



PSM Activities Report Spring 2011

Council of Graduate Schools Professional Science Master's Project Team

Carol Lynch, Senior Scholar in Residence and Co-Project Director
Sally Francis, Senior Scholar in Residence and Co-Project Director
Eleanor Babco, Senior Consultant
Leontyne Goodwin, Program Manager
Joshua Mahler, Program Associate

Contact: 202-223-3791 or profmasters@cgs.nche.edu

Overview

Since 2001, the Council of Graduate Schools (CGS) has been at the forefront of promoting the Professional Science Master's (PSM) program. CGS' current efforts include:

- participating in four regional CGS affiliate meetings and other meetings that maintain connections to the graduate education community
- providing consultation to program directors regarding the development of PSM programs
- engaging in efforts to broaden PSM outreach to system- and state-wide institutions
- reviewing applications and granting PSM Recognition
- developing quality assurance mechanisms to promote and support sustainability of the PSM brand
- advocating for PSM support to government leaders and policy makers
- increasing employers' awareness PSM programs through presentations and employer-focused meetings that offer opportunities to increase awareness regarding the PSM
- communicating PSM activities and developments via newsletters, email distribution lists, and contributions to relevant media sources
- supporting broad recognition of the PSM brand.

The following activities have been completed since the Fall 2010 PSM Activities Report.

Meetings and Presentations

Mid-Atlantic Biotech Conference- October 28, 2010 - Carol Lynch served on a panel that focused on "Building a Culture of Innovation and Commercialization. The theme of the 2010 conference was "From Research to Reality."

SUNY System-Wide PSM Workshop– November 15, 2010 – Carol Lynch attended a SUNY PSM Initiative workshop in Albany. She served as a resource person and summarized the process and results of the PSM Recognition Project.

NPSMA Annual Conference- November 17-19, 2010-Carol Lynch and Leontyne Goodwin attended the NPSMA Annual Conference in Atlanta, GA. Carol Lynch was a keynote speaker and delivered a report on the PSM National Initiative.

HBCU Mid-Atlantic PSM Alliance– November 22, 2010- Sally Francis contributed to a day-long strategic planning meeting of the Alliance at Bowie State University.

CGS Annual Meeting–December 1, 2010- The CGS PSM team organized a pre-meeting workshop entitled, “Strategies for Securing PSM Program Funding.” This session described successful efforts to secure PSM funding from both internal and external sources and shared models for sustaining established PSM programs. Carol gave an update on the PSM Initiative and Saeed Foroudestan from the CGS PSM Advisory Board and Deoh Silver, Director of the Rutgers PSM Initiative, shared their positive experiences with fundraising.

PSM Advisory Board Meeting-December 1, 2010- The PSM Advisory Board convened in Washington, D.C. in conjunction with the CGS 50th Annual Meeting. Fourteen Advisory Board members and five CGS staff members were in attendance.

Pennsylvania State System of Higher Education-February 11, 2011- Leontyne Goodwin gave a presentation about the national CGS PSM Initiative and reviewed current *Guidelines for Recognition of Professional Science Master’s Programs* at the Pennsylvania State System of Higher Education (PASSHE) PSM Workgroup Launch Meeting in Harrisburg, Pennsylvania.

AAAS Career Workshop-February 18, 2011- Carol Lynch, Scott Winston, and Beverly Karplus Hartline provided a panel presentation at the AAAS Careers Workshop titled, “Professional Science Master’s: Graduate Degrees for an Entrepreneurial Age.

NPSMA Regional Workshop-February 25, 2011-Nathan Bell, Director of Research and Policy Analysis, at CGS and Leontyne Goodwin attended the NPSMA Regional Workshop at Morgan State University in Baltimore, MD. The workshop’s focus was creating and sustaining meaningful alliances with industry. Nathan delivered a presentation about collaborative efforts of CGS and NPSMA to launch new PSM Enrollment and Degree and Employer Surveys.

Conference of Southern Graduate Schools (CSGS)-February 26, 2011-Carol Lynch led a session on the PSM that focused on developing connections with employers for economic development.

NSF SMP PI Meeting-March 4, 2011-Carol Lynch participated in the meeting and gave a short update on the national PSM Initiative and stressed the value of PSM Affiliation.

The Information Technology and Innovation Foundation’s Forum-March 10, 2011- Patricia McAllister of CGS Government Relations and Leontyne Goodwin attended the ITIF’s half-day conference on “U.S. Competitiveness: A New Conversation with New Opportunities” that brought together policy-makers and representatives from industry, education, nonprofits, and government.

Western Association of Graduate Schools (WAGS)-March 15, 2011-Carol Lynch and Faramarz Valafar gave a presentation on the PSM titled, “Beyond the PSM: Looking to the Future.”

