Aebersold Award Presented to Gambhir

Sanjiv Sam Gambhir, MD, PhD, professor of radiology and bioengineering, director of the Molecular Imaging Program, and head of the nuclear medicine division at Stanford University, received the 2006 Paul C. Aebersold Award for outstanding achievement in basic nuclear medicine science on June 4 at the 53rd Annual Meeting of the SNM in San Diego, CA. An internationally recognized researcher in basic sciences, biology, and medicine, Gambhir works at the cutting edge of molecular and translational studies that have brought nuclear medicine to new prominence in a range of diagnostic and therapeutic applications. The award is named for Paul C. Aebersold, a pioneer in the biologic and medical applications of radioactive materials and the first director of the Atomic Energy Commission Division of Isotope Development at Oak Ridge (TN).

"I feel very honored to be selected for such an important award," said Gambhir, who previously was the director of the Crump Institute for Molecular Imaging at the University of California, Los Angeles (UCLA). "SNM has been my home ever since I was a student entering the field in 1986. It is truly a privilege to continue to learn from others in the field and to advance imaging techniques for improved management of disease. Molecular imaging is truly in its infancy, and I am confident that nuclear medicine is going to undergo some marked growth but will benefit from embracing nonradionuclide strategies in molecular imaging as well."

Gambhir, who serves as vice president of the SNM Molecular Imaging Center of Excellence, heads an active research laboratory that focuses on novel molecular targets for imaging cancer and cardiovascular disease. In the lab, small animal PET and CT, bioluminescent and fluorescent optical imaging, and other modalities are routinely used in developing methods to image gene/cell therapy. His research team has developed several small animal imaging strategies for studying basic cell/molecular biologic events, including signal transduction, gene expression, and cell trafficking.

Gambhir, an associate editor for *The Journal of Nuclear Medicine* (*JNM*), has extensive experience with ^{18}F-FDG PET and has developed many of the related management algorithms for cancer patients, including cost-effectiveness models. His decision models were used by the Center for Medicare & Medicaid Services (CMS) in understanding the role of PET in various applications and directly helped to secure reimbursement for PET for specific indications. He led an effort to tabulate and analyze state-of-the-art literature on PET in 17 different cancers, cardiovascular disease, epilepsy, and Alzheimer's disease, a project that provided the evidence-based foundation for CMS coverage and that was published as a special issue of *JNM*.

(From left) SNM President Peter Conti, Scientific Program Chair Frederic Fahey, Sam Gambhir, and SNM Immediate Past President Mathew Thakur at the presentation of the Aebersold Award.

In addition, Gambhir has developed and validated both enzyme- and receptor-based PET reporter gene–reporter probe assays and produced a novel way to use molecular imaging to examine gate logic of protein–protein interactions in the living mouse. His studies have produced the first proof of principle that signals from protein–protein interactions that regulate cellular communication systems can be imaged in vivo.

Gambhir, who delivered the SNM 2005 Wagner Lecture, received his bachelor's degree in physics from Arizona State University in Tempe and studied at UCLA in the Medical Scientist Training Program, where he obtained both his medical degree and his doctorate in biomathematics. His medicine and nuclear medicine residency training were performed at UCLA, where he was a professor of molecular pharmacology and vice chair of molecular pharmacology before moving to Stanford in late 2003.

Gambhir delivered the 2000 Frontiers of Science Lecture for the National Academy of Sciences and currently oversees the activities of more than 22 graduate students and postdoctoral fellows in his own lab and more than 75 scientists in the Molecular Imaging Program at Stanford. As a principal investigator, he has received National Institutes of Health support for "Imaging Reporter Gene Expression," "Second Generation of Gene Therapy Vectors for Imaging Gene Expression," "Molecular Imaging of Stem Cell Survival, Apoptosis and Differentiation in Myocardium," "Correlative Imaging of Tumor Angiogenesis" and "Molecular Imaging of Cancer With a Voltage Sensor." He is also the principal investigator for the In Vivo Cellular and Molecular Imaging Centers P50 and Center for Cancer Nanotechnology Excellence U54 initiatives at Stanford, both from the National Cancer Institute (NCI).

Outstanding *JNMT* Articles for 2005

On June 6, Beth A. Harkness, CNMT, editor-in-chief of the *Journal of Nuclear Medicine Technology* (*JNMT*), presented awards for 3 articles chosen as outstanding contributions to *JNMT* in 2005 at the SNM annual meeting in San Diego, CA. The lead authors or their representatives received plaques and honoraria in a ceremony held during the annual business meeting of the SNMTS.

Fiona O. Roberts, Dishan H. Gunawardana, Kunthi Pathmaraj, Anthony Wallace, Paul L. U, Tian Mi, Sam U. Berlangieri, Graeme J. O'Keefe, Chris C. Rowe, and Andrew M. Scott received the first-place award plaque and a $500 check for "Radiation Dose to PET Technologists and Strategies to Lower Occupational Exposure" (*J Nucl Med Technol.* 2005;33:44–47). The second-place award, which includes a $100 check, went to Waheeda Sureshbabu and Osama Mawlawi for "PET/CT Imaging Artifacts" (*J Nucl Med Technol.* 2005;33:156–181). The third-place award was presented to Claude Wastiel, Jean-François Valley, Angelika Bischof Delaloye, Michel Leresche, Reto Linder, Manfred Sassowsky, and François O. Bochud for "Intercomparison of Activity Measurements for ß-Emitters in Swiss Nuclear Medicine Laboratories" (*J Nucl Med Technol.* 2005;33:238–242). ✳

Beth Harkness, left, presented Waheeda Sureshbabu with the second place award for an outstanding contribution to *JNMT*.

Gambhir received the 2006 Hounsfield Medal from the Imperial College (London, UK), the Distinguished Clinical Scientist Award from the Doris Duke Charitable Foundation (2004), the Academy of Molecular Imaging Basic Scientist Award (2004), the Society of Molecular Imaging Achievement Award (2004), the Holst Medal (2003), and the Taplin Award (2002). His work has been featured on the covers of numerous journals including *JNM*, *Circulation*, *Journal of Urology*, *Breast Cancer Research and Treatment*, *Nuclear Medicine and Biology*, *Cancer Cell*, *FASEB*, *Gastroenterology*, and *Science*.

Gambhir and his students built a game-based learning system called "Let's Play PET," which explores all aspects of PET from the principles of cyclotron operation to the clinical application of PET in cardiology, neurology and oncology. He has presented several named lectures and numerous invited lectures. He has published 190 original articles in peer-reviewed journals. He is one of 35 members (and the only nuclear medicine representative) on the NCI Scientific Advisory Board. He serves as an adviser to GE Healthcare, Varian Medical, Genentech, GlaxoSmithKline, Millennium, Visualsonics, and other companies.

The award winner expressed his appreciation to a number of individuals for their support over the years, including "all my colleagues at UCLA and Stanford, my parents, and my wife, Aruna, son, Milan, and, in particular, my mentors at UCLA: Michael E. Phelps, Harvey R. Herschman, Jorge R. Barrio, Heinrich R. Schelbert, and Sung-Cheng Huang. In addition, I want to thank other colleagues who work in the gene imaging field, including Juri Gelovani, Ron Blasberg, Uwe Haberkorn, David Piwnica-Worms, June-Key Chung, and many others." ✳