NATIONAL PROFESSIONAL SCIENCE MASTER'S ASSOCIATION

Summer 2010

MARK YOUR CALENDAR!

NPSMA Annual National Conference

"Professional Science Master's Degrees: Environmental Solutions and Workforce Development"

November 17 -19, 2010 Georgia Tech Hotel & Conference Center, Atlanta

Conference Highlights:

NPSMA Reception and Graduate School Fair for all arriving conference attendees and local corporate representatives. PSM students and alumni are invited to this comprehensive networking event.

Tentative Conference Speakers include David Blockstein, Council of Environmental Deans and Directors, Elizabeth Friedman, NPSMA President, Don Langenberg, NPSMA Director of Strategic Planning and External Projects, and speakers from government, business, industry, and state university systems.

Topics include the surge in environmentally related PSM programs, engineering programs as PSMs, and analysis of program distribution nationwide.

An Employer / Student Panel will share their PSM experiences and best practices.

Breakout Sessions include ideas for funding start-up programs, best practices on creating alliances and projects with PSM employers, emerging PSM interdisciplinary fields, state-wide PSM efforts, and information from NSF SMP awardees.

Conference Rates:

NPSMA Members:	\$785.00
NPSMA Non-Members:	\$900.00
(membership information on	last page or our website)

These fees include:

- National Conference registration
- Two nights hotel stay at the Georgia Tech Hotel and Conference Center / single occupancy
- Wednesday evening reception/ networking event
- Graduate school fair
- Breakfast, lunch and dinner on November 18
- Breakfast and lunch on November 19
- Two coffee/tea breaks per day
- Conference parking and internet
- Discounts on tourist attractions
- Reduced air fare on AirTran Airways
- Conference rates for hotel stays before and after conference

Registration deadline October 20, 2010. Look for registration instructions and conference details at <u>www.npsma.org</u>.

Graduate School Fair, reserve your table now. NPSMA Institutional Members: free NPSMA Non-Institutional Members: \$80

Claremont College NPSMA Workshop April 2010

THE VOICE OF THE PSM

Volume 3, Issue 3

The spring NPSMA Best Practices Workshop was held on April 15 - 16 at the Keck Graduate Institute for Applied Life Sciences in Claremont, California. The event began on Thursday evening with a PSM Networking Social and Graduate School Fair for prospective students and continued through Friday with workshop sessions attended by about 25 PSM program directors from across the country, program alumni, and corporate partners. Representatives from colleges and universities in the planning stages for new PSM programs participated to learn from the experiences and ask questions of the other attendees.

This was the first time a Best Practices Workshop was hosted on the campus of an institutional member.



This workshop was also the setting for a graduate school fair

dedicated to PSM programs with participation from eleven different schools. The fair coincided with and was co-located with the networking reception that typically takes place before the best practices workshops. The fair was designed to take advantage of the fact that many diverse programs would be represented at one event and to offer a recruitment opportunity at minimal expense. Leadership shown by the NPSMA to create outreach and recruiting events in conjunction with the best practices workshops and national conference could become a strong part of a program's marketing and recruitment plans.

At the spring workshop, topics included preliminary findings of the Annual PSM Degree Program Enrollment & Graduate Survey; building employer alliances; industry partnerships with leading scientists as faculty members; PSM program costs and financial models; ethics education; conversations with area employers and panel discussions with regional PSM alumni & students.

The NPSMA thanks the following PSM supporters for contributing to a successful spring workshop, including: Cynthia Bainton, Northeastern University, NPSMA Board of Directors; Carney Cheng, PSM student, San Diego State University, Intern at Fqubed, Inc.; David Dyer, California State University, Fullerton; Jinny Ki, Keck Graduate Institute; John Nishio, California State University, Chico; NPSMA Board of Directors; Camille Nebeker, San Diego State University and Co-Principal Investigator; John Newsam, Managing Director, Fqubed, Inc., Industry Partner and Intern Sponsor; and Terry Preuit, Keck Graduate Institute.

> -Dan Chatham, Dean of Admissions and Financial Aid Keck Graduate Institute (NPSMA institutional member)

We look forward to continuing our Best Practices Workshops in 2011!

