Global ^{225}Ac Partnerships Announced

The widely acknowledged promise of α-emitting radioisotopes in theranostic applications has been challenged by limitations in reliable supply and efficient production technologies. National and international companies and government agencies are addressing these shortages with formal collaborative partnerships that leverage individual strengths.

On September 8, NorthStar Medical Radioisotopes, LLC (Beloit, WI), and POINT Biopharma Global Inc. (Indianapolis, IN) announced the signing of a supply agreement for ^{225}Ac. Under the terms of the agreement, NorthStar will provide POINT with its electron accelerator–produced ^{225}Ac, which POINT will use: in investigational studies of PNT2001, a next-generation prostate-specific membrane antigen (PSMA) agent for nonmetastatic castrate-sensitive prostate cancer; in PNT2004, a fibroblast-activation protein-α candidate with multiple potential oncologic applications; and to advance its novel tumor microenvironment–targeting technology platform. "NorthStar is at the forefront of U.S. radioisotope production as the only commercialized producer of the important medical radioisotope ^{99}Mo, and we are applying that same development expertise to rapidly advance large-scale availability of ^{225}Ac," said Stephen Merrick, president and CEO of NorthStar. "Our ^{225}Ac process uses highly efficient electron accelerator production technology that provides increased capacity and scheduling flexibility. Like all NorthStar processes, it is environmentally friendly, nonuranium based, and uses highly advanced technology."

IBA (Ion Beam Applications SA; Louvain-la-Neuve, Belgium) and SCK CEN (Belgian Nuclear Research Center; Mol, Belgium) announced on September 15 a strategic research and development partnership to enable ^{225}Ac production. The first phase of the partnership will include an in-depth evaluation of technical and economic feasibility, followed by construction and commissioning of a production unit on the SCK CEN site. This initiative is in alignment with the recent European recovery plan for Belgium, in which the European Commission designated ^{177}Lu and ^{225}Ac as promising isotopes. Eric van Walle, director general of SCK CEN, said: "Theranostics have the potential to revolutionize the way we treat cancer. By partnering with IBA, we can use our nuclear knowhow to transform isotopes meant to become radioactive waste into therapeutic compounds. Our complementary expertise will enable us to work towards providing the greatest number of patients with the benefits of this latest generation of nuclear medicine."

One day later, on September 16, BWXT Medical (BWX Technologies; Lynchburg, VA) and Bayer AG (Leverkusen, Germany) announced in Ottawa, Canada, an agreement to develop ^{225}Ac supply and advance additional partnering opportunities on finished products as both companies broaden their respective commercialization strategies for targeted radionuclide therapies. BWXT Medical is a worldwide supplier of medical isotopes and radiopharmaceuticals. Bayer is a global enterprise with core competencies in the life science fields of health care and nutrition. The oncology franchise at Bayer includes 6 marketed products, including Xofigo (^{223}Ra-dichloride, the first approved targeted α therapy) and several other targeted α therapies in different stages of development, including an investigational ^{225}Ac-labeled differentiated PSMA small molecule for treatment of prostate cancer.

NorthStar Medical Radioisotopes, LLC/POINT Biopharma Global Inc.
Ion Beam Applications SA/Belgian Nuclear Research Center
BWXT Medical/Bayer AG

New SNMMI Annual Awards Guide Published

SNMMI announced on September 30 the release of its first comprehensive awards publication, *SNMMI Annual Grants & Awards Recognition 2021*, highlighting recipients of the many honors, awards, grants, and scholarships presented by SNMMI and the SNMMI Technologist Society in the past year. This will be an annual publication distributed to all members and published on the SNMMI website. The publication includes the winners of distinguished service awards, research grants, scholarships, council and centers of excellence recognitions, publication awards, professional development selections, and SNMMI Annual Meeting awards. These awards highlight groundbreaking accomplishments within the specialty of nuclear medicine as well as contributions to the society itself.

In addition to recognizing award recipients, the publication serves as a means through which SNMMI members and the public can learn more about grant and award opportunities available through the society. SNMMI provides more than $400,000 annually to advance nuclear medicine, molecular imaging, and therapy; fund professional development efforts; and support the next generation of researchers. The fall application window for the 2021–2022 Grants & Awards Program opened in October. For open opportunities and upcoming deadlines, see: http://www.snmmi.org/grants. For the 2021 grants and awards publication, see: https://s3.amazonaws.com/rdcms-snmmi/files/production/public/FileDownloads/Membership/FINAL_2021AwardsBrochure.pdf.

