

# The Voice of the PSM

Winter 2011 Volume 4, Issue 1

#### MARK YOUR CALENDAR!

**NPSMA Best Practices Workshop** 

"Creating Meaningful and Sustainable Alliances with Industry"

February 25, 2011 Morgan State University

#### Workshop Highlights:

**PSM Networking Social** for all arriving workshop attendees and local corporate representatives. PSM students and alumni are welcome to attend this networking event.

**Keynote Speaker**: Susan Sloan, Director, GUIRR, The National Academies.

Workshop Presenters: Allison Bryant, Director, PHS Group; Nathan Bell, Director, Research and Policy Analysis Council of Graduate Schools; Stanley Tucker, President, Meridian Management Group; Donald N. Langenberg, NPSMA Director of Strategic Planning and External Projects; Beverly K. Hartline, Dean of Graduate Studies, University of the District of Columbia; Raj Kolagani, Program Director, PSM Program in Applied Physics, Towson University; Nicassia Wiliams, Director, Actuarial Science Program, Morgan State University; Bogdan Vernescu, NPSMA Vice-President; NPSMA Board members Cynthia Bainton and Joseph Whittaker.

#### Topics:

- · What's in it for us?
- PSM Data Collection: Looking to the Future

#### **Panel Discussions:**

- Securing Faculty and Administration Buy-in
- Experiences of the HBCU Alliance

An Interactive Workshop Session will address industry perspectives.

# Conference Rates:

NPSMA Members: \$225.00 NPSMA Non-Members: \$325.00

(membership information on last page or this newsletter)

#### These fees include:

- Thursday Evening PSM Networking Social
- Workshop Registration
- Continental Breakfast at the Workshop
- Buffet Lunch at the Workshop
- One Night Stay at the Radisson Hotel at Cross Keys
- Shuttle from Hotel to Morgan State University

**Registration deadline February 20, 2011.** Look for registration instructions and workshop details at www.npsma.org.

# NPSMA President Dagmar Beck Outlines 2011 Goals

Thank you for the confidence you expressed in me to lead the National Professional Science Master's Association in 2011. I would like to express a special thanks to Elizabeth Friedman, our outgoing president, for the exceptional work she has done in stabilizing the association, increasing membership and moving it towards a sustainable organization. I would like to give a hearty welcome to our newest board members for their enthusiasm in helping us further the success of the NPSMA and thank continuing board members for contributing their valuable time and effort to the association. I am

counting on everyone to actively participate and be involved on this year's board.



This will be a demanding and exciting year as I plan to move all on-going efforts forward with the goal to expand NPSMA's national role, to build new collaborations with existing national organizations, to strengthen NPSMA's financial

stability, and to gain more corporate and educational institutional support. Strong collaboration with the Council of Graduate Schools will enable the association to take over more responsibilities in the future and will result in positioning the NPSMA as the "go-to" organization for all things concerning PSM.

I am inviting all of our institutional and individual members to share in the responsibility of reaching our goals. I hope to meet many of you at our 2011 regional workshops, and encourage you to contact me at <a href="mailto:dkbeck@npsma.org">dkbeck@npsma.org</a> with any questions, ideas, or contributions you may have on strengthening our organization and promoting the value of Professional Science Master's education nationwide and beyond.

### NPSMA 2nd National Conference Summary

The NPSMA held its 2nd National Conference in Atlanta, Georgia on November 17 - 19, 2010 with emphasis on *Environmental Solutions* and *Workforce Development*. A total of 105 attendees representing the United States, Puerto Rico.

Canada, and Australia participated, and about 70 colleges and universities from over 28 states across the country were in attendance. Sixty percent of the participants were PSM program coordinators, directors, graduate deans or associate deans, and 40% were PSM community members from academe and industry. Outgoing



NPSMA President, Elizabeth Friedman of Illinois Institute of Technology, presented opening remarks, followed by plenary and keynote speakers.

Don Langenberg, NPSMA Director of Strategic Planning and External Projects, brought to the audience's attention the current rankings of the U.S. relative to other nations. He explained that the poor completion rates of MS degrees, high dropout rates, and the small number of STEM degrees being granted has led one critic of the U.S. educational system to note that the U.S. was an "under-developing nation." (continued on page 2)

#### New 2011 NPSMA Board of Directors Elected

We have a very committed and dedicated board in place for 2011.

