

The Chemical Bulletin

<http://chicagoacs.org>

SEPTEMBER • 2011

**CHICAGO SECTION AMERICAN CHEMICAL SOCIETY
JOINTLY WITH THE CHEMISTRY DEPARTMENT OF
LOYOLA UNIVERSITY AND THE CHICAGO CHEMISTS' CLUB
EDUCATION NIGHT
FRIDAY, SEPTEMBER 23, 2011**

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.

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REGISTRATION

Flanner Hall lobby

4:30 - 6:30 P.M.

SOCIAL HOUR

Flanner Hall lobby

4:30 - 5:30 P.M.

POSTER SESSION

Loyola chemistry student research
Flanner Hall lobby

4:30 - 5:30 P.M.

PRE-DINNER TALK

"A Tale of Two Initiatives to Improve Public Understanding of Science: Zooniverse and the PARSEC Project"; by **Dr. Grace Wolf-Chase**, Astronomer, Adler Planetarium Astronomy Department and Senior Research Associate, University of Chicago, Department of Astronomy & Astrophysics

5:30 - 6:15 P.M.

JOB CLUB

5:00 - 6:00 P.M.

DINNER

5:00 - 6.45 P.M.

Served Cafeteria-Style
Simpson Living Center

(see page 3)

AWARDS PRESENTATION 7:15 P.M.

Winners of the High School Scholarship Examination

LECTURE

7:30 P.M.



Dr. Norbert J. Pienta, Department of Chemistry and Editor of *The Journal of Chemical Education*, University of Iowa, Iowa City, IA

Title: "The Journal of Chemical Education: Print Journalism Enters the Digital Age"

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Abstract: In the early 1920's, members of the ACS held several meetings to discuss the educational aspects of chemistry. Due to travel constraints, not all who were interested could attend these meetings. It was noted by this group that there was no place for papers on this topic to be published; so one of the leaders of this group, a chemist named Neil E. Gordon, decided the solution was to produce a journal that covered all facets of chemistry education. So, in 1923, Gordon, who was at Johns Hopkins University in Baltimore, went to ACS national headquarters with a proposal for a new publication — the *Journal of Chemical Education* (JCE).

ACS nixed the idea though. However, in a private bet, the ACS's secretary challenged Gordon to go ahead on his own and raise the necessary advertising and operating funds. Somehow there became a January 1924 issue. Since that time, The Journal of Chemical Education has served the chemistry community, providing a forum for reporting and discussing topics of interest to its subscribers and constituencies.

This talk will provide a historical context and an introduction to potential future directions for journalism about chemical education. As stated by Diane Bunce (feature editor of the educational research section of JCE, a member of its board and associate professor of chemistry at the Catholic University of America), "JCE never stands still, it's always one step ahead."

Biography: Dr. Norbert J. Pienta received his bachelor's degree in chemistry from the University of Rochester in 1974 and in 1978 obtained a Ph.D. in Chemistry from the University of North Carolina (Chapel Hill). From 1978-1980 he did post-doctoral work at the University of Pittsburgh.

In 1980 he became a member of the faculty in the Department of Chemistry at the University of Arkansas. He returned to the University of North Carolina at Chapel Hill in 1989 where he served as the Director of Undergraduate Laboratory Development and the Director of Laboratories until 1999. A move to the University of Iowa then occurred where he has since served as the: General Chemistry Coordinator (1999-2002); Director of Center for Teaching (2005-2008) and Director of Undergraduate Studies (2003-now). His efforts, in part, at Iowa have led to the number of chemistry majors nearly doubling since 2003 and the redesign of the department's first-year chemistry sequence that has brought about a significant increase in student success rates in those courses.

He has published a variety of papers in the fields of nanotechnology and chemical education and is a author [or co-author] of several textbooks, including *Chemistry in Context: Applying Chemistry to Society*, (2006) and the *Instructors' Resource Manual for General Chemistry* (2008). Currently he also serves as the 8th Editor of The Journal of Chemical Education, a position that he has held since 2009.

PRE-DINNER TALK

A growing body of evidence demon-strates that most science is learned outside of school, in informal environments. The nature of this learning is shaped by public perception of science. Examples of perceptions that often inhibit learning include views of science as remote from everyday life; as merely a technocratic activity for specialists; and as in conflict with religious convictions.