Congratulations to All Institutions Who Received an NSF SMP Grant!

Awardees based on their university and department of origin are:

Arizona State University: Mechanical Engineering Solar Energy Engineering & Commercialization

Buffalo State College, SUNY: Mathematics/Information Technology Professional Applied and Computational Mathematics

Clemson University: Civil Engineering Sustainable and Resilient Infrastructure

Cornell University: Biomedical Engineering/Microbiology Medical and Industrial Biotechnology

Grand Valley State University: School of Engineering Biomedical Engineering

Humboldt State University: Engineering Professional Training for an Environmental Workforce

North Carolina State University*: Chemical/Bio Engineering Biomanufacturing

Northern Arizona University: Earth Science *Climate Science and Solutions*

Northwestern University: Mechanical Engineering Engineering and Global Health Technologies

Purdue University: Mechanical Engineering Concentration in Wireless Technology & Systems Engineering

Rochester Institute of Technology: Center for Imaging Science Decision Support Technologies for Environmental Forecasting and Disaster Response

Rutgers University at New Brunswick*: Electrical Computer Engineering Fueling Innovation in New Jersey through Graduate Education

San Diego State University: Physics/Biology Integrating Regulatory Affairs in Bioscience and Biomedical Physics

San Francisco State University: Biology Biotechnology and Stem Cell Science

University Florida*: Molecular Genetics/Microbiology *Translational Biotechnology*

University of Alaska at Fairbanks: Fisheries/Ocean Science Ecosystem Approaches to Fishery Management

University of Georgia: Biochemistry/Molecular Biology From Science to Business in Biomanufacturing

University of Idaho: Natural Resources and Environmental Science

University of Maryland Eastern Shore*: Biology Quantitative Fisheries and Resources Economics

University of New Mexico: Center for High Technology Materials Connecting NanoScience to Microsystems

University of Texas El Paso: Computer Science Systems and Software Engineering

* NPSMA institutional member.

Update on NPSMA's New Structure and Leadership

As NPSMA completes its first stage of development, the association is concentrating its efforts on becoming strong and sustainable. Thus, Don Langenberg, the association's new Director of Strategic Planning and External Projects, and NPSMA's Executive Committee held a strategic planning meeting at Northeastern University, Boston in late June. The focus of the meeting was to secure the agenda for the national conference, establish NPSMA policy positions, and qualify membership benefits. Special thanks to Cynthia Bainton, Administrative Manager, and Tom Gilbert, Academic Director, Biotechnology Programs, of Northeastern University for hosting the meeting.

Announcements

NPSMA looks forward to the annual meeting of its Advisory Board members to be held at the Illinois Institute of Technology (IIT) in Chicago on October 4. The meeting is being sponsored by IIT's College of Science and Letters.

If you are an NPSMA member and have not received your NPSMA website username and password, please contact the NPSMA office. Your password will allow you to access documents and information available only to members. Log in <u>here</u>.

Interested in becoming an NPSMA Board member? Stay tuned for more information.

Do you have current students or alumni who would be willing to share their PSM experience in the next issue of *The Voice*? If so, please submit testimonials to Dagmar Beck, dkbeck@rice.edu.

Questions to Our Readers

- What current NPSMA services do you find most useful in your involvement with PSM programs?
- What new services would you recommend to be considered for development?

Please send your suggestions to the NPSMA office.

NPSMA Institutional Member News

This section of the newsletter is slated as a venue for NPSMA institutional members to make program announcements and attract national visibility. For this issue only, we have permitted submissions from non-institutional members. However, in future issues, we will only accept submissions from institutional members. To receive full benefits and best practices advice for new programs, we encourage all non-member institutions to join the NPSMA.

Update on Oregon's PSM Initiative

Oregon was chosen as one of five states to participate in the National Governors Association *Policy Academy on State Strategies to Meet Emerging Workforce Needs through the PSM* in 2008. The following year, the Oregon University System launched a statewide PSM program development initiative with support from the Alfred P. Sloan Foundation. The effort has been led by Ursula Bechert, Director of Off-Campus Programs for the College of Science at Oregon State University, Marvin Kaiser, Dean of the College of Arts and Sciences at Portland State University, and Bruce Schafer, Director of Industry Affairs for the Chancellor's Office of the Oregon University System, with guidance from Senator Richard Devlin, Senate Majority Leader, Margie Lowe, Higher Education Policy Advisor for the Governor, and others.

