OLGA and gains first-hand knowledge of the operation of the legislative and executive branches of the federal government and brings scientific and technical expertise to bear on national issues. Ultimately, this Fellowship affords a qualified individual with a unique opportunity not only to learn about the interplay between science and public policy, but also to contribute to the formation of ACS policy. The Fellow, in doing so, develops strong ties with key individuals in academia, industry, government, and the broader science policy community. Through varied and broad activities, an invaluable dimension is added to the Fellow's background.

The Society's Office of Legislative and Government Affairs programs are designed to promote public policy that advances the chemical enterprise and its practitioners and their ability to contribute to national and human welfare. The Society interacts with the Congress and the Administration through various mechanisms, including providing oral testimony at hearings, conducting nonpartisan educational briefings, filing position papers on legislative and regulatory issues, discussing key Society issues with government officials, and supporting ACS member involvement.

The Fellowships are for one or two years. The Congressional Fellowships will begin September 2001 or January 2002. The Science Policy Fellowship will begin in the fall of 2001. The Fellow receives an annual salary in the low $40,000s and an ACS benefits package, as well as a relocation allowance.

Fellows are selected on a competitive basis from among ACS members who have:

- significant familiarity with one of the chemical sciences or engineering disciplines (e.g., a doctorate or master's degree and equivalent work experience);
- a working understanding of the chemical community;
- demonstrated interest in the public policy process; and
- participated in activities of public/private sector organizations.

Applicants should also have flexibility in tackling a variety of work as well as good interpersonal and communication skills.

Apply for both the Congressional Fellowship and the Science Policy Fellowship with one application. The application should include the following:

- a resume that details education and professional and community experiences;
- a letter of intent (2-3 pages) that outlines:
- why you have applied and why you are qualified,
- what policy issues and situations interest you,
- what you hope to accomplish as a Fellow and after the Fellowship year,
- your participation in civic activities and/or public affairs, and
- how you first learned about the fellowships;
- a separate, one-page, creative proposal for a policy-focused project is required for the Science Policy Fellowship application; and
- two letters of reference sent directly to the ACS. Please include the addresses and telephone numbers for your references in your application. The letters of reference should address:
- writer's relationship to the candidate,
- technical accomplishments and relative standing of the candidate among his/her peers,
- candidate's interest and experience in applying his/her expertise to the solution of societal problems,
- candidate's ability to communicate, both orally and in writing, and to interact productively with individuals and groups,
- candidates maturity and depth of judgment, and
- an assessment of the candidate's professional future.

All completed applications are reviewed and applicants are selected for interviews that take place in March or April.

The application deadline is January 5, 2001. Send all application materials to:
Congressional and Science Policy Fellowship Programs
Office of Legislative & Government Affairs
American Chemical Society
1155 Sixteenth Street, NW
Washington, DC 20036

If you have any further questions about the program or would like to contact former Fellows, you may call the ACS at 202/872-4386, or e-mail: congfellow@acs.org

CHICAGO SECTION MEMBER WINS AWARD

Jeffrey Gaffney received a Science Policy Award from the Office of Legislative and Government Affairs (OLGA) at their annual "Grassroots Achievement Awards" ceremony on August 21 at the ACS National meeting in Washington, DC. The Science Policy Award is given for "outstanding individual achievements in advancing public policy to benefit chemistry and society." Dr Gaffney was recognized for his activity in the Legislative Action Network (LAN). He responded to every action alert since the Legislative Action Center was established. In addition, he used his unique background in science and policy to consistently craft personal messages to his representatives to advance research and education policies favorable to chemistry. Due to previous commitments, Jeff was unable to be present to receive his award, which was accepted on his behalf by Jim Shoffner, Cochair of our Public Affairs Committee and himself a member of the LAN. The award consisted of a set of bookends in the shape of the capitol dome and one year of paid national dues.