In this presentation, I will briefly describe two distinct initiatives aimed at altering these perceptions. The first initiative, Zooniverse, is a suite of web-based citizen science initiatives whereby members of the public make real and tangible contributions to our knowledge of the Universe. The second initiative, PARSEC (PARTners in Science Education and Communication), is a project that builds partnerships among scientists, informal science educators, and clergy, making use of studies that indicate much of the perceived conflict between science and religion among the public is largely absent from educated clergy, and that a great deal of informal science education already takes place in religious settings.

THE SPEAKER



Grace Wolf-Chase has held a joint position between the Adler Planetarium and the University of Chicago Department of Astronomy & Astrophysics since 1998. She holds a Bachelor's degree in Physics from Cornell University and a Ph.D. in Astronomy from the University of Arizona. Grace was awarded a National Research Council postdoctoral fellowship to study the early stages of star formation at NASA/Ames Research Center in Moffett Field, CA (1994-1996), and a University of California President's postdoctoral fellowship to continue these studies at U.C. Riverside (1996-1998).

Her primary research efforts focus on the earliest stages of star formation, from the formation of low-mass stars similar to our Sun, to the formation of massive stars in rich clusters. She has made important contributions to understanding the scope and effects of outflows generated by forming stars.

Grace is a member of the science team for the "Milky Way Project", one of a large suite of citizen science initiatives in the "Zooniverse". She is active in exhibit development, sky show production, mentoring student and postdoctoral research projects, and working with diverse audiences to help bring the excitement of scientific research to public audiences. She and her spouse, Dennis Chase, live in Naperville with their three teenage children.

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"CHEM SHORTS" For Kids

The Elementary Education Committee of the Chicago Section ACS presents this column. They hope that it will reach young children and help increase their 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.

International Year of Chemistry

Kids, **The International Year of Chemistry (IYC 2011)** is already half over! It's been a great year so far and there's more to come. This recognition for chemistry was declared by the United Nations in December 2008.

IYC is a worldwide celebration of the achievements of chemistry and its contributions to the well-being of humankind. Under the theme "Chemistry—Our health, Our future," it offers interactive, entertaining, and educational activities for all ages.

The goals are to increase the public appreciation of chemistry in meeting world needs, to encourage interest in chemistry among young people, and to generate enthusiasm for the creative future of chemistry.

IYC 2011 events emphasize that chemistry is a creative science essential for sustainability and improvements to our way of life. Activities such as lectures, exhibits, and hands-on experiments, explore how chemical research is critical for solving our most vexing global problems involving food, water, health, energy, transportation, and more. The IYC holds a full list of events on its website and include: - conferences, congresses, symposia, fairs, exhibitions, expositions, grand openings, lectures, meetings, open discussions, workshops, celebrations, shows, art exhibitions, and quizzes,

Examples of the American Chemical Society IYC activities (go to www.acs.org) include the monthly *IYC Virtual Journal*. Each issue features free access to 15 to 20 articles from ACS's 39 journals and C&EN that illustrate the many ways in which chemistry improves life for people around the world. And "365: Chemistry for Life" features a chemistry highlight for each day of the year. Day 178, for example, features an essay on the origins of the oil industry.

Other organizations are also celebrating chemistry during IYC. The National Science Foundation has teamed up with NBC Learn and the National Science Teachers Association to create "Chemistry Now," a weekly online video series that explains the chemistry of everyday molecules like water and chemical principles such as chirality in a clever and easy-to-understand fashion.

Resources & References:

Official website: <http://www.chemistry2011.org/>

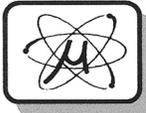
Chemical & Engineering News Cover Story, 6/26/11:

<http://pubs.acs.org/cen/coverstory/89/8926cover.html>

Submitted by DR. KATHLEEN CARRADO GREGAR

To view all past "ChemShorts for Kids," go to:

<http://www.chicagoacs.net/ChmShort/kidindex.html>



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DINNER INFORMATION

Dinner will be in the nearby Simpson Living Center and is served cafeteria style with a large variety of items on an all-you-can-eat basis. A portion of the cafeteria will be reserved for ACS attendees. Dinner admission tickets are obtained at the ACS registration table in Flanner Hall for a flat charge of \$13.00 per person. No discounted dinners for students, retirees or unemployed.

Dinner reservations are required and should be received in the Section Office via phone (847-391-9091), email (chicagoacs@ameritech.net) or website (<http://chicagoacs.org>) by noon on Wednesday, September 21. PLEASE HONOR YOUR RESERVATIONS. The Section must pay for all dinner orders. No-shows will be billed.

DIRECTIONS TO LOYOLA

By public transportation:

Take the CTA Red Line train to the Loyola station at Sheridan Road.

