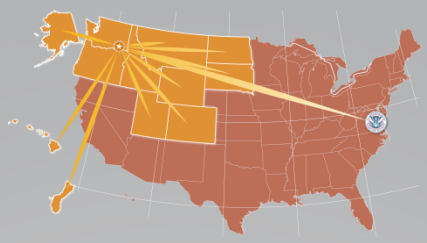


UPCOMING EVENTS

- February 7, 2018 – Homeland Security Innovation Summit, Portland, OR
- March 8, 2018 – Empower Leadership Conference for Women in Non-Traditional Careers, Lynnwood, Washington
- March 15, 2018 – Alliance Northwest, Puyallup, WA
- July 22-26, 2018 – Pacific NorthWest Economic Region 2018 Annual Summit, Spokane, WA

CONTACT

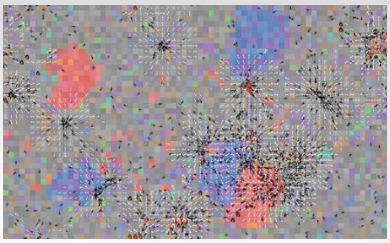
- Want to know more? Visit us on the web at http://nwrtc.pnnl.gov
- Contact the NWRTC with questions and comments at nwrtc@pnnl.gov.

AROUND THE REGION IN HOMELAND SECURITY

The Northwest Regional Technology Center (NWRTC) is a virtual resource center, operated by the Pacific Northwest National Laboratory (PNNL), to support regional preparedness, resiliency, response, and recovery. The center enables homeland security solutions for emergency responder communities and federal, state, and local stakeholders in the Northwest.

PNNL LICENSES THREE TECHNOLOGIES TO COMBAT CYBER THREATS

PNNL has licensed three of its most unusual technologies for preventing cyberattacks to Cynash Inc., a startup company funded by IP Group, an intellectual property commercialization company. Cynash was formed specifically to bring these three cyber protection technologies to market to provide a powerful new approach to detect and prevent cyberattacks.

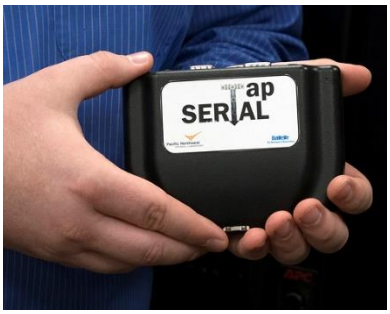


Digital Ants

MLSTONES

Cynash intends to integrate these technologies into a suite of products and services to enhance cybersecurity in private enterprise, the public sector, and industrial control systems.

Two of the technologies, DigitalAnts and MLSTONES, are inspired by nature and biology. The third, SerialTap, addresses vulnerabilities inherent in remotely controlled physical systems common in infrastructure and manufacturing.



SerialTap

IP Group discovered these technologies through the Department of Homeland Security Science and Technology Directorate's Transition to Practice Program, through which PNNL has now licensed five technologies—the most of any participant in the program.

Read the press release for more information.

RESEARCHERS UNLOCKING THE SECRETS OF EBOLA

Health workers tend to a patient at one of Sierra Leone's military hospitals. Credit: Kawaoka lab, University of Wisconsin-Madison

Scientists have identified a set of biomarkers that indicate which patients infected with the Ebola virus are most at risk of dying from the disease. The results come from a team of 15 scientists at PNNL, who worked with colleagues at the University of Wisconsin-Madison and other institutions. The paper was published in *Cell Host & Microbe*.

The team conducted one of the most thorough analyses ever of blood samples from Ebola patients, looking at activity levels of genes and proteins as well as the amounts of lipids and byproducts of metabolism. The team found 11 biomarkers that distinguish fatal infections from non-fatal ones and two that, when screened for early symptom onset, accurately predict which patients are likely to die.

"Our team studied thousands of molecular clues in each of these samples, sifting through extensive data on the activity of genes, proteins, and other molecules to identify those of most interest," said Katrina Waters, the leader of the PNNL team and a corresponding author of the paper. "This may be the most thorough analysis yet of blood samples of patients infected with the Ebola virus."

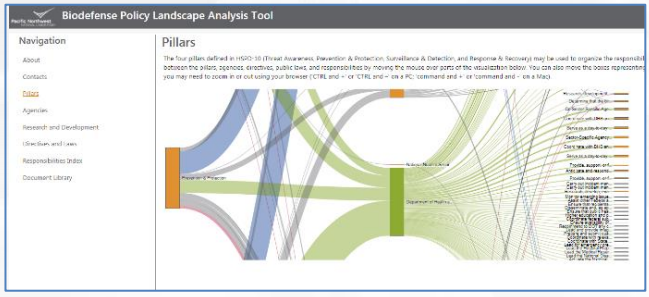
For more information, read the press release. The paper is also available at https://doi.org/10.1016/j.chom.2017.10.011.

NEW TOOL ASSISTS BIODEFENSE POLICY LANDSCAPE ANALYSIS

PNNL has launched the Biodefense Policy Landscape Analysis Tool (B-PLAT) to help improve understanding of the current state of the U.S. biodefense enterprise. Available at https://bplat.pnnl.gov, the B-PLAT captures 200 enduring biodefense responsibilities assigned by directives and laws.

The tool is the result of an internally funded working group, the Policy Wranglers, chartered by PNNL to capture relevant biodefense policy directives, public laws, and corresponding sections of the U.S. Code, in a format conducive to visualization.

“The tool is intended to reflect the current state of the biodefense enterprise and serves as an informational tool to further the national dialogue on biodefense,” said Rachel Bartholomew, PNNL senior research scientist.



EDDY RECOGNIZED BY PACIFIC NORTHWEST DEFENSE COALITION

NWRTC Deputy Director Ryan Eddy was recently honored as Committee Member of the Year for the Pacific Northwest Defense Coalition. The Pacific Northwest Defense Coalition is the association for Northwest defense and security industry businesses. It focuses on strengthening members' business growth, the region's economy, and the nation's security through training, one-on-one counseling, business-to-business networking, and advocacy. PNNL has been a member of the coalition for the last three years and Ryan recently served on the coalition’s leadership board.

For more information, contact NWRTC Director Ann Lesperance at ann.lesperance@pnnl.gov or (206) 528-3223, or Deputy Directors Ryan Eddy at ryan.eddy@pnnl.gov or 509-372-6622, and Rob Jasper at robert.jasper@pnnl.gov or (509) 371-6430 or visit us online at http://nwrtc.pnnl.gov.

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