President: Dagmar Beck, PSM Program Director, Rice University

Vice President: Bogdan Vernescu, Professor and Department Head, Mathematical Sciences, Worcester Polytechnic Institute

**Convener: Susan Stites-Doe,** Professor, Department of Business Administration and Economics, State University of New York at Brockport

**Finance Officer: Cliff Chancey, Professor and Physics Department** Head, University of Northern Iowa

Immediate Past President: Elizabeth Friedman, PSM Program Manager, College of Science and Letters, Illinois Institute of Technology

**Elizabeth Ambos,** Assistant Vice Chancellor for Research Initiatives and Partnerships, California State University System

**Cynthia Bainton,** Administrative Manager, Biotechnology Programs, Northeastern University

**Daniel Chatham,** Dean of Admissions and Financial Aid, Keck Graduate Institute for Applied Life Sciences

Kirk E. Jordan, Emerging Solutions Executive, IBM Corporation

**John Nishio**, Director, PSM Programs in Environmental Sciences, California State University. Chico

**Jean Schaake,** Associate Dean for Academic Affairs, College of Arts and Sciences, University of North Texas

**Kevin Sightler**, Director, PSM Program, University of Illinois at Urbana-Champaign

**Joseph Whittaker,** Dean and Professor of Biology, Morgan State University

**Peiru Wu,** Associate Professor and Program Director, PSM in Industrial Mathematics, Department of Mathematics, Michigan State University

#### NPSMA 2nd National Conference Feedback

The following examples represent just some of the very positive and supportive feedback we received:

"The NPSMA Organization Committee did a remarkable job in putting together this Conference. I would like to thank you all for working so hard. This Second NPSMA Conference at Georgia Tech was a big success. Congratulations to you all!!!!"

"As a first time participant who does not run a PSM (I was a speaker), I was very impressed. You did a nice job with a volunteer-based organization, and lots of energy from the participants at the meeting."

Feedback received from conference attendees indicated that this was a very successful event, and the NPSMA was able to deliver the information and content attendees have come to expect.

#### NPSMA 2nd National Conference Summary

David Blockstein, Senior Scientist and Executive Director, National Council for Science and the Environment, spoke about employment opportunities in the environmental field, especially in areas involving sustainability. He reviewed eco-careers for PSM graduates. His organization has formed a Council of Environmental Deans and Directors (CEDD) to help in creating an engaged learning community.

Carol Lynch, Senior Scholar in Residence and Director of PSM Programs for the Council of Graduate Schools reported some interesting statistics: 60% of PSM enrollment in the U.S. is female; 75% of graduate students are at the MS-level; 15% of STEM jobs will require a graduate degree; MS-level jobs will grow at 17% in STEM fields; the greatest numbers of jobs are in the life sciences. She noted the trend towards increasing professionalism of MS degrees with "plus" courses.

Patrick Lukulay of U.S. Pharmacopeia, described his career path and the difficulty many students have in making the transition from academe to industry. He explained that each organization has a different



"culture" and different goals. Students have to be ready to adjust to the work culture of each company they work for. The goals of each company may differ, the way they do things differ. He also emphasized that many academically trained individuals have difficulty making the leap from playing a role as an individual contributor to becoming a successful team member. This is especially evident for those shifting to a global

lab environment.

David King, PI, SUNY PSM Programs, represents a large state system with 64 campuses and 427,000 students (40,400 graduate students). In



addition, the SUNY Learning Network for online education has an enrollment of 100,000 students. David elaborated on the various "plus" courses that SUNY found to be highly appreciated by students and employers and efforts to share these "plus" courses among the different campuses. He described some of the challenges of a system-wide collaboration.

The NPSMA held a number of interactive workshop sessions during the conference, including: Profiles of Recent NSF Science Master's Program Awardees; Professional Development; Creating Alliances and Securing Projects from Industry; Shifting from Industry to Academe; Online PSM Programs for Working Professionals; and an Overview on Inclusion of Ethics Courses. A summary of these workshops can be found on pages three and four.

