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Chicago Section

The Chemical Bulletin

http://chicagoacs.org **SEPTEMBER • 2013**

CHICAGO SECTION AMERICAN CHEMICAL SOCIETY

Joint Meeting with the Chemistry Department of Loyola University and the Chicago Chemists' Club

EDUCATION NIGHT

FRIDAY, SEPTEMBER 27, 2013

Loyola University
6525 North Sheridan Road
Chemistry Department/Flanner Hall
Chicago, IL
(773) 274-3000

DIRECTIONS TO THE MEETING
Flanner Hall is located at 1068 West Sheridan Road on the Lake Shore campus of Loyola University, near the intersection of West Sheridan Road and Winthrop.

Parking: Enter the campus at the intersection of Kenmore and Sheridan Road and bear to the left. Parking is available at the parking deck next to Flanner Hall for about $8.00. Enter the garage at the entrance marked "Faculty, Students, Guests, Visitors." When leaving the garage, first purchase an exit parking ticket at the pay station machine located near the garage stairs and elevators.

REGISTRATION
4:30 - 6:30 P.M.
Flanner Hall lobby

SOCIAL HOUR
5:00 - 6:00 P.M.
Flanner Hall lobby

JOB CLUB
5:00 - 6:00 P.M.

PRE-DINNER TALK
5:30 – 6:15 P.M.

DINNER
5:00 – 6:45 P.M.
Dinner will be served cafeteria style at nearby Simpson Living Center

Cost: $15.00 for everyone

Dinner reservations are required and should be received in the Section Office via phone (847-391-9091), email (**chicagoacs@ameritech.net**), or web (**http://www.chicagoacs.net/register.php**) by noon on Wednesday, September 25. PLEASE HONOR YOUR RESERVATIONS. The Section must pay for all food orders. No-shows will be billed. Seating will be available for those who wish to attend only the meeting.

HS Scholarship Exam Award Presentations
7:15 P.M.

General Meeting
7:30 P.M.

IN THIS ISSUE

AFTER-DINNER PRESENTATION

Helen Domske, Senior Extension Specialist for New York Sea Grant/ Cornell Cooperative Extension, Associate Director of the Great Lakes Program at the University at Buffalo

"The Great Lakes – More Than Just H2O"

Abstract: They hold nearly 20% of the world's available freshwater - but the Great Lakes are an amazing resource that many of us take for granted. Learn about the wonders of the watershed, some of the critical issues facing the Great Lakes and what is being done to protect them for future generations. The talk will cover research being conducted

(continued on page 2)

(continued from page 1)

by scientists and educators aboard the USEPA's Lake Guardian that focuses on water chemistry and life in the lakes.

Biography: **Helen Domske** is a Senior Extension Specialist for New York Sea Grant/Cornell Cooperative Extension. She also serves as the Associate Director of the Great Lakes Program at the University at Buffalo. Helen is the Education Coordinator of New York Sea Grant and the New York leader for the Center for Great Lakes Literacy. She has worked for Cornell University for 19 years and has developed a productive Great Lakes education program.
She educates the public about issues affecting the Great Lakes and frequently speaks to school children, fishermen and boaters about how they can help prevent water pollution and the spread of invasive species. Prior to joining University of Buffalo, Domske worked as curator of education for the Aquarium of Niagara Falls from 1979 to 1993. As a scuba diver of more than 30 years, Domske has witnessed, firsthand, many of the changes happening within the Great Lakes, including the spread of invasive mussels across the lake bottoms.

NOTICE TO ILLINOIS TEACHERS

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

LABORATORY MANAGEMENT CONFERENCE

ALMA 2013, the premier conference where laboratory managers from around the world meet, sponsored by The Association of Laboratory Managers (ALMA), October 22-25, 2013 in Orlando, Florida

This high-energy conference features presentations by renowned laboratory leaders, panel discussions with senior industry experts, and roundtable discussions with experienced fellow managers. It is a great opportunity to network with lab managers sharing similar challenges, along with several pre-conference workshops. See details at **http://labmanagers.org**.

CONGRATULATIONS TO CHICAGO SECTION'S 2013 ACS FELLOWS!

Three Chicago section members were among the 96 selected and honored as 2013 ACS Fellows during the Indianapolis National ACS meeting in August:

Charles E. Cannon
Columbia College Chicago

Tobin J. Marks
Northwestern University

Michael J. Morello
PepsiCo

The fellows program began in 2009 as a way to recognize and honor ACS members for outstanding achievements in and contributions to science, the profession, and ACS.

Nominations for the 2014 class of ACS Fellows will open in the first quarter of next year. Additional information about the program, including a list of fellows named in earlier years, is available at **www.acs.org/fellows**.

CHEMISTRY MENTORS NEEDED IMMEDIATELY FOR BOY SCOUTS OF AMERICA CHEMISTRY MERIT BADGE PROGRAM!!