The objectives of the statewide PSM initiative are to:

- Create a communications platform to further the PSM agenda;
- Support marketing and recruitment efforts for Oregon's PSM programs;
- Provide guidelines for development and approval of new PSM programs in Oregon;
- Work with the Oregon PSM Advisory Board to guide future PSM development strategies;
- Set-up an online internship and employment bulletin for the PSM community;
- Organize workshops for partner institutions to share best practices on key issues such as sustainability, student recruitment, program assessment, and industry partnerships;
- Develop a distance learning portal to foster curriculum sharing among institutions;
- Facilitate exploration of joint PSM degree opportunities among multiple academic institutions to serve specific state workforce needs; and
- Establish a small grants program to support PSM program development initiatives.

Seven campuses are currently involved in developing new PSM programs in collaboration with regional industries, including a multi-institutional PSM in Renewable Energy. The first state PSM Advisory Board meeting was held in June 2010, and a new website is currently under development (<u>http://oregonpsm.org/</u>).

- Ursula Bechert, Director, Off-Campus Programs, Oregon State University (NPSMA institutional member)

Updates from Arizona

In collaboration with the Board of Regents, Governor's Office, and P-20 Coordinating Council, Arizona's three public universities (Arizona State University, Northern Arizona University, and University of Arizona) offer innovative, complementary degrees to prepare graduate students interested in science and technology with enhanced training in business and management skills. For information on the PSM Statewide Initiative in Arizona, visit http://arizonapsm.wordpress.com. Together, we hope to guide the development of PSMs, increase the number of offerings, support internships and employment, and share resources and curriculum.

Along with support from the Sloan Foundation, the PSM Statewide Initiative group is currently working on an RFP to develop more "plus" courses to benefit PSM students at all three state universities. These courses will be offered through the Arizona Universities Network, AZUN (www.azun.net), which combines nearly 30 years of innovation in distance learning with more than 100 years of excellence in higher education. Classes are easily transferable from all three state institutions.

In partnership with jobing.com (the second most visited website in Arizona), we are creating a webpage to post internship information from our industry partners for students in our PSM programs. Work is also underway to brand our programs including developing a common logo.

> - Ramona Mellott, Dean, Graduate College, Northern Arizona University

Updates from CSU Chico

CSU, Chico's PSM option has finished its second complete year. Five students are completing their project as part of the final requirement; while five of the second cohort of seven students have all begun exciting internships throughout the state (with one in Nevada and one in Hawaii). The students are working with non-profits, governmental agencies, and private companies—Department of Land and Natural Resources on Kauai and Maui and Maui Invasive Species Committee, Nature Conservancy (Siskiyou County), Center for Ecological Research at CSU, Chico, Nevada Energy (Reno, Nevada), and U.S. Geological Survey (San Diego, California). The CSU system was awarded a \$700,000 NSF SMP grant to integrate regulatory affairs (RA) into Bioscience and Biomedical Physics Professional Science Master's Programs at four CSU campuses (CSU, Chico (John Nishio, Co-PI); CSU, East Bay (Eric Seuss, Co-PI); San Diego State University (Usha Sinha, PI); and San Jose State University (Jose Castillo, Co-PI)). The project will distribute twenty prestigious NSF studentships to PSM students at the four universities. Additionally, we will be working with San Diego State on another NSF grant to develop cases for ethics education in environmental sciences.

> - John Nishio, Director, PSM Option, California State University Chico

Updates from Rice University PSM Programs

All students have found internship positions despite the slow moving economy. We are working with Schlumberger, Chevron, GSI Environmental, the U.S. government, nGimat, Texas State University, the City of Houston and URS Corp.



Rice PSM student in action: Jeff Rudnik (on right) conducting a wetland field survey in connection with his internship at the Chevron Environmental Department in Houston, Texas.



