Meeting Agenda and Information

ACS
Joint Board-Council Committee on International Activities
243rd ACS National Meeting
San Diego, California
Confidential for IAC Use Only

"The world has reached a stage where substantial interdependence among developed and developing countries is essential to the fulfillment of human needs. We need to match limited global natural resources -- for providing energy, materials, food, and water – with the requirements of growing population. … In these efforts, chemistry, perhaps the most utilitarian of all sciences, and chemists and chemical engineers worldwide must play a vital role. Success will call for much greater international cooperation. Humanitarian instincts may be a significant motivating force, but inevitably so will our own self-interest. The economic and social futures of the advanced and the developing countries are inexorably entwined." Glenn Seaborg, 1972

American Chemical Society

Committee on International Activities

TO: Members and Associates,
ACS Committee on International Activities
FROM: Judith L. Benham, Chair
SUBJECT: IAC Meeting in San Diego, CA
DATE: March 2, 2012

We look forward to seeing you at the 243nd ACS National Meeting in San Diego! The Committee on International Activities (IAC) Meetings in San Diego will all take place at the: San Diego Marriott Marquis & Marina, 333 West Harbor Drive, San Diego, CA 92101
Tel: +1 619 234 1500 Fax: +1 619 234 8678

IAC Schedule

Friday, March 23
12:00 PM – 5:00 PM IAC Retreat – **SD Marriott Marquis, Balboa Room**

6:30 PM IAC Subcommittee Chairs Dinner, **TBA**

Saturday, March 24
8:00 AM – 9:00 AM IAC Continental Breakfast, **SD Marriott Marquis, Torrey Pines 3**

9:00 AM – 11:45 AM Subcommittee 1 – Africa and the Americas. **SD Marriott Marquis, Torrey Pines 3**

9:00 AM – 11:45 AM Subcommittee 2 – Europe and the Middle East. **SD Marriott Marquis, Conference Room 1**

9:00 AM - 11:45 AM Subcommittee 3 – Asia/Pacific Basin. **SD Marriott Marquis, Conference Room 2**

12:00 PM – 1:00 PM IAC Lunch and Remarks from Marinda Wu, ACS President Elect – **SD Marriott Marquis, Torrey Pines 1 & 2**

1:00 PM - 5:00 PM Full IAC Committee Meeting – **SD Marriott Marquis, Marina Ballroom-Salon E**
N.B. Consistent with approved ConC Meeting Session Guidelines, portions of this meeting may be designated Executive Session and / or Closed Session.

Sunday, March 25
5:30 PM - 7:30 PM IAC International Welcoming Reception
Center Terrace, San Diego Convention Center, 111 W. Harbor Drive

IAC Meeting Agenda

San Diego, California USA
Saturday, March 24, 2012
San Diego Marriott Marquis & Marina

IAC Strategic Priorities
1. Fostering ACS international collaborations furthering chemistry's role in addressing global challenges;
2. Extending the Society's engagements in international education and training;
3. Engaging developing countries in cooperation with partner societies;
4. Assuring support of ACS Science and Human Rights initiatives;
5. Supporting the development and quality of the ACS International Center;
6. Sustaining momentum of International Year of Chemistry beyond 2011.

1:00 PM Open Meeting - Chair's Welcome and Report, VIP Introductions, – Judy Benham. IAC Open Meetings may be attended by any ACS Member. At these sessions members are encouraged to voice concerns, issue compliments, offer suggestions, express interest in, or raise questions about matters over which the committee has purview. The assumption is that participation is welcomed and will be orderly and courteous. Only committee members may vote. **(Tab 1)**

1:20 PM ***Action Item* –** Denver IAC Meeting Minutes Approval **(Tab 2)**

1:25 PM **Presentation** – Overview of IAC Retreat, Ellene Contis

1:45 PM **Presentation / Discussion –** ACS Web Presence and Chemists Outside North America, John Sullivan and Mark Carpenter, ACS IT **(Tab 3)**

2:15 PM **Subcommittee Reports**
Subcommittee I – Africa and the Americas – Bryan Henry, Chair
Subcommittee II – Europe and the Middle East – Ellene Contis, Chair
Subcommittee III – Asia and the Pacific Basin – Eun Woo Chang, Chair

3: 00 PM New Business

3:10 PM Coffee Break

3:20 PM Executive Session – Attendance and participation in IAC Executive Sessions are limited to Committee Personnel [officially appointed/elected Committee Members, Associates, Advisors, Consultants, Staff Liaisons]. Liaisons from other groups and ex officio and elected Councilors may attend; participation by these groups would be at the invitation of the chair. Only committee members may vote.

5:00 PM Adjourn

Tab 1 - IAC Chair's Report Background Material

SAN DIEGO MEETING INTERNATIONAL DIGNITARIES

(MARCH 2012)

Dr. Cecilia Anaya de Parrodi is the President of the **Mexican Chemical Society**. She received her BSc. in Chemistry at Universidad Iberoamericana in 1978. She has been working at Universidad de las Americas Puebla since 1980. In 1986, she joined Henning Hopf's group at Technische Universität Braunschweig, Germany as visiting scholar. She later received her MSc. in Chemistry from Universidad Autonoma de Puebla in 1992 and her PhD from CINVESTAV–IPN, Mexico City in 1997. In 2003-2004, she spent a sabbatical year as a visiting scholar working with Patrick J. Walsh's group at the University of Pennsylvania, and as a Fulbright research scholar in 2005.

Dr. Adriano Andricopolo is the Secretary General of the **Brazilian Chemical Society (SBQ)**. Dr. Andricopolo graduated with Bachelor's a degree in Industrial Chemistry from the Universidade Federal de Santa Maria (1993), and a Master's (1996) and Ph.D. (1999) in Organic Chemistry from the Universidade Federal de Santa Catarina. His postgraduate education was in medicinal chemistry from the University of Michigan (1999-2002). Dr. Andricopolo is currently an Associate Professor at the University of São Paulo and Coordinator of the Laboratory of Medicinal Chemistry and Computational (LQMC). He has experience in Medicinal Chemistry and Drug Planning with emphasis on enzyme kinetics and mechanism of reactions, SAR studies, molecular modeling and QSAR methods, virtual screening, in silico modeling of pharmacokinetics, standardization and validation of biological assays. In 2011, he was recognized by the International Biographical Centre - Cambridge, as one of the "Outstanding Scientists of the 21st Century." In 2011, was featured on Veja Magazine as one of the most influential young Brazilian scientists.

Dr. Karen Burke is the President of the **Canadian Society for Chemistry**. She currently is the director of Regulatory Affairs, Drug Safety and Quality Assurance at Amgen Canada, Inc. and is a member of the executive committee and the Research and Development Leadership Team of Amgen Canada, and the Global Regulatory Affairs Senior Management Team of Amgen Inc. Since obtaining her PhD in organometallic chemistry from McMaster University in 1990, she has worked in the pharmaceutical industry in several roles over a career of more than 19 years, including progressive roles in Operations and in Regulatory Affairs at Astra Pharma Inc. (later AstraZeneca Canada Inc.), culminating in the role of vice president, Regulatory Affairs Committee for the industry association Rx&D, Canada's Research-Based Pharmaceutical Companies. Dr. Burke recently completed her tenure as vice-chair of the Regulatory Affairs Committee of Rx&D, and currently participates in the Health Advisory Board of BIOTECanada. For several years, she volunteered as a member of the Board of Directors for EthicsCentre CA, the Canadian Centre for Ethics and Corporate Policy, a non-profit organization with the mission to champion the application of ethical values in the decision-making process of business and other organizations.

Vice President of IUPAC **Dr. Mark C. Cesa** is a physical organic/organometallic chemist with research interests in homogeneous and heterogeneous catalysis and organic reaction kinetics and mechanisms. His career in the chemical industry has focused on new catalytic reactions, polymerization, and chemical process optimization. Born in New Jersey, USA in 1952, Cesa earned an A. B. (1974) in chemistry at Princeton University, where he carried out research under the supervision of Prof. Jeffrey Schwartz, and earned his M.S. (1977) and Ph.D. (1979) in organic chemistry at the University of Wisconsin-Madison under the supervision of Prof. Charles P. Casey. Cesa is Process Chemistry Consultant with INEOS Nitriles in suburban Chicago, Illinois. In his thirty-two year career in the chemical industry he has held managerial and senior technical positions at INEOS Nitriles and at the Standard Oil Company (Ohio) and BP Chemicals. He is responsible for process chemistry research and support for INEOS Nitriles manufacturing plants, where he develops improvements in the process for the manufacture of acrylonitrile. He also carries out a research program on molecular and kinetic modeling of catalytic reactions. He has taught courses in organic chemistry and catalysis at John Carroll University and Ursuline College. Cesa holds thirty-one patents, has published eleven articles in scientific journals and Chemistry International, has made a number of external presentations, and has organized eight scientific conferences at ACS meetings and IUPAC Congresses.

Dr. Wolfram Koch is the Executive Director of **Gesellschaft Deutscher Chemiker (GDCh, German Chemical Society)**. Dr. Koch studied chemistry at the Technical Universities in Darmstadt and Berlin. He obtained his Ph.D. in computational organic chemistry at TU Berlin in 1986 with Prof. Helmut Schwarz. He then moved as an IBM Postdoctoral Fellow to the Center for Computational Chemistry of the IBM Almaden Research Center in San Jose, California/USA. In the summer of 1988 he returned to Germany to join the Institute of Supercomputing and Applied Mathematics at IBM Germany's Scientific Center in Heidelberg as a Senior Scientist and permanent staff member. In 1991 Koch was appointed Professor of Theoretical Organic Chemistry at TU Berlin. In November 1998 he left academia to become a department head at Gesellschaft Deutscher Chemiker (GDCh, German Chemical society) in Frankfurt. Since November 2002 he is GDCh's executive director. During his time active in research Koch authored and co-authored some 190 papers in peer reviewed journals and a textbook on density functional theory. He is a member of several advisory and governing boards of scientific institutions in Germany, a member

of the Executive Board of the European Association for Chemical and Molecular Sciences (EuCheMS), a member of the Finance Committee of the International Union of Pure and Applied Chemistry (IUPAC), member of Administrative Council of the Verwertungsgesellschaft Wort (German Copyright Collective) and Chairman of the Advisory Board of the Technische Informationsbibliothek (German National Library of Science and Technology). He is a Fellow of the Royal Society of Chemistry and an IUPAC Fellow and holds an honorary membership of the Czech Chemical Society.

Dr. Robert Parker is the Chief Executive of the **Royal Society of Chemistry (RSC)**. Dr. Parker brings more than 25 years of experience at the RSC to the role, having joined the company in 1985 as assistant editor. He joined the journal publishing division of the RSC when it was located in premises above a tailor's shop in Savile Row, since which it relocated to Cambridge and expanded to become a renowned international business. The RSC's journal portfolio rose to 30 as published content almost trebled during Dr Parker's tenure first as editorial director, before becoming managing director, publishing, in 2007.

Prof. Dr. Livia Simon Sarkadi is the President of the **Hungarian Chemical Society**. Prof. Sarkadi is a Professor of Applied Biotechnology and Food Science at the Budapest University of technology and Economics. Since 1980, she has taught biochemistry, food chemistry, and food analysis. She has supervised a number of PhD, BSc, and MSc students. Besides being an author and co-author of many scientific papers, she wrote a text book on Biochemistry. She is a member of the Editorial Board of International Journals (European Food Research and Technology, Food and Nutrition research). She has been the Chair of the Food Protein Working group of the Hungarian Academy of Sciences since 1996 and is currently the Chair of EuCheMS Food Chemistry Division, and an elected member of the EuCheMS Executive Board.

Dr. Chaoyu Xie received B.S. and M.S. degrees in chemistry from China, and obtained a Ph.D. degree in chemistry in 2000 from Brandeis University of USA. After a postdoctoral fellowship at Harvard University, she joined Eli Lilly & Company in 2001 as a research scientist, and then promoted to be a Director at Lilly. In 2010, Dr. Xie moved back to China, managing Lilly's pharmaceutical product development in China. Dr. Xie joined ACS in 1996. She participated in multiple Indiana local section activities, such as chairing organic chemistry section for local ACS conferences. She is one of founders to establish ACS Shanghai International chapter in 2011. She is currently one of the members of executive committee for ACS Shanghai chapter,

International Interests and Priorities of Visiting Chemical Societies in San Diego

BRAZILIAN CHEMICAL SOCIETY (SOCIEDADE BRASILEIRA DE QUÍMICA, SBQ)

The Brazilian Chemical Society (Sociedade Brasileira de Química, SBQ) is a non-profit scientific organization dedicated to promoting and developing the chemical sciences for the benefit of society. SBQ represents professionals at all degree levels and in all fields of chemistry and sciences that involve chemistry.

The Society's international interests and priorities are:

- Highlight the many ways in which chemistry improves everyday life for people around the world.
- Explore the role of chemical sciences in the search for solutions to a variety of challenges which face humanity in the 21st Century. Bring together scientists around the world to identify technological and sustainable solutions to these challenges, and to promote awareness and action.
- Continue actively involved in education and outreach programs at all levels. Foster the development of the most innovative, relevant and effective chemistry education in the world.
- Organize annual meetings and other conferences, bringing together a number of internationally renowned researchers from multiple disciplines, with an extensive program of scientific workshops, courses, symposiums and conferences. The annual meetings attract 2,500-4,500 members and non-members for a 4 day period, including scientists, professors, postdocs, graduate and undergraduate students, and other professionals. The next annual meeting is the 35thRASBQ set for 28-31 May, 2012 in Águas de Lindóia - SP.
- Promote an increasing number of international activities, such as joint conferences with chemical societies (ACS, RSC, IUPAC) in Brazil and other countries.
- Help young chemists and scientists to develop leadership skills. Expand activities to strengthen international networks and exchange knowledge between young scientists.
- Through creative international collaborations, improve chemistry-related information sources, opportunities and networks.
- Promote the implementation of green chemistry principles into all aspects.
- Continue the dissemination of the Society's high-quality journals, periodicals and databases that advance the practice of chemistry and related sciences.

CHEMICAL INSTITUTE OF CANADA

The Canadian Society for Chemistry (CSC) recently underwent a strategic planning session, from which the Society's interests and priorities are highlighted below.

Accreditation:

- Although the CSC has been involved in national accreditation of undergraduate chemistry programs for decades, within the last four years it has recently broadened its scope to also include international institutions as well
- The international accreditation efforts are largely tailored towards the Middle East

- Accredited institutions include:
  - University of Bahrain
  - King Abdulaziz University
  - Kuwait University
  - University of Qatar
  - United Arab Emirates University
- Requested programs include:
  - BSc in Chemistry at the American University in Cairo

Advocacy:

- Advocacy resulted as a major focus during the strategic planning session
- The CSC is an active member of the Canadian Consortium for Research (CCR) and the Partnership Group for Science and Engineering (PAGSE).
- The CSC is in the process of creating an Advocacy Task Group that will remain at the forefront of chemistry-related issues to be advocated.

Outreach:

- Part of the CSC's mandate is to bring chemistry to the general public, and in particular to engage a younger audience.
- Continuing with the strong momentum created by the International Year of Chemistry, the CSC will be continuing a number of outreach initiatives:
  - The Canadian Chemistry Olympiad
  - National Chemistry Week
  - National Water Experiment
  - *"It's Chemistry, Eh!?"* YouTube Contest

Canada's Professional Chemists (CPC):

- The CSC is involved with the CPC, a national committee working to advance the chemical profession in Canada.
- The committee is currently working toward introducing Errors and Omissions insurance for members of the provincial associations as well and of the CSC.
- The Association of Chemical Profession of Ontario (ACPO) is currently working with the Ontario government to obtain licensure for professional chemists.

EUROPEAN ASSOCIATION FOR CHEMICAL AND MOLECULAR SCIENCES (EUCHEMS)

The European Association for Chemical and Molecular Sciences (EuCheMS) is a not-for-profit organisation founded in 1970. EuCheMS incorporates the role and responsibilities of the former Federation of European Chemical Societies and Professional Institutions (FECS) which adopted the name EuCheMS in 2004.

EuCheMS represents about 160.000 chemists in academia, industry and government in more than 30 countries across Europe. EuCheMS has 40 Member Societies and supports 17 Divisions and Working Parties covering the main fields of chemistry.

The main aim of EuCheMS is to promote co-operation in Europe between non-profit-making scientific and technical societies in the fields of chemistry and molecular sciences.

EuCheMS publishes occasional books, leaflets and inputs to EU policy debates, as well as disseminating regular Brussels News Updates and the EuCheMS Newsletter. The official book of the EuCheMS Societies for the *International Year of Chemistry* – entitled "*European Women in Chemistry*" (published by Wiley VCH) – provides a collection of pen-pictures of some 50 remarkable European female chemists through the centuries. EuCheMS has recently presented to the European Commission a detailed document entitled "*Chemistry - developing solutions in a changing world*" as its contribution to the consultation on the future of the European Union's research program, Horizon 2020.

EuCheMS organises high quality European scientific conferences, sponsoring cutting-edge research meetings in the chemical and molecular sciences, and organises interdisciplinary meetings with other professional societies. Through the European Chemistry Congress – a biennial celebration of the achievements and future developments of chemistry – the EuCheMS community gather to create a significant global scientific event. The 4th EuCheMS Chemistry Congress will take place in Prague, Czech Republic, August 26–30th, 2012. The Congress Chairman is Michl Josef (Czech, US) and main plenary speakers from USA are: Robert H. Grubbs *(*California Institute of Technology, Pasadena), Roger Y. Tsieh (Howard Hughes Medical Institute, La Jolla) and Kurt Wüthrich (The Scripps Research Institute, La Jolla).

EuCheMS recognises the achievements of individual scientists and teams through its European Sustainable Chemistry Award which is given every two years. The European Young Chemist Awards sponsored by the Societa Chimica Italiana are given every two years during the EuCheMS Chemistry Congress. The EuCheMS Lecture is held every year at an appropriate scientific conference. Contributions to EuCheMS and European cooperation in chemistry are acknowledged through the EuCheMS Award for Service.

EuCheMS and its members look forward to establishing and extending collaboration with ACS Divisions.

GESELLSCHAFT DEUTSCHER CHEMIKER (GDCH, GERMAN CHEMICAL SOCIETY)

Many of the statutory duties and responsibilities of the Gesellschaft Deutscher Chemiker (GDCh, German Chemical Society) are becoming increasingly international in nature. Close cooperation and coordination with our European and international sister societies and other international organizations of relevance are therefore a prerequisite for successfully addressing the challenges which we as a large learned society and the representative of the chemical community in our country face.