The Chicago Section of the American Chemical Society is currently seeking volunteers for its Boy Scout of America's Chemistry Merit Badge program. We need individuals to join us for lunch (noon to 1 p.m.) on either Saturday, October 5 at Oakton Community College in Des Plaines; Saturday, October 12 at College of Lake County in Grayslake; or Saturday, October 19 at North Central College in Naperville to discuss their chemistry career. Volunteers can be either active or retired chemists or chemical engineers in the industrial, government or academic sectors or be a graduate student. Scouts will be divided into small groups of 4 to 5 scouts per table during lunch. Volunteers are asked to describe their career and general information about careers in chemistry including educational requirements. Lunch consisting of cheese pizza, dessert and beverage will be provided. We are seeking at least ten volunteers at each location. Additional information about each location will be sent to volunteers that sign up for this activity. Please contact Fran Kravitz immediately at **fk1456@sbcglobal.net** if you are available to help with this very valuable educational Chicago Section program. We need to make sure that we have enough volunteers at each location. Please put "BSA Chemistry Merit Badge Program" on the subject line.

ACS LAUNCHES THE ACS GRADUATE & POSTDOCTORAL CHEMIST

ACS announces a new magazine focused on career advice, science news, awards, fellowships, and general topics related to graduate student and postdoctoral life. Read the most recent issue highlighting the global chemical enterprise and the 245th ACS National Meeting. Subscribe now at **www.acs.org/gradchemist**.

"CHEM SHORTS" For Kids

The Elementary Education Committee of the Chicago Section ACS presents this column and hopes it will reach young children and help increase their interest in science. Please print it out and pass it on to your children, grandchildren, or elementary school teachers. Teachers are encouraged to incorporate the projects in this column into their lesson plans.

Supercooled Slushy Science

Kids, here's a way to cool off and amaze your friends by making a soda pop turn into a slushy on command. And all you need is some soda pop and a freezer! The slushy project works especially well with 16-oz or 20-oz carbonated soft drinks in plastic bottles.

Procedure

1. Start with a room temperature bottle of soda pop. You could use any temperature, but it's easy to estimate how long it will take to supercool the liquid if you know your approximate starting temperature.

2. Shake up the bottle and place it in a freezer. Do not disturb the soda pop while it is chilling or else it will simply freeze.

3. After about 3-1/2 hours, carefully remove the bottle from the freezer. Each freezer is a little different, so you may need to adjust the time for your conditions.

4. There are different ways to start the freezing of the supercooled liquid. (a) Open the cap to release pressure, reseal the bottle, and turn the bottle of soda pop upside down, causing it to freeze in the bottle. (b) Slowly open the bottle, releasing pressure slowly, and pour the soda pop into a container, causing it to freeze into slush while you pour. You may pour the drink onto an ice cube to get it to freeze from the ice cube back toward the bottle. (c) Slowly pour the soda pop into a clean cup, keeping it liquid. Drop a piece of ice into the cup to initiate freezing. Here you can watch crystals form outward from the ice cube.

How It Works

Supercooling a liquid means to chill it below its normal freezing point without it turning into a solid. Although soda pops contain ingredients besides water, the ingredients are dissolved in the water and so they don't provide nucleation points for crystallization to occur. The added ingredients do lower the freezing point of water (freezing point depression), so you need a freezer that gets well below 0°C or 32°F. You shake up the can of soda pop before freezing it in order to eliminate any large bubbles that could act as sites for ice formation.

Notes

You can make instant slush in cans, too, but you can't see what is going on inside the can and the opening is smaller and harder to open without jarring the liquid. If you don't have access to a freezer, you can use a large container of ice. Sprinkle salt on the ice to help make it extra-cold. Cover the bottle with the ice. This is an example of freezing point depression.

Reference
Anne Marie Helmenstine at **http://chemistry.about.com/od/ediblescienceprojects/a/Instant-Slushy-How-to.htm?nl=1**

Submitted by DR. KATHLEEN CARRADO GREGAR

To view all past "ChemShorts for Kids", go to:
http://www.chicagoacs.net/ChmShort/kidindex.html

KIDS AND CHEMISTRY PROGRAM

The Chicago Section of the American Chemical Society is in the process of reviving the "Kids & Chemistry" program. The "Kids & Chemistry" is a community-based program that brings together scientists and children to do hands-on science activities at local schools. The Section will provide kits and supplies for the classroom. Each kit must be checked out and returned to the section within one week of the classroom presentation. Current kits that will be available are: "Buno the Elephant's Toothpaste" (grades 1st-5th) contributed by Elizabeth College Student Chapter; "Chemistry is More Than Hot Air!" (Grades 3rd &4th) contributed by Northwestern State University Student Chapter; and "Lava Lamp" (Grades 2nd-5th) contributed by Chi Epsilon Mu (XEM) Chemistry Club at Austin Peay State University. Future kits available in 2014 will be "Jiggle Gels: (Grades 3rd-5th); "What's New, CO2? (Grades 4th-6th); and "Chemistry Rainbow" (Grades 5th-8th).

We are currently looking for individuals who would like participate in this program. The section will match volunteers to a school requesting the "Kids & Chemistry" program or you may directly contact a school in your area. Volunteers can be from the industrial, government or academic sectors or can be from a student chapter at local colleges or universities or science clubs at local high schools. Please contact Fran Kravitz if you are interested in becoming a volunteer presenter in our "Kids & Chemistry" program at **fk1456@sbcglobal.net**. Indicate "Kids & Chemistry" in the subject title.

DID YOU KNOW?

