



From the SNM

SNM Joins in Pubs Proposal to NIH

SNM joined leading medical and scientific nonprofit publishers on October 25 to announce the submission of a proposal to the National Institutes of Health (NIH) that would facilitate the availability of journal articles to the public efficiently and at no cost. In a letter to Elias Zerhouni, MD, NIH director, the group detailed a plan that would allow NIH to provide online access to articles now appearing on their respective journals' Web sites using the existing system of links from abstracts that are indexed on NIH Medline. The transparent linking system would make it easier for the public to view more than 1 million research articles and would avert the need to create a new taxpayer-funded publishing infrastructure within the NIH.

The public-private partnership being proposed by the nonprofit publishers would fulfill the NIH goal to provide complete public access to all federally funded research. In addition to the 1 million free research articles from science, social science, and the humanities, the proposal would make available more than 15,000 additional free articles each month, as well as a library of 1.7 million full-text research articles dating to 1849.

"Overnight and at no cost to taxpayers, this proposal will make it easy for the public to access vast amounts of the most accurate scientific and medical information available," said Chris Lynch, vice-president of publishing for the Massachusetts Medical Society, which publishes the *New England Journal of Medicine*. "Essentially, what we are proposing is for the NIH to become the public's doorway into the universe of research that nonprofit

publishers already provide to the public everyday."

The proposal was conceived, in part, in response to implementation of the NIH "Policy on Enhancing Public Access to Archived Publications Resulting from NIH Funded Research," released on May 2, 2005. The policy asks that NIH grantees submit any manuscripts that report on NIH-funded research after they have been peer reviewed and accepted for publication, but before they have undergone final copyediting. The publishers' proposal to Zerhouni eliminates concerns that placing research manuscripts into public view before final editing could inadvertently pave the way for the rapid spread of confusing and potentially serious errors. Under the publishers' proffered proposal, only the final, published versions of research would be made public, the scientific record on which researchers depend would be maintained, and copyright protections would be preserved.

"Our plan preserves the critically important role of scientific journals," said Martin Frank, PhD, executive director of the American Physiological Society, a signatory of the proposal. "Nonprofit publishers add significant value to the original research through peer reviewing, copyediting, publishing, and disseminating the articles. Because we are offering our materials at no charge to NIH, they will not need to cut research funding for cancer, Alzheimer's, and other diseases in order to develop their own system, which would mimic ours. This plan is a win-win for everyone involved."

A list of the journals issued by the nonprofit publishers is available at: <http://www.DCPrinciples.org>.

Washington DC Principles for Free Access to Science

CMS Releases 2006 HCPCS Level II Annual Update

On October 27, the Centers for Medicare and Medicaid Services (CMS) released the 2006 Healthcare Common Procedure Coding System (HCPCS) Level II code set. This file contains more than 60 changes for nuclear medicine radiopharmaceuticals and drugs, which will become effective January 1, 2006.

The SNM Coding and Reimbursement Working Group was active in working with CMS in modifying the code set relating to radiopharmaceuticals. The working group began this HCPCS Level II project more than 2 years ago. The project goal was to bring consistency and structure to radiopharmaceutical codes, based on both current medical practices and facilities purchase practices. "It has been a lot of collaboration, education, and hard work for both the CMS HCPCS working group and the SNM Coding and Reimbursement working group members," said Denise Merlino, SNM coding adviser and a key contributor to the project. "I believe both groups worked together toward the common goal. It was a unique experience with results well worth the effort. I would also like to commend the CMS working group for their successful implementation of a new, more transparent HCPCS process," she added.

The 2006 HCPCS cycle was the first in which the medical communities were allowed a "sneak peak" into the HCPCS working group's proposed changes. The nuclear medicine community was given this preview in June 2005, which provided time for public comment, an important element in the revised HCPCS process.

The SNM will prepare educational materials with these 2006 HCPCS level II requirements and

will post these in the practice management section of the SNM Web site in the near future. The complete file containing the 2006 HCPCS Annual Update can be accessed at: www.cms.hhs.gov/providers/pufdownload/anhcpddl.asp.

Society of Nuclear Medicine

SNM to Collaborate with Bio-Imaging Technologies

SNM governance representatives announced on October 26 that they had established a collaborative working agreement with Bio-Imaging Technologies, Inc., the world's largest independent, dedicated provider of medical image management for clinical trials. Together, SNM and Bio-Imaging will work to establish multicenter clinical trial capabilities and educational programs.