The Legislative Action Network (LAN) is a program started by the ACS to update members on federal legislation and facilitates contact with members of Congress. Network members receive timely Legislative Action Alerts via email, urging them to write their legislators on issues concerning ACS members. The Alerts include a section describing the background and status of the issue, the position of the ACS and sample letters. It is extremely easy to contact your members of Congress on science and public policy issues that are of interest to you. If you are interested in signing up to be a part of the ACS Legislative Action Network, you can sign up online at http://www.congress.nw.dc.us/chemical.

We are fortunate in the Chicago Section to have 46 section members who are part of the Legislative Action Network. The Chicago Section members who are taking part in the Legislative Action Network are listed below.

Andrea Ambrosini Hamid Arastoopour
Kenneth Bair Lawrence U. Berman
R. Stephen Barry Frank G. Cardulla
Bruce L. Currie Helen R. Dickinson
Douglas E. Doster Jeffries H. Eilert
Bret T. Feranchak Robert Filler
Josef Fried Jeffrey S. Gaffney
Hilary A. Godwin Thomas B. Hutch
James A. Ibers Linda D. Kennedy
Daniel J. Kerkman Zafra M. Lerman
Claude A. Lucchesi Nancy A. Marley
Michael Mavrovouniotis William Miller
Barbara E. Moriarty Allan S. Myerson
Sonbinh T. Nguyen Sharon J. Northup
Takeshi Oka J. M. Ottino
Eleftherios T. Papoutsakis
Christopher W. Poe
Guy L. Rosenthal Kathryn L. Rowberg
Mary J. Sand Deborah L.Serra
James P. Shoffner Duward F. Shriver
Stephen Sichak Fred E. Stafford
Leon M. Stock John Surdyk
Joshua A. Telser George A. Walrath
Keith W. Woods Robin M. Zavod

The Chicago Section thanks all of its members who take part in the Legislative Action Network. We think that it is an outstanding program and urge all to take part.

Barbara E. Moriarty
James P. Shoffner
Public Affairs CoChairs

READ THE LABEL.....READ THE LABEL !!

Of course we all take time to familiarize ourselves with any material we handle, e.g. household products, garden chemicals, etc. Right? WRONG! That is the reason for so many "accidents" which occur at work, or especially at home. We're usually in a hurry and believe everything is OK. One definition of accident is "an event occurring by chance or from unknown causes". I think there is a better definition in the dictionary, which states: "an unfortunate event resulting from carelessness, unawareness, ignorance or unavoidable causes." Of course, it is unavoidable if you don't read the label on the container. That indicates that the "event" is just waiting to occur.

The majority of our fellow chemists do read the labels of the containers with which they work; the main problem is with household garden chemicals. As an example, many years ago, my lab received delivery of a new GC-MS piece of equipment, one of the first available at that time. We all stood around watching the group leader removing the wooden slats enclosing the instrument, just waiting to get our hands on it. When the front portion was removed, behold: the instrument was enclosed in another wooden box-but attached to the front was a garishly colored sheet which said: "Do not touch until the attached directions are read!" Chemists get carried overboard at times and the manufacturer was taking precautions.

The big problem for us is educating the public to read the label, since everything bad that happens by others is blamed on chemistry and chemists. For example, several years ago, a lady had a badly stopped up drain. Following the usual media hogwash, she tried to clear the drain with vinegar. When this failed, she went to a hardware store and was sold a can of small sodium hydroxide chunks. Without bothering to read the label, she poured some of it down the drain. Shortly, hearing a large rumble, she bent over to see what was happening, and at this point the drain contents erupted, causing damage to her face, requiring extensive plastic surgery. She sued the maker of the lye and the award was sufficient to put them out of business. Only recently, has the lye to clear stopped up drains returned on the market So, please, read the Label, and try to educate non-technical friends and acquaintances to do the same. You'll be doing the image of chemistry and chemists a big favor!