ACS has a series of online videos called "ACS Breakthrough Science". Research that could turn windows into solar panels, mapping carbon dioxide emissions across a city, developing a medication for treating cocaine addiction, and how an ancient Egyptian pigment is helping in the development of new nanomaterials are the first four topics in the series.

Go to **http://pubs.acs.org/page/videos/breakthroughscience.html**

NATIONAL HISTORIC CHEMICAL LANDMARKS IN YOUR COMMUNITY

By Keith Lindblom, ACS National Historic Chemical Landmarks Program Manager

ACS established the **National Historic Chemical Landmarks** program in 1992 to enhance public appreciation for the contributions of the chemical sciences to modern life in the United States and to encourage a sense of pride in their practitioners. To date, the program has recognized nearly 70 subjects in the United States and around the world, including three within the ACS Chicago Section:

- **Alice Hamilton and the Development of Occupational Medicine:** Alice Hamilton helped make the American workplace less dangerous. In her quest to uncover industrial toxins, Hamilton roamed the more dangerous parts of urban America, descended into mines, and finagled her way into factories. Hamilton was a pioneer who became a leading expert in chemical health and safety. Her work was recognized by ACS at Chicago's Jane Addams Hull-House Museum in 2002.

- **Discovery and Development of Penicillin**: The introduction of penicillin in the 1940s, which began the era of antibiotics, has been recognized as one of the greatest advances in medicine. The discovery of penicillin and the initial recognition of its therapeutic potential occurred in the United Kingdom, but, due to World War II, the United States played the major role in developing large-scale production of the drug. Those recognized for their contributions to the development of penicillin include Abbott Laboratories, Lederle Laboratories (now Pfizer, Inc.), Chaz. Pfizer & Co., Inc. (now Pfizer, Inc.), Merck & Co., Inc., E.R. Squibb & Sons (now Bristol-Myers Squibb Co.), the USDA Northern Regional Research Laboratory (now National Center for Agricultural Utilization Research) and St. Mary's Hospital in London.

- **Sohio Acrylonitrile Process:** The key ingredient in acrylic fibers used to make clothing, plastics, sports equipment and more, acrylonitrile touches nearly everyone in some way every day. The material is made by a process developed in the 1950s by scientists and engineers at Standard Oil of Ohio (Sohio) near Cleveland. The Sohio process was designated as a National Historic Chemical Landmark in 1996, and Sohio's nitrile business is now part of INEOS Nitriles of Naperville, Ill.

- **Universal Oil Products (UOP) Riverside Laboratory:** The UOP Riverside Laboratory in McCook, Ill., was conceived in 1921 as a place where scientists could create new products and provide support for the rapidly expanding oil refining industry. Its establishment gave independent oil refiners access to research that allowed them to compete with the major oil companies. The site was dedicated as a National Historic Chemical Landmark in 1995; it is now owned by Honeywell International.

ACS local sections, divisions or committees can nominate subjects for the program. To qualify, subjects must clearly represent seminal achievements in the history of chemistry; they must evidence significant impact and benefit to the public and the chemistry profession; and they must be at least 25 years old. For a complete list of National Historic Chemical Landmarks or more information about the nomination and selection process, visit **www.acs.org/** landmarks or contact the author at l**andmarks@acs.org**.

CONTACT THE CHAIR

Do you have any questions, suggestions, ideas, gripes, or complaints relating to the Chicago Section? Do you want to help with Section programs and activities? Then contact your Chair. Simply log onto the Section's Web Page at **http://www.chicagoacs.net/**, click on the "Contact Us", click on "Contact the Chair", and send me an e-mail. If I can answer your query, I will respond personally. If I can't answer directly, I will forward your e-mail to someone who can, or try to provide you a contact – all in a timely manner. The Section belongs to you and the other 4,383 ACS members residing in the Chicagoland area (including northeast Illinois and northwest Indiana). Only you can make it work for you by being involved. But you can also make it fail by not being involved. I look forward to hearing from you.

Mike

Michael G. Koehler, Ph.D.
CHICAGO SECTION CHAIR

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

2013 BASOLO MEDAL TO BE AWARDEDTO DR. MARCETTA Y. DARENSBOURG

Northwestern University will honor **Dr. Marcetta Y. Darensbourg**, Distinguished Professor of Chemistry, Texas A&M University, with the Basolo Medal for recognition of work in inorganic chemistry. Named for Northwestern University chemistry professor Fred Basolo, the award is given by Northwestern University and cosponsored by the ACS Chicago Section. Dr. Darensbourg will deliver the award lecture at the Northwestern University Technological Institute in Evanston, IL on October 11.

Following the lecture at Northwestern, the Medal presentation will be given at the Chicago Section's meeting. Meeting information and additional details will be found at the section's website, **www.chicagoacs.org**. Reservations may be made on-line or by calling the Section's office at (847) 391-9091.

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

HELP WANTED

FORMULATION CHEMIST

HNC Products Inc., an international R&D and Custom dermatology products manufacturing company centrally located on a 15 Acres campus, outside of Clinton, IL, is looking for an experienced Formulation Chemist to join their R & D group.

Ideal candidate should have a B.S. or M.S. in chemistry or bio-chemistry and several years of formulation experience working with nutraceuticals, cosmeceuticals, and OTC actives. This hands-on position requires GLP and cGMP guideline knowledge.