The Employer/PSM Graduate Panel was moderated by Sheila Tobias, outreach coordinator and consultant to the Alfred P. Sloan Foundation and the NPSMA. The panel was comprised of PSM graduate students from Oregon State University, Michigan State University, and Illinois Institute of Technology accompanied by their employers from ViewPlus Technologies, Norfolk Southern Corp., and Georgia Pacific Analytical Services. The employers explained their reasons for hiring PSM

graduates which included their "plus" business skill courses in writing, finance, teamwork, and project management, as well as their exposure to organizational structures and corporate cultures.

A Dual Program Panel was moderated by Jean Schaake, Associate Dean for

Academic Affairs in the College of Arts and Sciences at the University of North Texas. Program directors, Cynthia Bainton of Northeastern University, Dagmar Beck of Rice University, and Chris Thaxton of Appalachian State University gave examples of successful dual PSM/MBA programs created at their universities.

To see a photo slideshow from the conference, go to the following link: <a href="http://s1186.photobucket.com/albums/z377/NPSMA/?">http://s1186.photobucket.com/albums/z377/NPSMA/?</a> albumview=slideshow.

# NPSMA 2nd National Conference Workshop Summaries

One of the successful components of the NPSMA 2nd National Conference on November 17 - 19, 2010 were the enrichment workshops with the following topics:

# Results from the Session on Creating Alliances and Securing Projects from Industry

By David S. Bushnell, Bowie State University and Lisbeth Borbye, North Carolina State University

#### Q: How to map employer needs?

A: Identify potential employers and their needs by mapping employer locations; attending professional association meetings; contacting alumni and faculty with industry links; and forming employer focus groups. Then follow-up with employers by mail or telephone surveys, debrief students who worked as interns and seek face-to-face contact at professional association meetings. Each of these strategies will result in a listing of needs and opportunities involving potential employers who have a need for graduates with both scientific and business knowledge and skills.

#### Q: How to contact and work with employers?

A: Network with and interview employer representatives at career fairs and professional society meetings; follow-up alumni and faculty contacts; invite employer professionals to serve as adjunct professors or student mentors; launch seminars and workshops with employer involvement; promote PSM as a vehicle for economic growth and convene meetings of university presidents and presidents of local companies with a focus on PSM. Conducting cold-calls and setting up face-to-face meetings have been used by some institutions as contact strategies, appropriate thank you notes or follow up calls can help to continue dialogue with corporate representatives.

# Q: How to get support?

A: In addition to mapping employer needs and working directly with employers, some institutions have been successful in soliciting dollar grants and contributions. Asking for matching grants was found to be appropriate once initial grants from foundations and government sources were obtained. Other suggestions were to contact company foundations, to market scholarships and fellowships to local employers, to solicit tuition reimbursement of company based college attendees, to offer certificate courses to current employees, to get states to pass tax incentives for employer contributions, and to convince employers of the cost/benefits associated with providing monetary support to students.

# Shifting from Industry to Academe

By Dennis Gross, Thomas Jefferson University and David Dyer, California State University - Fullerton

Business professionals often have the experience, professional connectivity, project management and people skills needed to run successful PSM programs. Recent trends in industrial layoffs especially in bio-pharma suggest that there may be a large pool of candidates waiting for an opportunity to step into PSM program leadership roles and give back to the educational community. But the transition from industrial to program leadership is not as straightforward as it might seem, and can be fraught with pitfalls. Advantages to a PSM Program include the organizational skills industrial professionals will bring with them, their industrial contacts, networking skills and knowledge of the industry. Challenges to the newly hired program director from industry include lack of knowledge of the university administration and skills to navigate in an academic environment. Faculty and university administrators require different approaches and the intricacy of a university's environment and policies need to be understood.

Profiles of Recent NSF Science Master's Program Awardees By Matthew Hurteau, Northern Arizona University and Deborah Silver, Rutgers, The State University of New Jersey

This workshop offered profiles from two different approaches that were successful in obtaining NSF funding: a program specific approach (Northern Arizona University) and a system wide approach (Rutgers University).