With around 30,000 members from academia, industry and other sectors, the GDCh is by far the largest chemical society in continental Europe. Both, in scientific and economic terms, the German chemical com-munity is among the strongest in Europe and worldwide. Our first priority is therefore to advance the cooper-ation of chemical societies on our home continent. To this end, GDCh is very much engaged in the European Association of Chemical and Molecular Sciences (EuCheMS), the European umbrella organization for the chemical sciences with more than 40 member societies which in total represent some 150,000 individual chemists in over 35 countries across Europe. The two main areas of activities for EuCheMS are (i) the sup-port of the European chemical community and (ii) representing the chemical sciences vis-à-vis the

European political bodies. The first focus is mainly pursued through the EuCheMS Divisions and Working Parties which organize pan-European conferences and other events. EuCheMS' main event is the biennial Congress which in 2010 was held in Nürnberg, Germany and was organized by the GDCh and attracted some 2,500 participants from Europe and beyond. This year's Congress will take place from August 26 to 30 in Prague, Czech Republic. To address the political bodies within the European Union, EuCheMS has recently estab-lished an office in Brussels. A major recent development was the publication of "Chemistry - Developing solutions in a changing world", EuCheMS' roadmap for the chemical sciences, which has been presented at events at the European Parliament and the European Commission. Furthermore, GDCh is engaged in EU relevant projects and working groups of the European Chemistry Thematic Networks Association (ECTN) and the European Technology Platform for Sustainable Chemistry (SusChem).

Another European priority for the GDCh is ChemPubSoc Europe, an organization of 16 European chemical societies active in publishing. ChemPubSoc Europe's journals, all published with Wiley-VCH, are: *Chemis-try—A European Journal, European Journal of Organic Chemistry, European Journal of Inorganic Chemistry, ChemBioChem, ChemPhysChem, ChemMedChem, ChemSusChem, ChemCatChem* as well as the Internet magazine *ChemViews*. The most recent additions to our portfolio of journals are *ChemPlusChem*, a genuine-ly multidisciplinary journal and *ChemistryOpen*, the first society-owned Open Access general chemistry jour-nal. In a similar approach and together with Springer Verlag and several other European societies we publish *Analytical and Bioanalytical Chemistry*. The participating societies share a commitment to scientific excel-lence, to publishing ethics, and to the highest standards in publication, which are the pillards for the success of these European journals. In addition, GDCh is the owner of *Angewandte Chemie*, the most successful international chemistry journal with a 2010 Journal Impact Factor of 12.7. *Angewandte Chemie* will celebrate its 125th anniversary next year with a special symposium in Berlin on March 12, 2013.

Outside of Europe, the GDCh has strong ties to the chemical societies in China, Japan and the United States, but also to smaller societies around the world. In particular with the ACS many joint programs to sup-port the exchange between chemists from the US and Germany are in place, such as the exchange program between the Younger Chemists Committee of the North Eastern Section of the ACS and the GDCh Younger Chemists Forum. This year a delegation of American students will participate in the Spring Symposium of the GDCh Younger Chemists Forum in Rostock just before the ACS Spring Meeting in San Diego. The Transat-lantic Frontiers of Chemistry Symposium, with ACS and RSC, the Sino-German Chemistry Symposium with the Chinese Chemical Society and the Chemical Sciences and Society Symposia (CS3), together with the chemical societies and research funding agencies of China, Japan, the UK and the US are other examples of GDCh's international activities. Bilateral cooperation agreements exist between GDCh and a number of European chemical societies and with the ACS and the Chinese Chemical Society. Special lectureships have been established with several of our European sister societies (including from the Czech Republic and Slovakia, France, Hungary, Israel, Italy, Poland, Romania, Spain, Switzerland, and the UK) in order to devel-op and strengthen the scientific links between Germany and these countries. Finally, the GDCh has a strong relation to IUPAC since it is running the office of the Deutsche Zentralausschuß für Chemie, the German National Adhering Organization to IUPAC.

HUNGARIAN CHEMICAL SOCIETY

The Hungarian Chemical Society (HCS) is one of the oldest professional organizations in Hungary, having been founded in 1907. The Society's primary objectives include the establishment of a professional public forum for the country's chemists and provision of indirect support to the national chemical sciences, education establishments and industries (including the pharmaceutical industry).

The Hungarian Chemical Society represents about two thousand and five hundred chemists in academia and industry. The Society has 10 Regional bodies and 8 Workplace groups and supports 24 Divisions and 13 Working Parties, covering all the main fields of chemistry.

HCS sponsors or promotes a number of international activities, including joint conferences with chemical societies. HCS edits and supports various national and international journals, and has established Prizes and Awards to recognise achievements by individuals in advancing the chemical sciences and to acknowledge outstanding services for the Society.

HCS has good links with various national and international organizations (ACS, EuCheMS, IUPAC, EFCE, EFMC) and promotes the mobility of chemists and chemical scientists throughout world and networking within professional colleagues. The Hungarian Chapter of the American Chemical Society was founded in 2002 by members of the American Chemical Society living and working in Hungary. The aim of the organization is to cultivate good relationship between chemists in the US and Hungary, to help make ACS better known in Europe and Hungary, to organize ACS courses, workshops, conferences in Hungary, to make the society more known and popular among Hungarian chemists, to represent the scientific interests of Hungarian chemists living temporarily in the US and to distribute ACS publications in Hungary

As part of the International Year of Chemistry (IYC) programme, HCS and BASF have established a unique online chemistry knowledge database. The main purpose of the website (*www.chemgeneration.com*) is to attract young people to chemistry and to present the importance of chemistry in the world, with special emphasis on its key role in the sustainable development of our future. The website is available in 11 languages. The core content is based on the chapter called "Technology Milestones", which demonstrates the development and the key role of chemistry through the history of major industries of the past few centuries. "*Technology milestones from the chemist's view*" is the title of an electronic exhibit prepared by members of the American Chemical Society under the chairmanship of Professor Attila Pavlath. This was converted by the Hungarian Chemical Society to an exhibit of 32 colourful posters which are being translated into many languages and can be freely downloaded (*www.chemistryinyourlife.org*).

At the General Assembly of the Hungarian Chemical Society (HCS) in 2011, Professor Dr Livia Simon Sarkadi (Budapest University of Technology and Economics) was elected as the first female President of the Hungarian Chemical Society. She is currently the Chair of the Food Chemistry Division and is a Member of the Executive Board of EuCheMS.

The HCS looks forward very much to extending its collaboration with ACS.

ROYAL SOCIETY OF CHEMISTRY (RSC)

Tackling Global Challenges

All of the RSC's activities are guided by *Chemistry for Tomorrow's World*, the roadmap for the chemical scientists developed in 2009 in collaboration with 150 world-renowned scientists. The seven priority areas identified contain in total 41 global challenges, and directing our efforts towards helping chemical scientists to solve these lends a focus to everything we do.

In January we hosted the first UK Solar to Fuels Symposium, attracting international leaders in the emergent solar fuels field. The accompanying report's foreword from Alan Heeger, Nobel laureate and discoverer of conducting polymers, said "the opportunity to contribute to this global effort by current and future world-leading scientists and innovators is one that no nation can afford to miss."

Looking ahead, we will shortly publish the CS3 report on healthcare, *Chemistry for Better Health*, in collaboration with the ACS, the Chinese Chemical Society, the German Chemical Society and the Chemical Society of Japan. The report will reinforce the importance of chemistry's involvement at every step of healthcare research, based on the CS3 2011 in Beijing. And in late Spring we will publish a report on agricultural productivity based on the Pan African Chemistry Network (PACN) Congress 2011, an intensive two-day workshop on agricultural productivity with top African scientists held in Ghana last year.

Improving Science Education

Chemistry for Tomorrow's World sets out how chemical science can tackle global challenges, but the chemists of tomorrow must be prepared from their earliest education. In line with our roadmap we have drawn up *Global Frameworks for Chemistry Education*, which outline the essential knowledge that students need in a modern chemistry education to address the global challenges.

The *Frameworks* are not tied to any one country's education system, but provide broad guidance based on the seven priority areas including energy, food and water. They can be used to support any form of curriculum and can help to provide a consistent, coherent education with global relevance.

Disseminating Chemistry Knowledge

Our free online structure database, *ChemSpider*, goes from strength to strength, allowing free access to chemical science information across the world. Its text- and structure-searchable database now contains over 26 million structures, and its free apps for mobile devices such as iPhone and Android mean that information is available at your fingertips wherever you are.

IAC Events in San Diego

"Inspiring Science Education: Readiness for the Global Enterprise" will be held Monday, March 26, 2012 from 8:35AM – 5:10PM at the San Diego Marriott Marquis & Marina - Marina Ballroom F
The symposium is co-sponsored by PRES, CHED, SOCED.

Description: Practitioners of chemistry work in a wide range of environments and settings that increasingly require new skills, knowledge, and experiences as national boundaries no longer constrain the discipline. In the shifting context of the scientific workplace—be it academic, industrial or government—employers want students and employees to have a strong chemistry background that is complemented by global competencies including: knowledge and respect of other world regions, peoples, and cultures; familiarity with international and global issues; skills in problem solving and working effectively in global or cross-cultural environments; using information from different global sources; and the ability to communicate in multiple languages. The audience will come away from this symposium with a better understanding of the dynamics and demands of the globalized workplace and how to best prepare themselves and others to be successful and competitive in it, a clearer understanding on current best practices, and ideas on successful implementations.

"Inspiring Science Education: GREETing New Challenges Abroad" will convene Tuesday, March 27, 2012; 8:20AM – 11:50AM at the San Diego Marriott Marquis & Marina - Marina Ballroom F
SOCED is co-sponsoring the event.

Description: The ACS Global Research Experiences, Exchanges, and Training (GREET) travel award program was created in 2011 to address the need for increased international experiences among U.S. scientists, academics, and students. GREET funds teams of scientist mentors and mentees seeking to develop new collaborations at international host institutions of their choice by providing funding to cover travel costs, living expenses, and supplies. At this half-day symposium, participants will learn more about the ACS GREET program and how to apply for funds. Participants will also hear presentations from the program management and the five 2011 laureate teams who will discuss the current state of their projects, their thoughts on the program, and describe how they used the experience to impact the internationalization of their institutions through their own creative best practices. A new GREET funding round is open through April 10, 2012, and interested teams seeking a new collaboration with an international partner are invited to apply.

ACS Science and Human Rights

ACS
Chemistry for Life™

January 26, 2012

His Excellency Recep Tayyip Erdoğan
Prime Minister of the Republic of Turkey
Office of the Prime Minister
Vekaletler Caddesi Başbakanlık Merkez Bina
P.K. 06573
Kızılay, Ankara
Turkey

Via email to: bimer@basbakanlik.gov.tr

Re: Professor Halil Kemal Gürüz

Your Excellency:

I write on behalf of the American Chemical Society (ACS) with regard to Professor Halil Kemal Gürüz, a retired chemical engineer and former president of the Turkish Council of Higher Education and the Turkish Scientific and Technical Research Council.

ACS, with more than 164,000 members, is the world's largest scientific society, and aims to "advance the broader chemistry enterprise and its practitioners for the benefit of Earth and its people." In this spirit, ACS has worked for over two decades to advocate for the protection of the rights of chemical scientists and practitioners and leverage its unique position in the global chemistry community to address issues of both scientific freedom and human rights worldwide.

Our information on the case indicates that Professor Gürüz was arrested at his home in Ankara on January 7, 2009 for alleged criminal activities and ties to a terrorist organization. After interrogation, on January 11, 2009 he was released on bail, and his trial began on September, 2009.

We are concerned that legal proceedings in the case of Professor Gürüz have lasted three years and may continue for an extended period owing to the Istanbul 13th High Court's decision to merge two indictments against him.

We respectfully urge you to closely examine Professor Gürüz's case to ensure that he is given the opportunity to defend himself against the charges he faces in a manner consistent with Article 19 of the Turkish Constitution, which states that "persons deprived of their liberty under any circumstances are entitled to apply to the appropriate judicial authority for speedy conclusion of proceedings regarding their situation."

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We also ask that his rights and treatment by Turkish authorities are addressed under internationally recognized standards in accordance with the Universal Declaration of Human Rights, the International Covenant on Civil and Political Rights, and the European Convention on Human Rights, to which the Republic of Turkey is party.

As we continue to monitor Professor Gürüz's case and welfare, we are grateful for your close attention to this matter.

Respectfully,

Bassam Z. Shakhashiri, Ph.D.
President
American Chemical Society

cc:

The Honorable Hillary R. Clinton
United States Secretary of State
U.S. Department of State
2201 C Street NW
Washington, DC 20520 USA

His Excellency Namık Tan
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Key ACS Science and Human Rights Activities - 2011

The American Chemical Society has many years' history of leadership working internationally on cases where the rights and welfare of professionally engaged chemists, chemical engineers and chemically related practitioners are threatened. Our efforts are informed by protections afforded by the Universal Declaration of Human Rights and are directed towards human rights and scientific mobility abridgments and issues where ACS is uniquely positioned and qualified to impact cases in a meaningful way.

In 2010 the ACS Board of Directors made the decision to revise the procedures for the Society's response to questions of human rights and scientific mobility*.

Participation in this revised process is open to any ACS member, committee, technical division, local section and external human rights groups and networks to bring to the Board's attention reports of violations of human rights and scientific mobility related to chemists and practitioners in allied sciences. The new procedures are meant to be more inclusive and effective.

To clarify, the new ACS human rights and scientific mobility procedures permit the ACS Board Committee on Professional and Member Relations (P&MR) to take action on cases - as part of its delegated ACS Board authority.

The ACS Office of International Activities is tasked with working with the ACS International Activities Committee (IAC) regional subcommittees, ACS members, US Department of State, foreign embassies, and other professional societies and organizations active in human rights to monitor and seek information on reported threats to human rights of practitioners in chemistry and closely allied science and engineering areas.

ACS is moving forward with human rights and scientific mobility from a larger perspective, examining how the Society can best contribute to human rights issues and initiatives across the full spectrum of human rights, from availability of basic rights, such as food, clean water and health care, to access to education and science education in particular, and monitoring /advocacy.

To this end, ACS has been active in science and human rights in the following areas.
1) The development of an ACS Science and Human Rights Best Practices Primer. This primer focuses on equipping scientific and engineering societies, as well as other scientifically oriented organizations, with the tools to effectively develop processes and procedures to address human rights issues, particularly responding to allegations of human rights violations.

2) The provision of two webinars to ACS members at large on (1) Best Practices in Defending Human Rights (in partnership with Scholars at Risk, recognized as a world leader in human rights work); (2) ACS Science and Human Rights - Access to Water (in partnership with the Water Environment Federation, an ACS International Year of Chemistry Partner). This webinar examined the role science plays, particularly the application of chemistry, to address the fundamental human right of access to clean water and sanitation. The IAC hosted the webinar in an effort to engage a broader audience of chemical professionals in the topics of human rights, chemistry and clean water and sanitation. A third in the series of ACS Science and Human Rights webinars is in development on the topic of health.

3) IAC-organized, ACS Presidentially supported Anaheim symposium on "Human Rights and Scientific Freedom." The symposium featured a Nobel laureate, the director of the NAS Committee on Human Rights, as well as the current and future presidents of the ACS. Speakers shared perspectives on the history, needs and new strategies for addressing human rights and infringements to scientific freedom. They also discussed how to extend the reach of the scientific community in the service of human rights.

4) Since enactment of the new ACS human rights response procedures three cases have been reviewed by P&MR – with two resulting in letters and the other a request to US Department of State for further information. In all cases of human rights and scientific mobility reports, through the ACS Science and Human Rights website and ACS Network Group, opportunities for ACS members to learn more about and take individual action on cases is shared.

5) The further cultivation of the Society's science and human rights networks (and their activation) including Scholars At Risk (an ACS representative at their recent 10-year anniversary), AAAS Human Rights Coalition (including ACS staff participation / leadership on the Coalition Steering Committee and the Welfare of Scientists Working Group), NEAR, Amnesty International, Human Rights Watch, the National Academies Committee on Human Rights, the US Department of State Office of Multilateral and Global Affairs, in the Bureau of Democracy, Human Rights and Labor and our sister societies, to name a few. Many of the cases ACS has considered initiated from these groups.

* The ACS Board of Directors approved the following guidelines when the Society weighs selection and engagement in human rights cases, wherever they occur. Case selection will be:

1. Grounded in principles set forth in the Universal Declaration of Human Rights (UDHR), ICSU Statute 5 (Universality of Science) and the Objects of the Society;

2. Oriented toward professionally engaged chemists, chemical engineers or practitioners in closely related fields in the physical and natural sciences (such as material science, nanotechnology, biochemistry, and molecular biology);

3. Directed towards human rights and scientific mobility abridgments and issues where ACS is uniquely positioned and qualified to impact the case in a meaningful way;

4. Considered in the context of whether domestic remedies have been exhausted, unless it appears that such remedies would be ineffective or unreasonably prolonged;

5. Made based upon clear evidence and a factual description of the alleged rights violations.

ACS Human Rights Case Response Procedures

- ACS members, local sections, divisions, committees, or ACS staff offices may generate a request for action when evidence of abridgement of the scientific mobility and human rights of chemists, chemical engineers and other scientists in closely related fields is reported.
- A request for action will be transmitted to the chair of the Committee on Professional and Member Relations.
- If warranted by the evidence and consistent with ACS human rights case selection criteria, P&MR will recommend that the Society issue a statement on the matter or take such related action as may be appropriate, with signature prerogative from the ACS President, President Elect, Past President, Chair of the Board, and/or Chair of P&MR. P&MR will carry out this action under delegated authority from the Board.
- This policy supersedes procedures for issuing such statements put in place by previous Boards, most notably on September 7, 1997.
- In addition, The Office of the ACS Executive Director or authorized designee will regularly monitor agencies and organizations engaged in human rights activities for evidence of abridgement of the scientific mobility and human rights of chemists, chemical engineers and other scientists in closely related fields, and make a request for action as outlined above.

ACS International Center and GREET

Supporting the development and quality of the ACS International Center

IAC has a leadership role in the planning and development of the new ACS International Center which has been approved to

- provide global and national leadership in research, education, and technology transfer for the chemical enterprise;

- assure that the next generation of chemical scientists is prepared to engage successfully in the global chemical enterprise and to address global chemical challenges;

- encourage, engage, and support international exchange of chemists at all levels, i.e. undergraduate, graduate, faculty, post-doctoral, and professional levels, by building strategic alliances and partnerships between ACS and chemical institutions abroad.