Please forward your resume to:

Chim Potini
V.P. Research and Development
HNC Products Inc.
283 Cromwell Drive
Clinton, IL 61727
Fax-217-935-8938
E-mail: cspotini@yahoo.com

No Phone Calls please.

2013 FIFTY- SEVENTH ANNUAL SCHOLARSHIP EXAMINATION IN CHEMISTRY

SPONSOR: Chicago Section, American Chemical Society: High School Education Committee
HELD AT: North Central College on May 25, 2013
AWARDS: Funds are contributed by the chemical industry and by individuals. Teachers of prize-winning students will receive $100.

PRIZE	WINNER	SCHOOL & TEACHER
FIRST **$5,000 AWARD**	**Eric Tomasic**	**Jim Glynn** Glenbrook South HS
SECOND **$3,000 AWARD**	**Bryce Cai**	**Julie Galovich** Barrington HS
THIRD **$2,500 AWARD**	**Soumyaa Mazumder**	**Suzanne Teberg** Fremd HS
FOURTH **$1,500 AWARD**	**Stone Cai**	**Dan Brown** Naperville Central HS
FIFTH **$1,250 AWARD**	**Stephanie Smelyansky**	**Jim Glynn** Glenbrook South HS
MARIE LISHKA * **$2000 AWARD**	**Soumyaa Mazumder**	**Suzanne Teberg** Fremd HS
MARSHALL S. SMOLER** **$200 AWARD**	**Saood Karim**	**Karen Trine** Lane Tech HS
BERNARD E. SCHAAR*** **$500 Chicago Chemists' Club Award**	**Spencer Scott**	**Don Molenda** Brother Rice HS

*To the highest scoring female in the examination. This award honors ***Marie Lishka***, who was an active Chicago Section member for many years. Additional funding for the Lishka award was provided in memory of Stan Drigot.
To the highest-scoring Chicago Public High School Student. ***Marshall S. Smoler* was a chemistry teacher in the Chicago public schools for many years. His sister, Rachel, established this award in 1972 in his memory.
*** To the highest scoring Chicago High School student. Mr. Bernard Schaar's widow established this award in memory of ***Mr. Bernard Schaar***, long active in Chicago Section, American Chemical Society and the Chicago Chemist's Club.

HONORABLE MENTIONS LISTED IN ALPHABETICAL ORDER

(These students were the next highest performers)

James Zhu	Naperville North HS
William Finnegan	New Trier HS
Emily Wyland	Glenbrook South HS
Lucas Duros	New Trier HS
Nathan Cornwall	Fremd HS
Tiffany Chen	Naperville Central HS
Nick Connelly	Naperville North HS
Kristin Riedinger	Naperville Central HS
Joshua Deutsch	Naperville Central HS
Shavina Chau	Niles WestHS
Sathvik Sanagala	Naperville Central HS
Lena Zhu	Naperville North HS
Allison Salter	Niles West HS

A total of 77 students took the 2013 ACS Scholarship exam. Each chemistry teacher could nominate two students.

Awards will be given to students at the ACS Education Night meeting on **Friday, September 27, 2013 at Loyola University**. Award winners and their teachers will be contacted by the Chicago ACS office. All teachers and students are invited and encouraged to attend the ACS Education Night meeting. Teachers who attend the ACS Education Night meeting will receive CPDU credits. Teachers do not have to be ACS members to attend.

A special thank you to **Dr. Paul Brandt,** Chemistry Professor at North Central College, for his hard work and willingness to author the exam.

FINANCIAL CONTRIBUTORS TO THE SCHOLARSHIP EXAM ARE: ACS Chicago Section, Stan Drigot, Dr. Henry M. Walton, Chicago Chemists' Club, and Rachel Smoler.

IN MEMORY OF DR. PETER LYKOS

Ilinois Institute of Technology Emeritus Professor of Chemistry, Peter G. Lykos, 86, died on July 16, 2013. Born on January 22, 1927, he was a Chicago native, the son of Greek immigrants, and a long time friend and active member of the Chicago section ACS.

He answered the country's call at Roosevelt High School for volunteers to enter the World War II, Navy V-5 training program.

By age 19, he was a "seasoned" (he would chuckle) veteran. Upon discharge, he propelled himself to an academic career which led to Wright Junior College, Northwestern University and finally the Carnegie Institute of Technology for a Ph.D. in chemistry.

He then returned to Chicago, joining the Illinois Institute of Technology and it was this institution, faculty, and above all, these students, to whom he would end up dedicating the rest of his professional life.

Peter thrived in a distinguished and varied career at IIT as a physical chemist pursuing his lifelong passions of computers in chemistry, quantum chemistry and chemistry education. Among other adjunct initiatives, he was central to creating a computer center at IIT and launching the computer science department.

He also brought time-share computing to Chicago's area high schools and created IIT/V, distance learning reaching out to companies in the Midwest. More recently he mentored cross-disciplinary teams addressing contemporary topics such as robotics.

His legacy to the Department of Chemistry at IIT lives on through his philanthropic efforts. He was instrumental in raising an endowment honoring IIT chemistry academicians Martin and Mary Kilpatrick that supports the Kilpatrick Lecture Series as well as the Kilpatrick Fellowship and Kilpatrick Scholarship in chemistry at IIT.

