Aebersold Award Presented to Zalutsky

Michael R. Zalutsky, PhD, a professor of radiology and biomedical engineering at Duke University (Durham, NC), received the 2007 SNM Paul C. Aebersold Award for outstanding achievement in basic nuclear medicine science on June 3 at the opening session of the society's 54th Annual Meeting in Washington, DC. Zalutksy, who is also director of the Duke Radiolabeling Facility Shared Resource and is a member of the cancer immunobiology, neuro-oncology, and radiation oncology programs in the Duke University Comprehensive Cancer Center, was recognized for his outstanding contributions to the understanding and implementation of molecularly targeted cancer therapy. The award is named for Paul C. Aebersold, PhD, 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.

"With this award, the molecular imaging and nuclear medicine community recognizes Dr. Zalutsky's intellectual capital, national reputation, and prominent role in advancing significant contributions to medical science, especially in using molecular targeting to combat cancer," said SNM President Martin P. Sandler, MD. "He has made many contributions to both the basic and applied aspects of molecular therapy and nuclear medicine in a variety of areas, including radionuclide production, radiochemistry, and radiation biology."

"Only a small group of highly distinguished researchers have received the Aebersold Award for outstanding achievement in basic science applied to nuclear medicine. Dr. Zalutsky's contributions highly qualify to place him in that group of individuals," said Mathew L. Thakur, PhD, chair of the SNM Committee on Awards and a previous Aebersold recipient. Thakur added that Zalutsky's research has had a significant impact on the concepts and methods that drive the field of therapeutic nuclear medicine, demonstrating ways in which technologies and approaches from nuclear medicine can positively affect other disciplines.

"I am honored to receive this prestigious award," said Zalutsky. "I think it's wonderful that the society recognizes our type of work, which is primarily in molecular therapy, not diagnosis. The strength of nuclear medicine is that with the right combination of therapeutic radionuclide and targeting molecule, it is possible to fight cancer in a very specific way that ultimately may be able to be fine tuned to the needs of individual patients. Other technologies can't do that. Targeted radionuclide therapy will expand in the future; it is one of the most promising applications of radioactivity in medicine."

A long-term focus of Zalutsky's laboratory has been on the development of targeted radiopharmaceuticals labeled with the α particle–emitting radionuclide ^{211}At. This work includes basic radiochemistry, evaluation of therapeutic efficacy, microdosimetry, and initiation of the first clinical trial with a ^{211}At-labeled, targeted radiotherapeutic. Zalutsky's many accomplishments include his contributions in developing improved methods for the radiohalogenation of monoclonal antibodies and peptides, developing protein radiohalogenation methods for labeling monoclonal antibodies and peptides that are rapidly internalized into tumor cells, advancing the field of clinical radioimmunotherapy by performing a series of studies that defined the feasibility of treating malignant brain tumors with labeled monoclonal antibodies, contributing to the field of targeted radiotherapeutics with ^{211}At, and making significant advances in other aspects of α particle radiotherapy.

Michael J. Welch, PhD (left), Sandler, Zalutsky, and Frederic H. Fahey, DSc, scientific program chair.

Zalutsky received his master's degree and doctorate in nuclear chemistry from Washington University (St. Louis, MO). Before joining the Duke faculty in 1985, he held academic appointments at the University of Chicago (IL) and Harvard Medical School (Boston, MA) and hospital appointments at Children's Hospital Medical Center, Brigham and Women's Hospital, the Dana–Farber Cancer Institute, and Massachusetts General Hospital (all in Boston). Zalutsky has been an adjunct associate professor with the North Carolina State University College of Veterinary Medicine (Raleigh) since 1993, a member of the Duke University Medical Center program in cell and molecular biology since 1994, an associate chief for radiation biology and radioimmunotherapy with Duke's Preuss Laboratory for Brain Tumor Research since 1999, and a faculty member of Duke's medical physics graduate program since 2005. Trained as a nuclear chemist, Zalutsky worked with pioneers Arnold M. Friedman, PhD, and Paul V. Harper, MD, during his postdoctoral experience at Argonne National Laboratory and at the University of Chicago. Zalutsky expressed appreciation

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Tetalman Award Presented to Kupinski

Matthew Kupinski, PhD, assistant professor of optical science and radiology at the University of Arizona (Tucson) is the recipient of the 2007 Mark Tetalman Award funded by the Education and Research Foundation (ERF) for SNM. The award recognizes outstanding achievement among young investigators in molecular imaging and nuclear medicine and is named after a young nuclear medicine physician whose death ended a promising career. The award, which was presented on June 4 at the SNM Annual Meeting in Washington, DC, includes a plaque, certificate, and $5,000.

Kupinski received his doctoral degree from the University of Chicago and joined the University of Arizona as a research associate in 2000. He is an established leader in the methodology of objective or task-based assessment of image quality and specific applications of these techniques in nuclear medicine. He has also developed and implemented new mathematical approaches in practical computer algorithms that assess the performance of nuclear imaging systems in clinical tasks. In addition to a number of research applications, he has built 2 pinhole-based, small-animal SPECT systems to test these concepts.

In another research study, he developed a method to assess the accuracy of different SPECT systems in left-ventricular ejection fraction estimations by using software algorithms independent of a "gold standard" from another modality. The mathematics behind this approach have been verified through extensive analysis, simulation studies, and clinical SPECT data. In addition to his contributions in imaging theory, algorithms, objective assessment of image quality, and construction of innovative SPECT systems, Kupinski has made significant contributions in teaching and through dissemination of information in peer-reviewed articles, scientific presentations, and technical exhibits. These contributions have been recognized with awards and with federal and other grant support for ongoing research efforts.

Outgoing SNM President Martin Sandler, MD (left), with Kupinski and SNM past president Mathew Thakur, PhD, who presented Kupinski with the 2007 Mark Tetalman award.

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to colleagues whose areas of expertise "represent the breadth of the field," including Darrel Bigner, MD, PhD, a long-time collaborator who has been "essential to the development of my career not only because of his complementary expertise in immunobiology but also because of his sage advice over the years"; Ganesan Vaidyanathan, PhD, "for his wonderful ability to translate concept into chemical reality"; and R. Ed Coleman, MD, "for creating an environment where I could independently pursue research interests that at the time were beyond the traditional domain of nuclear medicine."

Zalutsky is a member of the board of directors of the SNM Molecular Imaging Center of Excellence. He has authored or co-authored more than 280 journal articles and reviews and has edited 2 books. He serves on the editorial boards of 4 journals and has been a member of the medical imaging study section of the National Institutes of Health (NIH). In 2005, he received the SNM Berson–Yalow Award for his work, "Cytotoxicity of ^{211}At-Labeled Trastuzumab in Human Breast Cancer Cell Lines: Effects of Specific Activity and HER2 Receptor Heterogeneity." He is the recipient of a MERIT Award from the National Cancer Institute for his research in targeted radiotherapy. His research has been supported by multiple grants from NIH and the Department of Energy, as well as by a grant from Genentech.

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