SRNL
SAVANNAH RIVER NATIONAL LABORATORY
News from the
Savannah River National Laboratory

Media Contact: Will Callicott
(803) 725-3786
will.callicott@srnl.doe.gov

SRNL Chosen to Participate in New Department of Energy Technology Transfer Initiative

AIKEN, SC (August 28, 2012) -- A detection technology developed by the Department of Energy's (DOE) Savannah River National Laboratory has been chosen to participate in a new program designed to assist in transferring technology to small business.

Under a new DOE initiative, through the department's Small Business Innovation Research (SBIR) program, small businesses will propose innovative applications for technologies available for license through DOE's National Laboratories. A small business that submits a winning proposal will be selected to perform research and development in partnership with SRNL, and may have the opportunity to protect future intellectual property rights.

SRNL's boron-structured nano-proportional counter has been chosen for participation in this program. SRNL researchers have applied for a patent on a neutron detection technology that incorporates boron as a neutron capture material and nanomaterials to produce high electric fields. The result is an instrument with higher sensitivity, shorter count times, and a lower operating voltage, which allows for a smaller, more portable power supply.

The use of boron as the neutron capture material means that scarce resources, such as helium-3, should not be needed in large-area neutron detectors like portal monitors. Further, with minor design modifications, this approach is expected to result in the similar sensitivity improvements in the detection of alpha, beta, and gamma radiation. The boron-based nano-proportional counter technology has the potential to renovate an age-old detector design and lead the way for the advancement of radiation detection technology through the use of nanomaterials.

Programs like this that assist the DOE and the National Laboratories by providing early funding for the development of strategic technologies, assisting the growth of small businesses, and addressing the Small Business Administration policy goal to "increase private sector commercialization of innovations derived from Federal research and development, thereby increasing competition, productivity and economic growth."

Additional information, along with an interactive site, is available to enter questions of SRNL personnel on the boron-structured nano-proportional counter technology. Questions asked and responses will be posted for all interested participants to view.

Access to information on this technology will be provided on the SRNL Technology Transfer website: http://srnl.doe.gov/tech_transfer/tech_transfer.htm.

SRNL is DOE's applied research and development national laboratory at the Savannah River Site. SRNL puts science to work to support DOE and the nation in the areas of environmental stewardship, national security, and clean energy. The management and operating contractor for SRS and SRNL is Savannah River Nuclear Solutions, LLC.

Visit us on the web at http://srnl.doe.gov