Second World Congress on ^{68}Ga PET/CT and PRRT (SWC-2013)

More than 550 delegates from 42 countries attended the 2nd World Congress on "^{68}Ga (Generators and Novel Radiopharmaceuticals), Molecular Imaging (PET/CT), Targeted Radionuclide Therapy, and Dosimetry: On the Way to Personalized Medicine" from February 28 to March 2 in Chandigarh, India. The congress was hosted by the Department of Nuclear Medicine and PET of the Post-Graduate Institute of Medical Education & Research (PGIMER; Chandigarh) and cohosted by the University of Iowa (Iowa City). Baljinder Singh, PhD (Chandigarh), presided, and Michael K Schultz, MD, (Iowa City) was vice president. B.R. Mittal, MD (Chandigarh), acted as the congress chair. Cosponsors included the German research foundation Deutsche Forschungsgemeinschaft (DFG), the Indo-US Science and Technology Forum, The International Atomic Energy Agency, the World Association of Radiopharmaceutical and Molecular Therapy, and the International Research Group in Immuno-Scintigraphy and Therapy. Sixteen international companies participated in the trade exhibition. Richard Baum, MD, PhD (Bad Berka, Germany), president and initiator of the 1st World Congress, served as congress patron.

The 2nd World Congress featured an outstanding program of 60 invited and 26 accepted oral presentations, as well as more than 80 poster presentations. The focus of the congress was on new chemistry and applications for ^{68}Ga, as well as the latest developments in ^{68}Ga generator technologies and new directions for targeted radionuclide therapy. Significant results presented included insights on improvements to production of therapeutic radionuclides by W.A.P. Breeman, PhD (Rotterdam, The Netherlands), and M.R.A. Pillai, PhD, DSc (Mumbai, India); personalized molecular imaging by Vikas Prasad, MD (Bad Berka, Germany); and updates on the success of peptide receptor radionuclide therapy (PRRT) for cancer treatment in Poland by Jolanta Kunikowska, PhD (Warsaw). Dr. Baum described his first-hand experience with peptides and receptors in image-guided therapy in a presentation on theranostics for neuroendocrine neoplasms.

A session dedicated to targeted α-particle therapy for cancer featured participation by U.S. leaders in targeted nuclear medicine therapy, including Joseph Jurcic, MD (New York, NY), and George Sgouros, PhD (Baltimore, MD). The potential for α-particle therapy for treatment of glioblastoma using ^{213}Bi was highlighted by Leszek Krolicki, MD, PhD (Warsaw, Poland). Françoise Kraeber-Bodéré, MD, PhD (Nantes, France), and Christof Seidl (Munich, Germany) presented their clinical and preclinical experiences, respectively, with targeted α-therapy.

Other speakers who discussed targeted therapy and personalized medicine in neuroendocrine tumors (NETS) and other cancers were Mathew Thakur, PhD (Philadelphia, PA), Suresh Srivastava, PhD (Upton, NY), Edward Wolin, MD (Los Angeles, CA), Hans J. Biersack, MD (Bonn, Germany), Manoj Bhasin, PhD (Boston, MA), George Weiner, MD (Iowa City, IA), Sandeep Laroia, MD (Iowa City, IA), Sudershan Bhatia, MD, PhD (Iowa City, IA), Nand Relan, PhD (Stony Brook, NY), and Ajay Sandhu, MD (University of California at San Diego). Dr. Mittal and Rakesh Kumar, MD, PhD (Delhi, India), described Indian experience with ^{68}Ga PET/CT in NETs. Sandip Basu, MD, and Gaurav Malhotra, MD (both from Mumbai), presented Indian experience with PRRT in NETs and thyroid cancers, respectively. Mike Sathekge, MD, PhD (Pretoria, South Africa), offered reports on first African and South African experience with ^{177}Lu PRRT in NETs

Of significant interest was the presentation by Vijay Sharma, PhD (St. Louis, MO), on new ^{68}Ga metalloprobes for monitoring biochemical pathways. Exciting research on the development of new bisphosphonates for bone imaging using ^{68}Ga was presented by Anil Mishra, PhD (Delhi, India), and Frank Roesch, MD (Mainz, Germany). Further advances in the application of new chelation technologies were presented by Johanness Notni, PhD, and Hans-Jürgen Wester, PhD (both from Munich, Germany), as well as research to develop a more detailed understanding of the chemistry of ^{68}Ga and the potential for mixed solvents to dramatically improve radiolabeling efficiencies by Frank Roesch, MD (Mainz, Germany). Participants were grateful to NET patient advocates Josh Mailman and William Claxton, who shared their experiences.