Larry Berman
Chemical Health and Safety CoChair

PARTICIPATION IN THE YEAR 2001 PROJECT SEED PROGRAM

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

Project SEED offers high school students two exciting research opportunities-

- The Summer I program will provide first-time participants (rising juniors and seniors) a fellowship award of $1,750.
- A second-year program, Summer II, provides Project SEED Summer I students an additional summer of scientific research. These students will receive a fellowship award of $2,000. Additionally, Summer II students will be eligible for a travel grant of up to $100 to present their research at an ACS or other scientific meeting.

Chicago will be the host city of the Fall, 2001 ACS National Meeting and Project SEED students from several local sections will present posters in Sci-Mix.

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

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

You can obtain an application form, program guidelines, and other information from your local Section Project SEED co-chair, Cherlyn Bradley (630-510-0352, cbrad1027@aol.com) or from the National ACS Committee on Project SEED staff at 1-800-227-5558, ext. 4380.

DEADLINE FOR RECEIPT FOR SUMMER I AND SUMMER II APPLICATIONS IS JANUARY 2001.

If you have decided to sponsor a student(s) again, welcome back! The Council Committee on Project SEED office looks forward to reviewing your application.

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

Since its inception in 1968, more than 4,000 youths have participated in the Project SEED program nationwide. For the Chicago area, fewer than 75 students have participated — not because we don't have students that qualify or aren't interested in the program (each year we can find plenty of students), but due to lack of academic, industrial, and governmental scientists willing to be mentors. We continue to have the few, dedicated scientists who have been involved in the program several years — and we salute you!

In order to get more Chicagoland students involved in the program, we need two things: 1) more funding from Chicagoland corporations, foundations, and individuals to sponsor our students and 2) more scientists willing to participate as mentors/preceptors to foster the successful continuance and growth of this worthy program in the Chicago area for scientifically promising, but economically disadvantaged high school students. For you scientists who are NSF, NIH, or PRF grant holders, it is possible that you can get funding to sponsor a Project SEED student within your proposed research programs. Check with the SEED office at 1-800-227-5558, ext. 4380.

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

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

Cherlyn Bradley and Charles Cannon, Chicago Section Project SEED Co-Chairs

PERCY JULIAN BIOGRAPHY

NOVA, the award-winning science series on PBS, is researching the life and career of the late Chicago-area chemist Percy Julian in preparation for a two-hour television biography to be broadcast in 2004. The producers of the program are hoping to locate people who worked with, studied under or otherwise knew Dr. Julian, either in connection with his chemical work or in his teaching or civic roles. Of particular interest are chemists who worked with him between 1936 and 1953, while he was at Glidden, as research director for the Soya Products Division and, later, the company as a whole. The producers would also appreciate any help in tracking down the lab notebooks and other records of Julian's research at Glidden, covering subjects ranging from water-based paint to paper coatings, "bean soup" to artificial hormones and cortisone. And they would like to talk with anyone who worked with Dr. Julian at Julian Laboratories or the other companies he formed after leaving Glidden, the Julian Research Institute and Julian Associates. If you have information, please contact:

Stephen Lyons
Project Director
Percy Julian Biography Project
NOVA
WGBH-TV
125 Western Ave.
Boston, MA 02134
781-643-9425 (phone)
781-643-9426 (fax)
stephenlyons@mediaone.net

MEMBERS NEEDED TO HELP WITH THE CHEMICAL BULLETIN

The Chemical Bulletin needs your help. Do you see ways that the Chemical Bulletin could be improved and would like to help in that regard? Are you a good writer who would like to contribute articles for publication to chemists around the Chicago area? Are you interested in layout? Do you want to make your newsletter, The Chemical Bulletin, the best section newsletter in the ACS? If you answered yes to any of those questions, The Chemical Bulletin needs you. Please contact me via email at bmoriarty@nalco.com.

CHEMISTS INDUCTED INTO NATIONAL INVENTORS HALL OF FAME

Dr. Helen Free and her husband Alfred were inducted into the National Inventor's Hall of Fame in Akron, Ohio for their dip-and-read tests for urinalysis, which allowed for easy self-testing of glucose levels by diabetic patients and paved the way for further dip-and-read testing. Free and her husband, who died in May, were honored for their lives' work with a plaque that went up at the Inventor's Hall of Fame, joining other greats like Thomas Edison, Alexander Graham Bell, and the Wright Brothers.