From Downtown Chicago:

Take Lake Shore Drive north to its end. Follow Sheridan Road north until it turns west at 6500 north. Follow directions below to parking.

From North and Edens Expressway

(I-94): Take I-94 (Edens Expressway) to the Peterson Avenue East Exit. Take Peterson east to Western Avenue. Turn left on Western (north) to Devon and go east. Continue to Kenmore Avenue. Turn left on Kenmore to the Loyola Campus.

From West:

From O'Hare take I-294 North to the Touhy Avenue East exit (this is the very first exit after toll plaza). Proceed east on Touhy to Talcott, the first stoplight. Turn right onto Talcott and go to Devon (first stoplight after passing high school). Turn left on Devon and continue on to Caldwell. Turn right on Caldwell (this road becomes Petersen) to Western. Turn north on Western to Devon. Turn east on Devon and continue east to Kenmore Avenue. Turn left on Kenmore to the Loyola Campus.

PARKING: Enter the campus at the intersection of Kenmore and Sheridan Road and bear to the left. Parking is available in the parking garage next to Flanner Hall for \$7.00. 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.

2011 FIFTY-FIFTH ANNUAL SCHOLARSHIP EXAMINATION IN CHEMISTRY

SPONSOR: Chicago Section, American Chemical Society: High School Education Committee
 HELD AT: North Central College on May 21, 2011
 AWARDS: Funds are contributed by the chemical industry and by individuals.
 Teachers of a prize-winning student(s) will receive \$100.

PRIZE	WINNER	SCHOOL & TEACHER
FIRST \$5,000 AWARD	Nathan Lindquist	Beverly George Naperville North HS
SECOND \$3,000 AWARD	Dina Peck	Jim Glynn Glenbard South HS
THIRD \$2,500 AWARD	Taylor Herr	Beverly George Naperville North HS
FOURTH \$1,500 AWARD	Elisah Vanden Bussche	Wade Scharlau HD Jacobs HS
FIFTH \$1,250 AWARD	Cody Stocker	Cheryl Rulis Oak Park – River Forest HS
MARIE LISHKA * \$2000 AWARD	Dina Peck	Jim Glynn Glenbard South HS
MARSHALL S. SMOLER** \$200 AWARD	Jeremy Dixon	Karen Trine Lane Tech HS
BERNARD E. SCHAAR*** \$500 Chicago Chemists' Club Award	Margaret Jakus	Walt Kinderman Walter Payton College Prep 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. **Bernard E. Schaar's** widow established this award in his memory. He had been long-time active member of the Chicago Section, American Chemical Society and the Chicago Chemists' Club.

HONORABLE MENTIONS LISTED IN ALPHABETICAL ORDER
 (These students were the next highest performers)

Andrew Bean	Oak Park/River Forest HS
Austin Bream	Glenbard South
Scott Daniel	Oak Park/River Forest HS
Daniel Fishbaum	Chicagoland Jewish HS
Aseem Jha	Naperville North HS
Patrick Liscio	Niles West HS
Esther Mildenhall	Oak Park/River Forest HS
Elan Sykes	Chicagoland Jewish HS
Nolan Winkler	Loyola Academy HS

A total of 103 students were nominated to take the 2008 ACS Scholarship exam. Each chemistry teacher could nominate two students.

Awards will be given to students at the ACS Education Night meeting on September 23 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. Register online at <http://www.chicagoacs.net/register.php>

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.

CARPOOL BUDDIES

The Chicago Section ACS is aware of an ongoing problem for some of our members who want to go to a dinner meeting but either don't drive anymore or don't own a car. The Section is implementing a new program to connect members who drive with members who want to go to Section dinner meetings but don't have transportation. Many of our dinner meetings are in the suburbs and not near public transportation. We are asking members who are driving to a dinner meeting to volunteer to pick up a member who doesn't have transportation and who is on the route to the meeting.

Members making a dinner reservation on-line starting in September will be able to check a box on the form indicating that they can provide a ride for someone who doesn't drive. Members who do not drive will be able to call into the section office and ask for the list of volunteer carpool buddies for that meeting. The non-driving member will have the responsibility of calling someone on that list for a ride before making their dinner reservations.

This is a win-win situation for everyone. You can help save the environment by reducing the number of cars going to a meeting; you can have someone to talk to on the ride to the meeting; and you will know you are helping a fellow chemist to still attend a dinner meeting. Won't you please help!