His extracurricular professional activities included launching what would become a series of 12 international conferences on computers in chemistry research and education spanning 30 years, longtime prominent participation in the American Chemical Society championing advancements in chemistry education structure, content, and methods, and a similarly-focused two-year appointment to the National Science Foundation in Washington D.C.

Peter was active in civic affairs in Oak Park, which was home to his family since 1959. His activity began with organizing a grassroots effort to create the first two parks with recreation centers in south Oak Park in the 1960s.

He is survived by his wife of 63 years, Marie; children, George (Carmen), Kristina, and Andrew; granddaughter, Aurora; in-laws, Barbara Lykos, Helen Lyons, and Tony Susco; and his many nieces and nephews. He was preceded in death by his five younger brothers and sisters.

PROJECT SEED COLLEGE SCHOLARSHIP AWARD ANNOUNCEMENT

All three of our 2012 Chicago section Project SEED students have been awarded 2013-2014 Project SEED College Scholarships for their freshman year in college!

Student	Mentor	College	High School Teacher
Kristen Alanis (Summer I)	Dali Liu	Loyola University Chicago	Glenn Lid Proviso East High School
Lyba Zia (Summer I)	Daniel Becker	Loyola University Chicago	Ami LeFevre Niles West High School
Hailee Chan (Summer I)	Rick Holz	Loyola University Chicago	Jeanette Earlandson Whitney Young Magnet High School

The scholarship is a one-year non-renewable scholarship of up to $5,000. The students are also eligible to apply for a three-year renewal scholarship as they enter their sophomore year. These applications will automatically be sent to them upon completion of their freshman year.

Congratulations to our three students, mentors and high school chemistry teachers! Thanks to the Chicago section Board of Directors for continuing to support this terrific program!

TRACEY BRAUN
PROJECT SEED CHAIR

SECTION COUNCILORS EXPLAINED

This article is updated annually to help you with your decisions in electing councilors and alternate councilors in the upcoming Chicago Section election. **Remember to cast your vote**.

Have you ever wondered who and what ACS councilors and alternate councilors are and what they do for you and the Chicago Section? The two major structural components of the Society besides your national officers and Board of Directors are local sections and divisions. ACS local sections and divisions not only elect their own officers, but also elect representatives to the ACS Council, the deliberative body of the Society. This is your opportunity to have a voice in Society's governance.

The Council consists of the President, the President-Elect, the Directors, the Past Presidents, the Executive Director, the Secretary, and more than 400 voting Councilors representing Local Sections and Divisions. The Council convenes twice a year at the Society's national meetings.

Councilors provide the principal contact between local section members and governance leaders in setting policies for the ACS that directly or indirectly affect you. Councilors are elected to serve a three-year term. Alternate Councilors represent the section when a Councilor is unable to attend a Council meeting.

Councilors also serve on National committees that meet during National meetings. Councilors are appointed to these committees by the President of the Society and are eligible to serve only three consecutive terms on the same committee. A councilor who accepts an appointment to a committee accepts an obligation to work year-round throughout that term. The Councilor is expected to attend meetings of the committee, and be willing to undertake special assignments that require time between meetings.

Committees of the Council are: 1) Standing Committees: Constitution and Bylaws, Divisional Activities, Local Section Activities, Meetings and Expositions, Membership Affairs, and Economic and Professional Affairs; 2) Society Committees: Budget and Finance, and Education; 3) Joint Board-Council Committees: Chemical Abstracts Service, Chemistry and Public Affairs, Chemists with Disabilities, Community Activities, Environmental Improvement, International Activities, Patents and Related matters, Professional Training, Public Relations and Communications, Publications, Science, Minority Affairs, Chemical Safety, Women Chemists, and Younger Chemists; 4) Other Committees of the Council: Analytical Reagents, Ethics, Nomenclature, Project SEED, and Technician Affairs; and 5) Elected Committees: Council Policy, Nominations and Elections, and Committee on Committees.

The Chicago Section is currently represented by 10 councilors elected by you. Most of these councilors are members or associates on National ACS committees. Your Chicago Section Councilors and their current committee appointments are: **Cherlyn Bradley** (Nominations and Elections), **Charles E. Cannon** (Local Section Activities), **David S. Crumrine** (Chemical Safety), **Ken Fivizzani** (Community Activities) **Herbert S. Golinki**n (Constitution and Bylaws), **Russell W. Johnson** (Chemistry and Public Affairs), **Milt Levenberg** (Public Relations and Communications), **Inessa Miller, Barbara E. Moriarty** (Professional Relations Divisional Representative on Science; Great Lakes Regional Board Chair), and **Susan Shih** (Education).

Alternate Councilors for the Chicago Section are: **Amber Arzadon, Irene Cesa, Thomas Higgins** (Education), **Frank Jarzembowski, Mark Kaiser, Keith Kostecka** (Project SEED), **Kathryn Leach** (Younger Chemists), **Margaret Levenberg, Paul Young, and Robin Zavod**.

We have section members who are also involved in other activities related to the National Meetings. For example, **Fran Kravitz, Charles Cannon**, and **Herb Golinkin** are career consultants who do resume reviews during National meetings. **Fran Kravitz** and **Charles Cannon** are also career workshop instructors.