Nada Ahmed (left) identifying and quantifying sources of variability in existing groundwater monitoring datasets for GSI Environmental and Bret Halbe (right) testing carbon nanotubes for use in epoxy-based nano-composites at NanoRidge in Houston, Texas.

- Dagmar Beck, PSM Director Rice University (NPSMA institutional member)

Testimonial: Rice PSM Alum

"This is the most comprehensive and applicable program one could possibly hope for when pursuing a successful and highly professional position in nanotechnology or any industry. Nanotech is a platform technology, and to be able to walk away with both a scientific and business background from such a groundbreaking program and university is invaluable."

- Wilfred Kittler, Rice University, PSM in Nanoscale Physics

NPSMA Executive Committee and Staff

President:	Elizabeth Friedman (Illinois Institute of Technology)	
Vice President:	Dagmar Beck (Rice University)	
Convener:	Cynthia Bainton (Northeastern University)	
Finance Officer:	Daniel Chatham (Keck Graduate Institute)	
Director of Strategic Planning & External Projects:		
	Donald N. Langenberg (Chancellor Emeritus,	
	University System of Maryland)	
Coordinator:	Debra Warren-Hite	

Newsletter

Editors:	Dagmar Beck, Elizabeth Friedman, Cynthia Bainton	
Layout:	Debra Warren-Hite	
To have your news included in our newsletter, send submissions to		
Dagmar Beck, <u>dkbeck@rice.edu</u> .		

Members, Showcase Your Programs at SACNAS

John Nishio, NPSMA Board Member and PSM Director at CSU Chico, will be staffing a PSM table at the upcoming Society for Advancing Hispanics/Chicanos & Native Americans in Science (SACNAS) Conference in Anaheim, California in October. The Council of Graduate Schools is co-sponsoring this event and will coordinate materials to be sent to the conference for display. Stay tuned for details.

Updates from San Francisco State University

The National Science Foundation recently awarded \$700,000 to the newly formed PSM program in Biomedical Science with two concentrations in Biotechnology and Stem Cell Science at SFSU (PI, Lily Chen, and Co-PI's, Michael Goldman and Carmen Domingo). The project will provide prestigious NSF scholarships to twenty SFSU PSM students over the next three years. The new PSM program includes coursework in molecular and developmental biology, proteomics, biosciences, business management, communication, bioethics, teamwork skills and internships with Bay Area research institutions, biotech industries, public and non-profit agencies (e.g., Genentech, BioMarin, Celera, Agilent, Cellerant, StemLifeLine, Applied Biosystems, University of California, San Francisco, the Buck Institute for Age Research and the California Department of Public Health).



Lily Chen, PSM Director (2nd from left) and Linda Chen, PSM Program Coordinator (far right).

-Lily Chen, Director, Professional Science Master's San Francisco State University

To advertise in the national conference brochure, contact the <u>NPSMA office</u> for details.

Institution members: 1/4 page \$100; 1/2 page \$200; Full page \$300. Non-institution members: 1/4 page \$150; 1/2 page \$300; Full page \$450.

NPSMA NEWSLETTER	- 5 -		
NATIONAL PROFESSIONAL SCIENCE MASTER'S ASSOCIATION	THE VOICE OF THE PSM		
Invoice For Annual Membership			
(The NPSMA is a 501(c)(3) Nonprofit Organization; Tax ID # 20-8766099)			
Please Check Appropriate Members	<u>ship:</u>		
NewRenewal			
Academic Institution (1 contact per PSM program)	\$2,000		
Academic System	\$1,500/campus		
Individual	\$ 75		
PSM Alum	\$ 75		
(if your institution is a member – 1 year FREE)			
Student currently enrolled in PSM degree program (1 st year – FREE)	\$ 50		
Please make payments to the <u>National Professional Science Master's A</u> Mail form with check to: NPSMA, 100 Institute Road, Worcester, MA 01 To pay online, go to <u>www.npsma.org</u> . Thank you for your membership!	609.		
Please Provide Information Below	<u>N</u>		
Name and Title of Individual Member (or contact for institutional membership)			
Program			
Academic Institution			
University System (if applicable)			
Email			
Phone			
Address			
City, State/Province, Zip/Postal Code			