Thakur Receives Cassen Prize for Research

Mathew L. Thakur, PhD

Mathew L. Thakur, PhD, a molecular imaging pioneer and past president of the SNM, was awarded the 2008 Benedict Cassen Prize during the 55th Annual Meeting of the society, in New Orleans, LA. This biennial honor, given by the SNM Education and Research Foundation (ERF), is presented to a living scientist or physician/scientist whose work has led to a major advance in basic or clinical nuclear medicine science. Thakur's Cassen lecture, delivered at a plenary session on June 16, was titled, "Genomic Biomarkers for Molecular Imaging: Predicting the Future."

Thakur, a professor of radiology and radiation oncology at Thomas Jefferson University (TJU) Medical College in Philadelphia, PA, since 1982, has focused on developing and evaluating radiopharmaceuticals for diagnostic imaging and therapy. A director of radiopharmaceutical and nuclear medicine research at TJU and a member of the Kimmel Cancer Center, he has produced and isolated many medically useful radionuclides and been instrumental in the preparation of novel radiopharmaceuticals. He holds a number of patents as a result of this work.

"In science, nothing is more gratifying and encouraging than recognition by peers," said Thakur. Noting the myriad advances that have occurred during his career, he added: "As Baron Leslie Arnold Turnberg, a British medical professional, said, 'Medicine will change more in the next 20 years than it has in the past 2,000, and molecular imaging is playing a pivotal role in that.'"

The award honors Benedict Cassen, whose invention of the rectilinear radioisotope scanner—the first instrument capable of making an image of a body organ in a patient—was seminal to the development of clinical nuclear medicine. Thakur is 1 of 9 individuals who have been presented this prestigious $25,000 award by the ERF since 1994.

Thakur received a bachelor's degree in chemistry from Bombay University, India, and a master's degree in analytical chemistry and doctorate in radiochemistry from London University, UK. Thakur began his career at Hammersmith Hospital in London, where he successfully labeled white blood cells with ^{111}In-oxine. The ability to label white blood cells revolutionized the detection of infection, tumors, cardiovascular diseases, and thromboembolism. He then began researching radiolabeled monoclonal antibodies, which, in addition to being instrumental in detecting infection, reduce the risk of contamination. He was a visiting scholar at the Mallinckrodt Institute of Radiology at Washington University School of Medicine (St. Louis, MO) and an associate professor of radiology at the Yale University School of Medicine (New Haven, CT).

Thakur's research interests include the diagnosis and treatment of breast, prostate, and pancreatic cancer and the development of imaging techniques for venous thrombosis, pulmonary embolism, and gene expression. One of his newer radiopharmaceuticals has the potential to replace ^{111}In in many nuclear medicine procedures. This radiopharmaceutical is a directly injectable ^{99m}Tc-labeled monoclonal antibody that avidly binds to human neutrophils and detects infection rapidly and efficiently. He is a member of several editorial boards, including those of *The International Journal of Nuclear Medicine and Biology*, *The Journal of Nuclear Medicine,* and *The European Journal of Nuclear Medicine and Molecular Imaging*. He has published more than 150 papers, 148 abstracts, 4 books, and 39 book chapters. In addition to serving as SNM president from 2004 to 2005, he was the first president of the SNM Molecular Imaging Center of Excellence, from 2005 to 2006.

Thakur's contributions to the field have been recognized with numerous awards and honors, including the American Chemical Society Maurice Chamberland Award, the SNM Paul Aebersold and Georg de Hevesy Awards, India's V. Sarabhai Oration Award, and the Indo-American Society of Nuclear Medicine Lifetime Achievement Award.

"Science is an ounce of inspiration and a pound of perspiration. In all 5 major institutions where I have worked, I have been fortunate to work side by side with individuals who inspired me to accomplish our goals," said Thakur. "I thank them all from the bottom of my heart."

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