

ASM News

Learning Interventions Institute: an Introduction to Behavioral and Social Science Research

How do the benefits of tutoring, mentoring, and research experience affect a student's ability, success, and interest in science? And why do some students thrive in science, technology, engineering, and math (STEM) disciplines while others do not? These are just two of many questions that 22 participants asked themselves at the inaugural ASM-National Institute of General Medical Sciences (NIGMS), National Institutes of Health, Learning Interventions Institute, held 9–12 February 2009 at ASM headquarters in Washington, D.C.

The Learning Interventions Institute is a pilot effort by ASM and NIGMS directed toward educators interested in how and why students—particularly those from underrepresented minority groups—continue into advanced training in the STEM disciplines, including the biomedical, behavioral, and interdisciplinary sciences. The Institute is “an introduction to using basic behavioral and social science research to understand factors that affect interest, motivation, and preparedness for research careers in science and medicine,” says Martin Chemers, Institute codirector and a professor of psychology at the University of California, Santa Cruz. By providing resources for engaging in authentic research, the Institute gives participants the tools to design research projects to answer questions about the effectiveness of intervention studies.

Institute participants—typically directors, managers, and administrators of higher education STEM discipline diversity programs or natural and physical sciences researchers with an interest in the social and behavioral sciences—followed a “learn, apply, share” process in which lectures and discussions were followed by small group work, which in turn was followed by formal presentations given by the small groups. Each content area was developed to provide participants with (i) hands-on opportunities to

apply new techniques, ideas, and tools and (ii) problem sets highlighting real experiences and common questions. Group work was monitored for optimal participation and feedback, and participants could also discuss their research one on one with program leaders Chemers; Larry Hedges of Northwestern University, Evanston, Ill.; Jelani Mandara of Northwestern University; and Eileen Zurbruggen of the University of California, Santa Cruz.

Session presentations included “Peer Victimization in School” and “Conducting Research on Diverse Students in Science” by Sandra Graham and Sylvia Hurtado, respectively, of the University of California, Los Angeles.

In a post-Institute survey, 100% of respondents said they would recommend the Institute to their colleagues, with one respondent adding “More faculty need to know what the issues are with regards to retaining students in the STEM fields at the undergraduate level and how to prepare them for graduate education.”

The next Learning Interventions Institute will be held at the ASM Headquarters in Washington, D.C., on 11–14 January 2010. The application deadline is 15 October 2009. More information is available online at www.facultyprograms.org (see “Learning Interventions Institute”).

Fostering Microbiology Worldwide Through the ASM/UNESCO Visiting Resource Person Program

For 10 years, the ASM/UNESCO Visiting Resource Person (VRP) Program has allowed microbiologists around the world to share scientific knowledge and develop international connections. ASM is pleased to announce that ASM and UNESCO have signed an agreement to continue the program through 2010.

Funded by UNESCO and administered by ASM, this program allows scientists who are traveling to resource-limited countries on other

business to spend an extra day at a local institution where they present a scientific lecture and interact with faculty and students. The program supplements scientists' existing travel budgets with small grants that cover the cost of the extended stay. This is a cost-effective way for visiting scientists to have interactions with students and faculty that they would not have had time for otherwise.

Jean Greenberg of the University of Chicago, Chicago, Ill., is a recent VRP Program participant who visited the University of Cordoba in Argentina in November 2008 on academic business. In addition to delivering a lecture, she was able to spend time talking with students, "...discussing not only the experiments they did but what they wanted to try and what big questions were still important to address." Though the average VRP grant is small (\$250), Greenberg said, "The program was very worthwhile and cost-effective since I was able to spend an extra day with the students and that also encouraged them to approach me and have discussions. ...".

Likewise, Francis Eko, a 2008 VRP from Morehouse School of Medicine, Atlanta, Ga., found that his discussion with the graduate students at the Institute of Pathology, ICMR in New Delhi, India, was a particularly memorable aspect of his visit, "The passion with which they shared their various research interests and projects with me and their quest for information was fascinating."

One of the many benefits of this program is that it brings new knowledge to the host institution. Eko presented a seminar, "Novel Strategies for Developing Vaccines," and found that, "The visit has heightened the interest of the host and some attendees in vaccine development." Similarly, Greenberg told ASM that "I think my visit impacted the host institution by providing the students with expertise not immediately available to them."

However, the VRP's involvement does not necessarily end with their visit; like many participants, Nwadiuto Esiobu of Florida Atlantic University, Davie, Fla, found her 2006 VRP grant fostered professional relationships. Since visiting the University of Lagos she has been corresponding with a Ph.D. student and has established an ongoing professional exchange with one of her hosts. Esiobu felt that her visit made her an accessible contact to the students

and faculty, creating the possibility of lasting professional collaborations.

The VRP Program can also strengthen existing relationships. During a 2008 trip to China a VRP grant allowed Jiu Jiang of Drexel University, Philadelphia, Pa., to visit his alma maters, Shanghai Second Medical University and Bengbu Medical College. Following these visits he has continued interactions with the faculty at both institutions—applying for research grants, analyzing experimental data, and setting up investigative collaborations. He will continue this work during return visits to both institutions this summer.