FRAN KRAVITZ

“CHEMISTRY—OUR HEALTH, OUR FUTURE!” CHEMISTRY DAY

Saturday, October 22, 2011
Columbia College Chicago

Please join us!

Do you remember the first time you realized that chemistry was special? If the answer is yes, then we need your help! The ACS Chicago Section invites all local ACS members to join in the celebration of National Chemistry Week by volunteering to participate in *Chemistry Day* on Saturday, October 22 at Columbia College Chicago.

Chemistry Day is an annual, day-long event open to all students ages 10–16. It is always an exciting and popular occasion – last year, more than 750 local students attended our signature *National Chemistry Week* celebration! ACS volunteers are the vital link in this highly successful community outreach program. Featured activities for students and their parents, teachers, guardians, as well as scout and other community leaders, include magic demonstrations, wonderful hands-on chemistry lab experiments, interactive exhibits, and an inspirational Boy Scout chemistry merit badge program.

We need your help! Share your love of chemistry by meeting and greeting participants, supervising hands-on lab activities with students, sharing exhibit materials, and performing demonstrations.

The theme of *National Chemistry Week* for 2011 is “*Chemistry—Our Health, Our Future!*”

We hope you will join with your ACS friends and colleagues to continue this unforgettable tradition. Please e-mail your Community Affairs Committee co-chairs listed below to sign up now!

AVROM LITIN	litin@comcast.net
IRENE CESA	icesa@flinnsci.com
DAVID CRUMRINE	dcrumri@luc.edu

2011 BASOLO MEDAL AWARD TO DR. GREGORY J. KUBAS

Northwestern University will honor Dr. Gregory J. Kubas, Los Alamos National Laboratory, with the Basolo Medal for recognition of his 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. Kubas will deliver the award lecture at the Northwestern University Technological Institute in Evanston, IL on October 22.

Following the lecture at Northwestern, the Medal presentation will be given at the Chicago Section's meeting. The meeting location 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.

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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.

SECTION DUES

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

COME ONE, COME ALL!

Join the world's largest society for chemical professionals – the **American Chemical Society (ACS)**, www.chemistry.org – and experience many professional and personal benefits!

Stay current on the latest chemistry developments with a free subscription to the weekly *Chemical and Engineering News (C&EN)* magazine and discounted rates on personal subscriptions to the many online ACS technical journals. Members received discounted rates on registration fees to all ACS sponsored meetings, national and regional!

Take command of your career with continuing education and professional development courses. Network with your peers using the ACS Network, an online scientific networking tool, and through discipline-specific technical divisions and local section activities. Members have access to career services, such as the salary comparison tool, ACS Careers Jobs Database, and Career Consultant Program, where ACS members provide career consultations (resume preparation, job search strategies, interviewing techniques, etc) to other members.

Wait...there is more!

Avail yourself of other personal membership benefits including group insurance programs; discounts on medical services, shipping, auto rentals, and hotels; and exciting opportunities for worldwide adventures through the ACS Expeditions program.

WHAT ARE YOU WAITING FOR? BECOME AN ACS MEMBER TODAY!

Regular membership	\$146
Non-scientist/ Society affiliate	\$146
Graduate student membership	\$73
Undergraduate student membership	\$46

To get the most up-to-date information about chemistry activities in and around Chicago; meeting information (local, regional, and national), and fun facts about chemistry, visit the Chicago Local Section website at www.chicagoacs.net and follow us on:

Facebook (<http://www.facebook.com/ChicagoACS>)

Twitter (<http://twitter.com/#!/ChicagoACS>)

ACS Network (<https://communities.acs.org/groups/chicago-section>)

Please contact Keith KostECKa (kkostECKa@colum.edu or 847-391-9091) about these and other benefits available to ACS members.

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WIN WITH 365: CHEMISTRY FOR LIFE

Enter for a chance to win Visa Gift cards, an iPad, iPod Touch or iPod Nano! Some days were purposely left out of the "365-Chemistry for Life Calendar" at <http://iyc2011.acs.org/> to invite members to help fill in the gaps. Entries should consist of the name of a chemistry-related person, place, innovation, or everyday item with a 300–400 word description of the entry.

RIVERSIDE LABORATORY: AN ACS HISTORIC CHEMICAL LANDMARK WITHIN THE AREA OF THE CHICAGO SECTION

The American Chemical Society designated the UOP Riverside research and development laboratory as a National Historic Chemical Landmark in a ceremony in the southwest Chicago suburb of McCook, Illinois, on November 15, 1995.

