

Leading bioinformatics scientist joins PNNL

George Michaels, an internationally recognized pioneer in bioinformatics has joined PNNL as director of bioinformatics. Bioinformatics is the computer analysis of data from biological experiments. The importance of bioinformatics is growing as scientists unravel the secrets of the human genome.

Michaels will lead PNNL's growing portfolio of bioinformatics and computational biology research activities. He will oversee systems biology and biotechnology research in PNNL's Biological Sciences division and Computational Science and Mathematics division and work closely with government and industrial clients.

Michaels' career spans nearly 30 years in which he provided significant technical and leadership contributions to his field. While an associate professor at George Mason University in Fairfax, Va., Michaels founded one of the nation's first doctoral programs in bioinformatics and computational biology. For more information on biological research programs at PNNL, go to <http://www.biomolecular.org>.

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Nano course draws nationwide interest



Twenty students from as far away as Alaska and Florida have been participating this month in the first of a series of intensive nanoscience and nanotechnology courses at Pacific Northwest National Laboratory. The courses aim to enhance education and research in nanotechnology and to speed undergraduate and graduate entry into the field.

PNNL and the University of Washington—via their Joint Institute for Nanoscience and Nanotechnology—have, along with Washington State University, developed the curriculum. The National Science Foundation is supporting the effort.

Ray Bard, an associate professor of chemistry at the University of Portland, has been one of the participants in the course and views it as a unique opportunity to gain contemporary perspectives on nanoscience and nanotechnology. “It also has given me a sense of some of the new technological approaches to research, which I will convey to my university students,” he said.

This first course is introductory. Other sessions on the theory, synthesis and characterization of nano-materials will be offered at later times. More information is available at <http://www.nano.washington.edu/pnnl/overview.html>.

PNNL uses cooperation, Starlight to illuminate economic path

Pacific Northwest National Laboratory continues to emphasize regional cooperation as a way to energize economic development efforts in Washington, Oregon and Idaho.

Through its entrepreneurial programs, PNNL has brought together a network of research organizations known as Linking Regional Resources (LRR). Along with PNNL, members of the network include the Idaho National Engineering and Environmental Laboratory and many of the leading universities and research institutes in the Pacific Northwest.

A key element of LRR is Starlight, an information analysis software developed at PNNL. Using this software tool, PNNL pools patent information gathered from the participating institutes and universities. In addition to assembling a database of individual technologies, Starlight sorts through the patents and identifies common themes, “bundling” together complementary technologies that may have more value as collective units. Through this process, Starlight helps focus attention on commercially promising technologies that eventually could result in new companies and jobs for the Northwest.

UO students create winning marketing plan

A business plan authored by a team of University of Oregon graduate business students finished fourth in the Moot Corp Business Plan Competition this month.

The UO students proposed a plan for marketing "Aqua Essence," a patented arsenic removal system that allows water suppliers to meet new environmental regulations and prevent arsenic contamination. The Aqua Essence team defeated groups from Pennsylvania's Wharton School of Business, Oxford University in England and the University of Michigan.

The basis for Aqua Essence technology was developed by Pacific Northwest National Laboratory and is called Self-Assembled Monolayers on Mesoporous Supports (SAMMS). SAMMS is an inexpensive, easy-to-use technology that absorbs trace levels of contaminants in liquids and can be disposed of easily afterwards. SAMMS can be custom designed to seek out a variety of contaminants from waste streams, including mercury, chromium and other toxic or precious metals and radionuclides. PNNL worked with the UO students through the Technology Entrepreneurship Fellows Program, which brings together graduate business and law students to assess market opportunities for patented technologies.



SAMMS is a coating process that makes sponge-like silica latch onto toxic metals in water. SAMMS captures such metals as lead and mercury, which are then recovered for reuse or contained in place.

PNNL researcher honored for community service



Novella Bridges and PNNL director Len Peters

Novella Bridges, a materials scientist at Pacific Northwest National Laboratory, has been named the winner of the Laboratory's prestigious 2003 Community Spirit Award. Bridges was honored for her commitment to serving youth in the Tri-Cities area and for "being a tremendous role model, especially within the African-American community."

In her two years at PNNL, Bridges has been involved in truancy and foster care programs as well as in Junior Achievement. She is active in educational outreach activities and is a certified, court-appointed student advocate under the Guardian Ad Litem program, which serves children under duress.

The Community Spirit Award is coordinated by Team Battelle, a staff-driven volunteer program, which includes Battelle staff, their families and retirees. Battelle operates PNNL for the U.S. Department of Energy. Team Battelle volunteers logged more than 13,100 volunteer hours in 2002. Projects included teaching English to Ukrainian immigrants, organizing an Alzheimer's Walk/Run, being the top fundraiser for the Wishing Star Foundation and teaching senior citizens to surf the Internet. For more information on Team Battelle see <http://www.pnl.gov/teambat/>.

Lab to participate in D.C. biotechnology conference

Pacific Northwest National Laboratory will be among the Northwest research organizations participating in the world's largest gathering of biotechnology leaders. The BIO 2003 Annual Convention is set for June 22-25 at the Washington Convention Center in Washington, D.C. The convention, which seeks to advance the field of biotechnology, has been staged annually since 1993 by the Biotechnology Industry Organization. Up to 20,000 biotechnology professionals and more than 500 reporters are expected to attend the four-day event. Fifty-two countries will be represented.

PNNL, a sponsor of the convention, will have an exhibit near the Washington state pavilion that will focus on biotechnology-related research, including systems biology, the use of biotechnology in bioproducts, and the development of biodetection systems for homeland security applications. Research staff will be on hand to offer computer demonstrations.

For more information about these items or about Pacific Northwest National Laboratory, contact:

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