FDA Clears Photon-Counting–Based CT Device

The U.S. Food and Drug Administration (FDA) announced on September 30 its 510(k) clearance of the NAEOTOM Alpha (Siemens Healthineers; Frankfurt, Germany), described

by the agency in a press release as "the first new major technological improvement for CT imaging in nearly a decade." The device includes a new photon-counting detector with an active detection layer and a cadmium telluride crystal. According to a statement on the same day from Siemens Healthineers, the device offers clear advantages over conventional CT detectors, which convert X-rays in a 2-step process first into visible light that is then detected by a light sensor, ultimately producing the final image. In this intermediate step, important information about the energy of the X-rays is lost, contrast is reduced, and images lack clarity. The photon-counting CT detector converts X-rays directly into completely digital electrical signals that are then counted without information loss, adding clinically relevant information and improving image sharpness and contrast.

"About 15 years ago, work on photon counting and its clinical vision started at Siemens Healthineers," said André Hartung, MD, Head of Diagnostic Imaging at Siemens Healthineers. "We always believed in the tremendous clinical value and relentlessly worked on it together with our partners. We are excited that we have received FDA 510(k) clearance."

U.S. Food and Drug Administration
Siemens Healthineers

Societies Urge Congress to Avert Physician Reimbursement Cuts

On October 14 SNMMI and more than 200 medical societies expressed their support for averting cuts to the Medicare Physician Fee Schedule (MPFS). Reps. Ami Bera (D-CA) and Larry Bucshon (R-IN) led this effort in a "Dear Colleague" letter to House leadership, supported by 245 members of Congress. SNMMI, along with many societies with which it shares interests, including the American College of Radiology, was instrumental in engaging members of Congress to support this effort. The MPFS has failed to keep up with inflation, and larger increases to some providers must be offset by cuts to other providers to conform to a budget neutrality provision, further contributing to the financial pressure on health care professionals. In addition, health care professionals are facing payment cuts stemming from MPFS adjustments as well as the Medicare sequester and the Statutory Pay-As-You-Go (PAYGO) Act. The Consolidated Appropriations Act, enacted on December 27, 2020, contained a 3.75% payment adjustment for all PFS services in calendar year 2021 as part of Congressional relief provided for the impending payment cuts. This payment adjustment afforded some short-term stability for health care professionals struggling with the impact of the COVID-19 pandemic. This critical piece of Congressional relief will expire at the end of 2021 and adds to impending cuts resulting from the expiring moratorium on the 2% Medicare sequester and the 4% Medicare payment cut due to PAYGO, which was triggered by the passage of the American Rescue Plan. The combined impact of these cuts means that all health care professionals are likely facing at least 9% in cuts to Medicare payment unless Congress takes action. SNMMI members, patient advocates, and concerned citizens are encouraged to send letters of support to avert physician reimbursement cuts.

SNMMI

2021–2023 SNMMI Wagner–Torizuka Fellowship

SNMMI on October 15 announced that Yoshito Kadoya, MD, PhD, assistant professor in the Department of Cardiovascular Medicine at Kyoto Prefectural University of Medicine (Japan), is the recipient of the 2021–2023 SNMMI Wagner–Torizuka Fellowship. This 2-year award, created in 2008 by the late Henry N. Wagner, Jr., MD, and the late Kanji Torizuka, MD, PhD, is designed to provide extensive training and experience in the fields of nuclear medicine and molecular imaging for Japanese physicians in the early stages of their careers. Kadoya's research focuses on the potential of nuclear medicine applications for interventional cardiology in structural heart disease. He will study in the University of Ottawa Heart Institute (Canada) Cardiac Imaging Program under the supervision of Benjamin Chow, MD. The fellowship will provide an annual stipend of US$24,000.

"We are very pleased to welcome Dr. Kadoya to North America as he begins his fellowship," said Vasken Dilsizian, MD, SNMMI past president and chair of the SNMMI Awards Committee. "As with all of the fellows, we hope that the professional development and research and clinical expertise he gains as a result of this program will equip him to make significant contributions to the field of nuclear medicine and molecular imaging in Japan."

