From the SNM Radiopharmaceutical Sciences Council

The year 2006 was busy and productive for the SNM Radiopharmaceutical Sciences Council (RPSC). In conjunction with the SNM Cardiovascular Council and with funding provided by Bracco, an SNM/Bracco $35,000 Cardiovascular Molecular Imaging Fellowship was established. This new fellowship is designed to foster pilot research in the development of new cardiovascular molecular imaging agents. The first awardee is Riikka Lautamaki, MD, from the Turku PET Centre, University of Turku, Finland, who will be studying "The Effect of Cardiac-Derived Stem Cell Therapy on Myocardial Metabolism: Viability and Function."

The RPSC continued to present its Young Investigator Awards at the SNM Annual Meeting in San Diego, CA. First place was awarded to Neil Vasdev, PhD (Centre for Addiction and Mental Health, Toronto) for "Syntheses and in vitro evaluation of fluorinated naphthoxazines as D_2 agonists: Radiosynthesis of [^{18}F]FPHNO"; and co-second place awards were presented to Gjermund Henriksen, PhD (Technische Universitaet Munich), for "Development of metabolically stabilized ^{11}C-labeled 2-(4-aminophenyl)-benzothiazoles (BTAs) for imaging of amyloid plaques"; and Kim Serdons (University of Leuven) for "6-Methoxy-2-(4'-[^{18}F]fluorophenyl)-1,3-benzothiazole and 6-methyl-2-(4'-[^{18}F]fluorophenyl)-1,3-benzothiazole."

The council was extremely pleased to learn that RPSC immediate past president Henry VanBrocklin, PhD, was awarded the SNM President's Distinguished Service Award at the 2006 Annual Meeting. It was nice to realize that the society appreciates his efforts on behalf of the field as much as the RPSC does.

Jeff Clanton, DPh, BCNP

The Committee on Radiopharmaceuticals, currently chaired by Jeffrey Norenberg, MS, PharmD, vice president-elect of the RPSC, addressed shortages of ^{99}Mo generators, ^{123}I, ^{133}Xe, and various radiopharmaceutical cold kits and the withdrawal of a promising infection imaging agent. The Committee on Pharmacopeia, chaired by Joseph Hung, PhD, coordinated the development of an official response from the SNM to the United States Pharmacopeia regarding proposed changes in chapter <797> and the monograph on ^{13}N-ammonia.

The RPSC is also actively working with the SNM Program Committee to develop innovative ways to increase interest and attendance at the poster sessions at the SNM Annual Meeting. One idea that is being studied is the introduction of an informal "mixer" event in the poster presentation area.

As part of its effort to increase membership, the RPSC is reaching out to the nuclear pharmacy community by making 20 or more hours of Accreditation Council for Pharmacy Education–accredited continuing education available at SNM annual meetings.

Jeff Clanton, DPh, BCNP
President, Radiopharmaceutical Sciences Council

From the WFNMB Summit on Radionuclide Therapy

At the behest of the president of the World Federation of Nuclear Medicine and Biology (WFNMB), Myung Chul Lee, MD, the inaugural WFNMB Summit on Radionuclide Therapy was held during the 9th World Congress in October 2006 in Seoul, Korea. Key opinion leaders from regional nuclear medicine societies, the International Atomic Energy Agency (IAEA), and industry confronted challenges including lack of availability of approved and affordable radiopharmaceuticals for therapy and low oncologist referral rates for existing radionuclide treatments of cancer.

In the opening ceremony of the WFNMB Congress, Henry N. Wagner, Jr., MD, stated "Radionuclide therapy will make a major contribution to cures in cancer." However, his 2006 Annual Highlights Lecture, delivered at the SNM meeting in San Diego, CA, in June and published in the August issue of

Newsline, contained no citations to radionuclide therapy papers. Professor Ignasi Carrió, MD, PhD, 2005–2006 president of the European Association of Nuclear Medicine opened that organization's annual congress in September by defining nuclear medicine as a clinical specialty in which radionuclide therapy is a key component. Both Wagner and Carrió acknowledged that strict and rigid U.S. Food and Drug Administration and European Union regulatory requirements have imposed almost insurmountable constraints with long approval timeframes and high costs—major disincentives for commercial development of new therapeutic radiopharmaceuticals.