Western Association of Graduate Schools (WAGS)-March 15, 2011-Sally Francis gave a presentation titled, “PSM Statewide/System Initiatives.”

Midwestern Association of Graduate Schools (MAGS)-March 31, 2011-Sally Francis and William Wiener gave a presentation titled, “Quality Assurance and the Professional Science Master’s Degree.”

Minnesota PSM Workshop-April 7, 2011-Sally Francis gave a presentation at the Minnesota PSM group’s workshop titled, “Parameters of PSM Program Development: the Perspective and Role of CGS,” in Minneapolis, MN.

NPSMA Regional Meeting- April 8, 2011-Sally Francis gave a presentation, “PSM-the National Perspective” in St. Paul, MN. The workshop’s focus is “How to Start and Manage PSM Programs Independently or Within a System.”

Northeastern Association of Graduate Schools-April 15, 2011-Sally Francis delivered a presentation, “Master’s Education: Professional Programs,” in Boston, MA.

The CGS PSM team approved the following 17 PSM programs since the 2010 Fall report:

1. University of Miami, Oceans and Human Health
2. University of Miami, Weather Forecasting
3. University of Miami, Tropical Marine Ecosystem Management
4. University of Miami, Fisheries Management
5. University of Miami, Aquaculture
6. University of Miami, Integrated Coastal Zone Management
7. University of Miami, Broadcast Meteorology
8. University of Miami, Weather, Climate and Society
9. University of Miami, Marine Mammal Science
10. Southern Oregon University, Applied Computer Science
11. Binghamton University, Cartography & Geographical Information Systems
12. Binghamton University, Materials Science and Engineering
13. Barry University, Medical Biotechnology
14. University of North Carolina at Greensboro, Nanoscience
15. North Carolina A & T State University, Nanoscience
16. University of Massachusetts Lowell, Pharmaceutical Biochemistry
17. University of Massachusetts Lowell, Polymer Science

CGS’ PSM team will continue to manage the PSM Recognition process through 2012. The PSM team continues to engage in outreach and consult with prospective programs that seek information about program development. A standard application form for requesting PSM Recognition was in development during the last reporting period. The form was launched in January 2011 and is being used by programs that are seeking recognition. The members of the PSM community were informed of the launching of the new application and the form is currently available at www.sciencemasters.com.

PSM Surveys

In January, CGS began work on a two-year grant from the Sloan Foundation to manage the data collection effort for the Professional Science Master’s (PSM) degree. Through this project, CGS will develop, pre-test, field, analyze data, and disseminate data from two surveys: a PSM Enrollment and Degrees Survey and a PSM Student Outcomes Survey. This work will build on previous data collection efforts, including the surveys conducted by NPSMA, to develop a robust data collection, analysis, and

dissemination process, which is essential to the ongoing success and sustainability of the PSM degree. The project is being conducted by Nathan Bell and Jeff Allum.

The revised PSM Enrollment and Degrees Survey will launch on April 7, 2011, with responses due by May 5, 2011. CGS has simplified and standardized the questionnaire, added a confidentiality statement, and provided detailed instructions and definitions. The survey will collect data on applications and enrollment (first-time and total) in PSM programs for the fall term in 2010, as well as PSM degrees awarded in academic year 2009-10. Members of the CGS PSM Advisory Board and the NPSMA Executive Committee were asked to review the draft questionnaire, and the PSM community was notified about the upcoming revised survey in mid-March.

Work is now beginning on the PSM Student Outcomes Survey. Following a literature review of other outcomes surveys, including those with a longitudinal component similar to that planned for the new PSM survey, a draft questionnaire and survey methodology will be designed. The questionnaire will also be reviewed by members of the PSM community and will launch in mid-June 2011.

Federal Agency and Policy Initiatives

The PSM team worked closely with CGS' Government Relations staff regarding the reauthorization of the America COMPETES Act. This collaboration with Government Relations continues to ensure advocacy for the PSM on relevant legislative agendas. The PSM was included in the CGS/ETS report, *The Path Forward: The Future of Graduate Education in the United States*, released in April 2010. The report continues to be the focus of events and discussions and has been widely disseminated to policy makers as well as university and business leaders.

NOAA-Sally Francis and Patty McAllister visited with Larry Robinson, Assistant Secretary, Marlene Kaplan, Deputy Director Office of Education, and Louisa Cook, Director Office of Education to discuss the *Path Forward* report and introduce the PSM.

OPM-February 3, 2011-Sally Francis and Patty McAllister visited with John Berry, Director, Office of Personnel Management, Robert Shriver, Senior Policy Counsel, and Matthew Collier, Senior Advisor to the Director. The agenda included discussion of federal internship opportunities including PSM students.