Induction ceremonies were held in September at Inventure Place, home of the National Inventors Hall of Fame. Inventure Place is dedicated to inspiring creativity and invention throughout the nation and has welcomed more than 700,000 since opening to the public in July 1995. It houses the permanent exhibit honoring all 151 inventors inducted since the National Inventors Hall of Fame was established in 1973.

Helen began working with her husband, Alfred, in the 1940s at the Bayer Laboratories in Indiana, developing self-testing kits that let diabetics monitor their blood sugar by checking their urine at home. In the past, diabetics had no choice but to go to a doctor's office to get blood-sugar level checked.

Dr. Helen Free appeared on World News Tonight as part of the series"21st Century Lives"; she also participated in an online chat, during which she discussed several different subjects. A summary of the discussions is given below.

About their invention, Dr. Free said, "I was hired to be an inventor. If you work in research for a company that's what your job is — to think of products that that company can sell. We already had, at what was then Miles Labs, a convenient tablet test, but it required a test tube that you had to wash out. My husband, when glucose oxidase was introduced as a new enzyme, thought we could make a specific test for glucose using that specific enzyme reaction. And then he thought, wouldn't it be easier to do this on paper instead of on a test tube? It would be convenient and easy to dispose of. So we did. At that time, diabetes was the number-three killer disease. That was in the mid-1950s. Now it's down at number 11, 12 or 13 - a lot of it because of the ease of testing.

The joy of discovery is so gratifying that it's worth the discipline it takes to be an inventor. Anybody can be an inventor. Ninety percent of the time there's a lot of luck involved — and then to have that background of knowledge that turns the key. "

About becoming a scientist: Dr. Free said luck inspired her to be a chemist. She went to college during the beginning of World War II. "The men left to join the armed forces, and my advisor suggested I change from majoring in English and Latin to chemistry - just in a dinner conversation. So my charge to young people now is grab that opportunity when it comes, because it changed my life. Often, science teachers inspire children to go on in science."

About other ways students can become inspired to go into science: Dr Free mentioned National Chemistry Week, sponsored by the American Chemical Society. "The whole idea is to get young people and adults to appreciate all the chemistry they do and use every day, such as toothpaste, deodorant, soap, bleach, vinegar, cooking products, spices — anything you name is a chemical. So, chemistry is all around us. And mathematical science associations, and physics and biology all have groups that are interested in telling people how important science is."

Free also said her greatest accomplishment is yet to come. Bringing children to science, she says, may provide the 21st century with its greatest inventor. "The whole idea of trying to get the world to understand how important science is in the new millennium — it's so important that everyone who is a scientist of any kind should feel obligated to talk to people. Talk to the Lion's Club, the PTA, the Garden Club and to kids whenever they have a chance, and just let them know that there's so much yet to be discovered."

About mentoring. "Bayer Corporation and many other companies have programs which partner with the education system where their plant sites are. There are many of those programs, where lots of scientists who work in corporations will mentor students. "

About the death of her husband, Al. "I was very sad because Al died just in May. He knew that he was going to be inducted into the Hall of Fame, because he was told earlier. But he had Alzheimer's, and that was the only sad thing. The ceremony was just so absolutely wonderful, and I was so glad that all nine of the kids were there."

