New Brown Bag Seminar Series for Coordinators of Precollege Science Education Programs

Seminar Series: Sharing Strategies in K-12 Science Education

Title: How Scientific Research Societies Can Partner with Scientific Teaching Societies to Support K-12 Education

Speaker: Jaclyn Reeves-Pepin, Director of Development National Association of Biology Teachers NABT: http://www.nabt.org

Date: Thursday, January 22, 2009
Time: 11:45 am - 12:45 pm

Host: American Physiological Society
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Marsha Lakes Matyas, Ph.D., APS Director of Education Programs

Context: In the fall of 2008, the APS received a Science Education Partnership Award (SEPA) from the National Center for Research Resources (NCRR) at the National Institutes of Health (NIH). As part of the new “Six Star Science for Student-Centered Learning” project, the APS is coordinating a 3-year seminar series to highlight different aspects of teacher professional development programs and resources that can be used by professional scientific societies (e.g., developing a fellowship program for teachers within a society’s mission and resources, using the expertise of the society’s membership to work locally in supporting science educators, and producing scientifically accurate instructional material for effective use in the classroom or by the general public).

Invitation: We invite you to attend this seminar series to share strategies in effectively working with K-12 educators and programs. The tentative schedule for 2009 includes a brown bag session in January, March, June, August, November, and December (dates/location TBD).

Join us for the kick-off event on Thursday, January 22nd with the NABT Director of Development, Jacki Reeves-Pepin. Dessert and coffee will be provided.

Please RSVP no later than Friday, January 16th by our Evite system (preferred) by clicking: http://www.evite.com/app/publicUrl/MAANORSXLMYUXFWSVZLE/090122FrontiersSSSSeminar or by directly emailing Mel Limson in the APS Education Office at mlimson@the-aps.org.

Feel free to share this invitation with appropriate colleagues in the K-12 science education community within the metropolitan DC region. Other questions? Email Mel: mlimson@the-aps.org
Sharing Strategies in K-12 Science Education

How Scientific Research Societies Can Partner With Scientific Teaching Societies To Support K-12 Education

Jaclyn Reeves-Pepin
Director of Development
National Association of Biology Teachers (NABT)
Why STEM Matters

Science, Technology, Engineering, and Mathematics drives innovation.

Innovation ⇒ Jobs ⇒ Economy

In an effort to promote STEM Education, scientific societies and organizations have been encouraged to support teachers at the K-12 level.
Why Outreach Matters

Supplement the materials and information being introduced into classrooms.

*Outreach is more than dissemination, it’s also engagement*
How Societies Support STEM Education

- Curriculum development
- Programs that work directly with teachers and schools onsite
- Fellowships and specialized training for teachers
- Workshops and sessions at Professional Development Conferences for teachers
Benefits Of Working Directly With Teachers

Henry Adams said: A teacher effects eternity; he can never tell where his influence stops.

The average high school teacher has 30 students per class and teaches five classes a day.

• 150 students a year
  • 750 students in a five year span
  • 1500 students in a 10 year span
  • 3000 students in a 20 year span
Challenges When Working With Teachers

- Materials and resources must be designed to compliment a teacher’s current curriculum.
- All associated costs must be minimized.
- Funding opportunities must be available if training is required.
- Societies must promote a message that is relevant to today’s student audience.
The Importance Of Partnerships

Access to teachers leads to better utilization of limited resources and increases the impact of outreach efforts:

• Field testers for new materials
• Teacher/Leaders who are trained to give workshops to colleagues
• Focus groups for future development
Who is NABT?

In 1938, NABT was established to empower educators to provide the best possible biology and life science education for all students.

