

ACS Engagement: US and European Chemistry Related Collaboration & Exchange

October 23, 2014
Torun, Poland

*Dr. Bradley D. Miller, Director
American Chemical Society
Office of International Activities*

ACS BY THE NUMBERS



>161,000 Members

187 Local Sections

32 Technical Divisions

8 International
Chapters

75% chemistry degree

54% industry

36% academia

24% students

30,000 cumulative
attendance at two
national meetings



>40 peer-reviewed
journals

>1,400 peer-
reviewed,
multidisciplinary e-
books

>38,000 yearly
published articles

70 million article
downloads

300 million annual
C&EN page views



>3.7 billion chemical
property records

>87 million organic &
inorganic substances
in registry

ACS INTERNATIONAL PRESENCE

“The SOCIETY shall cooperate with scientists internationally and shall be concerned with the worldwide application of chemistry to the needs of humanity.” Article II, Section 3, ACS Constitution.



> 24,000
international
members

100+ countries
represented by
members

200 projects/
programs have an
international
component

4,500 yearly
international meeting
attendees



68% of articles are
authored by
international
researchers

117 ACS editors work
outside the U.S.

105 countries had
institutions that
subscribed to ACS
publications



65% of content
originates
internationally

ACS Engagement in Europe



- **Demographics**

- >10,150 ACS members in EUChemS nations
- ~12,000 ACS Journal articles published by authors in EUChemS nations yearly since 2009

- **Chapters, Affiliations and Alliances:**

- ACS International Chapters in Hungary and Romania
- OPCW – Science & Human Rights
- German Chemical Society (GDCh)

- **Activities and Programs:**

- **ACS International Center™**
- **Chemical Sciences and Society Symposia (CS3)**
- **International Research Experience for Students (IRES)**
- **Transatlantic Frontiers of Chemistry (TFOC)**
- **ACS on Campus**
- **ACS Technical Divisions: Intl Meeting Co-organization / Co-sponsorship**
- **ACS Younger Chemists Committee and EYCN**

ACS INTERNATIONAL CENTER™

www.acs.org/ic



Resources: Listings of over 600 scientific collaboration and research opportunities between hundreds of funding organizations across 17 regions worldwide.

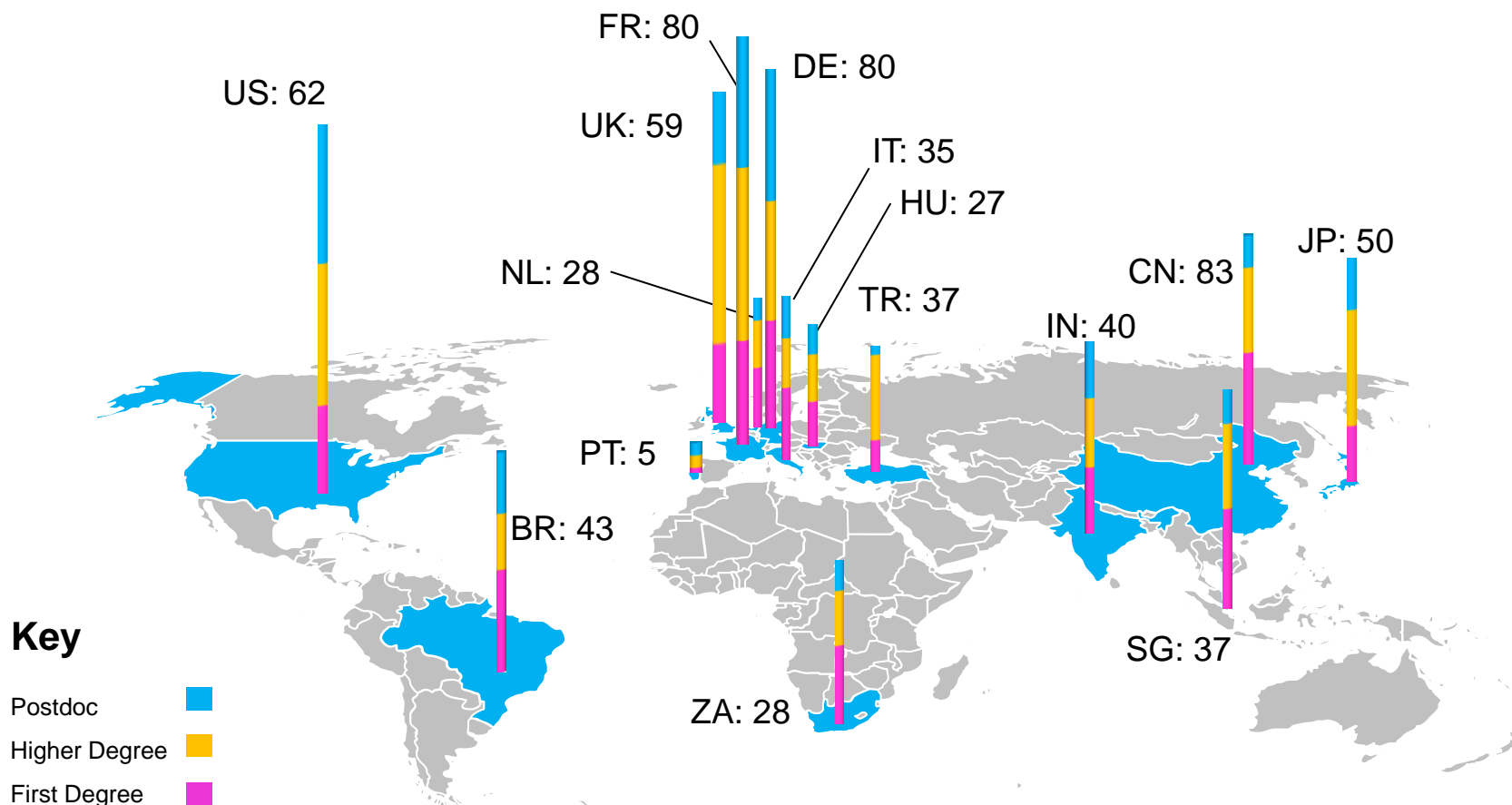
Events: Live and archived webinars from international organizations with tips on when and how to apply for programs and funding.