Nevertheless, participants in the summit shared interesting and compelling news about advances in therapeutic radionuclides and about inroads in clinical and research applications around the world. The new $^{188}W/^{188}Re$ generator, for example, with its potential to fulfill a role in therapeutic nuclear medicine analogous to that of the $^{99}Mo/^{99m}Tc$ generator in diagnostic nuclear medicine, is being introduced mainly in developing countries. The IAEA ran the first clinical trials of ^{188}Re-lipiodol for liver cancer therapy in Asia and South America. These centers also have the capacity to make other ^{188}Re radiopharmaceuticals, such as ^{188}Re-HEDP for primary and metastatic cancer to bone and potentially ^{188}Re-radiolabeled antibodies and peptides for targeted cancer therapy.

Werner Burkart, IAEA deputy director general and head of the IAEA Department of Nuclear Sciences, observed at the summit and in his WFNMB plenary lecture that the majority of new cases of cancer will occur in developing countries. The IAEA Program of Action for Cancer Therapy, which will incorporate radionuclide therapy, may support clinical applications of new therapeutic radiopharmaceuticals.

A planned physician-sponsored randomized controlled multinational clinical trial of ^{177}Lu-octreotate radiopeptide therapy of neuroendocrine tumors and an IAEA-sponsored study of ^{177}Lu-EDTMP palliation of painful bone metastases will add ^{177}Lu to the ^{188}Re and ^{131}I radionuclide therapeutic armamentarium worldwide. The concurrent development of shielded boxes for automated elution of ^{188}Re generators and sterile preparation of radiopharmaceuticals will ensure radiation protection. New IAEA guidelines for the clinical use of these novel radiopharmaceuticals will be published as a technical document, which will be complemented by IAEA training programs to facilitate safe and effective clinical application in developing countries.

The triad of ^{131}I, ^{188}Re, and ^{177}Lu could thus provide available, affordable, and practical therapeutic radiopharmaceuticals in developing countries where wide clinical application and experience may then provide the required evidence base for translation to clinical nuclear medicine therapy in the overregulated developed world.

The World Radiopharmaceutical Therapy Council of the WFNMB, working with IAEA, has undertaken the promotion of safe, effective clinical practice of therapeutic nuclear oncology throughout the world in fulfillment of its role in the global harmonization of nuclear medicine as envisioned by Lee at the 9th WFNMB Congress. Lee's support and encouragement have made such an ambitious enterprise possible.

J. Harvey Turner, MD
Chair, World Radiopharmaceutical Therapy Council

From the 2006 WFNMB World Summit/Workshop on Molecular Imaging

The World Federation of Nuclear Medicine and Biology (WFNMB) convened a workshop on molecular imaging during its 9th Congress in Seoul, Korea, in October 2006. The purpose was to discuss the future role of the WFNMB in the broad range of molecular imaging sciences that are having an increasing impact upon both scientific research and clinical practice. The meeting and many of the presentations focused on the potential role of the WFNMB in disseminating molecular imaging practice and research to members of developing countries through education and intersociety relations.

The presentations reflected the status of molecular imaging and molecular imaging professional societies in both the clinic and laboratory, including questions about how relationships between traditional imaging societies and new molecular imaging societies will be formed and sustained. Special attention was given to the current needs of developing countries with respect to nuclear medicine and particularly molecular imaging. During the discussion period, some participants suggested it may be more practical in developing countries to promote clinical aspects of molecular imaging that have already reached the beside, such as the use of ^{18}F-FDG PET, rather than more advanced molecular imaging research. The role of industry

Myung-Chul Lee, MD