Q: What are the steps to follow when writing grant proposals? A: Steps for writing a successful proposal included a) identifying an industry driven need, developing partnerships and responses, then translating it into meaningful arguments; b) telling a good story and making sure the story theme is carried throughout the proposal with a beginning, middle and end; summarize your abstract with the intellectual merit and broader impact statements; c) highlighting the innovative aspects of the proposal and making sure they are all discussed in the text; making sure that the proposal is consistent; and organizing the proposal narrative so that topics progress naturally.

Q: How can you maintain student support after the funds run out? A: It is necessary to state your program support, your business and educational model, your program fees and tuition return. Also state the impact of your program(s) on the training of students, on the industry and economy of your region; and explain how you make your program sustainable after funding runs out, possibly by writing more grant proposals.

#### **Overview on Inclusion of Ethics Courses**

By John Nishio, California State University - Chico

Q: Why is ethics education so important?

A: The responsible and ethical conduct of research is considered an essential component of training future scientists. NSF and NIH have



Responsible Conduct of Research (RCR) training requirements which include topics regarding authorship, publication, collaboration, peer review, mentoring, conflict of interest, data management, animal and human subjects, social responsibility, and misconduct. The ethics education is the best practices for research ethics training and some of the ethical challenges emerge at the intersection of academia and business.

Q: How to include ethics education in the PSM program?
A: To develop and integrate ethics education with PSMs is to enhance awareness and critical thinking skills for future science professionals. There is a pilot model that introduces ethics education into the PSM curriculum in the context of student intern experiences. The experience includes an industry partner, faculty mentor, and student intern. The objectives are to determine the feasibility of integrating ethics education into an internship experience and the manner in which this can be done effectively; to assess the relevance of research ethics topics to a pharmaceutical/biotech company; and to gauge the perceived value of having dialogue about ethical issues specific to the profession.

## Thank You

The NPSMA acknowledges the plenary and keynote speakers, the guest panelists, and the many workshop facilitators whose efforts have helped to make this conference a success. Many thanks also go to the attendees who actively participated in, supported the conference, and provided invaluable feedback. All of these great efforts allow the PSM community to continually work together for the bright future of the PSM movement.

#### Online PSM Programs for Working Adults

By Julie Funk, William F. Jackson, Michigan State University, and Elizabeth S. Friedman, Illinois Institute of Technology

This workshop session tried to provide answers to the following questions:

Q. Who do you want to reach with distance learning master's education?

A: First steps to take are identifying the appropriate target student audience for online delivery and determining the scope of your program's enrollment - regional, national, or international. Decide if your focus is on recent graduates, or mid-career professionals? These two groups of students have different needs.

Q: What methods of delivery are currently being used to deliver online education?

A: There are several Course Management Systems available, such as ANGEL, Blackboard and Moodle. Increasingly, minimal cost (or free) online platforms are being used for online delivery. Social-media platforms such as Facebook and LinkedIn are also being used to connect to the distance learning students to their professors and to each other.

Q: What costs are involved in starting an online program?
A: Development work of online courses is very time consuming and resource expensive. Simply taking a traditional course and putting it online will not result in the best learning environment. Faculty require training and/or support services for developing and managing online courses. Cost assessments depend upon resources available at the institution.

Q: What infrastructure/technology is required to deliver streamed courses?

A: A course management system, video recording and editing equipment (hardware and software), voice recording capabilities, web cameras, basic word processing and presentation software. In addition, if you are streaming your courses you will need sufficient bandwidth.

Q: What is the learning curve for adapting to online teaching?
A: With assistance, faculty can readily adapt to the online environment. Large institutions often have central resources. If these are not available they need to be included in the cost of start-up and management. Other opportunities include partnering with consulting firms that develop online learning programs (Compass Knowledge and Bisk for example).

Q: What methods are used to engage the distance learning students? A: Best practices for online learning engagement can be identified from SLOAN-C and Blackboard. Engagement in the online environment is important for student learning and retention.

Q: How are final projects handled with online programs?
A: The final project can be done with the current employer or with the current employer's supervision. The project is generally outside the student's current job responsibilities, stretches the student's capabilities, and allows the student to demonstrate their new skills and knowledge. Final projects can be submitted in written form, and/or given in oral formats via online video technologies. Some programs require the student to present their final project in person on campus.