• Provide resources and opportunities for members to develop and enhance their professional performance.
• Advocate the teaching and learning of biological sciences based on the nature and methods of science and the best practices of education.
• Attract, represent and address the concerns of the full spectrum of educators in biology and the life sciences.
What NABT Can Offer Scientific Societies

- Experience and expertise navigating the landscape of K-12 education
- Collaboration opportunities between teachers and scientists
- Distribution of outreach programming on a national scale
The American Biology Teacher

Peer reviewed journal for biology and life science educators
Professional Development Conference

- Held annually, this meeting attracts 1000-1500 biology/life science educators
- Offers opportunity to interact with teachers of all backgrounds
- November 11-14, 2009 in Denver, CO
News & Views

• Weekly electronic newsletter that’s sent to mailing list containing over 8000 names
• Features programs and opportunities in timely manner
• Easily forwarded to colleagues
The Most Important Benefit NABT Can Offer

A motivated member base who wants to stay informed on what’s happening in both education and biology research.
What Scientific Societies Can Offer NABT

- Accurate and credible materials in specialized areas of biology
- Speakers, workshops, and journal articles that enrich and empower teachers
- Collaboration opportunities between scientists and teachers
The Most Important Benefit Societies Can Offer NABT

A motivated member base who knows what’s happening in biology research and cares about education.
Organizational Symbiosis

*It really does come down to **MONEY**!*

With the availability of only limited resources, mutually beneficial relationships are a necessity.
Why STEM Really Matters

When teachers and scientists work together, good things happen.

• Scientists learn how to talk about their work to a lay audience

• Teachers who are recognized as stakeholders become leaders in education

• Students are engaged, inquiry is encouraged and science literacy is improved
Special Thank You

Melvin Limson, Ph.D.
K-12 Education Programs Coordinator
The American Physiological Society

Marsha Lakes Matyas, Ph.D.
Director of Education Programs
The American Physiological Society
New Seminar Series Highlights Strategies to Support K-12 Science Education

Bethesda, MD - The American Physiological Society (APS) launched a new brown bag seminar series on Sharing Strategies in K-12 Science Education on January 22, 2009 on the campus of the Federation of American Societies for Experimental Biology (FASEB). Martin Frank, APS Executive Director, opened the series by encouraging professional scientific societies to collaborate together in sharing resources, strategies, and expertise, rather than functioning as “silos” of educational programs.

The APS hosted Jaclyn Reeves-Pepin, Director of Development for the National Association of Biology Teachers (NABT, www.nabt.org). Reeves-Pepin convincingly provided the context for how scientific research societies can partner with NABT to support K-12 education by:

- offering opportunities to collaborate between scientists and teachers;
- providing content expertise, workshops, and journal articles that enrich and empower teachers; and
- developing accurate and credible instructional materials in specialized areas of science.

Teaching associations such as NABT can offer the expertise of navigating the landscape of K-12 education, opportunities for collaboration, and marketing outreach programs across the nation. NABT values its motived member base of educators who want to stay informed on what is happening in both education and biology research. Reeves-Pepin’s presentation is available on the APS Frontiers in Physiology website (see below). Following the NABT presentation, Dr. Tony Beck of the National Center for Research Resources (NCRR) at the National Institutes of Health (NIH) described K-12 science education and public health awareness efforts across the nation in the Science Education Partnership Award (SEPA) program (www.ncrrsepa.org).

In attendance were education program directors and/or executive directors from the American Society for Human Genetics, American Society for Cell Biology, American Society for Microbiology, American Society for Biochemistry and Molecular Biology, Society for Developmental Biology, the Carnegie Institution of Washington, the Howard Hughes Medical Institute, and the American Physiological Society. Also represented were AAAS Science and Technology Policy Fellows in the Office of Science Education and the National Institute of Neurological Disorders and Stroke, and representatives from the NIH.

The seminar series is supported by an NIH NCRR SEPA grant as part of the APS’ Six Star Science Frontiers in Physiology program (www.frontiersinphys.org). Programmatic information for the seminar series and presentations are available at: www.frontiersinphys.org/pages/page04g.shtml.

Save the date: March 26 (speaker to be announced): Implementing Effective Teacher Professional Development Programs. For further inquiries, email Mel Limson, APS K-12 Education Programs Coordinator: mlimson@the-aps.org.