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PNNL director meets with UW leadership

Pacific Northwest National Laboratory Director Len Peters met with the University of Washington's interim president Lee Huntsman and other UW leaders in April to celebrate the partnership between Battelle, PNNL and UW. Joining Peters was Battelle President and CEO, Carl Kohrt. Although Peters, who began his new duties at PNNL on April 1, was making his first official visit to UW, he noted collaboration between the two institutions spans more than two and a half decades.

PNNL and UW have three collaborative efforts currently underway—the Joint Institute for Nanoscience and Nanotechnology, the Joint Program in Cell Signaling and the Joint Institute for Global and Regional Studies. In the meeting, Peters also noted PNNL's recent $2 million gift to UW's Center for Technology Entrepreneurship in the name of former Battelle CEO Doug Olesen. "PNNL believes a healthy entrepreneurial environment, coupled with state investments in a stronger education system and more competitive R&D organizations are essential to the future of Washington state," Peters said.

Hydrogen production and Northwest transportation

PNNL and the Northwest Energy Technology Collaborative will sponsor the upcoming Hydrogen Production and Northwest Transportation conference at the Bell Harbor International Conference Center in Seattle on June 16, 2003. Among the invited speakers is Washington Governor Gary Locke.

The conference will begin with a visionary overview by stakeholders of a future hydrogen economy that targets the convergence of Northwest power producers and transportation. Speakers will include leaders from power-producing utilities and transportation and representatives from federal and state government.

The overview sessions will focus on hydrogen and the Northwest power system; hydrogen production and distribution; fuel cells and much more. There will also be a faciliated discussion allowing participants to explore the impact of clean technologies on Northwest transportation and brainstorm opportunities for near-term and future demonstration projects. For more details, visit the conference web site at **http://www.pnl.gov/energy/hydrogen**.

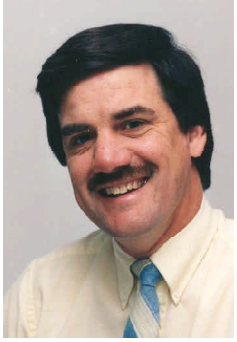
Powering the electronic soldier of the future

A major obstacle to equipping soldiers with more high-tech devices has been finding a reliable, lightweight power source to operate these advanced electronic devices. Today's heavy and cumbersome batteries do not satisfy the military's needs. In search of both a lightweight and reliable alternative, Pacific Northwest National Laboratory has developed a critical piece of the world's smallest power system. Researchers, with funding from the Defense Advanced Research Projects Agency (DARPA), have developed a fuel processor the size of a pencil eraser. The fuel processor reforms fuel into hydrogen needed by the fuel cell.

Coupled with a micro-scale fuel cell developed by researchers at Case Western Reserve University in Ohio, the catalytic fuel processing reactor system can provide a low-watt power source for handheld wireless equipment, sensors and other small devices required by troops. The entire power system is the size of a cigarette lighter.

Oregon State University honors PNNL scientists

Two Pacific Northwest National Laboratory scientists have been inducted into Oregon State University's Academy of Distinguished Engineers.



Gary McNair

Gary McNair, senior program manager responsible for the design and deployment of radiation portal monitoring systems for the U.S. Homeland Security Agency, received his doctorate in nuclear engineering from OSU in 1983. He has more than 25 years experience in environmental and nuclear waste management, operations and technology development, and analyses activities.

Landis Kannberg

Landis Kannberg is a senior program manager presently leading a major new DOE initiative in advanced communications and control for distributed power systems and serving as co-director of the Microproducts Breakthrough Institute, a joint OSU-PNNL project. Prior to this he helped lead, and was a significant contributor to establishment of, national efforts to enhance protection of our critical energy infrastructures. Kannberg was recently elected a Fellow of the American Society of Mechanical Engineers International and named 2002 Engineer of the Year by the ASME Columbia Basin Section. Kannberg received his doctorate in mechanical engineering from OSU in 1977.

The Academy recognizes mid-career OSU graduates who have sustained distinguished contributions to the profession, OSU or society. Members must have a bachelors of science degree, at least 20 years of experience and must still be practicing their profession.

Affordable fuel cells discussed in Seattle meeting

Members of a national team tasked with speeding the development of affordable, mass-produced fuel cells met in Seattle recently to discuss technology progress and new applications for solid oxide fuel cells.

Pacific Northwest National Laboratory is one of two national laboratories that leads the Solid State Energy Conversion Alliance (SECA)—a collaboration of U.S. industry, universities and research institutions. SECA was created in 1999 to advance the development and commercialization of low-cost solid oxide fuel cells for stationary, transportation and military applications. Also involved is the National Energy Technology Laboratory in Pittsburgh, Pa., and Morgantown, W. Va.

Representatives of two Seattle-based companies, Boeing and PACCAR, discussed their roles in the "Auxiliary Power for Commercial Aircraft" and "Truck of the Future" programs respectively. Military officials reported on their fuel cell programs, while an environmental panel discussed the role of fossil fuels and fuel cells. U.S. Senator Maria Cantwell and U.S. Representative Norm Dicks spoke at conference. For more information see **http://www.seca.doe.gov**.

PNNL author chronicles Hanford Site history

In *Hanford: A Conversation*, PNNL scientist Roy Gephart takes readers on a journey through a world of facts, values, conflicts and choices facing the most complex environmental cleanup project in the United States—the U.S. Department of Energy's Hanford Site. Starting with the top-secret Manhattan Project, Hanford was used to create tons of plutonium for nuclear weapons. Hundreds of tons of waste remain.

Hanford: A Conversation is an information resource, written for the reader wanting an overview of Hanford and cleanup issues facing the nation's nuclear weapons complex. Each chapter is an idea guide that encourages readers to be informed consumers of waste cleanup and Hanford news, to recognize that knowledge and social values are at the heart of coping with Hanford's past and charting its future.

The book is now available through the Battelle Press online store at **http://www.battelle.org/bookstore/**.

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

Ginny Sliman, Editor
Phone: 509-375-4372
Fax: 509-375-6550
E-mail: virginia.sliman@pnl.gov

Pacific Northwest National Laboratory
P.O. Box 999, K1-39, Richland, WA 99352
Toll-free: 1-888-375-PNNL
Web address: http://www.pnl.gov

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