The SNMMI Wagner–Torizuka Fellowship program, sponsored by Nihon Medi-Physics Co., Ltd. (Tokyo, Japan), has successfully graduated 33 fellows since its inauguration in 2008. Three fellows are currently studying at host institutions across the United States. Applications and additional information about requirements for the 2022–2024 fellowship are available at www.snmmi.org/grants. Applications are due by January 30, 2022.

SNMMI

NIH Awards Grants to Address Disparities and Equity

The National Institutes of Health (NIH) announced on October 13 the award of 11 grants intended to fund "bold, new research ideas that focus on interventions to address health disparities and advance health equity." As part of the NIH Common Fund's Transformative Research to Address Health Disparities and Advance Health Equity initiative, the awards will provide more than $58 million over 5 years. Innovation in these applications was evaluated based on their focus on the significance of the research problem, the novelty of the idea or approach, and/or the magnitude of the potential impact, rather than on preliminary data or experimental details.

"It is unacceptable for persistent and pervasive health inequities to continue despite the scientific advancements and knowledge base we have achieved,"

said NIH Director Francis S. Collins, MD, PhD. "This research effort will catalyze novel interventions and hasten the opportunity to put evidence into action for populations affected by health disparities." Each of the awards includes an innovative intervention component and focuses on 1 or more NIH-designated populations that experience health disparities in the United States. Example projects include: community-based research collaborations to test financial interventions that address structural racism and health/well-being in minority neighborhoods; community-based telehealth-driven or technology-assisted interventions for physical and mental health; technology-enhanced approaches to advance cancer health equity among diverse deaf, deaf-blind, and hard-of-hearing populations; and new models of school-based, telehealth-driven preventive care for children in underserved rural and/or socioeconomically disadvantaged areas.

In addition, the initiative is targeting expansion of health disparities research at minority serving institutions (MSIs). The NIH Common Fund plans to reissue a dedicated funding opportunity specifically designed for MSIs in fiscal year 2022 to support additional projects.

National Institutes of Health

U.S. Patient Cancer Costs Topped $21 Billion in 2019

The second part of the latest *Annual Report to the Nation on the Status of Cancer* found that patients in the United States carry a large burden in cancer care costs. The report, appearing on October 26 in *JNCI: The Journal of the National Cancer Institute,* is the most comprehensive examination of patient economic burden for cancer care to date and includes information on patient out-of-pocket spending by cancer site, stage of disease at diagnosis, and phase of care. In 2019, the national patient economic burden associated with cancer care was $21.09 billion, made up of patient out-of-pocket costs of $16.22 billion and patient time costs of $4.87 billion. Patient time costs reflect the value of time spent traveling to and from health care and waiting for and receiving that care. The analysis focused only on costs directly incurred by patients; total overall costs of cancer care and lost productivity are much larger.

Among adults aged 65 years and older with Medicare coverage, average annualized net out-of-pocket costs for medical services and prescription drugs were $2,200 and $243, respectively, in the initial phase of care (first 12 mo after diagnosis) and $3,823 and $448, respectively, in the end-of-life phase (12 mo before death among those who died). Average costs were lowest in the intervening months. Across all cancer sites, average annualized net patient out-of-pocket costs for medical services in the initial and end-of-life phases of care were lowest for patients who were originally diagnosed with localized disease compared with more advanced-stage diagnoses.

Analyses of differences in patient economic burden by cancer type found substantial variation in patient out-of-pocket costs, reflecting differences in treatment intensity and duration as well as survival. In 2019, total national out-of-pocket costs were highest for breast ($3.14 billion), prostate ($2.26 billion), colorectal ($1.46 billion), and lung ($1.35 billion) cancers. "As the costs of cancer treatment continue to rise, greater attention to addressing patient medical financial hardship, including difficulty paying medical bills, high levels of financial distress, and delaying care or forgoing care altogether because of cost, is warranted," said Karen E. Knudsen, MBA, PhD, chief executive officer of the American Cancer Society (ACS). "These findings can help inform efforts to minimize the patient economic burden of cancer, and specific estimates may be useful in studies of the cost-effectiveness of interventions related to cancer prevention, diagnosis, treatment, and survivorship care."

The annual report is a collaborative effort among the ACS, the Centers for Disease Control and Prevention, the National Cancer Institute, and the North American Association of Central Cancer Registries. Part 1 of this report, released in July, focused on national cancer statistics. For more information about the report, see https://seer.cancer.gov/report_to_nation.

National Cancer Institute