Others inducted this year into the Inventors Hall of Fame include:

• Walt Disney , for his Disney's multiplane camera, which yielded better looking, richer animation and was first used for a full-length feature with Snow White and the Seven Dwarfs;

• Steve Wozniak, for his Apple II personal computer, which brought together the central processing unit (CPU), keyboard and disk drive in an affordable unit complete with color and graphics capabilities;

• Reginald Fessenden, for his wireless radio communication, which led eventually to the radio broadcasting industry of today;

• J. Franklin Hyde for his Hyde's fused silica and silicones. Fused silica is ultrapure high-quality glass, used in fiber optics, spacecraft windows, telescope mirrors and precision lenses for manufacturing. Silicones are polymers derived from silicon and other elements, which are used in high-temperature electrical insulation, gaskets, caulks, seals, lubricants and hydraulic fluids; and

• William Kroll. For his titanium and zirconium processing, which enabled these elements to be produced in a metallic state. Titanium's wide-ranging applications include artificial joints, aerospace technology, denture bases, golf clubs, wheelchairs and watches. Zirconium applications include surgical instruments, fiber optics, jet engines, radar equipment and nuclear reactors.

ERROR IN MEMBERSHIP AND SUBSCRIPTION RENEWAL FOR 2001

Due to a clerical error the 2001 Membership & Subscription Renewal notices which you have received from the American Chemical Society show on the second line "LS Voluntary Dues Chicago...$10.00". This should read "LS Voluntary Dues Chicago...$15.00". In order to correct this error, and to ensure that the Chicago Section has the funds its requires for conducting the programs and bringing you the services you deserve we need your help. When paying your fees for 2001, please cross out the $10.00 amount and replace it with $15.00. Correct the Total Amount Due to increase the number by $5.00, and mail your check for this increased amount. We apologize for this inconvenience.

REPORT ON THE COUNCIL MEETING AND THE ACS NATIONAL MEETING, WASHINGTON DC, AUG. 20-23

No one asked if we brought our own weather along, but it was Midwest-style weather in Washington for most of the ACS meeting. As of Tuesday evening, there were more than 10,000 paid registrants and more than 13,000 attendees in all categories. The Exhibition was sold out again. In a wave of the future, more than 60% of the housing registration for the meeting was done online. The NECH (Employment Clearinghouse) featured listings for 1616 positions by 155 employers and 2875 interviews for 1056 candidates.

District V Caucus: On Sunday evening, Jim Shoffner delegated the chair duties for the District V (nee Region V) caucus meeting to Barb Moriarty. Jim had a good reason: he's running for ACS Director at Large. All four candidates were soon visiting us, campaigning among the caucus meetings. (Only Councilors vote for Directors at large).

Eleven of 13 Chicago Section Councilors were present at the caucus, plus one dedicated Alternate who attended both the caucus and Council meetings. After hearing presentations from the candidates for ACS President Elect and for Directors at large, the caucus reelected Jim Shoffner as Chair of the District V Caucus and Donna Friedman of St. Louis as Secretary (sorry, Marsha Phillips — better luck next time).

District V Director Ann Nalley gave her report. She was largely responsible for organizing the observance of the 50th anniversary of the NSF at the Washington meeting. She is also actively promoting various initiatives of the ACS Office of Legislative and Government Affairs (OLGA).

We then began debating the various action items to be covered at the Council Meeting. As petition drafter Jim Shoffner pointed out, there is often much confusion among the membership between "Regions", as in Regional Meetings, vs. Regions as voting districts for ACS Directors. Although some protested that the education level of ACS members should preclude such confusion, a straw vote showed almost unanimous support for the petition.

A petition to increase the size of Council Committees produced a lot of debate. Proponents point out that 40% of Council members are not on any committee, but most of them want to be. Opponents stressed increased expense and a decrease in efficiency of committee operations. A straw vote showed >80% support for the petition and for urgent action.

A petition to adjust National meeting registration rates so as to not penalize non-US chemists also produced much debate, with many thinking the measure was incomplete in its rationale. A straw vote showed a majority not in favor.

ChemLuminary Awards: On Tuesday evening, the 2000 ChemLuminary Awards were presented, a function combining all of the awards to Local Sections and Divisions. Chicago is now in the "Very Large Section" category and were again one of the finalists for outstanding performance. Marsha Phillips, et al., prepared, transported, and presented a poster, rich in photographs, on our activities. However, once again, we didn't win - North Jersey did. The Section was also nominated for an award to Local Section Younger Chemists Committee, for an event, but the Northeastern Section YCC won instead. The Chicago Section was not nominated for Public Outreach Awards or for any Phoenix Awards for National Chemistry Week activities.