"Over the last few years, the society recognized the need to have nuclear medicine—and in particular PET imaging—used in more clinical trials. We have also recognized the need to help further this technology for drug development," said SNM President Peter S. Conti, MD, PhD. "As we developed this concept, we looked for an experienced imaging core lab to help support our endeavors and to collaborate in this process. Bio-Imaging has a reputation of operational and scientific experience, and we are pleased to invite them to work with the SNM."

Bio-Imaging Technologies is a health care contract service organization providing services that support the product development process of the pharmaceutical, biotechnology, and medical device industries. The company maintains a Core Lab in Newtown, PA; a European Core Lab in Leiden, The Netherlands; and business offices in Massachusetts, the United Kingdom, and Germany. Mark L. Weinstein, president and chief executive officer of Bio-Imaging, noted, "We are very pleased that SNM has chosen to partner with us. We have appreciated the role of

nuclear medicine imaging in the drug and medical device development process for some time, and this will allow us to become more involved in an area that is growing and developing rapidly."

"We believe nuclear medicine utilization will continue to grow and become more acceptable to the Food and Drug Administration (FDA) for assessing the efficacy and safety of new drugs, biologics, and medical devices," added Colin G. Miller, PhD, Bio-Imaging senior vice president of business development. "Through this collaboration, access to the expertise within the society will also allow us to expand the group of experts and consultants who provide support to our clients. Furthermore, we have identified a number of discrete initiatives on which we are starting to collaborate that will enhance our experience and help develop the use of nuclear medicine in clinical trials. Bio-Imaging education programs are also an area of collaboration with SNM."

Society of Nuclear Medicine

Additional News

Fowler Wins DOE Award

Representatives from the Department of Energy (DOE) Office of Biological and Environmental Research (BER) announced on October 24 that Joanna Fowler, PhD, a Brookhaven National Laboratory (BNL) chemist and SNM member, was among the winners of the first Distinguished Scientist Fellowship competition. "Dr. Fowler is one of the real stars in our constellation of scientists," said Ari Patrinos, BER associate director. "She has advanced the field of medical imaging in many significant ways. This award is a small token of our gratitude and support for her."

The press release accompanying the announcement of Fowler's designation as the BER Medical Sciences Distinguished Fellow noted that her research has "led to fundamental new knowledge, important scientific tools,

and broad impact in the application of nuclear medicine to diagnostics and health." She has worked for much of her career developing radiotracers for brain imaging.

Specific scientific accomplishments cited in honoring Fowler included: her central role in the breakthrough leading to the development of an ^{18}F -labeled glucose molecule enabling human brain glucose metabolism to be measured noninvasively with PET; her interest in monoamine oxidase (MAO), which led to the development of the first radiotracers for imaging MAO in the human brain and to resulting insights into the neurochemistry and treatment of depression and Parkinson's disease; landmark studies on MAO, including the seminal discovery that smokers—but not former smokers—have reduced brain MAO type B; and her most recent work using brain imaging to elucidate the mechanisms underlying drug addiction.

Fowler has been at BNL for more than 35 years. Her work has been honored with numerous prestigious awards and recognitions, including the SNM Paul Aebersold Award, the American Chemical Society Garvan-Olin Medal and Glen T. Seaborg Award, the DOE E.O. Lawrence Award in Life Sciences, election to the National Academies of Science in 2004, and the Distinguished Basic Scientist award from the Academy of Molecular Imaging in 2005. She holds 8 patents for radiolabeling procedures. Fowler and 3 other BER Distinguished Fellows will each receive \$250,000 per year for up to 5 years.

DOE Office of Environmental and Biological Science

Larson Elected to IOM

The Institute of Medicine (IOM) of the National Academies announced on October 24 the names of 64 new members, raising its total active membership to 1,461. In addition, the Institute honored 5 individuals by election to foreign associate membership, bringing the total members in that category

to 79. With another 62 members holding emeritus status, the total IOM membership is now 1,602. Among those elected to the IOM was Steven M. Larson, MD, professor and director of radiology, Nuclear Medicine Service, Memorial Sloan-Kettering Cancer Center (New York, NY) and an active member of the SNM. Dr. Larson was the 2005 recipient of the SNM Georg Charles de Hevesy Nuclear Pioneer Award and was honored with the Radiological Society of North America's Outstanding Educator award in 2004.