The text of the commemorative plaque reads:

This research and development complex was established by the founders of Universal Oil Products (later named UOP) to develop key products for the oil-refining industry. The processes created here profoundly affected the refining, treatment and conversion of crude oil and the development of the petroleum and petrochemical industries. Conceived as a combination of quiet academic retreat and industrial plant, Riverside attracted many of the world's leading petroleum scientists and a dedicated support team. Between 1921 and 1955, Riverside research resulted in 8,790 U.S. and foreign patents. Today, Riverside research focuses on catalyst development and pilot-plant operations that test catalyst performance and optimize processing conditions.

IN NEXT ISSUE:
the
October 14
Basolo Medal Award
Lecture, Dinner
and Presentation

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PLEASE VOTE in the Section's
election when you receive your
ballot in the mail

SEPTEMBER HISTORICAL EVENTS IN CHEMISTRY

- September 1, 1909** Rohm & Hass Co. was founded.
- September 4, 1913** Stanford Moore, who did research on enzymes, was born. He shared the Nobel Prize in Chemistry in 1972 with William H. Stein for their contribution to the understanding of the connection between chemical structure and catalytic activity of the active center of the ribonuclease molecule and Christian B. Anfinsen for their work on ribonuclease, especially concerning the connection between the amino acid sequence and the biologically active conformation
- September 6, 1906** Luis J. Leloir, who isolated glucose 1,6-diphosphate and uridine diphosphate glucose, was born. He also synthesized trehalose with E. Cabib in 1953 and sucrose with C. Cardini and J. Chiriboga in 1955. He received the Nobel Prize in Chemistry in 1970 for his discovery of sugar nucleotides and their role in the biosynthesis of carbohydrates.
- September 9, 1877** Aleksandr E. Arbuzov, who studied organophosphorous compounds and the rearrangement of phosphite esters (the Michaelis-Arbuzov reaction), was born.
- September 13, 1886** Robert Robinson, who was a researcher in plant pigments, alkaloids and phenanthrene derivatives, was born. He received Nobel Prize in Chemistry in 1947 for his investigations on plant products of biological importance, especially the alkaloids.
- September 14, 1961** Analtech, Inc., the manufacturer of products for thin layer chromatography, was founded as Custom Service Chemicals. Its name was changed on January 8, 1965 to Analtech, Inc.
- September 14, 1936** Ferid Murad, a researcher who is known for his discoveries concerning nitric oxide as a signaling molecule in the cardiovascular system, was born. He shared Nobel Prize in Physiology or Medicine in 1998 system with Robert F. Furchgott and Louis J. Ignarro for these discoveries.
- September 28, 1852** Henri Moissan, who discovered fluorine, was born. He also invented an electric furnace in which he prepared metal carbides and silicon carbides. In 1906, he received the Nobel Prize in Chemistry in recognition of the great services rendered by him in his investigation and isolation of the element fluorine, and for the adoption in the service of science of the electric furnace named after him.

LEOPOLD MAY
Professor Emeritus of Chemistry
The Catholic University of America
Washington, DC

Additional historical events can be found at Dr. May's website, <http://faculty.cua.edu/may/Chemistrycalendar.htm> or This Week in Chemical History on the ACS website, <http://www.acs.org/whatischemistry>.



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WCC ARTICLE AUTHORS NEEDED

The Chicago Section's Women Chemists Committee has a project to highlight women, both current and historical, and topics of interest to women. The project is called the "WCC Column" in the *Chemical Bulletin* and the project has been very successful.

We invite anyone, women or men, to join us in this endeavor of writing an article for the column. The article needs to be about 500 words long and will also be put on the Chicago Section website. The author also needs to design a poster for the corresponding monthly meeting. Our office manager, Gail Wilkening, will help with the poster, which can be primarily a large font version of what you wrote, if you wish. We welcome new authors and those who have already discovered what a pleasure this project is.

CO-CHAIRS MARGY LEVENBERG
AND SUSAN SHIH

SCIENCE AND THE EDUCATED AMERICAN: A CORE COMPONENT OF LIBERAL EDUCATION

Nearly all American college undergraduates take at least one science-related course in college. For most, this coursework marks their last engagement with formal science education. Yet the pace of scientific and technological change means that all adults must be prepared to learn and evaluate new science information after they leave schooling. College graduates, no matter their career, should be proficient in this regard.