Your Councilors and Alternate Councilors ask for your help in providing your opinions about the Society and issues relating to the Society. This will help Councilors better represent you during Council.

CHERLYN BRADLEY

STUDY TOOL FOR CHEMISTRY IN TWO-YEAR COLLEGE PROGRAMS

Two-year programs are under increasing pressure to perform self-assessments and document their outcomes. The ACS self-study tool is a resource for identifying program strengths and opportunities for growth in the context of the ACS Guidelines for Chemistry in Two-Year College Programs. Faculty and administrators of two-year college programs that teach chemistry and chemistry-based technology are invited to download the self-study tool and other resources at **www.acs.org/2YGuidelines.**

PLEASE VOTE in the Section's online election when you receive your special election password in the mail

WHEN YOU CHANGE YOUR EMAIL ADDRESS

Please let the section office know what your new email address is so that you will not miss any section information. Contact the office at 847-391-9091 or at chicagoacs@ameritech.net

ACS STRATEGIC PLAN FOR 2013 AND BEYOND INVITES YOU TO "GET INVOLVED"

The ACS Strategic Plan for 2013 and Beyond now provides chemistry professionals with the opportunity to "Get Involved." It connects you directly to the valuable programs, products, and services that are available from the ACS, and provides information on how you can benefit. Take a look at just a few of the offerings you can find in the "Get Involved" tab.

- Discover SciFinder from CAS, the world's most complete source of chemistry information (Goal 1)
- Enroll in an ACS Short Course or SciMind™ (Goal 2)
- Become a Science Coach (Goal 3)
- Become an advocate for STEM education (Goal 4)

The Strategic Plan supports attainment of the Society's vision of "Improving people's lives through the transforming power of chemistry" and our mission to "Advance the broader chemistry enterprise for the benefit of Earth and its people." It also represents our dedication to marshal our unique resources to provide information, advance member careers, improve education, and communicate chemistry's value.

Learn more about how the ACS is working to empower chemists and the chemistry enterprise to address the world's challenges by watching a short video, "What is the ACS?"

Visit **strategy.acs.org** to read the complete ACS Strategic Plan for 2013 and Beyond.

NOT EVERYTHING IS DOWN-SIZING -- HISTORY OF THE ANALYTICAL SERVICES LAB OF NORTHWESTERN UNIVERSITY'S DEPARTMENT OF CHEMISTRY AND THE START OF THE ASSOCIATION OF LABORATORY MANAGERS (ALMA)

The size of the Analytical Services Lab (ASL) at Northwestern University's (NU) Department of Chemistry (Now IMSERC) has tripled in size.

Northwestern's Department of Chemistry was the first Department in the U.S. to establish a fully centralized analytical instrumentation facility in 1969 with Claude A. Lucchesi as the first lab director and with a staff of five specialists.

In 1968, Prof. Donald D. DeFord, chairman of the Department of Chemistry, asked Dr. Claude A. Lucchesi to come to NU to establish an Analytical Services Laboratory (ASL) to be run like a business for the Chemistry Department and to team-teach a lab course in analytical and physical chemistry. The ASL would contain all the expensive instruments that each research group could not afford. Dr. Lucchesi was the head of the Analytical and Physical Chemistry department at the Mobil Chemical Company (now ExxonMobil) in Edison, NJ. Lucchesi was a grad student of Prof. DeFord and received a Ph.D. from the Department in 1955. There was a small analytical operation in the Department that did excruciating micro analytical work when he arrived to start ASL.

A roof was constructed over the moat of the Technological Institute next to the Department to provide about 7,000 sq.ft. of lab space and ASL started business in 1969. At this point the head of the Electronics shop, Bob Loyd, and Dr. DeFord began moving department instruments that already were in research groups into the ASL. Biochemistry was part of the Department at that time, so we had instrumentation like amino acid analyzers and two Beckman ultracentrifuges. A staff person in ASL was supported by the biochemists.

Starting in 1969, Claude Lucchesi wrote the instrument proposals for NSF, NIH and DOE. Prof. Burwell was on the NSF proposals panel, and he told us that the panel asked if NU had hired a professional proposal writer (when Lucchesi started to write the proposals). We were always successful in getting the instrument grants during the tenure of Lab Director Lucchesi. Thus, the first grant award for ASL was in 1970.

As part of the course being team-taught, there was a darkroom attached to ASL. We had two x-ray powder cameras. We also had many other instruments in the lab, including an early HP GC/MS.

I want to mention 1979 in particular because it was a banner year. We purchased three NMRs from JEOL, and JEOL came to use our lab for a demonstration of the NMRs, including one of the first solids NMR, that we bought from them.

At this time we had a Perkin-Elmer 60 MHz NMR with F-19 capability and a student-proofed sample changer that we built. Also, we had a 60 MHZ Varian CFT-20. JEOL paid the Department $10,000 for using the lab for the demonstration. This was the beginning of having instrument companies give demonstrations when we purchased one of their instruments–for a fee, or more likely, for extra instrument warranty time. The ASL was expected to help support itself, and thru work/consulting done for industry ASL significantly contributed to its cost annually.