Q: How can we ensure oral communication skills with distance learning students?

A: Online video offers the capability of incorporating oral communication skills into class assignments, including final presentations.

Q: How do we deal with students who do not have industry or lab experience?

A: Some programs do not admit students without sufficient lab experience. Other programs develop hands-on courses which students must attend, usually one or two weeks long. Residential students of a hybrid online program may be required to take a semester-long lab course designed specifically for the PSM program.

#### **Oregon State University**

By Ursula Bechert, Director of Off-Campus Programs, College of Science, Oregon State University

Final approval to designate the PSM as a new degree option in Oregon is expected from the University System Provosts' Council on 24 February. This will facilitate branding and degree recognition for PSMs.



Program development and approval guidelines, with an option for expedited approval of PSMs created from existing MS programs, will be available soon at <a href="http://www.oregonpsm.org">http://www.oregonpsm.org</a>.

A best practices workshop for PSM program directors in the Pacific Northwest is being planned. The workshop will be held at OHSU in Portland later this spring.

New PSMs currently in the approval process include Environmental Science Management at PSU, Fisheries and Wildlife Administration at OSU, and Applied Mathematics at SOU. Final revisions are being made to a proposal for a cooperative PSM in Renewable Energy involving Oregon State University, Portland State University, and Oregon Institute of Technology.

# **NPSMA/CGS Data Report**

By Kevin Sightler, Director, PSM Program, University of Illinois at Urbana-Champaign

2009/2010 PSM Data Points:

- As of December 2009, there were 152 programs at 79 institutions.
- As of September 2010, there were 219 programs at 103 institutions.
- As of September 2010 there were 3,066 students enrolled in PSM programs.
- Program enrollment ranged from 1 344 students
- Average program enrollment was 34 students with a median of 18
- Approx. 50% had less than 15 students, 75% had less than 30 students.
- 57% of the programs were designed for full-time students, 33% were for part-time students, and 10% did not report status.
- About 27% of students worked full-time, 13% worked part-time, 20% were not working and 40% of students had no reported working status.
- As of September 2009, almost 3,800 people had applied to PSM programs in the previous 12 months; about 1,600 were admitted.
- About 28% of students were foreign students.
- Over 600 people graduated from PSM programs in 2009 and at least 4.500 have graduated since the programs were started.

A new data report is being designed by CGS in collaboration with the NPSMA. Keep your eye out for surveys that will be sent to program directors in the near future. We need all of your input to accurately report the state of PSM education in the United States.

#### **Professional Development**

By Marie Wehrung, Director of Training and Development at Rice University

How can you manage your workflow while managing your life? Everyone has the same 168 hours in a week, so how is it that some people seem to get things done and find time to relax and play, while the rest of us feel like the proverbial hamster on the wheel, constantly in motion but not sure our efforts are yielding good results, let alone relaxation time?

This workshop taught some key steps, and important thought processes for managing workflow at work, at home, in life. Useful tools were introduced to assist in managing workflow including the book <u>Getting Things Done</u> by David Allen and the software "ThinkingRock."

#### **NPSMA Institution Member News**

This newsletter serves as a venue for NPSMA institution members to make program announcements and attract national visibility. To receive full benefits and best practices advice for new programs, we encourage all non-member institutions to join the NPSMA.

#### Innovative Environmental Science PSM Acknowledges Real World Complexities, Seeks Sustainable Solutions

By Donna Emert (abridged to fit available space in newsletter)

MOSCOW, Idaho – Last summer the University of Idaho introduced an innovative, interdisciplinary Professional Science Master's (PSM) in natural resources and environmental science.

The PSM challenges students to synthesize diverse perspectives and integrate knowledge from several academic colleges. The goal is to foster greater understanding of the scientific, political and economic impacts of environmental issues, and how those forces interact to shape sustainable solutions. The University of Idaho PSM focuses on natural resources, environmental science and water resources. Seven program tracks have been developed to meet the needs of industry, now and in the foreseeable future, with focus on restoration ecology, environmental contamination, sustainability science, water resources management, management of regulated river systems, ecohydrology science and management, and climate change.