Connections: Tips on places where you can meet the experts to guide your international career.

News: Sign up for the monthly newsletter containing updates on international programs, events, and resources.

****Networks:** Connecting peers, research mentors, and program officers

The ACS International Center™ offers information about research, exchange and global science funding programs.



Note: Bar height is inclusive of all programs in that country. So, one program that may be applicable to citizens of multiple countries is counted once per each applicable country. Text displays total number of unique programs per country.

Global Affiliates of the ACS International Center

GERMAN CENTER FOR RESEARCH & INNOVATION

Deutsches Wissenschafts- und Innovationshaus



Agentschap NL
Ministerie van Economische Zaken

DFG Deutsche
Forschungsgemeinschaft



Alexander von Humboldt
Stiftung / Foundation

Instituts
thématiques

Inserm

Institut national
de la santé et de la recherche médicale



INSTITUTE OF
INTERNATIONAL
EDUCATION



Chemical Sciences & Society Symposia



- **Aim**
- **Participants**
- **White Papers**
 - Sunshine to Power the World - Germany
 - Sustainable Materials - UK
 - Chemistry for Better Health – China
 - Organic Materials and Carbon Nanostructures – USA
 - The Efficient Use of Elements – Japan

<http://www.acs.org/content/acs/en/global/international/regional/eventsglobal/cs3.html>



•Project Outcome: Annually and with NSF funding, the American Chemical Society (ACS) selects 20-25 talented undergraduate students to participate in 10 weeks of chemistry research in renowned host laboratories in Germany, France, Italy, and the United Kingdom. Over 100 U.S. students who participated from 2007-2014, have produced scientific successes of sufficient strength to warrant a presentation at a national scientific meeting and a few have published their results in peer-reviewed scientific journals. The majority of these participants have gone on to study chemistry in graduate school. The program has also helped place 62 European students in U.S. chemistry sites for the summer from 2007-2014.



•Background & Explanation: The ACS international research experiences for undergraduates (iREU) program funded by the NSF takes a non-traditional approach by yearly connecting 20-25 U.S. chemistry students with undergraduate research experiences throughout Germany; Lyon, France; Glasgow, Scotland; and Perugia, Italy. Additionally, through a reciprocal agreement with ACS partners (DAAD, ECTN), funding from European institutions and organizations is provided for an equivalent number of European undergraduate students to conduct summer research in the U.S. at universities in the domestic Chemistry REU network.