One of the participants of the JEOL demonstration was Tom Lyttle, the instrumentation lab director from Iowa State. He kept looking around the lab and noticing all kinds of things we had modified and complimented us for them. Rudy Haidle, a lab staff member, and I astutely said "you must be a lab manager to notice those things," and ALMA was born.

The next year, in 1980, the first ALMA (Association of Laboratory Managers) Conference was held at the Allen Center on the NU Campus. Dr. Lucchesi was the first president of ALMA. ALMA is now 34 years old.

CLAUDE A. LUCCHESI

CHICAGO SECTION AMERICAN CHEMICAL SOCIETY
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MARIE ANN LISHKA MEMORIAL SCHOLARSHIP

On December 20, 1993, Marie Ann Lishka, a colleague, a friend, and a confidant to many of us, died very suddenly. She will always be remembered for her vitality and commitment to the American Chemical Society, her community, friends and her family. Not a day goes by that any one of us doesn't remember something special about Marie.

Memories sometime fade with time. Her dedication to both the Chicago Section and the Society has provided others with a role model. Friends and members of the Chicago Section have established a memorial scholarship to preserve the memory of Marie Ann Lishka.

The purpose of the "Marie Ann Lishka Memorial Scholarship" is to be a tribute to the memory of Marie Ann Lishka, chemist, Chicago Section ACS member, Councilor and Board Member, for her dedication and commitment to the Section, the Society and her community. This scholarship will be awarded annually to the highest scoring female high school student selected from the Chicago Section annual High School Chemistry Exam.

The student must have plans to major in chemistry or science. The amount of the scholarship will be determined based on donations collected to endow this scholarship.

At this time, we ask you to consider donating money to endow the "Marie Ann Lishka Memorial Scholarship". This can be done by making a check payable to the Chicago Section ACS, completing this coupon and mailing the check and the coupon back to the "Marie Ann Lishka Memorial Scholarship", Chicago Section ACS, 1400 Renaissance Dr. Suite 312, Park Ridge, IL 60068

"MARIE ANN LISHKA MEMORIAL SCHOLARSHIP"

NAME_____

ADDRESSS_____

PHONE ( )_____DONATION AMOUNT $_____

IL SCIENCE EDUCATION CONFERENCE

This year the Illinois Science Education Conference (ISEC13) will be held October 24-26 and is again sponsored by the Illinois chemistry, biology, environmental education, and science teachers associations. The conference has moved to the Tinley Park Conference Center in Tinley Park, IL which provides a vendor-friendly venue just south of Chicago. The emphasis of the conference is on STEM education and NEXT GENERATION SCIENCE STANDARDS. There is a new program format of both symposia and presentations for the two-day program in 22 breakout rooms to provide many options for teachers.
For further information, visit **www.ista-il.org** or contact Harry Hendrickson, Executive Director of the Illinois Science Teachers Association, at **hhendrickson@ista-il.org**

ONLINE RESOURCES FOR EDUCATORS

With technology widely integrated into the classroom, ACS Webinars has created a special collection of recorded sessions, selected with the intention of helping educators connect with their students and teach skills beyond the pages of a textbook. The goal of the ACS Webinars Education Resources mini-site at **http://acswebinars.org/for-educators** is to be the destination for educators endeavoring to connect students with chemistry in new ways. With input from educators across America, ACS Webinars has created a few resources to help you transform your classroom. As additional resources are created, please share your questions and feedback. Also, tell ACS your story (ACS Webinars love stories)! Visit the ACS Webinars Education Resources at **http://acswebinars.org/for-educators** to share your story, see what other educators are saying about ACS Webinars, and access a list of the 10 ACS Webinars most commonly used in the classroom.

THE UN-COMFORT ZONE

with Robert Wilson

Creative-Thinking Crashes Without This Characteristic --
Exposure to Experience is the Source-Code for Creativity

Last Spring my dog, Buddy, started chasing chipmunks. They would quickly escape into one of their holes in the ground, where he would dig for a few minutes, then give up. One day, a chipmunk ran into the mouth of the corrugated plastic pipe that carries excess rain water away from my backyard. Unlike the extensive tunnels and multiple exits of the ground squirrel's burrow, this pipe had only one way out. The rodent was safe, but trapped. Nevertheless, Buddy was determined to get him. By the time I noticed, he had dug up 20 feet of pipe which had been buried several inches underground.

The pipes were ruined, as was a good section of my landscaping. It took me, and my sons, nearly a day to repair. Not wanting a repeat occurrence, I needed a way to seal off the exit hole of the pipe that would block chipmunks, but not water.

As I looked at the open end of the pipe, I thought I could use something like chicken wire to wrap over the end. Then I remembered something I learned while installing gutters on my house. I have a lot of trees, so I get a lot of leaves in my gutters. I have gutter guards, but they can't keep out all the debris. For extra protection, I was advised to install a downspout strainer which is an upside-down metal basket, shaped like a light bulb, that you insert into the top hole of the downspout inside the gutter. I had an idea that one of those might be the perfect answer for my chipmunk (er, dog) problem. With a little manipulation, it was. The downspout strainer is now a ground squirrel gate.

I'm sharing this story of a simple solution to illustrate an important component of innovation. Creative-thinkers have a number of characteristics in common. They have a strong sense of self-efficacy; and they are willing to take risks. Neither of these matter, however, if one other characteristic is missing: they must be open-minded to new experiences.