In addition to sharing scientific research, the VRP Program allows scientists to make personal connections. Jiang describes the program as a "...way not only to share academic expertise between two universities, but also to understand each other."

The experiences of past awardees demonstrate that a single extra day spent as a VRP can lead to exchanges and relationships that will benefit the participants for years to come. It is clear that this program is a practical and rewarding way to foster microbiology at home and abroad. As Esiobu says, the program has "impact for pennies."

ASM is currently soliciting applications for the 2009 VRP Program.

More information and application materials are available through the International Affairs website at <http://www.asm.org/international/vrp>.

ASM CTEE Committee Proposes Major Overhaul to MicrobeLibrary

The ASM Committee on Technology Enhanced Education (CTEE) met on 6–8 March 2009 in Washington, D.C., to plan for the upcoming three years. Members reaffirmed the Committee's mission to (i) lead in the use of technologies in microbiology education; (ii) develop and disseminate resources that advance ASM curricula; and (iii) enrich, empower, and promote microbiology educators. A major initiative is to increase the visibility, credibility, and sustainability of the MicrobeLibrary (ML). Established in 2000, the ML includes seven collections under one portal. These collections include visual and curriculum resources, science teaching articles,

other science-related articles, and reviews. The visual resources have been freely available since their establishment. The subscription-based materials are the curriculum resources, articles, and reviews. ML users are primarily undergraduate biologists, with 25% coming from the international community.



Suchman

“A major concern is the diminishing numbers of ML subscribers and the continued pressure to become an open-access educational journal comparable to others in the field. If we reorganized the ML collections, we could publish two online, complimentary publications, *MicrobeLibrary 2.0* and a more traditional education journal,” said CTEE chair Erica Suchman of Colorado State University. Beginning in 2010, the Committee proposes the following:

(i) *MicrobeLibrary 2.0* will include only visual resources (e.g., images, videos, and animations) and laboratory protocols; corresponding images will be formatted in an atlas-type collection. (ii) *Journal of Microbiology & Biology Education (JMBE) 2.0* will combine content from three existing collections—*JMBE*, *Focus on Microbiology Education (FOME)* news-magazine, and curriculum resources—into a single publication. The new publication will include four sections: research, perspectives, curriculum resources, and departments. The department section will host how-tos, reviews, news, and letters.

“The major goals for combining the science teaching articles and curriculum resources under one title and divorcing them from the visual collection are increased visibility, credibility, and sustainability,” said Suchman. Chris Woolverton of Kent State University and Lucy Kluckhohn Jones of Santa Monica College, editors-in-chief for *JMBE* and *FOME*, respectively, agree with Suchman. “We should be working towards consolidating our publications and making them freely available reaching all microbiology and biology teachers,” they said. “These teachers play a pivotal role in identifying and encouraging students interested in microbiology.”

Publication via the ASM journals program is a critical milestone for educators’ promotion and tenure and is currently an unmet need when articles are hosted with an image collection. When articles are bundled with an image collection, disciplinary colleagues place little value on the publications in terms of advancement. The Committee recommends that *JMBE 2.0* be pub-

lished by the ASM Publications Board and bundled with other ASM journals. This bundling would simplify the community’s ability to find resources and advance the scholarship of teaching in microbiology. “We need to be more credible among the community,” said Woolverton.

In the upcoming years, the Committee will solicit and publish more collection-type images for *ML 2.0*. The standard microbiology laboratory protocol project with corresponding images formatted into an atlas has been very popular, especially among the international community. This project helps prospective contributors organize large image collections under a single theme and publish them online. Two collections that will be developed in the upcoming years are medical and veterinary diseases. “These are critical teaching aids,” said Suchman. “Our user surveys indicate that the primary use for images is to enhance a presentation, and the most needed subject areas are for diseases.”

A new area to be examined in the future is the impact and benefits of social networking. The Committee plans to develop best practices for establishing networks around single events such as the ASM Conference for Undergraduate Educators. The Board currently uses wikis for faculty institutes as a venue for monitoring participants’ professional development and sharing expertise and resources.

For more information about the Committee’s activities, visit www.asm.org, and click on “education.”

ASM Corporate Activities Program (CAP)

The ASM Corporate Activities Program (CAP) is comprised of leaders in the medical, pharmaceutical, and diagnostic industries. They are ASM’s most valued colleagues in the advancement of the Society’s mission to support educational initiatives in leading-edge science. To date, several areas, such as antimicrobial resistance, HIV/AIDS, and multi-drug-resistant *Staphylococcus aureus*, have been addressed through their support.

The primary use of CAP funding is the support of travel grants



for graduate students, Ph.D.'s, and M.D.'s, who present abstracts at ASM's General Meeting, the Interscience Conference on Antimicrobial Agents and Chemotherapy (ICAAC), the Biodefense Research Meeting, and ASM conferences. Those selected to receive travel grants are exceptional individuals representing the future top scientists and physicians from among the various fields represented by ASM. The travel grant is highly competitive, with 30% or fewer of those seeking grants being selected. Approximately 250 outstanding individuals are supported annually to attend these important scientific events.