Attendees at the Second World Congress on ^{68}Ga PET/CT and PRRT, held earlier this year in Chandigarh, India.

The closing ceremonies featured congress highlights lectures presented

by Drs. Schultz and Baum. At these ceremonies, Dr. Singh passed the official congress globe to Dr. Wester, who will take on the responsibility for organizing the 3rd World Congress, together with Eric Liu, MD (Nashville, TN), who will serve as president in 2015. The scientific proceedings of the congress have been published in the *World Journal of Nuclear Medicine* as a dedicated issue (available at: www.2ndworldcongress-ga-68.de).

Congress participants were also invited to a 2-day postcongress Hands-On Training School (in cooperation with DFG) on practical aspects of ^{68}Ga chemistry related to production and quality control. The workshop was organized by Dr. Mishra in collaboration with Dr. Roesch, Congress Scientific Advisor. Congress sponsors ITG, Eckert & Ziegler, and IDB demonstrated their ^{68}Ge/^{68}Ga generator technologies and chemistry modules in the training school. About 70 participants from India and other countries attended.

For information on plans for the 3rd World Congress, contact Dr. Liu (eric.liu@Vanderbilt.Edu) or Dr. Wester (h.j.wester@tum.de).

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^{223}Ra-Dichloride Approved for CRPC

Bayer HealthCare announced on May 15 that the U.S. Food and Drug Administration (FDA) had approved Xofigo (^{223}Ra-dichloride) for treatment of patients with castration-resistant prostate cancer (CRPC), symptomatic bone metastases, and no known visceral metastatic disease. Xofigo is the first α-particle–emitting radioactive therapeutic agent approved by the FDA with demonstrated improvement in overall survival (OS) and delay in time to first symptomatic skeletal event compared to placebo, as demonstrated in the Phase III Alpharadin in Symptomatic Prostate Cancer (ALSYMPCA) trial. Bayer noted that commercial production of Xofigo is underway, and first doses were expected to be ready for patient treatment in June.

"Most men with CRPC develop bone metastases, which can decrease overall survival," said Oliver Sartor, MD, North American principal investigator for the ALSYMPCA trial and medical director of the Tulane Cancer Center (New Orleans, LA). "Xofigo has demonstrated an antitumor effect on bone metastases and will be an important addition to the treatment of this cancer." Approximately 90% of patients with metastatic prostate cancer show evidence of bone metastases, a main cause of morbidity and death in patients with CRPC. Jan Manarite, senior educational facilitator for the Prostate Cancer Research Institute (Los Angeles, CA), said, "It is encouraging to have a new treatment for men with CRPC who are dealing with bone metastases. Xofigo provides another new option to treat this cancer using a different approach."

The approval of Xofigo is based on data from the Phase III ALSYMPCA trial. At interim analysis, median OS with best standards of care were 14.0 mo with Xofigo and 11.2 mo with placebo (updated analyses yielded respective figures of 14.9 and 11.3 mo). The most common adverse reactions (≥10%) in patients receiving Xofigo in the ALSYMPCA trial were nausea, diarrhea, vomiting, and peripheral edema. The most common hematologic laboratory abnormalities (≥10%) were anemia, lymphocytopenia, leukopenia, thrombocytopenia, and neutropenia.

On May 16 SNMMI issued a press release applauding the approval of Xofigo and urging the FDA to "continue reviewing and, when appropriate, approving other nuclear medicine and molecular imaging radiopharmaceuticals that can play a role in improving patient care." At the SNMMI Annual Meeting in Vancouver, British Columbia, in June, several sessions focused on ^{223}Ra. Val Lewington, MD, from Kings College (London, UK) presented the June 9 Henry N. Wagner, Jr. Lectureship on "Moving Molecular Radiotherapy into the Mainstream: Have We Reached the Tipping Point?" An SNMMI technologist section course on therapy/oncology as well as several scientific sessions and posters were featured at the meeting.