Even though there are other similar PSM programs in the U.S. such as the program at Oregon State University, Idaho's program is unique. Central to each PSM track are 12 credits of Transferable Skills Courses, which include training in financial and organizational management of projects, and scientific writing and speaking to the public about scientific issues, as recommended by the National Professional Science Master's Association (NPSMA).

All seven tracks of study have been approved by the Council for Graduate Studies and the NPSMA. By fall 2011, all transferable skills courses will be available online, and six of the seven tracks also will be available at Idaho's branch campuses in Coeur d'Alene, Boise and Idaho falls. Four of the tracks will be available nationally or worldwide.

Students in the program recognize the value of an integrated approach: "I will be able to set myself apart from others in the job market as not being traditionally trained in a narrow discipline, but as being a graduate of a holistic science education, including the study of financial, organizational, communicative and ethical aspects of scientific projects," said PSM student Alycia Lamar. "I feel the University of Idaho's PSM program is truly equipping me for the scientific challenges of the 21st Century."

The collaborative nature of interdisciplinary programs like the PSM makes them especially relevant when budgets are tight, Mulkey added. The PSM incorporates existing curricula in science and mathematics, communications and writing, political science and business management. The program currently is supported by a grant from the National Science Foundation, aimed at creating more effective young professionals.

"Sustainability science is a concept whose time has come," said Mulkey. "The PSM's interdisciplinary approach enables our graduates to work collaboratively, to formulate, communicate and apply sustainable solutions to environmental challenges."

For more information, visit www.uidaho.edu/psm.

#### The University of Illinois at Urbana-Champaign

By Kevin Sightler, Director, PSM Program, University of Illinois at Urbana-Champaign

The University of Illinois at Urbana-Champaign announces two new programs in their PSM portfolio: Technical Systems Management and Plant Biology. Technical Systems Management is a program focused on agricultural and biological engineering. The Plant Biology program addresses current and emerging needs in plant science-and technology-based industries. Both programs will admit students for the Fall 2011 semester, pending final approval. The University of Illinois also offers PSM programs in Agricultural Production, Bioenergy, and Food Science and Human Nutrition.

# **Michigan State University**

By Peiru Wu, Program Director, PSM in Industrial Mathematics, Michigan State University

From its very inception, the PSM in Industrial Mathematics at MSU was designed to meet the needs of local industry. The program has benefited greatly from close interaction and advice from our industrial



advisors who continue to guide the direction of the program. For the past ten years we have been holding an annual "Industrial Advisor Contact Day (IACD)" including this past November when the students held mock interviews with advisors from Auto-Owners Insurance Company, Chrysler LLC, The Dow Chemical Company, Ford Motor Credit Company, Ford Scientific Research Laboratory, and Towers Watson. In spring 2011, we have scheduled a sequence of presentations by industrial advisors to

cover various topics of interest to industrial mathematics students such as an overview of the actuarial profession; simulation modeling for engineering problems; data mining for forecasting; practical modeling advice for business; using mathematical models to guide business strategy; and operations research and applications. These seminar talks take advantage of the resources made available by our industrial advisory board and further develop our strong connections to Michigan -based business and industry.

# Northeastern University

By Cynthia Bainton, Administrative Manager, Biotechnology Programs, Northeastern University

Northeastern University launched its newest PSM program in Biopharmaceutical Regulatory Science last fall, enrolling five students in a program that is the first PSM of its kind in the country. The concept for the program was precipitated by the rapid growth of biopharmaceuticals that has created a critical need for regulatory science professionals. In addition, the shift in the pharmaceutical industry from small molecules to biologics coupled with many blockbuster drugs coming off patent will revolutionize the industry and further increase the demand for regulatory scientists.

The program's main educational objective is to equip students with core technical competencies in protein and carbohydrate chemistry, bioprocess engineering, and drug safety. Additionally, concepts of analysis and product characterization are augmented by courses in regulatory affairs, business, and communications. Since this program focuses on the "science behind the regulations" there is also a lab course in which students participate in developing and validating test methods commonly used for glycoprotein characterization (peptide maps using LC/MS/MS, pl using IEF, impurity analysis using ELSIA) and release testing and gain an understanding of how specifications are developed per ICH Q6B. Graduates will be prepared to succeed in highly valued positions in the biotechnology and pharmaceutical industries as well as in government agencies such as the FDA.