The American Academy's publication, *Science and the Educated American: A Core Component of Liberal Education*, explores whether American colleges and universities are providing students with the foundation necessary for lifelong scientific learning. Jerrold Meinwald, co-editor of the volume and the Goldwin Smith Professor of Chemistry Emeritus at Cornell University, suggests that "we need a widespread reexamination and reevaluation of the contents as well as the methods of presentation employed in science courses designed to be of interest and value for all."

The publication may be downloaded free of charge at <http://www.amacad.org/publications/scienceSLAC.aspx>.

Several common themes emerge in the publication:

- Without a basic level of scientific literacy, the public cannot rely on even the best science journalism and communications to equip them with the ability to make informed decisions about science issues.
- Science courses belong in the liberal arts curriculum for the benefit of both science and non-science majors.
- Teaching science should convey the wonders and rewards of science but also the limits of science and the dangers of misapplying it.
- Science and the humanities have much more in common than is generally appreciated.

Science and the Educated American grew out of an American Academy conference and study, *Science in the Liberal Arts Curriculum*. The study is co-chaired by Jerrold Meinwald and John G. Hildebrand, Regents Professor of Neuroscience, with joint appointments in Chemistry and Biochemistry, Entomology, and Molecular & Cellular Biology, at the University of Arizona. Thirty-four colleges and universities participated in the study, which focuses on the challenges of and opportunities for teaching science in a general education context.

IYC 2011 COMMUNITY OUTREACH

ACS members, chemistry enthusiasts, and educators are invited to help celebrate the International Year of Chemistry (IYC) throughout 2011 by participating in or hosting a special event. Each quarter we will focus on a specific theme to confirm that chemistry is a worldwide science that impacts all people positively. Water is the common thread connecting these themes:

• Materials (3rd Quarter)

The significant facets of recycling, properties of materials, and nanomaterials will be introduced.

• Health (4th Quarter)

The chemistry of health and the positive impact of the chemical sciences on the world as it relates to nutrition, hygiene, and medicine will be the final theme of the year. The health quarter

will be prepared in conjunction with National Chemistry Week (NCW), which will be celebrated October 17–23, 2011.

Print and Online Resources

Special web editions of Celebrating Chemistry will be available for the 1st and 3rd quarters of IYC. Celebrating Chemistry will be available in print and online for CCED and NCW 2011. Each edition of Celebrating Chemistry will contain three to four articles, three hands-on activities, two puzzles/games, and one Meg A. Mole interview which will feature chemists who will talk about their careers.

Supplementary materials such as additional hands-on activities and articles, puzzles/games, theme related PowerPoint Packs, as well as comprehensive book, video, and e-resources will be available for students, educators, ACS members, Local Section Coordinators, Faculty Advisors, and enthusiasts.

For more information, contact the ACS Office of Community Activities at oca@acs.org.



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LABORATORY SAFETY PUBLICATION

The third edition of Prudent Practices in the Laboratory has been published and is available for purchase. The full title of this edition is *Prudent Practices in the Laboratory: Handling and Management of Chemical Hazards*. It updates National Research Council Guidelines that have served for thirty years as an authoritative reference for the safe use of hazardous chemicals. The guidelines are used by laboratory workers as well as regulatory agencies worldwide. The OSHA Lab Standard cites this publication and includes recommendations in the appendix of the standard. New topics covered in this update include: emergency planning, laboratory security, green chemistry, compatible chemical storage, and the handling of nanomaterials. There is also an expanded discussion of environmental health and safety systems. A CD is included with the book with relevant forms and the electronic version of the book. Copies of Prudent Practices in the Laboratory are available from the National Academies Press, 500 Fifth Street, NW, Washington DC 20001; (800) 624-6242; www.nap.edu at a cost of about \$90. It is possible to buy single chapters of the book in the PDF form.

THE CHEMICAL BULLETIN ADVERTISING RATE SCHEDULE

The official newsletter of the Chicago Section American Chemical Society, *The Chemical Bulletin*, publishes news and information of interest to the Section's 4,600 members, who are professional chemists and others in related professions in industry, academia and government throughout greater Chicago.

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You can get help improving your resume through the Career Consultants. These are volunteers trained by the ACS to assist its members with writing resumes, contacting prospective employers, and providing tips on interviews.

There are several Career Consultants in the Chicago Section who are willing to meet with you and help improve your resume. Simply call the Section office at 847-391-9091 and set up an appointment. Fifteen to thirty-minute sessions will be arranged at our monthly meetings. Should you require more time, arrangements can be made with your consultant to continue discussions by telephone, by e-mail or by additional face-to-face sessions. You also can attend the Section's Job Club where you can network with other people having similar concerns.