The ACS International Center will be virtual (with place-based activities), providing coordination and direction, and will build upon four foundational elements, as follows:

- Creation of an information clearinghouse for chemical sciences and engineering research collaboration and exchange.
- Development and dissemination of persuasive evidence of the value of international collaborations.
- Development and dissemination of best practices to catalyze innovation in the global chemical enterprise.
- Development and implementation of best practices for science-based input to domestic and international policy.

ACS FOSTERS GLOBAL NETWORKING

Society offers seed funding for international COLLABORATIONS

"IMPROVING SCIENTIFIC communications across geographic borders and disciplinary boundaries is critical to solving the grand challenges facing science and society," according to American Chemical Society President Bassam Z. Shakhashiri. "Collaboration, especially among the next generation of chemical scientists, is key to advancing the chemical enterprise and to serving society."

The concomitant shifting realities of international collaboration and innovation and the need for problem solving on a global scale provided the rationale for the creation of the ACS Global Research Experiences, Exchanges & Training (GREET) program in 2011. The program, which originated from recommendations made by former ACS president Joseph S. Francisco's 2010 International Center Task Force, aims to provide intensive, high-impact, international research and collaboration opportunities to U.S. chemical scientists from both the public and private sectors.

"GREET provides a novel approach and pathway for these individuals to establish lasting international collaborations so that their talents and expertise can be activated to benefit their own careers, institutions, and nations, and to serve society," says ACS Committee on International Activities Chair Judith L. Benham.

GREET provides teams—which consist of a mentor and a mentee—with up to $11,000 in seed funding to work with international partners on issues of mutual interest. The all-expenses-paid awards enable team members to spend several weeks abroad at a host institution of their choice.

"For maximal impact, projects should be mutually beneficial for both the home and host partners and be sustainable so that these nascent international networks have every opportunity to flourish," Benham says.

In its inaugural year, the program provided five teams with awards. Five new awards are available this year. Applications can be submitted to ACS through April 10.

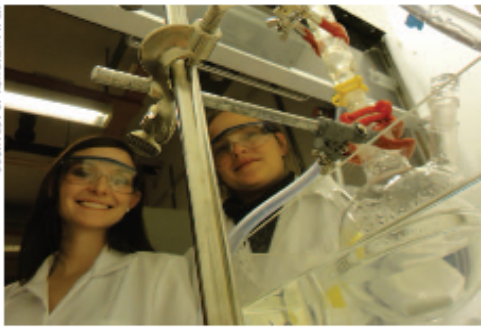
"GREET is open to everyone and is very inclusive in its application process precisely because teams shouldn't be creatively stifled by too many requirements," comments Bradley D. Miller, director of the ACS Office of International Activities, which manages the program. "Applicants don't need preliminary data to apply, just a codified plan, a great idea, and an international partner willing to support their efforts."

PROPOSALS SUBMITTED to ACS last year spanned a gamut of locations, fields, and topics, including collaborative research, industrial training experiences, international development, and chemistry education.

ACS awarded the inaugural grants to Alvin A. Holder and Dorothy C. Horton from the University of Southern Mississippi (GREET U.K.); Joseph M. Fortunak and Christopher L. King from Howard University (GREET Tanzania); Craig A. Aspinwall and Mark T. Agasid from the University of Arizona, Tucson (GREET France), Scott M. Reed and Aundrea R. Piper from the University of Colorado, Denver (GREET Sweden), and Ryan M. Richards and Kenneth Finch from the Colorado School of Mines (GREET Romania).

These teams "were approved because they gave careful thought to how their projects would continue and were realistic about what they hoped to achieve," Miller says.

Successful applicants also described events they would organize to enrich their communities once they returned home. Holder, for instance, says he wanted to spread GREET's benefits by using the experience "to help add knowledge and a global perspective to the curriculum of the university's research course for undergraduate students."



COURTESY OF AUNDREA PIPER

COLLABORATION Piper (left) and Stockholm University's Maria Wegner work on joint research.

The teams are also making plans with their host partners for additional researcher exchanges, joint funding proposals, and manuscript preparation to further solidify their bonds.

The GREET experience is intended as a first step on a long collaborative journey, but teams have already achieved results that directly address the grand challenges facing science and society. "Many rather simple medicines are just not available in Africa," says Fortunak, whose team collaborated to use green chemistry to manufacture pediatric antimalarial medicines in Tanzania. "We are working with the African Union and United Nations Industrial Development Organization to write a [pharmaceutical] manufacturing plan for Africa, partially because of the outcomes of our GREET experience."—STEVEN MEYERS, *special to C&EN*

GREET APPLICATION CALL

Program details: ACS is offering seed funding for five teams to establish collaborations with international partners in 2012

Award coverage: Approximately $11,000 per team for round-trip international airfare, daily stipend, supplies, language training, visa fees, insurance, and ACS national meeting travel expenses to New Orleans

Applicant eligibility criteria: Mentor and mentee must be ACS members, U.S. citizens or permanent residents, and enrolled or employed at a U.S. institution

Application deadline: April 10

Learn more by attending the GREET symposium at the ACS national meeting in San Diego, or apply at www.acs.org/greet.

2012 PITTCON

ACS and Pittcon Sponsor a Delegation from South America to Attend Pittcon 2012

With support from the ACS Committee on International Activities and funding from the Pittsburg Conference on Analytical Chemistry and Applied Spectroscopy (Pittcon) and administrative support from the ACS Office of International Activities (OIA), a delegation composed of six early- and mid-carrier analytical chemists from Argentina, Brazil, Chile, Colombia, and Venezuela traveled to Orlando, Florida to attend Pittcon 2012 from March 10-16, 2012. While in Orlando, the delegation had the opportunity to attend technical sessions, network with colleagues from all over the globe, and tour the exhibition. Delegation members represented academic and research institutions in their respective countries. OIA worked with in-country chemical societies and ACS member groups to identify candidates to participate in the program.

Since 1995 ACS has organized delegations of scientists to travel from developing countries and attend PITTCON. Each year PITTCON, The Society for Analytical Chemists of Pittsburgh, and the Spectroscopy Society of Pittsburgh provide ACS material support, housing and registration for the delegates from developing nations. ACS, in turn, works with in-country chemical societies and ACS member groups to identify candidates who are early career chemists to participate in the program.

At its Anaheim Meeting, IAC Moved and approved South America 2012 and 2013 Sub Saharan Africa for future PITTCON delegations. The IAC also requested exploration of a Seeding Labs tie in on planning for the Sub-Saharan delegation.

At the 2012 IAC Meeting in San Diego, the Committee should begin discussion and selection of regions for 2014 and 2015.

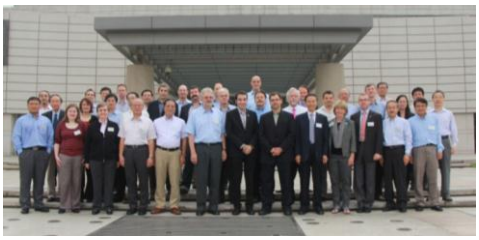
PITTCON delegations are designated to come from developing nations. Recent delegations have included the following.

- 2005 Sub-Saharan Africa
- 2006 South America
- 2007 Adriatic
- 2008 Southeast Asia
- 2009 Central America
- 2010 Middle East / North Africa
- 2011 Eastern Europe
- 2012 South America

Chemical Sciences and Society Summit (CS3)

The annual Chemical Sciences and Society Summit (CS3) brings together the best minds in chemical research from around the world and challenges them to propose innovative solutions for society's most pressing needs in the areas of health, food, energy, and the environment. This unique event boasts an innovative format, aiming to create a roadmap for international science, and rotates each year among the participating nations.

The CS3 initiative is a collaboration between the Chinese Chemical Society (CCS), the German Chemical Society (GDCh), the Chemical Society of Japan (CSJ), the Royal Society of Chemistry (RSC) and ACS. The series is supported by the National Natural Science Foundation of China (NSFC), the German Research Foundation (DFG), the Japan Society for the Promotion of Science (JSPS), the U.K. Engineering and Physical Sciences Research Council (EPSRC), and the NSF.



The 2011 meeting was held in Beijing, China from September 13-15 and focused on the topic of "***Chemistry for Better Health***". Thirty total scientific delegates from the five nations—and ten representatives from the various organizations and agencies—attended the meeting. The delegation from the United States, sponsored by NSF and organized by ACS included the scientific Chair, Gunda Georg from the University of Minnesota; Joseph Fortunak from Howard University; Cynthia Burrows from the University of Utah; Wilfredo Colón from Rensselaer Polytechnic Institute; Shaoyi Jiang from the University of Washington; and Nicola Pohl from Iowa State University.

The delegates presented their views and explained the perceived grand challenges within the framework of Health, engaging in a lively discussion over the course of the two-and-a-half day summit. The program was further broken out into four subtopics to enable compact conversations as the meeting progressed:

- ***Synthesis of Bio-active Molecules, Natural Products and Substances, Bio-Catalysts;***
- ***Novel Chemistry for Diagnosis, Molecular Imaging;***
- ***Chemistry for Drug Discovery;***
- ***Chemistry for Discovery Biology***

A White Paper outlining their recommendations is in preparation and is anticipated to be released in May.

The United States will be hosting the 2012 event and has selected "Chemistry for Sustainable Next-Generation Electronics" as the next theme. The meeting is scheduled to occur from September 17-20 in San Francisco, CA. Cherie Kagan from the University of Pennsylvania has been selected to Chair the U.S. delegation. Subject to revision, the four subtopics chosen to be covered at the summit are:

- ***Single molecules and polymers for electronics;***
- ***Carbon nanostructures: function and design;***
- ***Molecular architectures: from electronic applications to self-assembly and patterning;***
- ***Sustainable electronics: design, manufacturing and reclaim of materials***

ACS Iraqi Chemical Society Reactivation Project

From Jan 22-24, 2012 in Amman, Jordan, ACS was invited to participate in a US Department of State workshop to assist the Iraqi Chemical Society in its efforts to reactivate. Seventeen early, mid and senior career chemists from higher education, industry and government heard presentations and discussed chemical society governance and member programs, activities and services. The outcome of the workshop was the formation of an ICS working team to begin planning for ICS elections, and organizing participation for thirteen of the workshop participants to attend the ACS National Meeting in San Diego and interface with ACS Technical Divisions and Committees.

ACS San Diego Participants

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PH: 964-7707377488

3) *Dr. Athir Mahmood Haddad
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4) *Dr. Salma Salman Abdulhussein
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13) *Dr. Salim Ismael Khaleel
Ministry of Industry and Minerals
Expert/Adviser
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Designated Taskforce

1. Dr. Moayyad Jalhoom (Chair)
2. Dr. Athir Haddad
3. Dr. Omar Al-Obaidi
4. Dr. Waleed Hamady
5. Dr. Salma Abdulhussein
6. Dr. Ammar Al-Dujaili
7. Dr. Falah Hussein
8. Dr. Abbas Al-Sharify

San Diego Schedule Iraqi Chemical Society Visitors

Committee/Division	Time
Committee on International Activities (IAC)	Saturday, March 24; 1:00PM – 2:00PM
Women Chemists Committee (WCC)	Saturday, March 24; 2:30PM – 3:00PM
Committee on Environmental Improvement (CEI)	Saturday, March 24; 4:15PM – 4:30PM
Committee on Science (ComSci)	Saturday, March 24; 4:30PM – 5:00PM
Committee on Membership Activities (MAC)	Sunday, March 25; 9:00AM – 9:30AM
Chemical Health & Safety Division (CHAS)	Sunday, March 25; 9:30AM – 10:00AM
Committee on Meetings & Expositions (M&E)	Sunday, March 25; 11:00AM – 11:30AM
Committee on Ethics	Sunday, March 25; 1:30PM – 2:00PM
Committee on Chemical Safety (CCS)	Monday, March 26; 10:00AM – 10:30AM
Society Committee on Education (SOCED)	Monday, March 26; 3:00PM – 3:30PM
Committee on Constitution & Bylaws (C&B)	Wednesday, March 28; 1:50PM – 2:05PM
Debrief and Final Q&A (All Invited)	**Wednesday, March 28; 2:30PM – 5:00PM; Convention Center Room 17A**

ACS Global Innovation Imperatives

Global Innovation Imperatives

The Gii Mission is:

To create community and knowledge transfer to stimulate global scientific innovation that meets societal imperatives.

Global Innovation Imperatives – Gii

Of the significant issues facing each one of us every day, some are of such societal and global significance that without immediate action, the consequences will be disastrous. These issues can be described as 'global imperatives'.

Through scientific innovation, new chemistry-based solutions are being developed constantly. Yet much more still needs to be done to speed up innovation, share chemical technologies, determine effective global delivery strategies, and above all, to catalyze action among key stakeholders.

To address some of these global imperatives, the American Chemical Society has joined forces with the Society of Chemical Industry (SCI) to develop a collaborative venture called *Global Innovation Imperatives*, or *Gii*.

Call to Action

For more information, visit www.acs.org/gii and learn ways to help contribute to the cause.

We also invite you to register your interest by joining our community at: www.acs.org/network/gii or by sending an email to intlacts@acs.org

ACS Chemistry for Life®

SCI

EuCheMS TRAVEL AWARD

Volume 90 Issue 6 | February 6, 2012 | pp. 36-37 | Stories

Students' First Forays Abroad

ACS travel awards support international experiences

By **Steven Meyers, *Special to C&EN***

LOCAL COLOR
Francisco (second from right) and the 2011 awardees enjoy dinner at a Bremen pub.
Credit: Steven Meyers/ACS

EuCheMS TRAVEL AWARD CALL

Program details: ACS is sponsoring up to 10 all-inclusive travel awards to attend the 4th EuCheMS Chemistry Congress in Prague, Czech Republic, Aug. 26−30
Award coverage: Round-trip airfare, lodging, registration, meals, international travel medical insurance

Applicant eligibility criteria: ACS member, U.S. citizen or permanent resident, graduate student enrolled at a U.S. institution
Application deadline: March 14

Learn more and apply now: cenm.ag/prague

International networks and global experiences are becoming increasingly important for the success of the next generation of scientists. However, the process for making that first foray into the international community is not always readily apparent or easy for young chemists.
To help ease their transition, the American Chemical Society has established a travel awards program to provide American students with the opportunity to present their research at a chemistry conference outside the U.S.
This year, ACS will provide up to 10 travel awards for American graduate students to attend the 4th Congress of the European Association for Chemical & Molecular Sciences (EuCheMS) in Prague, Czech Republic, Aug. 26–30.

ACS launched the program, which is run by the Office of International Activities, by sending 21 award recipients to a conference in Germany in 2011. The undergraduate and graduate chemistry students presented their research at the national meeting of the Gesellschaft Deutscher Chemiker

(GDCh, the German Chemical Society) in Bremen, Germany, in early September. ACS has an alliance with GDCh, which contributed time and material support to make the program a success. "We were delighted to host these students and to give them the opportunity to be exposed to the excellent chemistry highlighted in Bremen and to present their research to the German chemistry community," says Wolfram Koch, GDCh executive director.
During the conference, the students attended technical sessions, a special session given by German funding agencies highlighting in-country scholarships for Americans, and social events attended by the leadership of both societies. Former ACS president Joseph S. Francisco traveled to Bremen for the event and enjoyed the opportunity to interact with the young chemists. "For many of them, this was their first experience outside the U.S., and they seemed to really enjoy Germany," Francisco says. "I was particularly impressed with how passionate the students were about their research, and I enjoyed talking to them about their work and their future plans."

After the conference, the students reported the experience to be beneficial for both their personal and professional growth. They awarded high marks to the effectiveness of the meeting in helping build their networks for future scientific collaborations and for its impact on their general views about scientific societies and professional meetings. One student commented that the award caused him to realize "that I can receive my education anywhere in the world, not just in the U.S."

The ACS travel awards currently being offered to the 4th EuCheMS Congress in Prague will attempt to achieve the same results for a new group of talented graduate students. The selected students will present their research to an international audience and engage in a variety of arranged activities. Award recipients will also gain access to a breadth of chemical expertise and knowledge from across Europe and the world—past conferences involved delegates from upward of 60 nations. The conference organizers expect attendees to present 2,000 scientific and professional papers across a range of symposium topics organized into 10 main sessions.
ACS will use competitive, merit-based peer review to select up to 10 recipients for the all-inclusive travel awards. Graduate students interested in applying should not only think about the research they could present but should also consider how the experience would benefit their chosen career path and why they hope to attend the EuCheMS Congress specifically.
For most students this will be their first chance to experience the scientific world outside of the U.S., and for many this will be their first time to leave the country. "This opportunity will be a tremendous experience for the students to engage in international networking and bolster their career development and scientific horizons," says Josef Michl, EuCheMS Congress chairman.