Caption: Three U.S. undergraduate student 2010 American Chemical Society international research experience for undergraduates (ACS-iREU) scholars conducting chemistry research in laboratories in Glasgow, Scotland; Lyon, France; and Perugia, Italy and one German student conducting research in Irvine, CA.



ACS
Chemistry for Life®



ACS
Chemistry for Life®

An Initiative from the American Chemical Society

ACS on Campus

Program Elements

Finding a job

Publishing in top journals

Earning grant funding

Develop effective research skills with SciFinder® and ACS journals

Graduate study abroad in chemistry



La Sapienza, Rome, Italy
March 2012

Who attends

Open to the public, the current menu of modules features content appropriate for:

- Higher-degree students
- Post-doctoral researchers
- PhD-track first degree students
- Faculty
- Non-faculty researchers



Paris 6
October 2013

European Sites

- **University of Münster (Münster, Germany)**
- **La Sapienza (Rome, Italy)**
- **University of Hamburg (Hamburg, Germany)**
- **University College London (London, UK)**
- **University of Edinburgh (Edinburgh, UK)**
- **Trinity College (Dublin, Ireland)**
- **ETH (Zurich, Suisse)**
- **Universite Pierre et Marie Curie (Paris, France)**



Who is Doing What and Where in Chemistry, Chemical Engineering, and Allied Disciplines?



Related Links

[About DGRweb](#)

[Submit Listing for Next Edition](#)

[Planning for Graduate Work](#)

[FAQs](#)

[Committee on Professional Training](#)

[American Chemical Society](#)

[60-Second Survey](#)

Archives

Select Year: **2013** ▼

DGRweb 2013, the searchable online version of the ACS Directory of Graduate Research (DGRweb), is the most comprehensive source of information on chemical research and researchers at universities in North America.

With the DGRweb you can search for faculty, institutions, and research experiences for undergraduates.

[Search for faculty](#) includes specific research area, academic rank, gender, and state, with the search results producing complete contact information for faculty including direct links to faculty email addresses and web pages, when provided.

[Institutional searches](#) provide all departmental contact information along with statistical data (when provided) on the number of faculty and students in the department, and a complete list of faculty active in graduate research including research experiences for undergraduates (when provided).

DGRweb 2013 includes access to the complete [2013](#), [2011](#), [2009](#), [2007](#), [2005](#), [2003](#), [2001](#), and [1999](#) databases.

We would appreciate your taking 60 seconds to [comment](#) on the functionality and ease of use of this newly updated resource.



ACS Directory of Graduate Research (DGR)

DGR web is the most comprehensive searchable online directory of information on chemical research and researchers at universities in Mexico, Canada and the US. With the DGRweb you can search for faculty, institutions, and research experiences for undergraduates.

ACS Directory of Graduate Research

<http://dgr.rints.com/>



- Canada, Mexico and the USA
- 672 academic departments
- 8,542 faculty members
- 65,995 publication citations
- and listings for Chemistry, Chemical engineering, Biochemistry, Medicinal/pharmaceutical chemistry, Polymers and Materials Science, Marine Science, Toxicology, Environmental Science
- You Tube Tutorial -
https://www.youtube.com/watch?v=gXMYACABH_w

<https://www.youtube.com/watch?v=gead1izlHKM>

The Transnational Practice of Chemistry and Allied Sciences and Engineering: Study, Research and Careers without Borders



ACS National Meeting in Denver, CO USA

March 22, 2015

8:00am-12:00pm

Experts from industry, academe, and government provide perspectives on the **'global-readiness'** of the STEM graduate in the U.S. and worldwide

Featured speakers include:

Diane Schmidt, ACS President-Elect

Judy Benham, 3M and Former Chair, ACS Board of Directors

Jay Steven Siegel, Tianjin University, School of Pharmaceutical S&T

Joe Francisco, University of Nebraska and ACS Past President

Luis Echegoyen, University of Texas El Paso and Director Emeritus, NSF

Deva Hupaylo, Head, Industry Verification Branch, OPCW

Angela Diaz, California Council on Science and Technology





Thank You

Bradley D. Miller, Ph.D.

b_miller@acs.org

www.acs.org/international