The ASM is honored to recognize the participants of our CAP program. Brief corporate profiles on each member are included below. We encourage all General Meeting participants to visit our CAP members and learn more about the companies that generously support ASM and its educational goals.

2009 CAP Members (as of March 31, 2009)

Corporate Partners

Gilead Sciences, Inc.
333 Lakeside Drive
Foster City, CA 94404
www.gilead.com

Gilead Sciences is a biopharmaceutical company that discovers, develops, and commercializes innovative therapeutics in areas of unmet medical need. Headquartered in Foster City, Calif., Gilead has operations in North America, Europe, and Australia. Gilead's primary areas of focus include antivirals (such as HIV/AIDS and chronic hepatitis), cardiovascular conditions (such as pulmonary arterial hypertension and resistant hypertension), and respiratory diseases (such as influenza and cystic fibrosis).

GlaxoSmithKline Pharmaceuticals
1250 South Collegeville Road
Collegeville, PA 19426
www.gsk.com

GlaxoSmithKline (GSK) is a world-leading, research-based pharmaceutical company with a powerful combination of skills and resources that provides a platform to deliver new medicines for a rapidly changing health care environment. GSK's mission is to improve the quality of human life by enabling people to do more, feel

better, and live longer. Headquartered in the United Kingdom and with operations based in the United States, GSK has leadership in four major therapeutic areas: anti-infectives, central nervous system, respiratory, and gastrointestinal/metabolic. GSK is committed to the discovery, development, and commercialization of innovative, potent antibacterial and antiviral medications. GSK also has a dedicated Diseases of the Developing World R&D group, which was formed to discover and develop new medicines for diseases such as malaria, TB, and leishmaniasis. In addition, GSK is a leader in the important area of vaccines and has a growing portfolio of oncology products.

Wyeth
500 Arocola Road
Collegeville, PA 19426
www.wyeth.com

Wyeth Pharmaceuticals, a division of Wyeth, has leading products in the areas of women's health care, infectious disease, gastrointestinal health, central nervous system, inflammation, transplantation, hemophilia, oncology, vaccines, and nutritional products. Wyeth is one of the world's largest research-driven pharmaceutical and health care products companies. It is a leader in the discovery, development, manufacturing, and marketing of pharmaceuticals, vaccines, biotechnology products, nutritionals, and nonprescription medicines that improve the quality of life for people worldwide. The Company's major divisions include Wyeth Pharmaceuticals, Wyeth Consumer Healthcare, and Fort Dodge Animal Health.

Corporate Sponsors

Astellas Pharma Inc.
2-3-11, Nihonbashi-Honcho,
Chuo-ku,
Tokyo 103-8411, Japan
www.astellas.com

Astellas Pharma Inc., located in Tokyo, Japan, is a pharmaceutical company dedicated to improving the health of people around the world through the provision of innovative and reliable pharmaceutical products. Astellas has approximately 13,700 employees worldwide. The organization is committed to becoming a global category leader by rapidly establishing a business model in urology, immunology and inflamma-

tory, diabetes, CNS/Pain, infectious diseases (virus), and cancer. We have discovered an overactive bladder medication, Vesicare[®], and an immunosuppressive agent, Prograf[®] (tacrolimus), which have enabled us to become an established leader in both urology and transplant. For more information on Astellas Pharma Inc., please visit the company's website at <http://www.astellas.com>.

Boehringer Ingelheim Pharmaceuticals, Inc.
900 Ridgebury Road
Ridgefield, CT 06877
www.boehringer-ingelheim.com

Scientific excellence is one of Boehringer Ingelheim Pharmaceuticals' greatest strengths, and its principal mission is harnessing its human and technological resources to make significant improvements in human health. The company's clinical research organization is shepherding promising new medications for stroke, hypertension, arthritis, HIV, and pulmonary disease through clinical testing and regulatory review. In fact, Boehringer Ingelheim Pharmaceuticals anticipates the launch of 15 new products in the U.S. within the next five years, with many more candidates being added to the pipeline. Scien-

tists at the company's state-of-the-art Research & Development facilities in Ridgefield, Connecticut, are focusing on the discovery and development of new medications that, through the mediation of the body's immunological and inflammatory processes, hold promise for the treatment of cancer, cardiovascular, respiratory and autoimmune diseases, and central nervous system disorders.

Forest Laboratories, Inc.
909 Third Avenue
New York, NY 10022
www.FRX.com

Forest Laboratories (NYSE: FRX) is a U.S.-based pharmaceutical company with a long track record of building partnerships and developing and delivering products that make a positive difference in people's lives. In addition to its well-established franchises in therapeutic areas of the central nervous and cardiovascular systems, Forest's current pipeline includes product candidates in all stages of development and across a wide range of therapeutic areas. The company is headquartered in New York, N.Y. To learn more about Forest Laboratories, visit www.FRX.com.