Chemical & Engineering News
ISSN 0009-2347

New ACS International Activities Manager

Interest: Economic development through innovation

Highlights:

- Entrepreneurial skills and thinking,
- Develop medicine inspection system for Malawi customs
- Lead global initiative in science and technology innovation

Nationality: USA

Education & Training

¬ *Bachelor of Arts* (Chemistry/Spanish), 1989, Macalester College, St. Paul, Minnesota
¬ *Doctor of Philosophy* (Chemistry), 1997, University of California, Santa Barbara
¬ *Postdoctoral Fellow* (Biochemistry), 1998-2000, Princeton University, Princeton, New Jersey

Honors & Awards

¬ Performance Award, U.S. National Institutes of Health (NIH), 2001 ¬ NIH Postdoctoral Fellowship, 1998 ¬ Graduate Travel Grant, University of California, Santa Barbara, 1995 (presentation at the International
Chemical Congress of Pacific Basin Societies Conference, Honolulu, Hawaii)
¬ U.S. Department of Education Pre-Doctoral Fellowship, 1992 (Declined)
¬ Pi Mu Epsilon, 1989 (Mathematics Honor Society)
¬ Phi Lambda Upsilon, 1989 (Chemistry Honor Society)

Professional Experience

(1) Science Advisor, CRDF Global (2010-2011)
¬ Provide strategic and technical guidance to multiple programs
¬ Co-technical lead for global initiative on innovation and entrepreneurship initiative
¬ Projects in Libya, Morocco, Egypt, Malaysia

(2) International Health Consultant (2008-2010) ¬ Clients: Management Sciences for Health; RaPID; Uppsala Monitoring Centre (WHO Collaborating Centre for pharmacovigilance)
¬ Medicine quality assurance (QA), including inspection, post-marketing product surveillance, pharmacovigilance for public health programs, procurement and supply chain management ¬ Projects in Botswana and Malawi

(3) Senior Program Associate, Management Sciences for Health, Arlington, Virginia (2005-2008)
¬ Supply chain management of essential medicines for malaria, tuberculosis, and HIV/AIDS
¬ Accreditation of drug dispensing outlets through public-private partnership
¬ Projects in Tanzania, Zambia, Malawi, and Nicaragua

(4) Program Manager, U.S. Pharmacopeia, Rockville, Maryland (2003-2005)
¬ Drug quality testing and monitoring of malaria and tuberculosis medicines
¬ Provide training on chemical analysis and laboratory management
¬ Projects in Vietnam, Thailand, Laos, Cambodia, China, Peru, and Paraguay

(5) Health Science Policy Analyst, Office of the Director, U.S. National Institutes of Health (NIH), Bethesda, Maryland (2001-2003) ¬ Monitoring, analysis, and communication of health and science policies to Department of Health &

Human Services, other agencies in U.S. Government, and executive branch ¬ Policy analysis of cloning/stem cells, genomics, biotechnology, tissue engineering, nanotechnology

(6) Science Editor/Writer, Center for Scientific Review, NIH, Bethesda, Maryland (2000-2001)

¬ Writing, editing, and other services for review process of U.S. National Institutes of Health grant proposals

(7) Postdoctoral Fellow, Department of Chemistry & Biochemistry, Princeton University, Princeton, New

Jersey (1998-2000) ¬ Postdoctoral research in biochemistry chemistry ¬ 2 publications in peer-review scientific journals

(8) Science Teacher, Thacher School (secondary boarding school), Ojai, California (1997-1998) ¬ Teach general and advance placement (AP) chemistry ¬ Dormitory advisor ¬ Soccer coach ¬ Organize backpacking/camping trips for outdoor program

Other relevant experiences

¬ Agricultural internship, Minnesota Department of Agriculture, St. Paul, Minnesota (1989)
¬ Industrial internship, 3M, St. Paul, Minnesota (1988)
¬ Biomedical internship, Mayo Clinic, Rochester, Minnesota (1987)

Publications

¬ Total 10 publications ¬ Recent: Ensuring the Quality of Medicines in Resource-Limited Countries: An Operational Guide, United States Pharmacopeia (co-author), December 2007.

Languages

¬ Vietnamese (fluent)
¬ Spanish (intermediate)
¬ French (basic)

Tab 2 - IAC Denver Minutes

IAC Meeting Minutes
Denver, Colorado USA
Saturday, August 27, 2011
Hyatt Regency Denver, Centennial Ballroom E

Members, Associates and Consultants Present
Judith L. Benham (Chair), Madan M. Bhasin, Susan B. Butts, Guang Cao, Ellene T. Contis, Richard S. Danchik, Richard W. Hartmann, Bryan R. Henry, John O. Hoberg, Rolande Hodel, Robin J. Hood, Michael Hurrey, Venera Jouraeva, Ed King, Rama Konduri, Donna Nelson, Agnes M. Rimando, Jonathan L. Sessler,

Liaisons Present
Merle Eiss (MAC), Ingrid Montes (CONC), Doug Walters (CCS)

Guests Present
Roland Andersson, Rudy Bennett, Iona Black, Iona Black, Marc Cesa, John Corish, Farenc Darvas, Michael Droescher, Merle Eiss, Mort Hoffman, Stan Langer, Kanjana Mahattanatawee, Attila Pavlath, David L. Phillips, B. Mario Pinto, Neville Reed, Jill Welch

Staff Present
Sherry Bryant, Francisco Gomez, Steve Meyers, Brad Miller, Liezl Perez

The chair opened with welcoming remarks, VIP introductions, reports on ACS international activities, and playback of recorded greetings from the leadership of ACS International Chapters. The chair expressed gratitude to staff for their efforts in furthering IAC strategies and interests.

The Committee **APPROVED** the minutes from its 2011 Anaheim Meeting.

Supporting SOCED changes, the Committee discussed and **APPROVED** the draft ACS Visa Statement Revision with the provision that language be added to address third country national visa issues and the deletion of language on optional practical training.

The Committee heard a report from Ingrid Montes on ACS Activities at the 2011 IUPAC World Congress and General Assembly – and on the ACS Symposia, the Festival de Quimica, and outcomes from the event, including plans for a possible publication coming out of the Women Chemists Symposium.

Subcommittee Reports
Subcommittee I – Africa and the Americas – Bryan Henry, Chair, reported on activities from the morning including ACS International Chemical Sciences Chapter training, outreach to Latin America, suggestions for programming ideas for San Diego, and provision of feedback and strong support of the ACS Science and Human Rights Primer.

Subcommittee II – Europe and the Middle East – Ellene Contis, Chair, thanked staff for their efforts in organizing preparatory conference calls and materials. The Subcommittee discussed sustaining momentum of IYC and recommended that ACS create a task force on sustaining IYC. In the morning the Subcommittee also met with European Young Chemists Network (EYCN) representatives to learn more about their programs. The Subcommittee also received reports from GREET participants in Romania and Sweden.
Subcommittee III – Asia and the Pacific Basin – Ed King stood in for Eun Woo Chang, Chair, and presented on the morning's discussions including student language capacity development and cultural integration, and sustaining IYC momentum.

The Committee heard a presentation from Jill Welch, NAFSA Associate Executive Director on NAFSA's strategic interests and priorities relating to international STEM education and exchange.

At 3:45 the IAC Chair called the Committee into Executive Session.

At 5:00 PM the Committee adjourned its Denver meeting.

2012 IAC Roster and Subcommittee Assignments

2012 INTERNATIONAL ACTIVITIES COMMITTEE ROSTER
2/2/2012

POSITION	NAME	START	END	EMAIL
Chair	Dr. Judith L. Benham	2012	2012	jlbenham-acs@comcast.net
Member		2010	2012	
Member	Dr. Madan M. Bhasin	2011	2013	bhasinmm@frontier.com
Member	Dr. Susan B. Butts	2010	2012	sbbuttsdc@gmail.com
Member	Dr. Guang Cao	2010	2012	guang.cao@exxonmobil.com
Member	Dr. Eun-Woo Chang	2011	2013	eun-woo.chang@montgomerycollege.edu
Member	Dr. Ellene T. Contis	2012	2014	econtis@emich.edu
Member	Dr. Richard S. Danchik	2010	2012	danchik@pittcon.org
Member	Dr. Richard W. Hartmann	2011	2013	rhartma0@zimbra.naz.edu
Member	Dr. Bryan R. Henry	2012	2014	chmhenry@uoguelph.ca
Member	Dr. John O. Hoberg	2012	2014	hoberg@uwyo.edu
Member	Dr. Rolande R. Hodel	2010	2012	rrhodel@aol.com
Member	Dr. Michael Hurrey	2012	2014	michael_hurrey@vrtx.com
Member	Dr. Gabriel Infante	2010	2012	gainfante@hotmail.com
Member	Dr. Venera Jouraeva	2011	2013	vajourae@gmail.com
Member	Dr. Eli Pearce	2012	2014	epearce@poly.edu
Member	Dr. Martin Thompson	2012	2013	thompson@mtu.edu
Associate	Dr. Morton Hoffman	2012	2012	hoffman@bu.edu
Associate	Dr. Csaba Janaky	2012	2012	janaky@chem.u-szeged.hu
Associate	Ms. Jody A. Kocsis	2012	2012	jody.kocsis@lubrizol.com

Associate	Dr. Rama Konduri	2012	2012	rama.konduri@sabic-ip.com
Associate	Dr. Agnes M. Rimando	2012	2012	agnes.rimando@ars.usda.gov
Associate	Dr. Jonathan L. Sessler	2012	2012	sessler@mail.utexas.edu
Associate	Dr. Isai T. Urasa	2012	2012	isai.urasa@hamptonu.edu
Associate	Dr. Doug Walters	2012	2012	waltersdb@earthlink.net
Staff Liaison	Dr. Bradley D. Miller	2007		b_miller@acs.org
Comm on Committees Liaison	Dr. Ingrid Montes	2010	2012	imontes@onelinkpr.net
MAC Liaison	Dr. Merle Eiss			meiss32@aol.com
YCC Liaison	Dr. Uzma Zakai			zakaiu@chem.wisc.edu
CEPA Liaison	Dr. George Heinze			donnergeist@verizon.net
CEI Liaison	Dr. Ean Warren			ewarren@scvacs.org
WCC Liaison	Dr. Laura Sremaniak			laura_sremaniak@ncsu.edu
GEAB Liaison	TBD (Jodi Wesseman)			j_wessemann@acs.org

Subcommittee I Africa and the Americas
Bryan Henry, Chair

Subcommittee I is responsible for the geographical areas of the Americas and Africa. With regards to Africa, we are interested in promoting programs like Seeding labs. We are also supportive of the work of the IAC Working Group on Global Web Presence. In particular we have a concern for access for countries with low bandwidth internet capability. We have also heard and are sympathetic to a request from African countries for access to scientific research literature and in particular to access to Sci Finder from ACS/CAS. In the Americas, we want to encourage interest and participation in the Congress in early August, 2011 in Puerto Rico. We are also interested in helping to facilitate rebuilding Chemistry facilities after the recent earthquakes in Chile. In general we are interested in facilitating the development of Chemistry throughout the Americas and Africa.
2012 Members: Richard Danchik, Rolande Hodel, Gabriel Infante, John Hoberg, Jodi Kocsis, Isai Urasa

Subcommittee II Europe and the Middle East
Ellene Contis, Chair

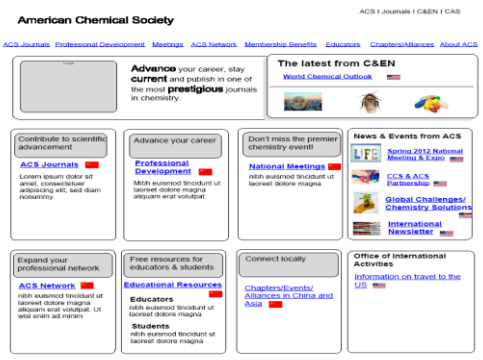
Subcommittee II is responsible for Europe and the Middle East and in those regions works to (1) to serve as an informational clearinghouse for opportunities available to younger chemists for cooperative efforts and exchange of students, (2) to support and maintain liaisons with federations, (3) to promote and publicize programs of the ACS that would be of interest to sister societies and receive information from them in the same way; (4) to provide recommendations to the full committee to advise ACS President of member nominations to the U.S. National Committee and Divisional Membership in IUPAC; and (5) to serve as an international clearing house for International Activities of the divisions.
2012 Members: Susan Butts, Richard Hartmann, Mort Hoffman, Mick Hurrey, Csaba Janaky, Venera Jouraeva, Eli Pearce, Martin Thompson

Subcommittee III Asia and the Pacific Basin
Eun Woo Chang, Chair

Subcommittee III is responsible for the Asia / Pacific Basin and works to advance the goals of ACS to identify common values, and to connect and collaborate with counterparts in Asia and the Pacific Rim. The subcommittee seeks to address, through the chemical enterprise, the challenges facing our world by focusing on activities that advance science education, knowledge, research, interaction, and collaboration through the expertise of network members and their counterparts in Asia and the Pacific Rim.
2012 Members: Madan M. Bhasin, Guang Cao, Dr. Rama Konduri, Agnes M. Rimando, Jonathan L. Sessler, Doug Walters

Tab 3 - ACS Web Presence and Chemists Outside North America

Web Strategy and Operations (WSO) mission is to serve our constituents by building, delivering and evolving the most powerful online channels. Our vision is to provide the best web experience to the world of chemistry. The team comprises product development, user experience, visual design, marketing and communications, business analysis and web operations. WSO is responsible for directing the web strategy and the operation of the Society site, www.acs.org and its related web properties.



Request for Input - 2012 ACS Strategic Plan

You said it, We heard it, Let's do it!
William F. Carroll, Jr., Chair, Committee on Planning

It's my pleasure to report that the ACS Strategic Plan for 2012 and Beyond has been released online at http://strategy.acs.org. Based upon extensive input from committees and members, the Board and Planning Committee reengineered our strategy over the last year.
The new plan does two things. First, it sets out our organizational goals, and that's key. But second, and I think importantly, it succinctly defines the Society's value proposition - the basic blocking and tackling of what we do - for our members, the scientific community, and the world. We now have four goals that frame the ways we can realize our Vision of "Improving people's lives through the transforming power of chemistry."

What we achieve against these four goals will make a difference for the Society and the chemistry enterprise, and in so doing for society at-large. The Society's Mission and Core Values have been edited slightly. Our Mission now states that we will "Advance the broader chemistry enterprise and its practitioners for the benefit of Earth and its people." Our Core Values have increased focus on the need for "high standards" under the value of professionalism, and highlight our passion for chemistry's role in the development of "solutions."

Your suggestions make it clear that scientific information, careers, education, and communication need to be our highest priorities. For 2012 and beyond, we will marshal our unique resources to:

• Goal 1: Provide Information. Be the most authoritative, comprehensive, and indispensable provider of chemistry-related information.
• Goal 2: Advance Member Careers. Empower an inclusive community of members with networks, opportunities, resources, and skills to thrive in the global economy.
• Goal 3: Improve Education. Foster the development of the most innovative, relevant, and effective chemistry education in the world.
• Goal 4: Communicate Chemistry Value. Communicate chemistry's vital role in addressing the world's challenges to the public and policymakers.

The activities you develop in congruence with these new goals will help focus our message and make the vision a reality. The strategic plan is designed to be accessible and open: the rationale for the goals, key activities that support them, and specific objectives are on the Web at http://strategy.acs.org. Your work is vital to the success of our Society. Please visit the online plan and help spread the word about the new ACS Strategic Plan for 2012 and Beyond. Even now, with a new plan just released, we recognize that things never stop changing. Please share any additional ideas and suggestions with the Board of Directors and Planning Committee through the ACS strategic plan group, which is accessible on the ACS Network. You can also email us at strategicplan@acs.org.

On behalf of the Board, thank you for the work that you do on behalf of chemistry and chemists around the world. You said it, we heard it, let's do it!

ACS 2012 Strategic Plan

Possible ACS Goal Areas
Input from ACS Committee on International Activities

The ACS Board Standing Committee on Planning has developed the following preliminary list of possible areas for which goals can be developed within the *ACS Strategic Plan for 2012 and Beyond*. We ask your committee to consider the list below and indicate two or three areas that are of highest priority for ACS to address. Please be as specific as possible as to which specific, measurable outcomes are most important to seek within these areas. Feel free to add to this list, if a key goal area is not among those below. Please email your feedback to strategicplan@acs.org before Friday, September 9, 2011.

A. Education (a task force has begun work to make recommendations about the scope of such a possible goal)
B. **(2)** Science literacy (could be incorporated into A above)
C. Professional preparation of tomorrow's chemist to seek and find jobs, and to excel in their careers (e.g., career guidance for students)
D. **(3)** Participation of U.S. chemistry professionals in the global enterprise of chemistry (e.g., sustaining a U.S. chemistry workforce)
E. Jobs for chemists (e.g., finding professional employment)
F. Lifelong professional development of chemistry professionals (e.g., enhancing skills, knowledge, and competitiveness)
G. Community of chemistry practitioners (e.g., community enhancement, networking, promotion of diversity)
H. **(1)** The nature and value of chemistry and its practitioners (e.g., communicating and reaching out to the general public, enhancing the public perception of chemistry and chemists, advocacy for chemistry and education with the government)
I. Benefits of chemistry to society (e.g., focusing chemistry's attention on societal challenges, serving society, improvement of the qualifications and usefulness of chemists to foster public welfare)
J. Collaborations among government, universities, and industry
K. ACS membership value (e.g., the advancement of ACS members)
L. Research and innovation in the U.S. (e.g., aiding and advancing our industries)
M. Scientific information (i.e., creation, diffusion, and advancement of knowledge)

Additional Areas

Given the wide recognition of the delocalized and global character to science and the need to show performance against the Section 3 statement below, sustainability and global perspectives should be explicitly referenced and articulated in any and all strategic goals of the Society for 2012 and beyond.

ACS Constitution ARTICLE II

Objects

Section 1.
The objects of the AMERICAN CHEMICAL SOCIETY shall be to encourage in the broadest and most liberal manner the advancement of chemistry in all its branches; the promotion of research in chemical science and industry; the improvement of the qualifications and usefulness of chemists through high standards of professional ethics, education, and attainments; the increase and diffusion of chemical knowledge; and by its meetings, professional contacts, reports, papers, discussions, and publications, to promote scientific interests and inquiry, thereby fostering public welfare and education, aiding the development of our country's industries, and adding to the material prosperity and happiness of our people.

Sec. 2.
To foster the improvement of the qualifications and usefulness of chemists, the SOCIETY shall be concerned with both the profession of chemistry and its practitioners. (7/10/72)

Sec. 3.
To foster the objects specified in this Article, the SOCIETY shall cooperate with scientists internationally and shall be concerned with the worldwide application of chemistry to the needs of humanity. (11/12/79)

Request for Input - ACS Fellows

TO: Chairs, ACS National Committees
cc: Staff Liaisons

The purpose of this email is to let you know that the ACS Fellows Program is open to receive nominations for 2012 Fellows. The nomination submission deadline is **Monday, April 23, 2012.**

Committee Eligibility
Each ACS National Committee can submit one nomination. The nominee can be a current or former committee member, committee associate, or consultant to the committee. The Committee Chair must be the primary nominator or one of the secondary nominators **unless** he or she is a current member of the Fellows Selection Committee, the Fellows Oversight Committee, or the ACS Board of Directors, or unless he or she is the Committee's nominee. In such circumstances, the nomination must be delegated to another member of the Committee. (If all members of the Committee belong to one of the groups not eligible to participate in the Program, the Committee must recuse itself from the nomination process entirely.)

If you or your Committee is not eligible to participate, please invite your friends and colleagues to submit nominations. [Participants in the Program must be current members in good standing with the American Chemical Society. Current members of the Fellows Selection Committee, Fellows Oversight Committee, ACS Board of Directors, and current ACS staff are not eligible to be nominees, or primary or secondary nominators.]

How To Submit A Nomination
To submit a nomination, go to https//www.nominatefellow.acs.org. This url will take you to a new nomination system which is a significant enhancement over the 2011 system. For example, it has the "look and feel" of ACS and fully integrates with the ACS membership database, thus simplifying the nomination process. And, you can logon with your ACS ID and password or your last name and membership number. Step-by-step instructions for inputting a nomination and navigating the system are provided in the document ACS Fellows Nomination: Step-by-Step Online Process which is attached for your information. Access to complete information about the Fellows Program can be obtained from the ACS website www.acs.org/fellows.