Council Meeting: Promptly at 8:00 AM Wednesday, trumpeter John Verkade called the meeting to order with Souza-'s Washington Post March. Resolutions were read in memory of deceased Councilors Al Free and Kurt Loening.

In elections to Council Committees, Tom Kucera was running for a seat on the Council Policy Committee. Unfortunately, he was not elected.

Urgent action (i.e., vote at this meeting) for the petition to increase the size of Council committees received much debate. In the process, some of the points pro and con were made. A counter motion from the floor recommended postponement for action until the San Diego meeting next Spring passed, so no further discussion was made.

The petition to change Region (voting) to District passed by a 2/3 vote after some discussion.

After much discussion, the council voted to recommit the petition to change National meeting registration fees for non-US chemists back to committee. Many objected to constant tinkering with the rates and pointed out that other groups, including K-12 science teachers were also discriminated against. The recommendation was also made to investigate reciprocity with other non-US chemical societies for reduced rates for ACS member attendance at their meetings.

In other action, the Council approved: 1) the request of the Fertilizer and Soil Chemistry Division to dissolve; 2) revision of duties of the Publications Committee (in absorbing the duties of the Copyright Committee); 3) revisions in the charter of the Committee on Technician Activities; 4) revision of the charter of the Women Chemists Committee; 5) the published National Meeting registration rates (after discussion because of the increase in many categories).

This will be my final report on the National Meeting to the Chicago Section. Because of my move to Minnesota, I will be resigning my membership in the Chicago Section and, of course, my position as Councilor. I've served the Section for over 15 years in elected offices and the past several years as Councilor. It's been a great trip and I wish both the Section and its members the best in the future.

Bob Buntrock

SCIENCE SENSATIONS

With the increased importance of science and mathematics in our everyday lives and in the professional world, building confidence and excitement in exploring science activities is essential to the success of our girls for the future.

The Girl Scouts of DuPage County Council is looking for adults interested in taking on the role of mentors to help to bring science alive to girls ages 6-10. (No science background necessary.) These adults will help deliver a special four-week Girl Scout science program to girls in DuPage County.

The program requires the following time commitment:

- 2 hour orientation/training (January)
- 4 — 1 1/2 hr. Girl Scout/science meetings in February or March
- Field trip to local business or museum

Check your calendar and your personal commitment to community service

Contact Sue Meyer, Director of Membership, Girl Scouts of DuPage County Council, 630.963.6050, ext. 215.

SCIENCE HISTORY TOUR TO IRELAND - SUMMER 2001

Science teachers make great traveling companions! Join our group on what will be the fourth Science History trip that we have run since 1997. This time we will study IRELAND'S SCIENTIFIC HERITAGE and the trip will begin in Ireland on June 20, 2001 and end in Ireland on July 4 2001. Non-scientist traveling companions are welcome and will find that there is a great deal to interest them.

This trip will take us all around Ireland from the Giant's Causeway in the north to the birthplace of Robert Boyle near the southern coast; from Galway in the west to Dublin in the east. There will be visits to science museums, universities, a school and not least, a distillery. Lectures on topics of special interest to us will be given at various venues by experts in scientific and other subjects. In addition, every opportunity will be taken to interact with local teachers, historians and other interesting people. Tour members will also be able to participate in cultural and other events. Persons traveling alone can be introduced if they would like to share a room to save single room supplements. Those wishing to extend the trip at either end can expect good advice on where to go and where to stay and all will be given advice on international traveling (whether you want it or not!).

