



INL honored more than 100 researchers and inventors during its 2013 Research & Development Awards Ceremony, which was held in the new Energy Innovation Laboratory Meeting Center. Gus Caffrey, right, was recognized as Inventor of the Year.

Idaho National Lab honors researchers, inventors, technicians

By Sara Prentice, *INL Communications & Governmental Affairs*

Idaho National Laboratory honored more than 100 researchers and inventors during its annual recognition event recently.

INL's 2013 Research & Development Awards Ceremony was held in the new Energy Innovation Laboratory Meeting Center. Inventors and guests mingled while browsing the many patent and copyright assertion plaques, and other special awards displayed throughout the building.

Following the social hour, a special ceremony highlighted the combined 60 patents and copyright assertions received during 2013. Patents and copyright assertions enable INL to protect new ideas, discoveries and inventions while facilitating successful commercialization.

"Our researchers and inventors deserve recognition and congratulations for their many impressive achievements," said INL Laboratory Director John Grossenbacher. "Research and technology from Idaho National Laboratory materially contributes to solving significant national challenges in energy, environment and national and homeland security."



Aaron Wilson, left, Exceptional Early Career Achievement.



Joshua Daw, Exceptional Engineering Achievement

INL is the only national laboratory with an Inventors Hall of Fame, and this year the lab inducted 10 new members at the 5-patent level. Another six reached the 10-patent level, and Dennis Bingham reached the 20-patent level.

Five employees earned special recognition as Inventor of the Year, Technician of the Year, and three as Laboratory Director's Achievement award recipients. All were honored for significant contributions in their research fields during 2013.

Exceptional Engineering Achievement

Joshua Daw joined INL in 2008. His work has focused on development of instruments that can be used inside a reactor core to obtain important measurements during experiments. Joshua is currently the lead for an MIT research reactor experiment, which will help identify materials that can be used to develop ultrasound-based sensors for in-core use.

Early Career Exceptional Achievement

Since arriving at INL in 2010, Aaron Wilson has been principal investigator on several projects in materials chemistry, including electrolysis of fatty acids to form biofuels. His research efforts include pioneering the award-winning Switchable Polarity Solvents Forward Osmosis technology, taking it from a hypothesis to a laboratory-demonstrated technology in less than a year. Aaron's work resulted in an R&D 100 Award, a Federal Laboratory Consortium Far West Award and an Idaho Innovation Award.

Individual Lifetime Achievement in Science and Technology

Douglas Porter joined Idaho's Experimental Breeder Reactor-II research team in 1977 after earning bachelor's, master's and doctorate degrees in metallurgy and materials science. Today, Doug is a Directorate Fellow, and a materials scientist in INL's Fuels and Materials Department. He is recognized as one of the world's experts in fast reactor alloy fuels and stainless steel cladding. Doug is co-inventor on two patents and had a significant impact at INL, mentoring and advising many researchers throughout the years.

Inventor of the Year

As an inventor, Gus Caffrey is best known for development of the Portable Isotopic Neutron Spectroscopy (PINS) system. PINS received an R&D 100 Award more than 20 years ago, and today it is used around the world to nondestructively determine the contents of munitions that may contain chemical agents, explosives or other materials without having to disassemble or open those munitions. A third generation of PINS expands the capability to identify chemicals and compounds used in improvised explosive devices (IEDs), and continues to save the lives of U.S. military and civilians.

Gus also invented the Compton Dry-Cask Imaging Scanner, which allows inspectors to determine the contents of used nuclear fuel storage casks without having to open them. This invention promises to follow PINS in being deployed around the world to insure international controls of nuclear materials are adequate.



Doug Porter, Individual Lifetime Science and Engineering Achievement.



Technician of the Year

Albert Smith has been at INL and the Specific Manufacturing Capability project for more than 26 years. He is a Level 5 Technician and team lead in the Test Area North electrical shop. He installs, maintains, repairs, and calibrates high-tech equipment and systems that support production and development activities for the U.S. Department of Army. Albert is recognized as a subject matter expert in all electromechanical, hydraulic and pneumatic equipment and logic control systems. He has earned immense respect and accolades from co-workers spanning junior technicians to senior engineers and management.

Technicians honored as finalists include: Mike Barton, Randall Briggs, Yvette Leppert and Jana Pfeiffer.

Hall of Fame

5-Patent Level: Kevin Gering, James O'Brien, Jeffrey Lacey, David Reed, Steve Herring, Gordon Lassahn, Jon Grandy, Thomas Lillo, John Klaehn, Kevin Kenney

10-Patent Level: William Apel, David Thompson, Vicki Thompson, John Morrison, Henry Chu, Jill Scott

20-Patent Level: Dennis Bingham

Watch the [2013 Highlight video](#) shown at the celebration.

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