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SRNL Technologies Featured at National Showcase

AIKEN, SC (July 14, 2015) -- Two innovations from the Department of Energy's Savannah River National Laboratory have been featured at the 2015 National Innovation Summit and Showcase, a Washington, DC, event that spotlights emerging technologies, start-ups and research.

The two SRNL technologies are:

BioTiger™, a biocatalyst made up of a proprietary, carefully balanced combination of bacteria that destroy or mitigate complex petrochemicals and heavy metals, even under extreme or harsh conditions. BioTiger™ was originally developed as the result of a collaboration between DOE's Environmental Management program and the government of Poland as a microbe-based method for cleaning up oil-contaminated soils at a century-old Polish oil refinery. Researchers identified microbes that could break down the oil to nonhazardous products, leaving an environmentally pristine area. In the industrial world, BioTiger™ can remove oil residues on surfaces such as concrete slabs and building foundations, and has commercial potential as a tool for increasing oil recovery from oil sands without adding chemicals. BioTiger™ has been licensed by Opportunities Group, LLC, an Aiken, South Carolina, startup company.

T**itanium-Based Materials as Bactericides**, an SRNL patent that shows promise for the health care industry as a means of safely suppressing the growth and formation of bacterial infections.

Working with researchers at the University of Washington School of Dentistry, SRNL researchers have shown that metal-titanate materials can limit the growth of bacteria commonly found in the mouth, and may be an effective additive to extend the life of restorative fillings. Metal ions also have the potential to be used with the titanate delivery system by incorporating into traditional medical ointments, bandages, implantable materials and as coatings on other medical devices to prevent or limit bacterial infections. The basic research is

an offshoot of collaborative work by SRNL that led to chemical processing efficiencies for radioactive waste disposal.

“These are two excellent examples of how research performed for DOE’s environmental management program has a much broader impact on the region, the nation or the world,” said Dr. Terry Michalske, Director of SRNL. “These innovations can make fundamental change in areas like medicine and oil recovery, fields that aren’t typically associated with SRNL. That’s a credit to our people, and to the growing impact of the Laboratory.”

The two SRNL awardees were considered among the top early-stage innovations from around the world through an industry review process of the top 20 percent of submitted technologies into the Summit. Rankings are based on the potential positive impact the submitted technology will have on a specific industry sector. The full list of awardees can be found at http://techconnectworld.com/World2015/participate/innovation/innovation_awards.html

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