SCIENCE HISTORY TOURS is a non-profit organization run by Yvonne Twomey. Our prior tours to England, Scotland and Ireland have received rave reviews, so we know that both science teachers and their non-scientist traveling companions find our trips great fun! The trips are led jointly by both Yvonne Twomey and Lee Marek

A graduate course (3 semester hours credit) will be available at a very moderate extra cost. This course will be taught by Lee Marek. Among the awards Lee has received are the Presidential Award, American Chemical Society's James Bryant Conant Award and CMA's National Catalyst Award for Teaching Chemistry. He was a Woodrow Wilson Chem Team leader and is now a Flinn Team Leader, he has also become a regular on "The David Letterman Show."

Price for the tour is not yet exactly determined, but should not exceed $2400 per person double occupancy. The price DOES NOT include your transatlantic airfare. If the cost turns out to be significantly less, then you will get a refund (this has happened!). All accommodations, breakfasts, at least one other meal per day (on average), surface transportation, lectures, entry fees and the odd glass of wine are included. Sign-up will begin in the fall. Payments will be made in three installments to ease the pain on the pocket, the last payment being due about 6 weeks before we leave.

See the following page for a web presentation on our first trip done by one of the tour members and another web page by Lee:
http://www.ncusd203.org/north/depts/science/chem/marek/
http://www.leyhs.w-cook.k12.il.us/Depart/science/zygas/Scitour.htm

To be put on the mailing list for the 2001 tour, contact:
Yvonne Twomey, 841 Kinston Court, Naperville, IL 60540 Tel:630-961-9811 e-mail : ytwomey@mcs.com or Lee Marek, Tel: 630-420-7516 e-mail: LMarek@aol.com

Have a Happy Winter Holiday Season

CALENDAR

December 1, 2000: The Department of Chemistry at Northwestern University will present Prof. Vicki Grassian of the Department of Chemistry, at the University of Iowa. The title of the talk will be "Heterogeneous Reactions of Environmental and Atmospheric Importance: A Spectroscopic and Kinetic Study of HNO3, NO2 and SO2 Reactions on Oxide Particle Surfaces." The talk will begin at 2:30 p.m. in Tech K140 at Northwestern University. For more information visit http://www.chem.nwu.edu/calandars.

January 19, 2001: The Chicago Section American Chemical Society will meet at Steven's Restaurant in Elmhurst. The speaker will be Mark S. Konings of 3m, who will present a lecture entitled, " The Art of the Brew: The History of Beer Brewing." For additional information call the Section Office at (847) 647-8405.

February 23, 2001: The Chicago Section American Chemical Society will meet at Ann Sather's Restaurant in Chicago. The speaker will be Shahna Richman of the FBI, who will give a lecture entitled, "Biological Weapons and Causes of Death." For additional information call the Section Office at (847) 647-8405.

March 23, 2001: The Chicago Section American Chemical Society and the Public Affairs Committee will celebrate the presentation of the Public Affairs Award. For additional information call the Section Office at (847) 647-8405.

April 1-5, 2001: The American Chemical Society will hold the 221st National Meeting in San Diego, CA. For more information contact the ACS at (202) 872-4396 or http://www.acs.org/meetings.

April 20, 2001: The Chicago Section American Chemical Society will celebrate the presentation of the Distinguished Service Award. The speaker will be Allan Hedges of Cerestar, Inc. who will present a lecture entitled "Industrial Applications of Cyclodextrins." For additional information call the Section Office at (847) 647-8405.

May 18, 2001: The Chicago Section American Chemical Society will celebrate the presentation of the Willard Gibbs Award. For additional information call the Section Office at (847) 647-8405.

June 11-13, 2001: The Joint Central/Great Lakes Regional Meeting will be held in Grand Rapids, MI. For more information contact R. J. McCabe at (616) 392-2375 ext. 2386 or by email Richard.McCabe@wl.com.

June 22, 2001: The Chicago Section American Chemical Society presents the Annual Education Night. For additional information call the Section Office at (847) 647-8405.

August 25-29, 2001: The American Chemical Society will hold the 222st National Meeting in Chicago, IL. For more information contact the ACS at (202) 872-4396 or http://www.acs.org/meetings.

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