We are here to help. All you need to do is pick up the telephone and bring copies of your resume to the next monthly meeting.

ACT4CHEMISTRY.ORG

The new home of the ACS Legislative Action Network (LAN) to:

- Contact Policymakers
- Link to daily policy news
- Engage in Act4Chemistry blog

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Chemistry International www.iupac.org/publications/ci/2011/3301

Women Chemists in the National Inventors Hall of Fame www.layingthegroundwork.com/inventors







IIT Chemistry Presents the 2011 Kilpatrick Lecture
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Friday, September 23, 2011

10:00 a.m. Technical Lecture —Auditorium
 2:00 p.m. Student Poster Session —Ballroom
 3:00 p.m. Panel Discussion, "The Future of Chemistry" —Auditorium

For more information visit: www.iit.edu/csly/che

Please RSVP to cronin@iit.edu or 312-567-3132 by September 16

"Whitesides' contributions to science range into biology, engineering, physiology, materials science, physics and, especially these days, nanotechnology. Other scientists, government leaders, inventors and investors worldwide want to hear from him."
 —*Smithsonian Magazine*

IMAGE CREDIT: Felice Frankel. From the book *No Small Matter: Science on the Nanoscale* by Frankel and Whitesides. Image features polymer fronds a few thousand nanometers long wrapping around spheres.



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CONTACT THE CHAIR

Do you have any questions, suggestions, ideas, gripes, or complaints relating to the Chicago Section? Do you want to volunteer, help out, or lend a hand with Section programs or activities? Then contact your Chair. Simply log onto the Section's Web Page at <http://chicagoacs.org>, find the green button "Contact the Chair," and send me an e-mail. If I can answer your query I will respond personally. If I can't I will forward your e-mail to someone who can, or try to provide you with a contact -- all in a timely manner. The Section belongs to you and the other 4,546 ACS members who reside in the Chicago area (northeast Illinois and northwest Indiana). Only you can make it work for you by being involved. But you can also make it fail by not being involved. I look forward to hearing from you.

KEITH KOSTECKA
CHICAGO SECTION CHAIR

NEW JOURNALS: ACS SYNTHETIC BIOLOGY AND ACS MACRO LETTERS

ACS Publications is about to launch two new journals. Their first articles will be published online in the fall 2011, and first full issues will appear in January 2012:

ACS Synthetic Biology will define the field of synthetic biology by publishing original results in cutting-edge molecular systems and synthetic research. Led by Editor-in-Chief Christopher A. Voigt of MIT, the journal will publish research that demonstrates integrative, molecular approaches enabling readers to better understand the organization and function of cells, tissues, and organisms in systems. Moreover, articles will demonstrate the application of synthetic biology to manipulate these systems.

Offering the fastest time to publication in polymer science, *ACS Macro Letters* will report major advances in all areas of contemporary soft matter science in which macromolecules play a key role, including nanotechnology, self-assembly, supramolecular chemistry, biomaterials, energy generation and storage, and renewable/sustainable materials. Complementing the comprehensive full articles published in *Macromolecules*, *ACS Macro Letters* will be led by Editor Timothy P. Lodge of the University of Minnesota, who is also editor of *Macromolecules*. Stuart J. Rowan of Case Western Reserve University will serve as Deputy Editor for the new journal.

THE UN-COMFORT ZONE

with Robert Wilson

Not Gonna Hold My Breath

I bought a lottery ticket. I hope to win. That would be so cool, wouldn't it?

Do I think I'll win? No. I fully understand the odds are against me. Then why did I buy one? I bought it because I've been thinking about hope and whether or not it is a powerful motivator.

I recall my friend Brian, who also understands the odds, justifying his weekly purchase of a lottery ticket with this statement, "God can't let you win unless you buy at least one." Brian was full of hope.

Buying a lottery ticket perfectly illustrates our feeling of hope. Once you've bought one, and before the drawing of the winning numbers, you can dream of all the things you'll buy, and all the ways your life will be improved by several million dollars. It's fun to dream; and hope makes us feel better. But, does it improve our lives?

Some of the wisest people who have lived do not think so. Benjamin Franklin said, "He that lives upon hope will die fasting." Friedrich Nietzsche laments, "Hope in reality is the worst of all evils because it prolongs the torments of man." And, Aristotle observed, "Youth is easily deceived because it is quick to hope."

Hope is defined as: 'To wish for something with expectation of its fulfillment.'