Also attached is a copy of the Program Guidelines, which provide details about eligibility [Page 3] and nomination requirements [Page 5]. Note in particular the information you can gather before logging into the nomination system. Attached you will also final a one-page summary for inclusion in your upcoming meeting agenda book.

I look forward to your support in identifying and honoring those of our members who have made significant contributions to the science/profession and have provided excellent service in the ACS community. Last year many Committees submitted nominations, and we hope that many more will participate this year.

If you have questions, please email us at fellows@acs.org.

Thank you.

John E. Adams, Ph.D.
Chair, Fellows Oversight Committee
2009 ACS Fellow

Request for Input - ACS Guidelines For Bachelor's Degree Programs

Evolution Of The ACS Guidelines For Bachelor's Degree Programs

By **Cynthia K. Larive**, **Anne B. McCoy**
Department: **ACS News**

Larive
McCoy
Credit: Courtesy of Anne McCoy

For the past 75 years, the American Chemical Society has operated an approval program for undergraduate chemistry programs. The ACS approval program, administered by the Committee on Professional Training (CPT), was initiated by leading research chemists from academe and industry to promote excellence in the education and training of chemists at the undergraduate level. Currently, 667 undergraduate chemistry programs are ACS approved, allowing the chairs of these programs to certify graduates as having met the curricular requirements defined by the ACS Guidelines for Bachelor's Degree Programs.

The ACS guidelines promote excellence in the preparation of undergraduates by providing minimum requirements for department infrastructure and curricula for the certified major. The guidelines have been revised several times since the first version was released in 1939. The current version was released in 2008 and is available at www.acs.org/cpt.

The 2008 guidelines were a marked departure from earlier versions. The curricular requirements were designed around breadth requirements that provide overview coverage of five chemistry subdisciplines—analytical, biochemistry, inorganic, organic, and physical—and four in-depth courses that build on this foundation. As part of the 400 laboratory hours required beyond general chemistry, students must have lab exposure to at least four of these five chemistry subdisciplines.

To give programs greater flexibility in their in-depth course offerings, the areas covered by the in-depth courses can be determined by the department. Although many programs continue to offer a curriculum in which the in-depth courses are the second semesters of organic and physical chemistry, instrumental analysis, and advanced inorganic chemistry, others have taken advantage of the flexibility of the 2008 guidelines to recast their curriculum in a less divisional format.

The 2008 guidelines also addressed for the first time the need for students to develop skills in the areas of problem solving, effective use of chemical literature resources, laboratory safety, oral and written communication, teamwork, and the ethical practice of science. Undergraduate research provides an important opportunity for students to develop professional skills, and many programs use it to supplement more formal pedagogies for building students' skills. Certified majors are required to prepare a written report describing their research.

The ACS guidelines also have requirements related to the infrastructure necessary for an excellent undergraduate program. As part of these requirements, limits are placed on the student contact hours for faculty and instructional staff. The program must maintain a diverse holding of modern instruments, including a nuclear magnetic resonance spectrometer, for hands-on use by students in laboratory courses and in research. The guidelines also list requirements for journal access and literature searching. And the guidelines include a requirement that programs describe their efforts in self-evaluation and how they use feedback from this process to improve their program (or alternatively, better serve their students).

In developing the 2008 guidelines, CPT engaged in a multiyear process that included discussions about the hallmarks of excellence and rigor in the education of undergraduate students and about changes in the pedagogical landscape, such as active and problem-based learning approaches. The committee also considered the criticism that the guidelines were too restrictive and hindered curricular innovation.

These discussions culminated in a document describing proposed changes to the guidelines that was widely disseminated for comment. After receiving feedback from the community, the committee developed a set of proposed guidelines and again solicited comment before the final version of the 2008 guidelines was adopted. By engaging the greater chemistry community in discussions about the preparation of well-trained chemistry undergraduates, the committee endeavored to make the revision process transparent and relevant.

March 2012 will mark the passage of four years since the release of the 2008 ACS guidelines, and CPT will begin reevaluation of the guidelines in preparation of a new edition. The committee welcomes your comments and suggestions as we begin the revision process. You can e-mail your input to cpt@acs.org. CPT is also planning a series of symposia to discuss proposed guideline revisions over the next year or so, and we hope to hear from you at one of these sessions.

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The ACS Graduate Education Advisory Board (GEAB)

Spring 2012

Strategic Goals

Designed to engage stakeholders across ACS in supporting the professional growth of graduate students and postdoctoral scholars in the chemical sciences, the GEAB 2011-2013 strategic plan has five goals:

1. Provide information about career options for graduate students and postdoctoral scholars in the chemical sciences and engineering, along with the tools to obtain positions and launch their careers.
2. Engage graduate students and postdoctoral scholars in ACS programming.
3. Expand the diversity of the graduate student and postdoctoral scholar population in the Society.
4. Develop and disseminate recommendations related specifically to graduate and postdoctoral education.
5. Monitor and publicize trends and developments in graduate and postdoctoral education.

Stakeholders are asked to consider the ways in which their respective activities could support these goals, the priorities that will be identified for 2012 and 2013, and the current GEAB activities listed in the Appendix.

Key Stakeholders

As the parent committees for GEAB, the Committee on Professional Training (CPT) and the Society Committee on Education (SOCED) are key stakeholders for the work of GEAB. In addition to having members appointed by CPT, SOCED, and the Younger Chemists Committee, GEAB has liaisons from the following committees:

- Committee on Chemical Safety
- Committee on Corporation Associates
- Committee on Divisional Activities
- Committee on Economic and Professional Affairs
- Committee on Ethics
- Committee on International Activities
- Committee on Membership Affairs
- Committee on Minority Affairs
- Committee on Science
- Women Chemists Committee
- Younger Chemists Committee

Relationships with each of these committees will facilitate the communication needed to collectively address issues and pursue the goals identified in the strategic plan.

2012-2013 Priorities

At its spring 2012 meeting, GEAB will be discussing and setting its priorities for the next two years. Among the items to be considered:

- Develop a plan to allow PhD-granting institutions to incorporate a course like Preparing for Life After Graduate School into their curricula.

- Create, adopt, and maintain ACS documents on the rights, responsibilities, and expectations for both graduate and postdoctoral scholars.
- Develop data on how ACS, GEAB, and GPSO can best provide assistance and resources for graduate students.
- Develop and disseminate lists of industrial speakers (technical and non-technical subjects) and companies that provide graduate internships and postdoctoral research opportunities.

Current GEAB Membership

Dr. Joel I. Shulman (Chair), University of Cincinnati, OH
Dr. Mary Carroll (*ex-officio*), Union College, Schenectady, NY
Dr. Anne McCoy (*ex-officio*), The Ohio State University, Columbus, OH
Dr. Robert Garner, University of Oklahoma
Ms. Amy Hamlin, University of California, Berkeley, CA
Dr. Danniebelle Hasse, University of Pennsylvania, Philadelphia, PA
Dr. Clarke Landis, University of Wisconsin, Madison, WI
Dr. Teri Odom, Northwestern University, Evanston, IL
Dr. Ieva Reich, University of Wisconsin, Madison, WI
Ms. Beatriz E. Rios, Southern Methodist University, Dallas, TX
Dr. George Wilson, University of Kansas, Lawrence, KS

Appendix - GEAB Activities

Provide information about career options for graduate students and postdoctoral scholars in the chemical sciences and engineering, along with the tools to obtain positions and launch their careers.

- Advising the ACS Graduate and Postdoctoral Scholars Office on the following activities:
  - Preparing for Life After Graduate School Workshops
  - Academic Employment Initiative
  - Postdoc to Faculty Workshops
- Providing input on the development and expansion of the following Society programs:
  - ACS Career Pathways
  - ACS on Campus

Engage graduate students and postdoctoral scholars in ACS programming.

- Increasing the visibility of national meeting events for graduate students and postdoctoral scholars
  - Poster sessions for graduate students and postdoctoral scholars
  - Symposia targeted for graduate students and postdoctoral scholars
  - Symposia planned by graduate students and postdoctoral scholars
  - Career development workshops
- Organizing a social event for graduate students and postdoctoral scholars at the Spring 2012 National Meeting
  - Co-sponsored by YCC and ACS Divisions, which will send representatives and information about opportunities to become involved
  - Scheduled for 7:00 – 8:30 pm, Monday, March 26, Upper Level, Ballroom 20 B/C, San Diego Convention Center (in conjunction with Sci-Mix)
- Developing an ACS Network group to support current and former members of Graduate Student Symposium Planning Committees

Expand the diversity of the graduate student and postdoctoral scholar population in the Society.

- Advising the ACS Graduate and Postdoctoral Scholars Office on the following activities:
  - *Graduate and Postdoctoral Scholars Bulletin* (sent monthly to 22,000+ ACS graduate student members and subscribers)
  - www.acs.org/grad
  - Facebook group for Graduate Students
  - Facebook group for Postdoctoral Scholars
- Providing input on gradstudent.acs.org

Develop and disseminate recommendations related specifically to graduate and postdoctoral education.

- Developing documents on the rights, responsibilities, and expectations of graduate students and postdoctoral scholars

- Representing ACS on the Graduate Education Commission established by ACS President 2012 Bassam Shakhashiri

Monitor and publicize trends and developments in graduate and postdoctoral education.

- Overseeing a comprehensive survey of graduate students in the chemical sciences (a project supported by the Alfred P. Sloan Foundation)

Request for Input - 2013-2014 ACS Public Policy Priorities

Sent on Behalf of Kathleen Schulz, Chair, Board Standing Committee on Public Affairs and Public Relations (PA&PR)

Fellow ACS Committee Chairs

It's time to review and update the Society's public policy priorities. This letter is to invite your committee's input. The ACS Board does this every two years to ensure that our public policy priorities remain timely and relevant to current political issues. The purpose of the policy priorities document is to introduce and frame policy issues important to ACS for key audiences, including ACS members, government officials, and the general public. Separate policy statements are produced to explain in detail the Society's position on specific issues. Current policy statements are available at: http://www.acs.org/policy.

A copy of the 2011-2012 policy priorities document is attached as a starting point for your consideration. To ensure that the Board considers the views of all the Society's members and communities as we set policy priorities for 2013-14, we would appreciate receiving your committee's views. This year, PA&PR will be doing a full review of this document including its length and the specific policies. We are also interested in your input about whether to continue to break the policies into four categories.

Please contact Mr. Raymond Garant at 800/227-5558x6063 or r_garant@acs.org if you have questions or would like staff from the ACS Office of Public Affairs to meet with your committee in San Diego to discuss the priority-setting process or to hear your committee's views first-hand. Please forward your comments through Mr. Garant by Friday, May 4, 2012, for later consideration by the Board.

Thank you in advance for taking time to offer your views. Your comments will help ensure that ACS public policy priorities broadly represent the interests of the Society. I look forward to working with you and your committee, as we decide how ACS can best address important public policy issues.

Best Regards,
Kathleen

ACS Chemistry for Life®

Public Policy Priorities
2011-2012

CREATING OPPORTUNITY THROUGH SCIENTIFIC INNOVATION

THE AMERICAN CHEMICAL SOCIETY is the world's largest scientific society with more than 163,000 members in industry, academia, and government. A not-for-profit organization chartered by Congress, ACS works with government to promote public policies that help the chemical enterprise and its practitioners serve the nation. The Society is committed to addressing national and global challenges such as economic opportunity, energy and water availability, and environmental sustainability through the appropriate application of chemical science and engineering.

FOSTER INNOVATION THROUGH RESEARCH AND TECHNOLOGY

Investments in science and engineering have produced more than half of U.S. economic growth since WWII. Strong support for chemistry and other R&D is central to our nation's productivity, defense, public health, energy security, and environmental progress. Although the engines of innovation are largely in private hands, the federal government provides nearly 60 percent of all support for basic research. This investment fosters new knowledge, industrial innovation, and the training of future scientists and engineers. The U.S. Bureau of Economic Affairs has estimated that R&D investment accounted for seven percent of U.S. GDP growth between 1995 and 2004. Government also plays a key role in fostering a healthy climate for innovation through tax policy, international standards, intellectual property, and other incentives. ACS supports efforts to

- Increase and optimize federal investments in R&D, science infrastructure, and industrial innovation to enhance U.S. global competitiveness.
- Speed up the development and commercialization of new technologies that promote energy independence, environmental sustainability, national and homeland security, human health, and other national goals.
- Promote incentives and reduce economic, regulatory, and intellectual property barriers to the development of new technologies and associated science and technology jobs.
- Foster the development and adoption of green products and processes by industry, academia, and government.

ADVANCE SCIENCE THROUGH OPENNESS

Science and technology provide critical tools that help us address our national and global needs. Open exchange of information and ideas is critical to scientific progress. However, dynamic security challenges to our infrastructure, economy, and lives require that the scientific community minimize unintended or nefarious uses of legitimate science and technology. ACS supports efforts to

- Promote a strong, non-governmental, scientific publishing enterprise that assures access to information and exchange of scientific ideas and information among all parties with legitimate uses while appropriately protecting copyright and security-related information.
- Assure the quality of science and technological advancement through open, rigorous and inclusive peer review related to scientific publishing.
- Assure the most open interactions possible among scientists, engineers, and students from across the globe.

STRENGTHEN SCIENCE EDUCATION AND THE SCIENTIFIC WORKFORCE

America needs scientific and engineering professionals. To equip today's students with the skills to fill the technical jobs of tomorrow, we must improve science and mathematics education at the K-12, community college, undergraduate, and graduate levels. We also need to encourage talented people to enter science and engineering fields. Workforce policies must respond to the challenges and opportunities posed by an aging demographic, a more diverse workforce, and major shifts in employment practices. ACS supports efforts to

- Enable lifelong, strong, inquiry-based science education for everyone in both formal and informal settings to improve the scientific understanding of all our citizens.
- Strengthen the quality of teaching through increased partnership and support of pre- and in-service training of educators from the kindergarten through the graduate school levels.
- Encourage the best and the brightest to pursue scientific careers, particularly more women, underrepresented minorities, and people with disabilities.
- Strengthen professional opportunities and employment-related incentives for science and engineering practitioners.

PROMOTE SCIENCE AND SUSTAINABILITY IN PUBLIC POLICY

Science can lead to better understanding of new solutions to many of society's problems including environmental and health issues. In order to achieve this, the best science should be available to, and used by, government officials when making decisions. To achieve confidence in government decisions that depend upon science and technology, science must be considered in an open and responsible manner. ACS supports efforts to

- Encourage environmental decisions that promote sustainable resource usage and waste prevention in an economically viable chemical enterprise.
- Assure appropriate, balanced use of voluntary and regulatory measures in achieving environmental, health, safety, and security goals and promote the responsible use of science in environmental management.
- Encourage appropriate global harmonization of environmental, health, and safety initiatives to promote science and technology around the globe.
- Promote institutions and guidelines to assure that governments make appropriate and open use of scientific and technological information in making policy decisions.

American Chemical Society, 1155 Sixteenth Street, N.W. Washington, D.C. 20036, 202-872-4386, www.acs.org/policy

Appendices

Volume 90 Issue 4 | January 23, 2012 | pp. 42-44 | Stories
Europe Beckons
Despite the financial crisis, some European countries continue to attract U.S. talent
By Linda Wang

A NEW HOME
Kopping lives in Heidelberg, one of the most picturesque cities in Germany.
Credit: Courtesy of Jordan Kopping

Europe's economic problems are far from over. The debt crisis is still unfolding, and high unemployment in many countries continues to frustrate job seekers.

In Spain, the unemployment rate has nearly tripled since 2007, when the global recession began, from 8.3% to 22.8% in October 2011, according to the latest international figures from the U.S. Bureau of Labor Statistics (BLS). Other countries such as Greece, Italy, and the U.K. are also experiencing high unemployment rates.

However, U.S. chemists seeking positions in Europe shouldn't be discouraged because some bright spots remain for expatriates in Europe's otherwise gloomy employment climate. Countries such as Germany and Switzerland—which have for decades recruited top U.S. talent—have remained strong in the chemical sciences and continue to attract Ph.D. chemists from abroad. And expats currently working in these countries say they enjoy job security and benefits that are becoming distant memories in the U.S.

With its strong economy and stable chemical industry, Germany can be attractive for job seekers from the U.S. "While there has been an impact of the economic crisis, it has not hit Germany as hard as it has other European countries," says Wolfram Koch, executive director of the Gesellschaft Deutscher Chemiker (the German Chemical Society, GDCh). "One of the reasons is that the chemical industry has always been one of the major pillars of the German economy." As unemployment grew across the rest of Europe, Germany's unemployment rate fell from 8.7% in 2007 to 6.4% in November 2011, according to BLS data. In comparison, the U.S. unemployment rate rose from 4.6% to 8.6% during the same period.

Rather than cutting workers, chemical companies in Germany have turned to less aggressive cost cutting methods, Koch says. BASF in Ludwigshafen, for example, avoided layoffs by cutting back on overtime and transferring personnel to other locations, says Sarah Ulmschneider-Renner, head of talent resourcing at BASF.

The company has begun expanding its workforce again, she says, with a focus on attracting applicants from around the world. "We are increasing our efforts in [human resources] marketing and worldwide job-posting strategies," she says. "As a result, we are already seeing a significant increase in applications for our R&D positions from abroad, including the U.S."

Polymer chemist Jordan Kopping is among those who moved from the U.S. to Germany to work for BASF. He began working as a research scientist in Ludwigshafen a year ago.

Before crossing the Atlantic, Kopping earned a Ph.D. in polymer and organic chemistry from the University of California, Davis, in 2006 and completed a postdoc at UCLA in 2007. In 2010, after teaching at a community college and working at a biopharmaceutical company, both in California, he started applying for positions in Germany. "I had nothing at the time tying me to the U.S., and I've always had the idea to try something international," Kopping says. He chose Germany because of its strong economy and because of his interest in the language and culture. While job searching, Kopping enrolled in an intensive eight-month course to learn German. "One of the things I highlighted on my résumé was that I was committed to learning the language," he says. That dedication demonstrated, he says, that he "would fit well into the culture and also into the way of life."

Kopping says he received offers from several companies in Germany, but he chose BASF because of its focus on diversity and inclusion. Now, as Kopping helps review potential candidates from abroad, he is looking for that same determination. "When we have interviewees come in, it's very apparent which ones really have done their homework and have a genuine interest in living in the country and would commit themselves to becoming assimilated properly into the working culture and also the social culture," he says.

STEPPING-STONE
Campbell's postdoc in Paris prepared her for her current position in France.
Credit: Courtesy of Victoria Campbell

Language skills are not everything, of course. BASF is looking for Ph.D. scientists who have done research in state-of-the-art chemistry, says Ulmschneider-Renner. In addition, she says, chemists should include extracurricular activities in their curriculum vitae. "This information is often neglected, but we consider it extremely useful in forming an initial impression."