The Biopharmaceutical Regulatory Science Program joins Northeastern's PSMs in Bioinformatics, Biotechnology, and Marine Biology.

## **NPSMA** Participation in the Association for Environmental Studies and Sciences (AESS)

In partnership with the Council for Environmental Deans and Directors (CEDD) and the Council of Graduate Schools (CGS), NPSMA is offering a workshop on Environmental PSMs. The workshop will be presented in connection with the annual meeting of the Association of Environmental Studies and Sciences (AESS) at the University of Vermont on June 23 - 26, 2011. The conference's theme "Professional Science Master's Degree: An Opportunity for Environmental Programs" represents another sequence in conferences addressing education and workforce needs related to the environmental sector, such as the recent 2010 NPSMA Conference in Atlanta "Professional Science Master's Degree: Environmental Solutions and Workforce Development." At the Vermont workshop session. David Blockstein. Executive Secretary of CEDD, Carol Lynch, CGS and Jean Schaake, NPSMA board member, will discuss the PSM degree with particular attention to successful environmental PSM programs.

## Look out for Future NPSMA Workshops!

Plan to join us to discuss topics such as:

- Marketing and student recruitment with a limited budget
- Internship development, networking, and partnering with industry
- Grant agency and funding support for program development
- Designing PSMs to meet regional workforce needs
- Getting institutional and corporate buy-in for program implementation
- Innovative curriculum development
- Challenges of system-wide and multi-state PSMs

If you have a topic you would like to have addressed or if you have a speaker to recommend, please email the NPSMA office at admin@npsma.org.

#### **Alum Testimonial**

Jeffrey Smith Illinois Institute of Technology PSM Biology, 2008 Senior Engineer, Ion Torrent by Life Technologies

"In 2005, I was an early career engineer working on software for the distribution industry, but I wanted to work in biotechnology. So I enrolled in the Biology PSM Program at Illinois Institute of Technology. Coursework covered all of the relevant biological



knowledge that a professional in biotech would need to know, including the latest research in genomics and bioinformatics. Additionally, I was given the opportunity to participate in a research group that was developing an open source sequence analysis application. My experiences were very valuable to potential employers, and I was offered a position at a molecular diagnostics startup in Silicon Valley before I even graduated.

The PSM degree gave me a great foundation for

my career in biotech and has consistently helped me differentiate myself from my peers. As an added bonus, I even wound up marrying one of my classmates, making the PSM one of the best decisions of my life.'

# Save the Date!

April 7-8, 2011

**NPSMA Best Practices Workshop** 

St. Paul, Minnesota

# **Announcements**

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 admin@npsma.org.

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.

# **NPSMA Executive Committee and Staff**

Dagmar Beck (Rice University) President:

Vice President: Bogdan Vernescu (Worcester Polytechnic Institute) Convener: Susan Stites-Doe (State University of New York

at Brockport)

Finance Officer: Cliff Chancey (University of Northern Iowa) Director of Strategic Planning and External Projects: Donald N. Langenberg (Chancellor Emeritus,

University System of Maryland)

Coordinator: Debra Warren-Hite

# **Newsletter**

Editors: Peiru Wu, Dagmar Beck, Elizabeth Friedman

Layout: Debra Warren-Hite

To have your member news included in our newsletter, send submissions to admin@npsma.org.

# **Question to Our Readers**

Would you like to purchase an NPSMA polo shirt? If there is sufficient interest, NPSMA will soon have polo shirts available with the organization's logo imprinted on them. Take the poll on our website (bottom, left of home page) or email Deb at admin@npsma.org to indicate the quantity you may be interesting in purchasing.



# Invoice For Annual Membership Dues

(The NPSMA is a 501(c)(3) Nonprofit Organization; Tax ID # 20-8766099)

# Please Check Appropriate Membership: Renewal New 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 \$ 50 (1<sup>st</sup> year – FREE) Please make payments to the National Professional Science Master's Association. Mail form with check to: NPSMA, 100 Institute Road, Worcester, MA 01609. To pay online, go to <a href="www.npsma.org">www.npsma.org</a>. Thank you for your membership! Please Provide Information Below 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