

MICoE Outreach Report

Scientific and medical disciplines across the broad spectrum of research and clinical applications are looking to molecular imaging as a key element in advancing knowledge and driving innovation and discovery. Molecular imaging experts are now integral members of multidisciplinary teams addressing the next generation of a wide range of health-related challenges. This month, SNM Molecular Imaging Center of Excellence (MICoE) members report on 2 large, international meetings in which molecular imaging and the MICoE played feature roles.

From the Alzheimer's Association Conference

The Alzheimer's Association International Conference on Alzheimer's Disease (AD) was held July 26–31 in Chicago, IL. This year's conference was particularly eventful for nuclear medicine imaging specialists as noninvasive imaging is becoming an increasingly prominent component of dementia research. At this meeting more than 120 presentations and abstracts focused on PET imaging, and 22 papers were presented on SPECT imaging in dementia. Clinicians and researchers working with

dementia are seeing that radionuclide imaging can detect functional and/or pathophysiologic change in the brain related to dementia and that this holds great promise for clinical differential diagnostic uses and potential therapy assessment in patients with AD.

PET is among the most promising modalities in this regard. A large proportion of the papers presented at the meeting focused on amyloid imaging with PET. Since 2004, amyloid plaques in the brain have been successfully imaged using ^{11}C -6-OH-BTA-1, also known as Pittsburgh imaging compound B (PiB). Its specific pattern of uptake in individuals with AD has been demonstrated to be representative of the typical distribution of amyloid-affected regions of the brain as observed pathologically. Of interest is the fact that in about 20% of normal elderly volunteers, cortical PiB binding levels are as high as those in AD subjects. Questions remain about the implications of this finding. Could it represent the initial signs of AD? Early results of a longitudinal evaluation of PiB-positive normal individuals presented at the meeting by Victor

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MAINTENANCE OF CERTIFICATION

ABMS Celebrates 75th Anniversary

The American Board of Medical Specialties (ABMS) is the umbrella organization for the 24 primary certifying boards in the United States. At the turn of the 20th century, specialization in medicine became regarded as a public trust, and its devoted participants advocated a system of certification by individuals of special training inside the framework of a national specialty medicine organization. The ABMS was established to assure the public that physician specialists are properly trained and that they continue learning new practices and treatments to improve the care they deliver. It meant creating some tough standards for education and evaluation. It also required forming a national system to enforce these standards and to identify qualified physician specialists in a way everyone can easily recognize.

The concept of a specialty board for the purpose of establishing qualifications for specialists was first proposed in 1908 by Derrick T. Vail, Sr., MD, in his presidential address to the American Academy of Ophthalmology and Otolaryngology. In 1933, the Advisory Board for Medical

Specialties was created. The 4 founding boards included Dermatology, Obstetrics and Gynecology, Ophthalmology, and Otolaryngology. ABMS member boards (with years approved) include: Allergy and Immunology (1971), Anesthesiology (1941), Colon and Rectal Surgery (1949), Dermatology (1932, ABMS Founding Member), Emergency Medicine (1979), Family Medicine (1969), Internal Medicine (1936), Medical Genetics (1991), Neurological Surgery (1940), Nuclear Medicine (1971), Obstetrics and Gynecology (1930, ABMS Founding Member), Ophthalmology (1917, ABMS Founding Member), Orthopaedic Surgery (1935), Otolaryngology (1924, ABMS Founding Member), Pathology (1936), Pediatrics (1935), Physical Medicine and Rehabilitation (1947), Plastic Surgery (1941), Preventive Medicine (1949), Psychiatry and Neurology (1935),



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Villemagne, MD, and colleagues from Australia were inconclusive in this regard—29% of normals had positive PiB scans and very few had progressed to dementia at the time of the report. Years of follow-up are needed. Another comprehensive look at PiB in the normal and mildly demented populations was presented at the meeting by Anne Fagan, PhD, and collaborators at Washington University (St. Louis, MO). They described results showing that PiB PET is successful as an early biomarker for distinguishing early AD from non-AD dementias.