Koch invites American Chemical Society members who are looking for positions in Germany to get in touch with GDCh's career services office. "We will try to help," he says. But he also warns that applicants should be top-notch in their field. "If you're not good enough to find a job in the U.S., you won't find one here in Germany, either."
Switzerland shines as another bright spot for job seekers from the U.S. Beat Moser, director general of Scienceindustries, the Swiss business association for the chemical, pharmaceutical, and biotech industries, says that the Swiss chemical industry's focus on specialty products has helped the country weather the recession. "We are not producing high volumes of products, but small volumes with high value," Moser says. "Innovation is the only way for the Swiss industry to survive."

Switzerland has not been completely immune to the effects of the recession, however. For example, Swiss pharmaceutical company Roche has reduced its workforce, and Swiss drugmaker Novartis recently announced layoffs.

"Jobs are being outsourced," says Jay S. Siegel, a chemistry professor at the University of Zurich and chair of the Division of Organic Chemistry of the European Association for Chemical & Molecular Sciences (EuCheMs). But "unemployment here is not up dramatically," he adds. "For really good people there are still job offers going out."

U.S. chemists often worry that if they go abroad, they won't be able to find a job when they return to the U.S. "That's not true," says Jeffrey W. Bode, who moved to the Swiss Federal Institute of Technology, Zurich (ETH), in 1998 to complete his graduate studies, then returned to the U.S. in 2003 as an assistant professor. In 2010, Bode went back to ETH, where he is now a chemistry professor.

Bode says that in Switzerland, he doesn't need to worry about research funding. "In the U.S., you're always thinking about grants," he says. But in Switzerland, "you don't have the same kind of pressure that every grant has to get funded. The pressure I feel is really to do innovative basic research. I feel like I can take more risks here."
Switzerland, says Siegel, who moved in 2003 to the University of Zurich from UC San Diego, is "an attractive place to live. The standard of living, the scientific infrastructure, and the opportunities for innovation are excellent."

Another country where U.S. chemists feel protected in their jobs is the Netherlands. "I feel very secure in my position," says Steven Schultz, a materials researcher at Dutch tire manufacturer Apollo Vredestein, who moved to the Netherlands in 2008. "The labor laws here are really good, and it would be pretty difficult for my company to lay me off."
The only downside, he says, is that even though his salary is above the Dutch average, it is "far below what my colleagues in America are making."

The recession hit the Netherlands' pharmaceutical industry harder than it did other industries, says Richard M. Kellogg, who served as scientific director of Dutch contract research company Syncom for many years and is now a consultant for the company. "Two major pharmaceutical companies in Holland—Organon and Solvay—have been eliminated by the American companies that own them.

“On the other hand, the sites have now been made into science parks,” Kellogg notes. “There is life after death.” Oil refining and bulk chemistry remain strong sectors of the Dutch chemical industry, he adds.

Schultz warns that despite the promise of jobs in the Netherlands, foreigners can find it difficult to get a position there. He moved to Europe in 2001 to be closer to his then-girlfriend, now wife, a Dutch woman. Schultz, who had been working on a Ph.D. at the University of Washington, Seattle, completed the degree at the University of Münster, in Germany. He then worked for adhesives maker Gerlinger GmbH & Co. in Germany for two-and-a-half years.

While in Germany, Schultz searched for positions in the Netherlands. “I was getting zero responses,” he says. It wasn’t until he received a Dutch resident’s visa after marrying that he began receiving job offers.

Schultz advises potential applicants to research which companies hire foreigners. Before applying, he says, “you have to find a company that’s willing to go through with the paperwork for you.”

Some companies do welcome foreign applicants. “At Syncom, we’ve made a point of hiring internationally,” says Kellogg, who moved from the U.S. to the Netherlands as a postdoc in 1965 and subsequently settled there. “We much prefer to have international groups instead of only Dutch. We think that works in a very stimulating fashion.”

But U.S. chemists working in countries including the U.K. are feeling the pinch of the recession, says Jonathan Nitschke, a reader (associate professor) in the chemistry department at the University of Cambridge, who moved to France in 2001 for a postdoc and has remained in Europe ever since. “I would not say that we’ve been having a good crisis in the same way that Switzerland has,” he says. “There have been some fairly major layoffs in recent years, in particular the closure of a big Pfizer research site in Kent. It was a big blow to the synthetic chemistry community around here.”

In academia, Nitschke says, research funding has undergone cuts, especially in the physical sciences and engineering. “That has made it harder to get grants,” he says. And the situation is not any better in industry. “There have been layoffs here,” Nitschke says. The laid-off scientists, he adds, “are still to some degree saturating the job market.”

Nitschke predicts that the lost jobs may be slow to return. “My sense is that the real opportunities for economic growth are probably less in the mature economies of Europe and the U.S. and much more so in places like China, India, and Brazil,” he says.

Nevertheless, Europe continues to attract U.S. chemists, especially because of the trans-Atlantic similarities in the cultures. Many U.S. expats come to Europe by way of a Ph.D. program or a postdoc—one of the best ways, they say, to get a foot in the door.

Victoria Campbell moved to England in 2006 to complete her Ph.D. in Nitschke’s lab at Cambridge. Now a researcher at the National Center for Scientific Research (CNRS) in Paris, Campbell says that completing her Ph.D. in the U.K. and her postdoc in Paris was critical to getting a full-time position in France.

She says that living in France for two years during her postdoc gave her the opportunity to learn the language and the culture.

Nitschke agrees that doing a Ph.D. or postdoc in Europe helps in getting a position there, but he adds that it's not a requirement. If a job seeker doesn't have experience abroad, he says, an alternative is to "demonstrate some clear evidence that you can adapt to new situations and new ways of thinking and bend with the cultural currents as opposed to snapping in them."
U.S. chemists working in Europe say the experience of going abroad is worth the effort it takes to land a job there. "It's a totally eye-opening and mind-opening experience," says Siegel. "Once you leave the U.S. and you work in a foreign country, your whole world opens up."

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ACS International Chemical Sciences Chapter Annual Reports

ACS Hong Kong

International Chemical Sciences Chapter

2011 Annual Report

David Lee Phillips

Description of Chapters Structures, Activities and Programs Relating (where relevant) to:

- Scientific Events:

Logistics and support were given for several seminar speakers visiting Hong Kong to present scientific talks at some local universities.

- IYC Activities and IYC Legacy Plans:

We have joined a Committee of International Year of Chemistry 2011-Hong Kong that is organizing and coordinating efforts across different chemistry related organizations in Hong Kong:

- ACS Hong Kong Chapter
- Hong Kong Chemical Society
- Education Bureau of Hong Kong
- Hong Kong Education City
- Hong Kong Association for Science and Mathematics and
- University of Hong Kong
- Chinese University of Hong Kong
- Hong Kong University of Science and Technology
- City University of Hong Kong
- Hong Kong Polytechnic University
- Hong Kong Baptist University

Note: Professor Pauline Chiu was one of the Co-Chairs of the Committee of International Year of Chemistry 2011-Hong Kong

Our ACS Hong Kong Chapter has contributed a number of materials to the IYC 2011 activities in Hong Kong like the IYC 2011-Hong Kong website, posters and public talks.
The opening ceremony for IYC in Hong Kong (this was done in conjunction with an annual Chemistry Olympiad for local undergraduate university students) was covered and reported in Chemical and Engineering News and a copy of the article is given in the picture section. The picture section also shows the IYC Hong Kong website.

The ACS International Hong Kong Chapter helped sponsor an International Speaker to visit Hong Kong in October 2011 to give a series of public talks and demonstrations as part of a Chemistry Week celebration of the International Year of Chemistry in Hong Kong.

Many of the materials developed and used during the IYC 2011 in Hong Kong will be used in the future.

- Interactions with Industry and Higher Education:

The chapters officers and some other ACS members in Hong Kong participated in several IYC 2011 events done in Hong Kong this past year in higher education venues (please see some of the activities listed in the IYC 2011 section of this report).

- ## Gender, Educator and Student Participation:

Administer the ACS U.S. National Chemistry Olympiad Exams in Hong Kong

48 secondary school students took the first exam in 2011 and 2 students did the second exam including the laboratory portion.

- ## Outreach and Interactions with Community Groups:

Promotion and awareness of chemistry and science and working with other chemical science organizations in Hong Kong and the region to foster chemistry. Examples his past year include:

a. Development of bilingual (English and Chinese) posters for public display in collaboration with ACS Hungarian International Chapter and Chinese affiliated Chemical Societies. These posters have been used for a number of poster displays at secondary schools in Hong Kong.

b. Dissemination of educational materials from ACS to local organizations for IYC 2011 events in Hong Kong.

- ## Recognition and Awards:

N.A.

- ## Leadership Development:

During the October 2011 visit of Francisco Gomez from ACS, he introduced new materials available for the International ACS Chapters to use for Leadership Development including training programs operated by ACS.

- ## Fundraising:

A private one-off donation was obtained to help support a visit by an overseas speaker for public talks for the IYC 2011.

Other:

- Meetings Held During the Year:

- Photographs of Events:

Opening Ceremony for IYC 2011 in Hong Kong:

IYC 2011 Hong Kong Website:

Poster Display at a Hong Kong Secondary School:

- ## Projected Activities For Next Year:

The ACS Hong Kong International Chapter will continue many of the activities done this year in the coming year such as:

a. Dissemination of educational materials from ACS to local organizations as needs and opportunities arise.
b. Make Technology Milestone English/Chinese Poster Displays available for secondary schools and other venues as opportunities and requests are made.
c. Administer the ACS U.S. National Chemistry Olympiad Exams in Hong Kong as requested by local schools
d. Provide logistics and support for some seminar speakers visiting Hong Kong to present scientific talks at some local universities as requested or when opportunities arise.
e. Interact with other local chemistry organizations to promote science and chemistry as opportunities arise.

- ## Chapter Officers and Contact:

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Email: Phillips@hku.hk
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Secretary/Treasurer: Professor Pauline Chiu
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Shanghai International Chemical Sciences Chapter 2011 Annual Report

Minmin Wang

Description of Chapters Structures, Activities and Programs Relating (where relevant) to:

The chapter was officially approved by ACS in April of 2011. However, it has been a challenging year for the chapter to establish a formal presence due to difficulty in setting up not-for-profit organization in China. The initial chapter officers have done the due diligence and decided that the chapter will organize events and activities as informal social group for the future.

A LinkedIn group for the chapter was created and attracted members currently in the region. The chapter was unable to attend the networking opportunity during the fall national meeting due to the time difference.

The chapter continues to face the challenges of differentiation and identity. The lack of stable advisory board and financial support make it very hard to organize activities and create awareness of the group. In order to sustain the chapter's future success, we would pledge the International Activity Committee to provide material support for the next two years to help the chapter grow and stabilize.

- Scientific Events:

Not started yet due to lack of fund.

- IYC Activities and IYC Legacy Plans:

No activities planned due to the lack of fund.

- Interactions with Industry and Higher Education:

1 network activity organized in December of 2011 with local chapter members from Universities, contract research organizations, industry and local business development.

2011 Dec 17
Networking Roster

- Gender, Educator and Student Participation:

- Outreach and Interactions with Community Groups:

1) Cooperated with Shanghai Concordia International School (Elementary, 3/4th grader community) to present and demonstrate the use of scientific method in Science experiment.

- Recognition and Awards:

Not started yet.

- Leadership Development:

Not started yet.

- Fundraising:

Not established yet due to the lack of mechanism to setup a bank account for the chapter in Shanghai.

Other:

- Meetings Held During the Year:

1) Meeting with ACS international chapter officer Francisco Gomez in September of 2011 to discuss the logistics for the chapter operation and activity planning.
2) Shanghai chapter meetings
    a. Monthly meetings of the chapter officers
3) Other meetings:
    a. Meeting with Chinese Chemical Society and CAS on possible cooperation in 2011 – Prof. Zhigang Shuai (CCS) and Qiong Yuan (CAS).

- Photographs of Events:

- Projected Activities For Next Year:

1) 1 scientific meeting
2) Community outreach – awareness of chemistry at Elementary schools

- Chapter Officers and Contact:

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Jianhua Yao, Ph.D., co-Chair, yaojh@mail.sioc.ac.cn
Chaoyu Xie, Ph.D., Treasure, xiech@lilly.com
Andrew Feng, Ph.D., Secretary, Andrew.feng@roche.com

Annual Report - Saudi Arabian International Chemical Sciences Chapter

Abdullah M. Al-Ghamdi

12/31/2011

2012 CHAIRMAN
AMIN N. AL-NASSER

Yousef Al-Marzooq
(Chair-Elect)

Maher M. Shariff
(Publicity & Event Director)

Abdullah Al-Ghamdi
Past Chairman

Mansour Al-Lahiani
(Treasurer)

Abdullah Al-Dhuwaihi
(Special Event Director)

Mohammad Siddiqui
(Membership Director)

Saleh Al-Ammari
(Trip Director)

Farhan Al-Shahrani
(Speaker Director)

Abbas Al-Ghamdi
(2013 Chemidex Chair)

Sowelim Al-Shamrie
(Community & outreach Director)

Ibrahim Al-Zahrani
(Sponsorship Director)

Basheer Chanbasha
(Newsletter Director)





2011 BOD Members

LAB 2011 TECH
www.lab-tech.info

This year 2011, every Board of Director member plays a significant role in supporting the society to achieve its goals through handling specific and measurable activities related to organizing conferences, conducting monthly dinner meetings, developing outreach program, organizing In-Kingdom and OOK trips for members and their families. The outcome of these activities have great benefits which include providing technical and social forums for local chemical professionals to meet and exchange ideas, promoting awareness among students and the community-at-large of how our daily lives benefit from chemistry, and enhancing member areas of expertise, and finally helping networking with the leading professionals in their fields.


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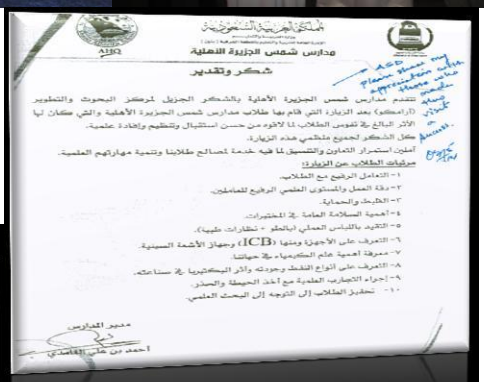

مدارس شمس الجزيرة الأهلية

شكر وتقدير

تتقدم مدارس شمس الجزيرة الأهلية بالشكر الجزيل لمركز البحوث والتطوير (أرامكو) بعد الزيارة التي قام بها طلاب مدارس شمس الجزيرة الأهلية والتي كان لها الأثر البالغ في نفوس الطلاب، لما لاقوه من حسن استقبال وتنظيم وإفادة علمية.

خلال الشكر لجميع ملحوظ هذه الزيارة.

أملين استمرار التعاون والتنسيق لما فيه خدمة لمصالح طلابنا وتنمية مهاراتهم العلمية.

مرئيات الطلاب عن الزيارة:

١- التعامل الرفيع مع الطلاب.
٢- دقة العمل والمستوى العلمي الرفيع للعاملين.
٣- الطرق والحماية.
٤- أهمية السلامة العامة في المختبرات.
٥- التقيد بالباس العملي (بالمعلم - نظارات طبية).
٦- التعرف على الأجهزة ومنها (ICB) وجهاز الأشعة السينية.
٧- معرفة أهمية علم الكيمياء في حياتنا.
٨- التعرف على أنواع النفط وجوده وأثر البكتيريا في سناعته.
٩- إجراء التجارب العلمية مع أخذ الحيطة والحذر.
١٠- تحفيز الطلاب إلى التوجه إلى البحث العلمي.

مدير المدارس

أحمد بن علي الغامدي

شهادة شكر وتقدير

Scitech سايتك

يتقدم مركز سلطان بن عبد العزيز للعلوم والتقنية (سايتك)
بالشكر والتقدير ،

ثامر محمد

على مشاركته الفعالة في المهرجان الوطني الثالث للعلوم والتقنية
سايتك خلال الفترة من ٢٠١١/٠٥/١٧م وحتى ٢٠١١/٠٥/١٩م


Saudi Arabian International Chemical Sciences
Chapter of the American Chemical Society
ORGANON 2011
FROM THE CHAIR
Join us Now! www.saicsc-acs.com
Abdullah M. Al-Ghamdi
FROM THE DIRECTOR
Dr. M. N. Siddiqui


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Dr. M. N. Siddiqui


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د. العبيد: ابتكار التقنية حولت الصناعات الكيميائية إلى عالمية رائدة

● شذى العقيب — الدمام

عقد الفرع السعودي الدولي لعلوم الكيمياء التابع لجمعية الكيمياء الأمريكية اجتماعه الفني الشهري مؤخرا في فندق الميريديان. وقدم الدكتور عبدالرحمن العبيد نائب الرئيس التنفيذي للتقنية والابتكار في الشركة السعودية للصناعات الأساسية (سابك) عرضاً توضيحياً فنياً في تلك الأمسية جاء بعنوان «الصناعات الكيميائية في الشرق الأوسط: مواجهة التحديات بابتكار التقنية» تحدث فيه عن قاسم مشترك خاص بين الشركات الرائدة في هذا المجال حققته خلال مسيرة نجاحها ألا وهو التركيز على بناء ثقافة ابتكار منفتحة تراعي قيم الاستدامة بشكل خاص.

الدكتور عبدالرحمن العبيد مع منسوبي الفرع السعودي الدولي لعلوم الكيمياء (اليوم)

وقال الدكتور العبيد في العرض التوضيحي إن ثقافة ابتكار التقنية حولت العديد من الصناعات الصغيرة والمتوسطة إلى صناعات عالمية رائدة، وأضاف أيضاً: إن العناصر الأساسية اللازمة لدفع عجلة الابتكار والنمو في الشرق الأوسط تشتمل على منظومة متكاملة للصناعة بجميع مراحلها وعلى المشاريع الريادية والاستثمار في الأبحاث والتقنية ورؤوس الأموال الجريئة وتشتمل أيضاً على بناء ثقافة الابتكار والاستدامة. وركز الدكتور العبيد في وجهة نظره على أن الاتجاهات المؤثرة – مثل الاستدامة – في ظل صناعة اليوم الحاضر تعتبر دائماً فرصاً لنمو التقنية والأعمال. وأشار الدكتور العبيد إلى أنه إضافة إلى الأعمال المعتادة يمكن بناء صناعة جديدة في الشرق الأوسط من خلال استخدام المواد المتجددة وإعادة التدوير.