I'm going to vote in the Presidential election. I hope my candidate will win. In the nine times that I previously voted for President, I only voted for the winner once. And then, only because I switched at the last minute to become a single issue voter instead of voting with my core beliefs. I've regretted it ever since.

Since I can't seem to pick a winner, why do I keep voting? Hope of course. Hope for what, you ask? Mostly that the economy will improve, and that an environment that is good for business will be fostered. Napoleon Bonaparte probably explained best why I vote, "A leader is a dealer in hope." And, I hope the new guy will fix all the messes I perceive in the country.

I hope for peace and prosperity in the world. There is a certain beauty in hope, it paints a picture of perfection in our minds, and that makes it all the more appealing.

I hope my friend who has cancer will survive. I hope he has hope too because I believe what Russian author, Fyodor Dostoevsky said, "To live without hope is to cease to live."

Hope, however, is an extrinsic motivator. It is what we have when we feel like we have no power to alter the outcome. It is what we have when we depend on external factors to help us. We have given up on making a change by ourselves; we are now dependent on some benevolent force to make our condition better or our dreams come true.

Hope is the last ditch motivator. There is a reason why it was on the bottom of Pandora's box. When we have nothing else left to go on: the concentration camp prisoner, the innocent person on death row, the homeless person who has lost everything; when we are rendered impotent by circumstances; hope motivates us to keep going. That means, as a motivator, hope does have power, or as Roman Senator, Marcus Tullius Cicero noted, "While there's life, there's hope."

Unfortunately, hope is not the type of motivator that is going to help us succeed in life. Success comes from the intrinsic motivation of desire and ambition (and sometimes fear); Napoleon Hill said it best, "Desire is the starting point of all achievement, not a hope, not a wish, but a keen pulsating desire which transcends everything."

While hope makes us feel better, it is not enough; it needs to be backed by commitment and above all action.

Nevertheless, I still hope to win the lottery.

--

Robert Evans Wilson, Jr. is a motivational speaker and humorist. He works with companies that want to be more competitive and with people who want to think like innovators. For more information on Robert's programs please visit www.jumpstartyourmeeting.com.

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CALENDAR

September 23: Chicago Section's Education Night, Loyola University Chicago. **See details in this issue.**

September 23: The 2011 Kilpatrick Lectures at IIT. The speaker will be Dr. George Whitesides of Harvard University. **See page 9 in this issue.**

September 27: 2011 Dreyfus Prize in the Chemical Sciences award ceremony for Tobin J. Marks will be held at Northwestern University in the Ryan Auditorium in the Technological Institute Building on the Evanston campus. The award ceremony will include a lecture by Dr. Marks.

October 5-9: ACS technical continuing educations courses to be held in the Chicagoland area. Contact the ACS Office of Professional Education (www.proed.acs.org; 202-872-4544) for further information.

October 14: Basolo Medal Award Lecture, Dinner, and Presentation; joint Chicago Section ACS's meeting with Northwestern University's Department of Chemistry. The Basolo Medal Awardee is Dr. Gregory J. Kubas, Los Alamos National Laboratory.

October 19-22: Joint Midwest/Great Lakes Regional Meeting (MWRM/GLRM), St. Louis, MO. For further information, go to <http://mwrms2011.org/>

October 22: Chemistry Day at Columbia College Chicago. The theme is "Chemistry – Our Health, Our Future"

November 17: Chicago Section dinner meeting at The Parthenon Restaurant, 314 South Halsted St., Chicago, IL.

November 21: The Stieglitz Lecture at the University of Chicago. Dr. Jonathan Ellman of Yale University is the guest speaker.

December 9: The Chicago Section's holiday party and meeting, Holiday Inn Willowbrook, 7800 Kingery Highway (Route 83) Willowbrook, IL.

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 notes concerning issues of *The Chemical Bulletin* or other section information. Contact the office at 847-391-9091 or at chicagoacs@ameritech.net

ACS LAUNCHES INTERNATIONAL YEAR OF CHEMISTRY VIRTUAL JOURNAL

Each month, the IYC Virtual Journal (<http://iyc2011.acs.org/2011/01/01/virtual-journal/>) will highlight the many ways in which chemistry improves everyday life for people around the world in alignment with four themes — health, energy, environment, and materials. Free access to the full text of the journal content will be available to all visitors throughout 2011.

**REGISTER ONLINE for
Chicago Section
monthly meetings
www.ChicagoACS.org**

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

JOB CLUB

The next meeting of the **Chicago Section ACS Job Club** will be held on **Friday, September 23 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 \$13 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.