Ralph B. James, PhD

Associate Laboratory Director, Science and Technology
Savannah River National Laboratory
Savannah River Nuclear Solutions, LLC

EDUCATION

California Institute of Technology
Ph.D., Applied Physics
M.S., Applied Physics

Georgia Institute of Technology
M.S., Physics

University of Tennessee at Knoxville
B.S., Engineering Physics

EXPERIENCE

Ralph B. James is Associate Laboratory Director for Science and Technology at the Savannah River National Laboratory. Dr. James has over 35 years of experience in research and development and also serves as the lab's Chief Research Officer, assessing the laboratory's core competencies and its growing Laboratory Directed Research and Development program. Dr. James' background includes the fields of nonproliferation, national security, environmental remediation, nuclear medicine, energy and astrophysics.

Dr. James previously worked as a Senior Scientist and Program Manager at the Brookhaven National Laboratory where he led an interdisciplinary team of scientists and engineers focused on the development of semiconductor radiation detectors and instruments incorporating the technology. He was also the Principal Investigator on multiple projects connected to crystal growth, materials and analysis and characterization, development of compact gamma cameras, low-noise electronics, and engineering of a field spectrometer. Dr. James was also a Distinguished Member of Technical Staff and Project Manager at Sandia National Laboratories, and a Eugene P. Wigner Fellow at Oak Ridge National Laboratory.

Dr. James has been awarded numerous international honors for his work on nuclear detection and imaging and has received six R&D100 Awards. He has also been named Discover Magazine's Innovator of the Year. Other honors include the Award of Excellence for lifetime achievements by the Society of Solid-State Chemists, and the Gordon Battelle Award for Technology Innovation.

Dr. James is an inventor with 24 patents on radiation detection, spectroscopy and imaging, and has over 600 scientific publications, six book chapters, and 15 invited review articles. He has edited 29 books on semiconductors for radiation sensing, spectroscopy, and medical imaging applications, and has served as chairman of over 33 conferences devoted to radiation detection.