محاضرة كيميائية: التقنية تحوِّل الصناعات الصغيرة إلى صناعات عالمية

الدكتور عبدالرحمن العبيد، يتوسط عدداً من أعضاء فرع الجمعية

الظهران - فيصل مليباري

استضاف الفرع السعودي الدولي لعلوم الكيمياء التابع لجمعية الكيمياء الأمريكية نائب الرئيس التنفيذي للتقنية والابتكار في الشركة السعودية للصناعات الأساسية (سابك)، الدكتور عبد الرحمن العبيد، في اجتماعه الفني الشهري الذي أقيم، مؤخراً، في فندق الميريديان. وكان الدكتور العبيد قد قدم عرضاً توضيحياً فنياً في تلك الأمسية جاء بعنوان «الصناعات الكيميائية في الشرق الأوسط: مواجهة التحديات بابتكار التقنية» تحدث من خلاله عن قاسم مشترك خاص بين الشركات الرائدة في هذا المجال حققته خلال مسيرة نجاحها ألا وهو التركيز على بناء ثقافة ابتكار منفتحة تراعي قيم الاستدامة بشكل خاص. وقال الدكتور العبيد في العرض التوضيحي إن ثقافة ابتكار التقنية حوّلت العديد من الصناعات الصغيرة والمتوسطة إلى صناعات عالمية رائدة، وأضاف أيضاً إن العناصر الأساسية اللازمة لدفع عجلة الابتكار والنمو في الشرق الأوسط تشتمل على منظومة متكاملة للصناعة بجميع مراحلها وعلى المشاريع الريادية والاستثمار في الأبحاث والتقنية ورؤوس الأموال الجريئة وتشتمل أيضاً على بناء ثقافة الابتكار والاستدامة.

وركز الدكتور العبيد في وجهة نظره على أن الاتجاهات المؤثرة -مثل الاستدامة- في ظل صناعة اليوم الحاضر تُعد دائماً فرصاً لنمو التقنية والأعمال. وأشار الدكتور العبيد إلى أنه إضافة إلى الأعمال المعتادة يمكن بناء صناعة جديدة في الشرق الأوسط من خلال استخدام المواد المتجددة وإعادة التدوير.

وفي ختام اللقاء الذي حضره 200 من أعضاء فرع الجمعية، قدّم رئيس الفرع السعودي الدولي لعلوم الكيمياء التابع لجمعية الكيمياء الأمريكية، الأستاذ عبدالله الغامدي، هدية تذكارية للدكتور العبيد تقديراً لجهوده ■

Experts call for more work to develop chemical industry

Honor Abdullah Al-Ghamdi, chairman of the Saudi Arabian International Chemical Sciences Chapter of the American Chemical Society, presents a memento to Abdullatif Al-Othman, Saudi Aramco senior vice president (finance), during a technical dinner in Al-Khobar, recently. (Courtesy photo)

FAISAL ABU BAKR PONNANI

AL-KHOBAR: Saudi chemical scientists have said that industry in the Kingdom must conduct deep studies and experiments in the pure sciences to improve the quality of human life and the environment. Members of the Arabian International Chemical Sciences Chapter of the American Chemical Society discussed their concerns at a meeting here recently.

Abdullatif A. Al-Othman, Saudi Aramco senior vice president (finance), said there is also great value in the history of chemical sciences because young Saudis can profit from its lessons from the first golden age of Islam and the Arab World.

The future is also promising, he said, expressing appreciation for King Abdullah's efforts to invest in education in the Kingdom, which he said is essential to ensure that young people can get good jobs.

> With a large population bulge entering the job market, the Kingdom needs more than ever to create meaningful job opportunities.
>
> **Abdullatif A. Al-Othman**
> Saudi Aramco Senior Vice President (Finance)

"With a large population bulge entering the job market, the Kingdom needs more than ever to create meaningful job opportunities," he said. "With the public sector able to accommodate only a small percentage of the jobs needed, the private sector has to be an engine of the job creation. By 2030, there will be ten million people in the labor force, more than double the number from the most recent official statistics of 2009."

Companies in the region can do a lot more to boost the chemical business, he said.

"Despite of the chemical business we already have, and despite Saudi Arabia and the Gulf region's having tremendous comparative advantages in producing oil and gas, which are the precursors of many chemicals, we have not nearly realized our potential," he said. "The GCC countries carry 35 percent of the world's proven oil reserves and almost a quarter of gas reserves. The GCC currently produces more than 20 percent of the world's crude oil and nearly 10 percent of its gas, but the GCC share of global chemical production is only 1.5 percent.

"Compared with either reserves or current output of oil and gas, our performance in manufacturing chemicals has a long way to grow, especially in the areas of specialties, pharmaceuticals, and life-science products. Our nation and our region have a strong foundation for the chemical industry, but there is a tremendous amount of unrealized potential, especially with much more sophisticated, higher-value chemical products."

Within the next two years, Saudi Aramco will begin independently marketing high-value chemicals and within the next decade, it aims to establish itself in the top tier of the global chemical business, he said.

– Saudi Gazette

Monthly Technical Dinner Meetings

The society has managed this year to bring corporate members, renowned national and international experts talking about different topics of members' interests, including the challenge of producing more value chemicals from oil and gas, new technologies, and success stories of research and development in the upstream and downstream fields. This has offered the society's members to interact with experts in different fields that support oil & gas, and petrochemicals.

- **January 23, 2011**
  - **Title:** "Energy Technologies for a Carbon Constrained World"
  - **Presenter:** Prof. Ahmed Ghoniem, Century Energy Center, MIT

- **February 27, 2011**
  - **Title:** "Ma'aden Delivering Growth in Mining and Downstream Industries"
  - **Presenter:** Eng. Mohammed Bajba, Deputy Executive Director, Saudi Arabian Mining Company (MA'ADEN)

- **March 27, 2011**
  - **Title:** "Middle East Chemical Industries: Rising to the Challenge Through Technology Innovation"
  - **Presenter:** Dr. Abdulrahman Al-Ubaid, Executive Vice President for Technology and Innovation, SABIC

- **May 10, 2011**
  - **Title:** “Suzuki Coupling Reaction: The Recent Progress”
  - **Presenter:** Prof. Akira Suzuki, Professor Emeritus, Hokkaido University Sapporo, Japan

- **May 31, 2011**
  - **Title:** “Growing the Saudi Knowledge Economy and Chemicals Industry”
  - **Presenter:** Mr. Abdullatif Al-Othman, Senior Vice-President, Engineering & Project Management, Saudi Aramco

- **September 18, 2011**
  - **Title:** “Emerging Trends and Technologies in Exploiting Quality (Seawater and Wastewater Effluent) Sources for Drinking Water”
  - **Presenter:** Prof. Gary Amy, Director, Water Desalination & Reuse Center, KAUST, Saudi Arabia

- **November 27, 2011**
  - **Title:** “Technology Development at the Saudi Aramco Research & Development Center”
  - **Presenter:** Dr. Omar Abdul-Hamid, Manager, Research & Development Center, Saudi Aramco

2011 LABTECH Conference

The 2nd International Laboratory Technology Conference & Exhibition (LABTECH 2011) was held during October 8-12, 2011 at the Ritz-Carlton Hotel, Doha, Qatar. The conference was organized by the Saudi Arabian International Chemical Sciences – a Chapter of the American Chemical Society.
The conference was held under the patronage of H.E. Sheikh Khalifa bin Jassim Al-Thani, Board Chairman of Qatar Chamber of Commerce and Industry. The theme of this Conference and the Exhibition is “Advanced Technology Solutions for Laboratory Management”.

The conference had grand opening ceremony on October 10, 2011. The ceremony became more august and auspicious with the presence of H.R.H. Prince Saud bin Khalid Al-Saud, Deputy Governor of Investment Affairs and President of the National Competitiveness Center (SAGIA), Mohammed Al-Omair, Vice President, Refining & NGL Fractionation (Saudi Aramco), Dr. Naji Al-Mutairi, Director General, Kuwait Institute for Scientific research (KISR), Dr. Nancy Jackson, President of American Chemical Society, and other officials and dignitaries.

The conference attended more than 400 scientists and engineers from the GCC, Middle East, Europe, USA, Canada, and Asia. Delegates participated in four short courses offered by the LABTECH related to: 1) Risk Assessment Process at Laboratories, 2) Transportation Fuel Quality and Vehicle Workshop, 3) Qualification and Validation of Laboratory Instruments and 4) Fundamentals of Lab Management for New Supervisors. The conference brought together regional, national and international experts in all aspects of laboratory operation, including new techniques, work force development, Quality, Health, Safety and Environment Management. The conference aimed to offer a floor for all delegates to interact with subject matter experts from testing and calibration laboratories supporting oil & gas, petrochemical, and water industries; in addition to meeting with scientists, engineers, academicians and technologists from all over the world.
The conference provided a platform for panel discussion under the title, “New Horizons towards Laboratory Automation and Quality Assurance”. This discussion touches most pressing issues facing the laboratory management and adopting a structured approach towards solving the increasingly complex product quality issues faced by refiners today. Discussions also included redefining the standards that can help a laboratory to improve its performance and new areas for future collaboration and technology transfer. An exhibition has been held alongside the conference that involved leading companies showcasing the latest state-of-the-art instruments for testing crude and refined products.

SAICSC-ACS, on the sideline of LABTECH-2011 celebrated the International Year of Chemistry 2011 (IYC) by organizing a very outstanding ceremony on the evening of October 11th. The ACS President Dr. Nancy Jackson spoke at length dwelling at the issues pertaining to chemistry professionals. She appreciated the efforts of the SAICSC-ACS in promoting chemical science in the region. She was very much appreciative of the outreach program of the SAICSC-ACS for school children. As a mark of IYC-2011 celebration, SAICSC-ACS recognized several individuals, male and female, for their services to the chemical sciences in the Kingdom of Saudi Arabia and presented them citations and mementos of appreciations.

International Year of Chemistry (IYC-2011)

One of the major achievements of this year is celebrating the International Year of Chemistry (IYC-2011) which is a world-wide celebration of the achievements of chemistry and its contribution to the well-being of human kind.
It has been organized by the United Nation Science Agency and International Union of Pure and Applied Chemistry under the unified theme "***chemistry our life – our future***".

We are so believers about the important role of chemistry in our life, and to anchor this believe, we have organized school visits to S. Aramco R&DC where students are amazed by the chemistry experiments that prepared for them.

We participated also in the 3rd National Festival of Science and Technology at SciTech Center where we explained to students what is chemistry and its application in our home, in our industry, and in our transportation. We have wonderful job in demonstrating to students what chemistry is involved by conducting small lab experiments which resulted in instilling in our young generation the important of chemistry and the glory future of chemists.

The efforts have been exhibited during these mentioned events by the CY support team, were highly appreciated by the management of Ministry of Education and SciTech as shown below.

Part of our efforts to make the Year of Chemistry a memorial and unique occasion, we have recognized individuals from Saudi Universities, Saudi Aramco and Ministry of Education who have played an outstanding role in the field of chemistry under the patronage of His Royal Highness, Prince Saud Bin Khalid Al-Faisal, the honorary member of our society who has demonstrated his keen interest and support for the society and shared his views on the important role that Saudi Aramco technical societies play in fostering knowledge, supporting the professional and personal growth of its members.

Membership Program

The society achievements at local and international levels have attracted more professionals to join the society which brought the number of members to more than 750. Members are a diverse group of professionals who represent a variety of organizations. We believe in the power of diversity, because each society member's unique background and life experiences add great value to our society.

SAICSC-ACS Membership Portal Enhancement

SAICSC-ACS Membership portal was enhanced to handle easy online registration and accept online payment. This portal was developed to provide a central communications hub in order to track the number of members, send mass emails, announcements and issue required reports and statistics.

SAICSC-ACS Website Content Management and Forum

SAICSC-ACS continued enhancing the society website (www.saicsc-acs.com) to improve the communication and collaboration between the society's members and

Board of Directors. A new website content management was installed to make sure that all contents up to date.

Society Newsletter “ORGANON”

The society has several channels of communication with its members through an interactive website and issuing quarterly society newsletter called “ORGANON” as part of our great efforts to foster better understanding and escalating the attention to chemistry science. We appreciate the society's members' feedback and the ideas our members bring to the table and in fact we consider it as powerful role models and have potential for a profound additional impact based on their personal experiences.

Out of Kingdom Trip

Taking into consideration that family is the most important unit of our society and plays an essential role in fulfilling the emotional and physical needs of individuals, which is required for achieving economic and social development.
As part of our social activities program for this year, we organized an out of Kingdom trip to Turkey for our society members and their families.

Appreciation Letters

Four appreciation letters were received from the ACS President, Dr. Nancy Jackson highlighting her excellent impression and her admiration of what has been achieved during the conference days and the society efforts toward promoting the advancement of the chemical sciences within Saudi Aramco through organizing conferences, technical exchange meetings and outreach programs.

Activities in Publication

Some of our achievements this year have been published in the newsletters.

Annual Gathering

The 2011 SAICSC-ACS Annual Gathering was held on December 28, 2011 at Le Meridian Hotel, Khobar and attended by around 290 persons. It was held under the patronage of His Royal Highness, Prince Saud Bin Khalid Al-Faisal, the honorary member of our society and the chairwomen of LABTECH conference Dr. Meena Marafie, Manager, Petroleum Refining Department (KISR), Kuwait. The gathering also attracted different executives from Saudi Aramco and major local companies, SAICSC-ACS board of directors, and society members.

The agenda of this gathering included a presentation by the SAICSC-ACS chair Mr. Abdullah Al-Ghamdi highlighting the main accomplishments and achievements during the year 2011. Followed by a recorded video tape for the ACS president Dr. Nancy Jackson expressing her gratitude for: 1) our chapter's remarkable activities to raise the profile of chemistry science in Saudi Arabia as well as in the Gulf region, 2) the extraordinary efforts in delivering a world-class scientific conference (LABTECH-2011), and 3) the most memorable celebration of International Year of Chemistry (IYC-2011).

A video tape has been delivered to the audience highlighting to them the major chapter's activities during the year 2011. It was well received from all the attendees. Nobody denies that our local sponsors are real partners in our success stories. The gathering was a chance to recolonize them and express our sincere appreciation for their continuous support which has played an important role of achieving the society objectives.

In summary, exceptional achievements have been realized for the chapter this year by everyone's participation and contribution to the society's activities which made this year remarkable and extraordinary. I strongly believe that 2011 will be a remembered year due to the successes that we all achieved by our collaboration and dedication. I would like to clarify that all what have been achieved this year went through hard work and everyone had done an outstanding job and I am proud of the Society Board of Directors and their support teams.

Thank you and best regards,

Abdullah Al-Ghamdi
12/31/2011

ACS Visa Statement 2011-2014

ACS Chemistry for Life®

Public Policy Statement
2011-2014

VISA RESTRICTIONS AND SCIENTIFIC PROGRESS

The American Chemical Society (ACS) supports visa policies that facilitate scientific education and exchange and welcome foreign scholars, students, scientists, and engineers. This includes timely and reasonable screening processes for visits, greater transparency of the application process, and the issuance and management of visas that are more congruent with the purpose of academic study and scientific exchange.

International scientists and engineers have been essential to the research enterprise and prosperity of the United States. Half of all physical sciences and engineering graduate students come from other nations, and the technological achievements of these visitors contribute immensely to our nation's economy, national security, public health, higher education, and scientific enterprises.

Despite continuing improvements to the U.S. visa system, barriers and inefficiencies remain, and ACS recommends the following improvements to the approval process:

1. IMPROVE THE FLEXIBILITY OF VISA ISSUANCE

- **Extend the duration of the Visas Mantis security clearances for international scholars and scientists to match the length of their academic appointment and allow a multiple-reentry clearance option for those interested in attending scientific meetings in the United States.** Further extension of the security clearance would be comparable to that already provided for international students and would prevent redundant security checks that can waste resources and cause unnecessary delays and hardships.

- **Improve the predictability and time required for processing visa applications for scientists traveling to participate in technical meetings and related events.** These meetings are a crucial component of scientific exchange, and despite improvements to the visa process, scientists have had to cancel travel plans and turn down invitations to the extent that some international conferences have moved out of the United States. Special attention should be paid to improving the timely processing of visa applications for third country nationals — often among the best and brightest attendees.

- **Allow re-entry for foreign students following approved travel to either home or to a third country, or, alternatively, allow visitors with active student status to initiate visa renewal from within the United States.** While the F-1 student visa allows individuals to remain in the United States past the duration of their visas as long as they maintain student status, they must reapply for a visa if they leave the United States, even for academic work or a family emergency. The chance of denial and time needed for processing often keep students in the United States out of fear of significantly disrupting their studies as they wait to reenter.

American Chemical Society, 1155 Sixteenth Street NW, Washington DC 20036, 202-872-4386, www.acs.org/policy

- **Amend inflexible requirements that lead to frequent student visa denials.** The Immigration and Nationality Act of 1952 currently places too much emphasis on residence and employment in the home country as evidence of student applicants' intent and ability to return home after completing their studies. The application process should place greater emphasis on the academic intent of the student visa applicant and financial means to complete a course of study in the United States.

2. IMPROVE THE TRANSPARENCY OF THE VISA PROCESS

The visa process should be as accessible, predictable, and respectful as possible.

- The Department of State should develop a system that allows visa applicants to track the status of the visa in real time.

- Applicants whose visas have been denied should receive a timely opportunity to appeal the decision and correct any deficiencies in their application. Visa denials should be issued with an explanation of the reason for the denial.

- The Technology Alert List that triggers the Visa Mantis process is not necessarily the most current or technically informed list, which can lead to the unnecessary flagging of some applications for Visa Mantis. While the list is not available for public comment, it should be reviewed regularly for technologies that are not classified and can be easily obtained through other channels.

- Government officials involved in the process of granting visas should be trained to assure the best possible understanding of the purposes of international scientific travel and study.

3. DEVELOP A NATIONAL STRATEGY

A national strategy should be developed to promote academic and scientific exchange and encourage international students, scholars, scientists, and engineers to pursue higher education and research opportunities in the United States.

The visa system should maintain our national security and interests by preventing the entry of those who pose a threat to the United States and encouraging the entry of the brightest and most qualified international students, scholars, scientists, and engineers to participate fully in the U.S. higher education and research enterprises. Such a system would foster American scientific and economic competitiveness.

We commend the federal government for the improvements made to the visa system to date, and we look forward to continuing to work together for these further needed changes.