You see, we generate ideas to solve problems, and most new ideas come from combining or synthesizing two or more existing ideas. Which means that before you can come up with a new idea, you must have a vast and diverse amount of knowledge from which you can draw. And, to acquire all that knowledge, you need to experience many different things. Or as Albert Einstein put it, "The only source of knowledge is experience."

Every time you have a new experience, you generate new information and data that you store in your brain. Each new experience literally opens new neural pathways - electrical connections - between the brain cells. In order to be creative one needs a lexicon of experiences to look up. While we acquire most of our knowledge from reading (which is experience), there is nothing like the act of "doing" that embeds the knowledge deeper and more securely into our brains.

If you have a sense of adventure, then you are already on the road to becoming an innovator. There is always some level of risk in trying something new. At a minimum, you may not enjoy it. Perhaps we fear, what C.S. Lewis noted in this quote, "Experience is the most brutal of teachers. But, you learn, by God, you learn."

In addition to building your store of knowledge there are many additional benefits to trying new things. One is that it will build your confidence, because every time you take the risk of trying something new you get a little more comfortable with your fear of the unknown. Benjamin Franklin understood this fear when he said, "Experience is the worst teacher. It always gives the test first and the instruction afterward."

Another benefit is that trying something new may challenge your beliefs. While changing your beliefs is not necessarily a goal of the creative-thinking techniques I teach, getting you to view them from a different perspective is.

Frequently, when I'm invited to speak to an organization on creative-thinking and innovation, someone will come up to me and ask, "Are you going to give us lots of ideas today?" My answer is, "No, because I'm not an expert in your industry, and I don't have the wealth of knowledge about your business that you do. Instead of giving you ideas, I will give you techniques that will enable you to generate ideas of your own. I will show you how to get a different perspective on what you already know, and with that perhaps you will come up with a new way of doing things that will make your company more productive and profitable."

Gaining new experience can be as simple as taking a new route to work, or listening to a new type of music on the radio while you drive. In an earlier article for this column, titled Change Please, I share a number of ways one can acclimate themselves to trying new things. Make sure you are continuing to build your store of knowledge by exposing yourself to new stimuli daily.

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Robert Evans Wilson, Jr. is an author, humorist and innovation consultant. He works with companies that want to be more competitive and with people who want to think like innovators. Robert is also the author of the humorous children's book: *The Annoying Ghost Kid*. For more information on Robert, please visit **http://www.jumpstartyourmeeting.com**

ADVERTISING INDEX

CALENDAR

September 8-12: 246th ACS National Meeting & Exposition, Indianapolis, Indiana

September 27: Chicago Section ACS Dinner Meeting at Loyola University in Chicago. This is Education Night. See details in this issue.

October 5, 12, 19: Volunteers needed for the Chicago Section ACS Boy Scout of America's Chemistry Merit Badge program, noon to 1 p.m. on either Saturday, October 5 at Oakton Community College in Des Plaines; Saturday, October 12 at College of Lake County in Grayslake; or Saturday, October 19 at North Central College in Naperville to discuss their chemistry career. Contact Fran Kravitz at **fk1456@sbcglobal.net** if you are available to help. See article in this issue.

October 22-25: Laboratory Management Conference sponsored by The Association of Laboratory Managers (ALMA), Orlando, FL. See details at **http://labmanagers.org**.

October 24-26: Illinois Science Education Conference, Tinley Park Conference Center. For more information, visit **www.ista-il.org**. See article in this issue.

JOB CLUB

The next meeting of the **Chicago Section ACS Job Club** will be held on **Friday, September 27 at 5:00 p.m. at Loyola University**. The meeting will include a review and discussion of some of the tools that a chemist can use to conduct a job search.

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

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

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

Should you wish to attend the Section's dinner meeting following the Job Club, the cost is $15 and you can continue your networking activities. Please call the Section office for reservations and indicate that you are eligible for a discount.

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

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FREE CHEMMATTERS RESOURCES

Free ChemMatters magazine resources are available at: **www.acs.org/chemmatters**

- **Teacher's guides** (with extensive background information about the articles, laboratory activities, questions pertaining to the articles, and reading and anticipation guides created by our reading specialist)
- **Animated video podcasts**, which provide visual support of chemistry concepts discussed in the articles
- "**News You Can Use**," an online section that highlights topics that recently appeared in the news and are related to high school chemistry concepts

SECTION MEETING DATES 2013

Friday, September 27
Friday, October 11
Friday, November 22
Friday, December 13

FREE T-SHIRTS

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

ARE YOU AN INDUSTRY PROFESSIONAL WHO WANTS TO BE MORE INVOLVED WITH ACS?

The American Chemical Society is launching a new program based in two topic areas: Toxicology for the Scientist and Separation Science, and needs your content. ACS is looking for the best and brightest as well as the new and hypothetical. If you have authored an impressive paper, article or lecture slide set, or created a high-quality image, graphic, animation, illustration or video in either of these topic areas, ACS wants to see it. Contact us at **sci-mind@acslearning.org** with your ideas.

SECTION DUES

Members are urged to pay the $15 Secton dues when you get your annual ACS membership dues statement. The Section needs this revenue to help support its many activities.