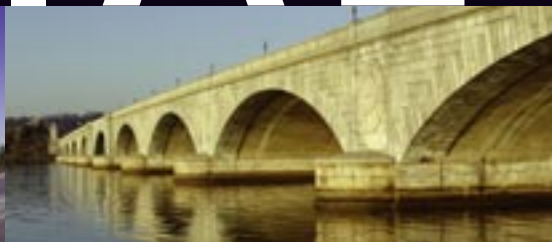


Professional Science Master's **BIENNIAL**



MEETING PROGRAM

SIXTH BIENNIAL

PSM: ADVANCING THE NATION'S COMPETITIVENESS AND INNOVATION AGENDA

November 4 - 6, 2009
**Washington Court Hotel on
Capitol Hill, Washington D.C.**



Many PSM programs have been or are being developed in response to the forces affecting higher education institutions including U.S. competitiveness, globalization, increased federal and state accountability, increased competition for students, and demographic changes in the composition of graduate students. This Biennial Meeting addresses the PSM initiative's response to these forces and considers means for sustaining programs for future growth.

Wednesday, November 4, 2009

6:30-8:00 p.m.

Opening Reception

Rayburn Congressional House Office Building Room B-338

Thursday, November 5, 2009

7:30 a.m.

**Registration
Breakfast**

**Ballroom Foyer
Atrium Ballroom**

8:30 a.m.

Introduction and Overview

Carol B. Lynch, Senior Scholar and Director of Professional Master's Programs,
Council of Graduate Schools

Welcome

Debra W. Stewart, President, Council of Graduate Schools

Ballroom II & III

8:45 a.m.

Plenary I: Enhancement and Expansion of the PSM: National Perspectives

Ballroom II & III

The PSM has moved beyond the proof of concept stage with over 150 PSM programs operating in universities across the country. But scaling up existing programs and developing new ones requires a concerted effort by all stakeholders - policymakers, universities, and employers. Federal leaders have recognized the pivotal role the PSM can play in maintaining our nation's competitiveness, have authorized support for the PSM in the American COMPETES Act, and have included \$15 million in funding in the American Reinvestment and Recovery Act for the creation and expansion of PSM programs. The presenters, all leaders in their respective organizations, will share their views on the role of the PSM in STEM workforce development, how this innovative graduate degree can impact their particular communities, and how it fits into our national innovation strategy.

Moderator: *Don Langenberg*, Chair, CGS PSM Advisory Board, Professor of Physics, and Chancellor Emeritus, University System of Maryland

Remarks: The Honorable *David Wu*, U.S. House of Representatives

Speakers: *Rita Colwell*, Distinguished University Professor, University of Maryland, College Park
and The Johns Hopkins University Bloomberg School of Public Health

Bill Valdez, Director, Office of Workforce Development for Teachers and Sciences,
U.S. Department of Energy, Office of Science

Cornelius Kerwin, President, American University

10:30 a.m.

Morning Break

Ballroom Foyer

11:00 a.m.

**Plenary II: The Role of the PSM in STEM Workforce Development:
View from the States**

Ballroom II & III

To remain competitive in the global economy, the U.S. needs to produce a cadre of well-rounded science professionals with deep knowledge of their subjects and with the workplace skills needed to communicate effectively, manage projects, and solve problems. This session will examine the role of the PSM in several states as academic and legislative leaders work to forge closer collaboration between universities and the business community to promote economic and workforce development and target particular state and regional needs. Presenters will address how they view the PSM as a key component of their state's innovation strategy.

Moderator: *Heather Chikoore*, Policy Specialist, Education Program, National Conference of State Legislatures

Speakers: *Nancy Zimpher*, Chancellor, State University of New York

Mohammad Qayoumi, President, California State University, East Bay

Richard Devlin, Senate Majority Leader, Oregon State Legislature

12:30 p.m.

Lunch (seated at tables by interest area)

