SNMMI/AACR Meeting Looks at Molecular Imaging in Cancer Biology and Therapy

SNMMI and the American Association for Cancer Research (AACR) sponsored a conference on State-of-the-Art Molecular Imaging in Cancer Biology and Therapy, from February 27 to March 2, at the Manchester Grand Hyatt in San Diego, CA. The conference covered molecular imaging and therapy in cancer-related basic, translational, and clinical research and the integration and application of molecular imaging in the understanding of cancer biology. The goal of this joint AACR–SNMMI effort was to bring imaging scientists together with basic, translational, and clinical cancer researchers in a focused, smaller meeting setting to discuss the latest developments in imaging the genetic and molecular processes of cancer as they occur in cells, animal models, and patients.

The conference was cochaired by Carolyn J. Anderson, PhD, and David Piwnica-Worms, MD, PhD. “We are proud to host this first joint meeting between AACR and SNMMI,” said Anderson. “This interdisciplinary forum has brought together an energetic group of molecular imaging scientists, cancer biologists, chemical engineers, radiation oncologists, and systems biologists, and we are confident that their interactions will lead to novel insights and encourage new collaborations.”

The first full day of the conference featured several concurrent educational sessions, including “Imaging therapeutic response with PET,” “Emerging technologies,” and “In vivo studies of cancer biology at cellular resolution.” A fourth concurrent session, “Multimodal imaging: Challenges and opportunities in cancer discovery and treatment,” was cosponsored by the World Molecular Imaging Society. An evening welcome reception included a special keynote address from Douglas Hanahan, PhD, professor of molecular oncology and Merck Serono oncology chair at the École Polytechnique Fédérale de Lausanne (Switzerland) and director of the Swiss Institute for Experimental Cancer Research. Hanahan spoke on “Hallmarks of cancer: From concepts to therapy (and imaging).”

The following days featured 8 plenary sessions on “Visualizing the cancer stem cell”; “Imaging tumor microenvironment, stroma, metastatic niche”; “Imaging immune cell migration and function in vivo”; “Cancer metabolism and tumor physiology”; “Innovative therapies guided by imaging”; “Can imaging refine the ‘omics of cancer?”; “Imaging signaling and developmental pathways in cancer”; and “Infectious agents and cancer: understanding cancer causes and converting into cancer cures.” Poster sessions were presented at midday breaks and featured more than 90 posters. The conference also offered opportunities for participation from junior scientists, with presentations selected from the most highly rated abstracts submitted. Abstracts of presentations and posters at the conference appeared as a special supplement to the February issue of The Journal of Nuclear Medicine.

Ten abstracts were recognized for excellence with sponsored Young Investigator Travel Awards for a junior member of each author team. Abstracts recognized with SNMMI/AACR Young Investigator Awards included those by Bhatnagar et al. (Johns Hopkins Medical Institutions, Baltimore, MD; Virginia Commonwealth University School of Medicine, Richmond, VA); Newton et al. (University of Missouri, Columbia; Harry S. Truman Veterans Affairs Hospital, Columbia, MO); Nguyen et al. (Imperial College London, UK; University of Hull, UK; GE Healthcare, Amersham, UK; University College London, UK); Wang et al. (University of Würzburg, Germany; University of California, San Diego; Medical University Hospital, Tübingen, Germany; Genelux Corporation, San Diego, CA); and Palmer et al. (Stanford University Medical Center, CA). Abstracts recognized with AACR/Aflac, Inc. Scholar-in-Training Awards included those by Abou et al. (Memorial Sloan-Kettering Cancer Center, New York, NY); Fan-Minoque et al. (Stanford University, CA); Harney et al. (Albert Einstein College of Medicine of Yeshiva University, Bronx, NY); Smith et al. (University of Texas MD Anderson Cancer Center, Houston, TX; Helen F. Graham Cancer Center, Newark, DE); and Woolf et al. (Barrow Neurological Institute, Phoenix, AZ).