The Role of Chemistry in Society

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Questions for the Panel and Audience

- What are the grand challenges in chemistry today?
- Are we prepared and ready to address these challenges?
- Are we likely to succeed in convincing society to support us in addressing the challenges?
- Why should anyone pursue a career in the chemical sciences?
- What are the employment prospects in the chemical sciences?
- What can/should we do to raise the public awareness of the importance of chemistry in daily life?

CHEMISTRY IS THE:

Central Science

Familiar Science

Science of the Familiar

Advancing Chemistry Communicating Chemistry

Presidential Initiatives for 2012

Bassam Z. Shakhashiri 2011 ACS President-Elect

ACS MISSION: To advance the broader chemistry enterprise

and its practitioners for the benefit of Earth and its people.

ACS VISION: Improving people's lives through the transforming power

of chemistry.

Initiative 1: ACS and the Sesquicentennial of the Morrill Land Grant Act

Initiative 2: Blue-ribbon panel to examine purposes of graduate

education in the chemical sciences

Initiative 3: Helping the public understand the *science* of climate change

Initiative 4: ACS High School Teacher Fellowships Program

ACS Presidential Commission on Graduate Education in the Chemical Sciences

The main charge to the Commission will be to address the questions:

- What are the purposes of graduate education in the chemical sciences?
- What steps should be taken to ensure that they address important societal issues as well as the needs and aspirations of graduate students?

ACS Presidential Commission on Graduate Education in the Chemical Sciences

- Dr. William F. Banholzer, CTO, Dow Chemical
- Dr. Jacqueline K. Barton, Professor of Chemistry, Cal Tech
- Dr. Stacey F. Bent, Professor of Chemical Engineering, Stanford University
- Dr. Ronald Breslow, Professor of Chemistry, Columbia University
- Dr. Gary Calabrese, Vice President, Science & Technology, Corning Inc.
- Dr. Pat N. Confalone, Vice President, Global R&D, DuPont, ACS Board of Directors
- Dr. Michael P. Doyle, Professor of Chemistry, University of Maryland
- Dr. Larry R. Faulkner, President, Houston Endowment (Chair)
- Dr. Marye Anne Fox, Chancellor, UC San Diego
- Dr. Joseph S. "Joe" Francisco, Professor of Chemistry, Purdue University, ACS Board of Directors
- Dr. Paul Houston, Dean, College of Sciences, Georgia Inst. Of Tech. (Executive Director)
- Dr. Chad A. Mirkin, Professor of Chemistry, Northwestern University
- Dr. Larry E. Overman, Distinguished Professor of Chemistry, UC Irvine
- Dr. Hunter Ripley Rawlings III, President, Association of American Universities
- Dr. Geraldine Richmond, Professor of Chemistry, University of Oregon
- Dr. Richard H. Scheller, Executive Vice President, Genentech Research & Early Development
- Dr. Joel I. Shulman, Professor of Chemistry, University of Cincinnati formerly at Procter & Gamble
- Dr. Peter J. Stang, Distinguished Professor of Chemistry, The University of Utah
- Dr. Matthew Tirrell, Pritzker Director, University of Chicago Institute for Molecular Engineering
- Dr. George M. Whitesides, Woodford L. and Ann A. Flowers University Professor, Harvard University
- Dr. Mark S. Wrighton, Chancellor and Professor of Chemistry, Washington University, St. Louis

Dr. Mary Kirchhoff, Director, ACS Education Division (Staff Liaison)

Advancing Chemistry Research Education Innovation

Science-rich Sector

Science-poor Sector

Scientific Competence

Scientific Expertise

Science Literacy

Communication

Inform
Engage
Educate
Advocate
Persuade

CONNECTIVITY

Science is Vital to Democracy

"Public sentiment is everything. With public sentiment, nothing can fail; without it nothing can succeed."

>> Abraham Lincoln

"Most of the fundamental ideas of science are essentially simple, and may, as a rule, be expressed in a language comprehensible to everyone."

>> Albert Einstein

WISL Graduate Student Awards to Promote Communicating Chemistry

- All Ph.D. chemistry candidates are encouraged to include a chapter in their Ph.D. thesis communicating their research to non-specialists.
- Cash awards of \$500 will be given to the first 10 individuals whose Ph.D. thesis includes such a chapter.
- The goal is to explain the candidate's scholarly research and its significance to a wider audience that includes family members, friends, civic groups, newspaper reporters, state legislators, and members of the U.S. Congress.
- WISL will assist in the public dissemination of these contributions and will seek to increase the number of these awards.

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