Atrium Ballroom

- 2:00 p.m. Contributed Paper Session: Financial Models for Program Sustainability Ballroom II & III**
 An issue that continues to challenge graduate deans and PSM program directors is that of establishing financial sustainability. Vibrant PSM programs require resources adequate to provide a program director, instructional personnel, marketing, support staffing, and participant support. The presenters will describe successful approaches to generating recurring funding for PSM programs such as tuition surcharges and program fees. The impacts of each approach on program viability will be discussed.
- Moderator:** *Greg Buck*, Director, Center for the Study of Biological Complexity, Virginia Commonwealth University
- Speakers:** *David Chapman*, Dean Emeritus, University of Utah, “*Seven Years and Thriving: A Sustainable PSM Program at the University of Utah*”
Jung Choi, Associate Professor and Director of Bioinformatics Program, Georgia Institute of Technology, “*A Differential Tuition Model for Professional Science Master’s Programs*”
- 3:00 p.m. Contributed Paper Session: Ethics and the PSM Ballroom II & III**
 Given the immense pressures associated with professional positions in business and industry, PSM graduates need appropriate training to prepare them for ethical approaches to working in a high pressure environment. The presenters will consider what type of ethics instruction can best prepare PSM graduates for the professional workplace.
- Moderator:** *Julie Funk*, Director, Online Master of Science in Food Safety, Michigan State University
- Speakers:** *Cliff Chancey (Presenter)*, Professor and Head, Physics, and *Donna J. Wood*, University of Northern Iowa, “*Ethics and a PSM Applied Physics Program—Oil and Water?*”
Ching-Hua Wang (Presenter), Special Assistant to the Provost, Director, MS Biotechnology, and *Karol Pessin (Presenter)*, Professor/IP Attorney, California State University, Channel Islands, “*Bioethics Education in Professional Science Master’s Programs at California State University, Channel Islands*”
- 4:00 p.m. Afternoon Break Ballroom Foyer**
- 4:30 p.m. Plenary III: Distinguished Alumni Panel Ballroom II & III**
 Graduates of five different PSM programs will share their experiences as PSM students and describe their professional career pathways. This session will offer real illustrations of how PSM graduates are making valuable contributions to the nation’s prosperity through innovation and leadership.
- Moderator:** *Ed Caner*, Lecturer, Physics and Director, Science & Technology Entrepreneurship Programs, Case Western Reserve University
- Speakers:** *Todd Bridgeman*, Commissioned Officer Corps, National Oceanic and Atmospheric Administration, Oregon State University graduate
Sally Sakelaris, Patent Examiner, United States Patent and Trademark Office, University of Connecticut graduate
Chris Fennig, Director of Professional Services, Odin Technologies, Inc, Case Western Reserve University graduate
Hutch Humphreys, Regulatory Affairs Manager, Amylin Pharmaceuticals, Keck Graduate Institute graduate
Cheril Lin Abeel, Project Manager, Urban Science, On-site at Volkswagen/Audi of America, Michigan State University graduate
- 6:00 p.m. Dinner on your own**

Friday, November 6, 2009

- 8:00 a.m. Registration Breakfast Ballroom Foyer Atrium Ballroom**

- 9:00 a.m. Plenary IV: PSM Graduates and Those Who Hire Them Ballroom II & III**
 Three pairs of PSM graduates and their employer managers will share their stories and describe how the PSM degree program prepared the graduates for employment in a variety of careers. They will highlight the importance of the internship as well as key attributes which make PSM graduates appealing to employers. The National Professional Science Master's Association coordinated this panel.
- Moderator:** *Stephen Lemire*, Executive Director, National Professional Science Master's Association (NPSMA)
Speakers: *Lakshmi Subbarao (Graduate)*, Applications Chemist, and *David Wetherell (Employer)*, Global Support Manager. TharSFC, a Waters Company
Sandeep Narpala (Graduate), Intern, Immunogen Design, and *Sanjay Phogat (Employer)*, Principal Scientist. International AIDS Vaccine Initiative
Kimberly Rill (Graduate), Pharmaceutical Sales Representative, and an Employer Representative of Eli Lilly and Company
- 10:30 a.m. Morning Break Ballroom Foyer**
- 11:00 a.m. Contributed Paper Session: Recruiting Students and Marketing the PSM Program Ballroom II & III**
 Building successful PSM programs requires effective marketing and active student recruitment. As a relatively new academic credential, the PSM does not yet enjoy the widespread brand recognition that has long been associated with graduate credentials such as the Ph.D. or the MBA. The presenters will share effective strategies for familiarizing both prospective students and prospective employers of the graduates with the structure and benefits of the degree. Successful approaches to recruiting underrepresented students into the PSM program will be discussed.
- Moderator:** *Ursula Bechert*, Director, Off-Campus Programs, College of Science, Oregon State University (NPSMA President)
Speakers: *Linda Strausbaugh (Presenter)*, Professor and PSM Program Director, and *Elaine Mirkin*, PSM Program Assistant, University of Connecticut, "*Strategies for the Recruitment of Domestic Students into the PSM*"
Saeed Foroudastan (Presenter), Associate Dean, *Kristina Hulsey*, Graduate Research Assistant, and *Sandra Hollis-Hyde*, Graduate Research Assistant, Middle Tennessee State University, "*The Need for PSM Student Recruitment and Marketing: MTSU as an Effective Model*"
- 12:00 p.m. Lunch (seated at tables by interest area) Atrium Ballroom**
- 1:30 p.m. Poster Session: PSM Best Practices Ballroom I & Hermitage**
 Posters of "best practices" in the PSM initiative will be featured. Issues addressed will include various types of internships, development of external advisory boards, an online mentoring program, guidelines for PSM program recognition, how PSM programs can serve veterans, ethics and the PSM, state and system-wide PSM adoption, student perspectives on the PSM, unique features of some PSM programs, program initiatives of NPSMA, how to develop a common PSM core curricula, and more.
**For a full list of Poster Presenters, including Poster Titles and Organization, please see inside page of this program.*
- 3:00 p.m. Plenary V: National Science Foundation Perspective on the PSM Ballroom II & III**
– Now and in the Future
 The American Recovery and Reinvestment Act provided \$15 million to the National Science Foundation for the creation and improvement of professional science master's degrees. The Science Master's Program prepares graduate students for careers in business, industry, nonprofit organizations, and government agencies by providing them not only with a strong foundation in STEM disciplines, but also with the professional skills necessary to succeed in those careers. A call for proposals has been issued and letters of intent were due October 5, 2009. Dr. Bement will share his perspective on the future of the science master's program as well as what he hopes this program will achieve for the nation
- Moderator:** *Don Langenberg*, Chancellor Emeritus, University System of Maryland
Speaker: *Arden Bement*, Director, National Science Foundation
- 3:30 p.m. Adjourn**