A number of groups described work on novel PET amyloid imaging radiopharmaceuticals labeled with ^{18}F that will be more practical in clinical practice than the ^{11}C compounds currently used in the research setting. Several ^{18}F -labeled amyloid compounds were described as having binding profiles similar to those of PiB, and we are certain to hear more of them in the future.

Next year's meeting promises more of the same—the excitement around nuclear brain imaging in dementia is only warming up.

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From the ACS Fall National Meeting

The American Chemical Society (ACS) Division of Inorganic Chemistry sponsored a symposium on “Probe Development in Molecular Imaging and Therapy” at the 236th National Meeting of the ACS, held in August in Philadelphia, PA. The symposium was organized (with much help from friends and colleagues) by Alan Packard, PhD (Children's Hospital Boston/Harvard Medical School, MA), and Karn Sorasane, PhD (California State University, Fullerton), sponsored by the ACS Division of Inorganic Chemistry, and cosponsored by the ACS Divisions of Biochemical Technology and Nuclear Chemistry

and the SNM MICoE. This was the fourth molecular imaging symposium sponsored by the Inorganic or Nuclear Chemistry and Technology Division to be held at an ACS meeting. It was 1 of 3 symposia at this meeting focused on molecular imaging; the others were “Molecular Imaging in Drug Development and Chemistry,” sponsored by the ACS Medicinal Chemistry Division, and “Visualizing Chemistry: Advances in Chemical Imaging,” sponsored by the ACS Analytical Chemistry Division.

The symposium included 4 oral presentation sessions and a poster session; all were well attended. Each oral presentation session focused on a specific imaging modality: PET, MR imaging/ultrasound, SPECT/therapy, and optical imaging. Each session began with 2 or 3 invited presentations followed by 7 or 8 contributed papers. The keynote speaker of the symposium was Martin Pomper, MD, PhD (Johns Hopkins University, Baltimore, MD), past president of the SNM MICoE. Invited speakers included Victor Pike, PhD (National Institutes of Mental Health, Bethesda, MD), Kenneth Raymond, PhD (University of California, Berkeley), Thomas Meade, PhD (Northwestern University, Chicago, IL), Alexander Klivanov, PhD (University of Virginia, Charlottesville), Silvia Jurisson, PhD (University of Missouri, Columbia), John Valliant, PhD (McMaster University, Hamilton, Canada), Martin Brechbiel, PhD (National Cancer Institute, Bethesda, MD), Xiaohu Gao, PhD (University of Washington), Samuel Achilefu, PhD (Washington University), and Cassandra Fraser, PhD (University of Virginia).

Based on the excellent response to this and previous MI symposia, we hope to see a fifth symposium at next year's fall ACS meeting, which will be held August 16–20 in Washington, DC.

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Radiology (1935), Surgery (1937), Thoracic Surgery (1971), and Urology (1935). The Advisory Board for Medical Specialties was renamed the American Board of Medical Specialties in 1970, 1 y before the formation and approval of the American Board of Nuclear Medicine (ABNM).

Interested readers are referred to the ABMS Web site (http://abms.org/ABMS_75th/) for more detailed information on the history of the ABMS.

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Correction

In the August issue of Newsline (*J Nucl Med.* 2008;49:25N), field of view information was in error for a 512-channel cadmium telluride semiconductor detector device that was presented in a poster session at the SNM Annual Meeting by Tanizaki and colleagues from Sumitomo Heavy Industries, Ltd. (Tokyo, Japan), and Tohoku University (Sendai, Japan). The corrected data are: transaxial and axial fields of view = 77 and 27 mm, respectively. In addition, Figures 24 and 25 pertaining to this work should have included the attribution: “Courtesy of Matthew K. Robinson, PhD, and Gregory P. Adams, PhD, Fox Chase Cancer Center (Philadelphia, PA).”