Council of Graduate Schools Global Summit 2011

SEPTEMBER 26, 2011

Career Outcomes for Graduate Students: Tracking and Building Pathways

Hong Kong

Increasingly, graduate institutions from around the world are seeking to enhance the professional skills and career outcomes of Master's and PhD students. Many stakeholders join them in their efforts: national and provincial governments are working to strengthen the link between graduate training and workforce development, and international and local employers are joining national conversations about transferable skills and workforce needs. Most importantly, graduate students in many countries are asking for improved information and support for their career development both inside and outside academe.

These parallel trends have led graduate deans and other senior university leaders to closely follow workforce trends both locally and globally. Many universities have also sought to develop better methods of tracking graduates' career pathways and to develop programs that prepare students to adapt to new and evolving career demands. The Fifth Annual Strategic Leaders Global Summit on Graduate Education, Career Outcomes for Graduate Students: Tracking and Building Pathways, provided an international forum for exploring these efforts and exchanging best practices.

The 2011 Summit addressed a range of important topics:

- National Contexts for Graduate Career Development
- Local methods of tracking career patterns and outcomes
- Development of program missions in relation to careers
- Integrating workforce demands into degree design and evaluation
- Professional development programs that support career progression
- Creating a productive dialogue between universities, government, and industry about workforce demands and trends
- Approaches to global collaboration in career tracking and professional development for graduate students

At the conclusion of the summit, thirty-five participants from 16 countries agreed to a statement of principles to strengthen and create pathways from graduate schools to careers.

Principles and Practices for Building Pathways from Graduate School to Careers

Preamble:
The global knowledge economy is developing rapidly, creating new research networks and structures as well as new career opportunities for (post)graduate students. This evolving environment demands a clearer understanding of the career pathways that future leaders in knowledge-based professions will both pursue and create. Leaders in (post)graduate education have an important role to play in ensuring that academic and professional goals of (post)graduate programs are transparent and complementary. To this end, the delegates for the 2011 Strategic Leaders Global Summit have agreed to the following principles for supporting the career development and lifelong learning of master's and doctoral students.

Principles:

1. (Post)graduate leaders in a broad range of countries must work together to support the public trust in knowledge-based professions. A collaborative effort will help support the recognition of (post)graduate education as the basis of economic progress and development that meets the economic, cultural, and social needs of society. Effective public policy advancing (post)graduate education will be strengthened by active collaboration across nations.

2. Research and advancement of knowledge is at the core of doctoral education. At the same time, doctoral education must be strengthened by the integration of essential transferable skills. Specific skills valued across national and regional contexts need to be articulated, compared, and understood.

3. Universities, graduate schools, and faculty/academic staff must play a key role in ensuring that students are aware of, and prepared for, a wide array of careers in the academic, public, and private sectors. Students should have the opportunity to develop essential transferable skills with the support of appropriate experts, depending on their chosen career pathways.

4. It is important for universities and other stakeholders to expand the capacity to track career patterns and outcomes for (post)graduate students over time. It will be particularly useful to track career outcomes according to a graduate's

    - degree level and type
    - discipline and field
    - the type of global research experiences pursued
    - exposure to transferable skills.

5. Longitudinal data on career outcomes should be used to inform and improve the quality of graduate education and to advance the public good.

6. Direct mentors and supervisors of (post)graduate students are crucial to students' professional development and success. They must receive the information and support needed to prepare students for the wide diversity of careers available to them.

7. (Post)graduate programs and curricula are enhanced by greater awareness of global workforce trends. It is important for (post)graduate institutions to engage students, faculty, and other stakeholders in developing new degree features that respond to changes in global research and careers.

8. (Post)graduate institutions and faculty require a solid understanding of the conceptual and personal skills required to lead and contribute to the global knowledge community. These skills must be deep (within disciplines and fields of research) as well as broad (transferable to a range of professional activities).

US--China EcoPartnership for Environmental Sustainability

May 9, 2011

WEST LAFAYETTE, Ind. - The U.S. State Department is selecting Purdue University to lead one of six U.S.-China EcoPartnerships, which will focus on sustainability issues including environmental challenges posed by alternative energy and climate change in the two countries.

A formal signing ceremony announcing the agreement is planned for Tuesday (May 10) in Washington, D.C., in connection with the third annual U.S.-China Strategic and Economic Dialogue. U.S. Secretary of State Hillary Clinton is scheduled to participate in the signing ceremony.

"The new EcoPartnership will focus on environmental and energy challenges in the United States and China," said Purdue President France A. Córdova. "We are looking forward to being an active and leading global player to address these challenges, working with State Department officials, our colleagues in China and our U.S. university partners."

The Purdue-China EcoPartnership, a five-year initiative, will focus on joint research aimed at addressing the combined effects of climate change, renewable energy and human activities on regional and global ecosystems. Research teams also will explore technologies that would aid in restoring damaged ecosystems.

The U.S. partners - the Institute for a Secure and Sustainable Environment at the University of Tennessee, the UT-Oak Ridge National Laboratory Joint Institute for Biological Sciences and Purdue's Center for the Environment - for the past five years have collaborated with the Chinese Academy of Sciences through the China-U.S. Joint Research Center for Ecosystem and Environmental Change, which is led by UT.

"Through this global initiative, we plan to offer joint research projects, academic exchange, student education, and technology transfer and training that includes business development and entrepreneurship," said John Bickham, executive director of the Center for the Environment and U.S. team leader for the Purdue-China EcoPartnership.

The U.S. team will collaborate with Chinese researchers at the Institute of Geographic Sciences and Natural Resources Research, Research Center for Eco-Environmental Sciences, and the Institute of Applied Ecology.

"The University of Tennessee has made it a priority to cut overall energy consumption and foster environmental stewardship on campus," said Jimmy G. Cheek, chancellor of the University of Tennessee, Knoxville. "We are eager to join with others across the nation and the world to share best practices that will have a positive impact on the environment and the economy."

Bickham's counterpart in China for the partnership is Gui-Rui Yu, deputy director and lead researcher at the Institute of Geographic Sciences and Natural Resources Research. Pankaj Sharma, interim managing director for Purdue's Center for the Environment and associate

director of operations and international affairs for Discovery Park, also will be a part of the taskforce established to manage joint research projects.

"By transitioning to the EcoPartnership program, the Joint Research Laboratory on Sustainable Ecosystem will formally interact with and learn from the 13 existing and five other new EcoPartnerships sanctioned by the U.S. State Department and the Chinese National Development and Reform Commission," Bickham said.

The EcoPartnership also builds on a five-year agreement between Purdue's Center for the Environment and the Chinese Academy of Sciences called the China-U.S. Joint Research Laboratory on Sustainable Ecosystem. Through that, Purdue and the Chinese Academy of Sciences' Institute of Applied Ecology are creating programs that offer opportunities for student, scholar and faculty exchange in research and study.

The Purdue-China EcoPartnership's kickoff event, Global Sustainability Issues in Energy, Climate, Water and Environment, is planed for Sept. 26-29 at Purdue as part of the university's Green Week activities.

Purdue's Center for the Environment, located in Discovery Park, is examining how to protect the environment while sustaining a global economy. Researchers are studying ways to model and predict the impact of activity on ecosystems, monitor environmental quality, manage natural resources, and develop technologies that will help create a cleaner environment.

The Chinese Academy of Sciences is a leading academic institution and comprehensive research and development center in natural science, technological science and high-tech innovation in China. It was founded in Beijing in 1949 on the basis of the former Academia Sinica (Central Academy of Sciences) and Peiping Academy of Sciences.

February 5, 2012

U.S. Education in Chinese Lock Step? Bad Move.

By Brian P. Coppola and Yong Zhao

The education systems in China and the United States not only are headed in opposite directions, but are aiming at exactly what the other system is trying to give up.

In the United States, through programs such as No Child Left Behind and Race to the Top, as well as calls for more standardization and accountability in higher education, we are embracing the sort of regimented, uniform, standards-based, and test-driven education that has dominated Asian education systems for thousands of years.

What seems to be underappreciated in this country is how actively the Asian systems are trying to embrace the values and outcomes that we appear to be so willing to abandon: specifically, the American penchant for promoting creativity, individualism, innovation, and nonconformity. In other words, for developing and nurturing the diverse talent that can result from an ethos of coloring outside the lines.

In China obstacles still stand in the way of rapid, comprehensive change, obstacles that are tied to the culture's long history of inflexible, standards-based, test-driven education. Nonetheless, teaching for creativity, innovation, and invention are seen there, as throughout the rest of Asia, as the holy grails of the U.S. education system.

Entrepreneurialism is an easy goal, and more than a few professors in China have been known to say that what is needed is the ability to prepare students who are able to generate more intellectual property for their country. And while many parts of the U.S. college system provide the freedom for this, it is predicated on our core understanding that creativity is more or less an inherent trait, and that what we need to do for our students is to get out of their way, and to provide them with the environment and resources in which they can grow.

Fundamentally, the education system in the United States may be no more capable of actively teaching creativity and innovation than the education system in China is; it may well simply be that the system in China has been more systemically effective at suppressing it. Success may be tied as much to what is not doneavoiding the smothering uniformity of standardizationthan to what is done.

In the United States, we certainly matriculate smart high-school students who are as ready to embrace memorization and regurgitation as their Chinese counterparts (although they are not nearly so good at it). In American higher education, however, at least in the highly social and networked institutions where being part of a residential campus community still characterizes the experience, we intentionally mash students together into multiple, diverse settings. We are good at systematically constructing and providing learning environments where students' inherent, and perhaps dormant, creative and inventive skills can flourish.

China is beginning to understand what our real strength has always been: By embracing a broadly divergent array of knowledge and experience, we bring diverse and unexpected perspectives to any problem or situation, allowing us to adapt rapidly to change. By not

standardizing anything, we end up being able to handle everything.

People who excel in our education system are comfortable with nonconformity. They understand, challenge, and reject the limits of the status quo, and they take risks. These are not easy things to measure, at least not directly, but the effects of their loss would be beyond tragic for our future. Even so, the loss of these high-value intangibles, which are essential capacities for creativity and innovation, is what the United States risks losing in a close-minded, bean-counting approach to accountability.

An appeal to reject standards and standards-based instruction and testing may seem like an invitation to embrace feel-good mediocrity, yet nothing could be further from the truth. By recognizing and finding value in the core principles of a true liberal-arts education, China is seeking to avoid the inherent problems that have accompanied its historic approach to education-problems that the United States is already in danger of adopting.

Regulation to create uniformity in education results in undesirable outcomes, and these are showing up in our classrooms. Deviation from the norm becomes at least undesirable, if not "the wrong answer." Where once we embraced the free thinker, we now seek to correct that person according to a government-dictated knowledge base. Students and parents will routinely reject time that is spent on enrichment for enrichment's sake, particularly on nonutilitarian skills that do not directly and explicitly train for testing relevance, including programs in reading, music, and the arts.

Learning activities that require long-term investment to create integrated and diverse understanding are rejected in favor of those that can result in short-term gains, quick fixes that can result in high test scores tomorrow, even if that information is effectively forgotten the day after tomorrow.

In the United States, we are seeing evidence of an increase in something that the Chinese have long had a name for, and which they can point to and say needs to be rejected: *gaofen dineng*. This term describes the undesirable situation of "high scores with low ability." It's not a new idea. Researchers in the United States are the ones who have studied this the most, and the correlation between high standardized-test scores and shallower understanding has been documented.

Certainly there are students who will do well for the right reasons; however, the education-research community is clear about what China has known for years: *Gaofen dineng* can be an outcome that not only relates to a student's limited understanding, but also has an adverse affect on the entire learning environment, including the performance of teachers who lose their spirit, passing on the inevitable standards of uncontested authority and a regression to mediocrity.

The United States needs to think seriously about and then learn from the changes happening in the Chinese education system. In their enthusiasm to understand and emulate our perceived strengths, our Asian colleagues are holding a compellingly interesting mirror up to us, reflecting exactly those things that have given us a pre-eminent position for so long.

In addition, we need to replace our misplaced enthusiasm for test-based content standards with

understanding, articulating, and measuring the value-added features of the American character that have served us so well for so long.

Here are a few recommendations for the United States in the context of an emergent and increasingly competitive China:

- Resist any temptation to standardize and overly regulate higher education in the name of accountability. For various reasons, including the low employment rate of college graduates, the fraudulent practices of some for-profit higher-education institutions, and reports of low-quality graduates, there is an increasing effort to impose government regulations and external standards upon colleges. These seemingly responsible actions will inevitably bring more regimentation, standardization, and testing, ruining what has made American higher education the envy of the worldand what Asian countries are eager to emulate.
- Incentivize the teaching profession. Even without the social and non-normative skills gained by students educated in the United States, students entering college in China have an inarguably stupendous knowledge base, and this reflects well on their teachers and the corresponding system of teacher education. The United States needs to attract more of our best students into teaching. Even in this era of budget austerity, we need creative, strong, visible, compelling, and cost-effectiveways to make the teaching profession more appealing. One drastic measure would be to make primary and secondary teaching an income-tax-free profession.
- Reintegrate the disciplines and teacher education. Schoolteachers in China receive a high level of discipline-centered education. A system of normal schools, long abandoned by the United States, has grown in China into a set of full-fledged universities where science teaching and science research are done together. While the United States will never return to the normal-school system, some way of putting teeth into the requirement for our disciplinary and education faculties to work together on this problem is needed. To this end, we should simply require, as a condition of accreditation, a meaningful collaboration between college disciplinary units (chemistry, physics, and so on) and schools of education in the early identification, recruitment, and preparation of future teachers, including programs for engaging precollege students and putting them on this path.
- Make higher-education partnerships a priority. In a recent editorial, Stanford University's Richard N. Zare suggests approvingly that "we want China to be an ally, not an enemy." To these ends, the United States should create as many bilateral education collaborations as possible with China, in which educators from both sides spend substantial time teaching in each other's classrooms. Direct experience is an uncompromising teacher.
- Do not forget that the slope of a curve has a magnitude as well as a sign. Only 30 years ago, universities in China reopened after a 30-year hiatus in which higher education itself was held in disdain under Mao's rule. Modern China has emerged from an almost completely agrarian society since then. Not only has change happened, but it also continues to happenrapidly.

As higher education in the United States continues to move toward centralized accountability through a system of standards and testing, which already defines the precollege education system, it risks losing the advantage that it invented. Let's not lose our penchant for questioning

the status quo, for valuing and rewarding those who see things differently and have the freedom and opportunity to tell their story, and for embracing the simple act of rebellion that comes from coloring outside the lines.

Brian P. Coppola is a professor of chemistry at the Universityof Michigan at Ann Arbor and associate director of the UM-Peking University Joint Institute. Yong Zhao is associate dean for global education in the College of Education at the University of Oregon.

Committee Travel Expenses

AMERICAN CHEMICAL SOCIETY

Date: _____

Accounts Payable
COMMITTEE TRAVEL EXPENSE VOUCHER: NON-COUNCILOR

TO: (PAYEE) _____

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ADDRESS: _____

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Special Instructions for mailing of check: _____
(This will not appear on the check)

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FOR ACCOUNTS PAYABLE USE ONLY:		Amount	ACCOUNT DISTRIBUTION			
			Bus. Unit	Account	Dept. ID	Product
VENDOR #						
LOCATION #						
VOUCHER #						
TRIP #						
AUDITED BY:						
MAILED BY						
		$ -	**Total**			

PURPOSE OF TRAVEL:

COMMITTEE: _____

NOTE: PER MEETING REIMBURSEMENT MAY NOT EXCEED $527.50 FOR 2012. SUBMISSION WITHIN 3 WEEKS OF THE MEETING IS REQUESTED.

Note: Internal Revenue Code Regulation 1.274-5 stipulates that no deduction will be allowed for any expenditure for travel or entertainment unless the expenditure is substantiated by inclusion of the location, participants, and business purpose of the expenditure on the request for reimbursement. If not properly substantiated, the expenditure may be considered taxable compensation to the employee.

SUMMARY OF EXPENSES (FROM WORKSHEET-PAGE 2)	
REIMBURSABLE CHARGES	$ -
LESS PERSONAL CHARGES	
SUBTOTAL	0.00
LESS TRAVEL ADVANCE	
BALANCE DUE	$ -

I certify that the expenses claimed on this voucher were incurred by me in connection with travel on ACS business, and that I have not been, nor do I expect to be, reimbursed from any other source for any portion of the net amount claimed from ACS.

If advance exceeds total reimbursable expenses, please attach your check payable to ACS for the balance due. Please include a copy of your travel advance voucher with this travel voucher.

PAYEE SIGNATURE: _____ **PHONE:** _____

PREPARED BY: _____ **PHONE:** _____
(If other than Payee) ***(Print Name/Signature)***

STAFF LIAISON SIGNATURE: _____ **DATE:** _____
(Print Name/Signature)

APPROVAL SIGNATURE: _____ **DATE:** _____
(Print Name/Signature)

The American Chemical Society endeavors to increase and broaden non-councilor attendance and service at council related committee meetings held during the national meeting timeframe. To further this goal, the ACS provides financial support, under the conditions set forth below, for ordinary and necessary transportation, lodging, and meal expenses for non-councilor members, associates, and consultants who request such support associated with their committee attendance and service. This policy for non-councilors is to conform to the established Councilors Travel Reimbursement Program to provide equitable reimbursement of all committee members while keeping travel expenses for ACS governance at a moderate and reasonable level.

The policy requires:

1. **Submitting a request for support.** This should take the form of the following statement:

   "I wish to attend the next American Chemical Society national meeting. Because I shall be involved at the meeting with ACS business, including participation in the meeting of a committee which reports to Council in whole or in part, I request reimbursement through the committee's budget of that portion of my travel expenses necessary for committee business."

   The statement shall be signed by the non-councilor committee member, associate, or consultant, and sent to their respective committee staff liaison at least two weeks prior to the committee meeting.

2. **Filing of the completed ACS travel expense reimbursement voucher**, available from the ACS committee staff liaison, within three weeks of the meeting.

Reimbursement is based on actual cost and covers transportation, lodging, and meal expenses which are ordinary, necessary, and reasonable to support the committee's normal course of business. Full expense documentation consistent with established ACS travel guidelines (for example, traveler's copy of rail or airline ticket, hotel bill, meal receipts, and taxi receipts) is required. This must be filed within three weeks of the meeting to receive reimbursement. Non-councilors are encouraged, as are Councilors, to seek alternative sources (for example, their employer or grant) before requesting support from the Society or its units. Expenses reimbursed from another source are not eligible for reimbursement by ACS.

Reimbursement for attendance at the meeting of a committee that meets at times other than at national meetings is determined by committee or ACS reimbursement policies.