PSM Biennial Meeting Poster Presenters and Titles

- Ambos, Elizabeth. *"The California State University Systemwide PSM Initiative."* California State University Chancellor's Office. [Board #23](#)
- Baldwin, Sheryl, Mark Herzog, and Greg Buck. *"Strategic Alliances for Sustainable PSM Programs."* Virginia Commonwealth University. [Board #8](#)
- Bechert, Ursula. *"Oregon Statewide Initiative."* Oregon State University. [Board #18](#)
- Bishop, Patricia. *"Statewide PSM Initiative in Florida."* Florida Council of Graduate Deans. [Board #22](#)
- Chancey, Cliff and Elizabeth Friedman. *"Progress Report: A PSM Program Director Initiative to Develop a Common PSM Core and Statement of Best Practices."* University of Northern Iowa, Illinois Institute of Technology. [Board #3](#)
- Chapman, David, Jennifer Schmidt, and James Mills. *"Advanced Quantitative Skills Requirement for the University of Utah Professional Master's of Science Degree: A National Model?"* University of Utah. [Board #11](#)
- Danaher, Johanna. *"Fundamentals to Success - Professional Competencies."* Pfizer. [Board #9](#)
- Griffin, William. *"The Role of Instrumental Design and Analysis in Professional Science."* DISTek Integration, Inc. [Board #10](#)
- Hartline, Beverly Karplus, William Eckberg, and Joseph Whittaker. *"Launching the HBCU Mid-Atlantic PSM Alliance."* HBCU Mid-Atlantic PSM Alliance. [Board #17](#)
- Hollis-Hyde, Sandra. *"PSM Degree Awareness and Perceptions."* Middle Tennessee State University. [Board #15](#)
- Khan, Rana. *"Enhancing Industry - PSM Programs Interaction Through a Novel Online Mentoring Program."* University of Maryland University College. [Board #1](#)
- King, David. *"SUNY PSM Program."* State University of New York. [Board #24](#)
- Lemire, Stephen. *"NPSMA Research Initiatives."* National Professional Science Master's Association. [Board #21](#)
- Mahler, Joshua and Sheila Tobias. *"PSM Update: The Internship Component."* Council of Graduate Schools. [Board #14](#)
- Mills, James. *"Scientific Reasoning in a Professional Science Master's Curriculum: An Interactive Approach to Cross-Functional Problem Solving."* The University of Utah. [Board #2](#)
- Nguyen, Diep and Elizabeth Friedman. *"The Professional Science Master's Degree: A new type of Master's Degree in Chemistry."* Illinois Institute of Technology. [Board #2](#)
- Nishio, John. *"Environmental Sciences PSM, California State University, Chico."* California State University, Chico. [Board #6](#)
- Nishio, John. *"Ethics and the Environmental Sciences PSM."* California State University, Chico. [Board #7](#)
- Pierson, Donald and Susan Lawton. *"University of Massachusetts System-Wide Implementation of PSM Programs."* University of Massachusetts. [Board #25](#)
- Shapiro, Joseph. *"Serving Veterans in Professional Science Master's Programs."* San Diego State University/California State University System. [Board #19](#)
- Stites-Doe, Susan, Stuart Tsubota, Steve Godleski, and Mihail Barbosu. *"A Chicken and Egg Dilemma... How a Master's-Focused College Can Build and Retain the Interest of an External PSM Board of Advisors and Still Pay the Bills."* The College at Brockport. [Board #5](#)
- Valafar, Faramarz. *"IDeAS: Internship Delivery and Acquisition System."* San Diego State University. [Board #20](#)
- Veregge, Sally. *"Professional Science Master's Program, Department of Biological Sciences, San Jose State University."* San Jose State University. [Board #16](#)
- Vincent, Nancy. *"Guidelines for Recognition as a Professional Science Master's Program."* Council of Graduate Schools. [Board #4](#)
- Wright, Alice and Shirley Kovacs. *"Lessons Learned from Supervising PSM Program Students."* California State University, Fresno. [Board #13](#)

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