CGS released a report in April 2011, "*Steps Taken on The Path Forward*," that provides an update on progress since the release of *The Path Forward*.

Other Outreach Activities

PSM Conference Calls – The CGS PSM team continues to engage in monthly conference calls with national PSM leaders sponsored by the Alfred P. Sloan Foundation. Also, Carol Lynch and/or Sally Francis participate in a monthly conference call with system leaders to discuss issues relative to PSM programs that are part of systems of higher education. Sally Francis communicates monthly with the NPSMA to ensure continued collaboration with that organization.

Email Communication –The CGS team continues to use an email distribution list to provide updates of PSM activities to all programs, to communicate information that may be of interest, and to solicit feedback. Since the "2010 Fall Activities Report", the CGS PSM Initiative communicated the following via email:

- Notification of an NSF grant targeting mathematics programs was made available to program directors/coordinators. This grant concentrated on activities that improve:

-recruitment and retention: increasing the number and diversity of U.S. students who successfully pursue undergraduate and graduate degrees in mathematics and statistics;
-educational breadth: broadening graduate education and undergraduate education content in the mathematical sciences to prepare students for a wider range of career opportunities; and
professional development: enhancing the professional skills of mathematical sciences postdoctoral associates, graduate students, and undergraduate students to better prepare them for both academic and nonacademic employment.

- An announcement was sent on behalf of NPSMA announcing the organization's Second Annual Conference, *Professional Science Master's Degrees: Environmental Solutions and Workforce Development*.
- A "Report on PSM Activities" was disseminated to program directors/coordinators in fall 2010 from the CGS PSM Project Team.
- An announcement of the release of a new publication from the Council of Graduate Schools, *The Role and Status of the Master's Degree in STEM*. This publication presents the current state of knowledge about master's education, with a focus on completion and attrition in STEM. It also illustrates the rapid growth and important role of master's education in the graduate education enterprise, shows the responsiveness of master's degrees to current workforce needs that emphasize globalism, creativity, adaptability, and diversity as we transition into a knowledge economy, and points to future research directions for fostering innovation and ensuring our competitiveness as a nation.
- An article, "A Master's for Science Professionals Sweeps U.S. Schools," written by Joseph Rosenbloom that was published in *The New York Times* was forwarded to the PSM distribution list. The article discussed the continued national emergence of the PSM as a feature at many universities.
- The launch of the new "PSM Affiliation Application Form" was announced via the PSM distribution list. The new application form will standardize the application process and help increase the efficiency of the PSM Recognition process. The program directors/coordinators were also informed of the updated section, "How to Apply for PSM Affiliation," which includes revised information regarding the application process and a button to access the application form. A new application button was also added to the www.sciencemasters.com homepage.
- Program directors/coordinators received an announcement on behalf of NPSMA that announced the NPSMA's Best Practices Workshop, *Creating Meaningful and Sustainable Alliances with Industry*.
- A column written by Janet Napolitano titled, "Science as Public Service," that was published in *Inside Higher Ed* was disseminated via the distribution list. This column makes a call for scientists to consider ways to build relationships and nurture relationships with federal agencies.

Media Coverage –The following is a list of interviews given or articles that were authored or solicited by the CGS PSM team since fall 2010. **All articles about the PSM are listed on www.sciencemasters.com.**

In December 2010, a press release was issued by CGS announcing receipt of funding from the Alfred P. Sloan Foundation of over \$490,000 to institutionalize and promote the Professional Science Master's (PSM) degree and firmly establish the PSM as a regular feature of U.S. graduate education.

Publications

Carol Lynch and David King contributed to a print piece on the PSM titled, “A Master’s for Science Professionals Sweeps U.S. Schools,” that was published in the *New York Times* on December 26, 2010.

Carol Lynch and Michael Teitelbaum contributed to an article, “The Other Path,” that was published in *Nature* on January 26, 2011. The article discusses issues relative to the growth and sustainability of PSM programs.

PSM team members, Leontyne Goodwin, Sally Francis, and Carol Lynch, published an article on the PSM Stakeholders’ process and recommendation of a process and organizational structure in the January/February 2011 issue of the *Communicator*.

Sally Francis is currently leading efforts to rewrite the existing CGS monograph titled, *Professional Master’s Education: A CGS Guide to Establishing Programs*. The updated monograph is planned for publication in the summer of 2011.

Promotional Materials – Targeted flyers geared to three groups—employers, policy makers, and students—continue to be distributed to new PSM programs and are available on the sciencemasters.com website.

The CGS PSM team provides a speaker’s packet and other resources on the sciencemasters.com website. This information is regularly updated.

Josh Mahler maintains and regularly updates the sciencemasters.com website.

Future Activities

Carol Lynch will lead a PSM workshop at AESS on June 23, 2011 in Burlington, VT.