This year marks the 35th anniversary of the IOM, which was established in 1970 to honor professional achievement in the health sciences and to serve as a national resource for independent analysis and recommendations on issues related to medicine, biomedical sciences, and health. "As the Institute of Medicine celebrates this milestone, it is a great pleasure to welcome these distinguished individuals as members," said IOM President Harvey V. Fineberg. "Election recognizes those who have made major contributions to the advancement of the medical sciences, health care, and public health. It is considered one of the highest honors in these fields." Current active members elect new members from a slate of candidates nominated for their professional achievement. A diversity of talent among members is assured by the Institute's charter, which requires that at least 25% be selected from fields outside the health professions, such as the social and behavioral sciences, law, engineering, and the humanities.

With their election, members make a commitment to involve themselves in the work of the IOM, which conducts studies and other activities addressing a wide range of issues in medical science, health services, public health, and health policy. Current studies include a project to recommend appropriate nutritional standards for foods sold in schools, an evaluation of the nation's system for ensuring the safety of prescription

drugs after they have reached the market, and an assessment of emergency health care in the United States. The complete list of new members may be accessed at: www.iom.edu/news.asp?id=30605.

Institute of Medicine

DOE Seeks Nominations for Lawrence Awards

The U.S. Department of Energy (DOE) issued a request on October 28 for nominations for the Ernest Orlando Lawrence Awards, among the oldest and most prestigious science and technology awards given by the U.S. government. The Lawrence Awards honor U.S. scientists and engineers at mid career for exceptional contributions in research and development supporting the DOE and its mission to advance the national, economic, and energy security of the United States. Nominees must be U.S. citizens in mid career and show promise for continued exceptional achievements. The DOE encourages the nomination of women and minority candidates and welcomes nominees from the nation's research universities and national laboratories.

The award consists of a citation signed by the Secretary of Energy, a gold medal, and a \$50,000 honorarium. An award is presented in each of the following fields: chemistry, materials research, environmental science and technology, life sciences (including medicine), nuclear technologies (fission and fusion), national security and nonproliferation, and high-energy and nuclear physics. Nominations for the award should be sent no later than January 31, 2006. The invitation-to-nominate brochure and background information about the Lawrence Award are available at: www.sc.doe.gov/lawrence/.

U.S. Department of Energy

NIH to Encourage Clinical and Translational Science

National Institutes of Health (NIH) Director Elias A. Zerhouni, MD, announced on October 12 the

launch of a new program designed to spur the transformation of clinical and translational research in the United States, so that new treatments can be developed more efficiently and delivered more quickly. "We are truly at a crossroads in medicine," Zerhouni said. "The scientific advances of the past few years, such as the completion of the Human Genome Project, dictate that we act now to encourage fundamental changes in how we do clinical research, and how we train the new generations of clinician scientists for the medical challenges of this century."

The Institutional Clinical and Translational Science Awards (CTSAs) program, unveiled on the same day in *The New England Journal of Medicine (NEJM)*, is designed to energize the discipline of clinical and translational science at academic health centers around the country. "This program will give research institutions more freedom to foster productive collaboration among experts in different fields, lower barriers between disciplines, and encourage creative, new approaches that will help us solve complex medical mysteries," said Zerhouni. The grants will encourage institutions to propose new approaches to clinical and translational research, including new organizational models and training programs at graduate and postgraduate levels. In addition, they will foster original research in developing clinical research methodologies, such as clinical research informatics, laboratory methods, other technology resources, and community-based research capabilities.

NIH plans to award 4-7 CTSAs in FY 2006 for a total of \$30 million, with an additional \$11.5 million allocated to support 50 planning grants for those institutions that are not ready to make a full application. NIH expects to increase the number of awards annually so that by 2012, 60 CTSAs will receive a total of approximately \$500 million per year. The C TSA program is an NIH Roadmap for Medical Research initiative and will be administered by the National

Center for Research Resources, a component of the NIH. The request for applications (RFA) calls for submissions by March 27, 2006. Initial awards are expected in the fall of 2006. The RFA is available at www.ncrr.nih.gov.

National Institutes of Health

Schwaiger Among BMS Awardees

The Bristol-Myers Squibb (BMS) Company announced on October 20 its Freedom to Discover program awardees at a gala dinner at the American Museum of Natural History in New York. Since 1977, the Freedom to Discover unrestricted biomedical grants and awards program, sponsored by BMS and the BMS Foundation, has committed more than \$110 million in 277 grants to more than 155 research institutions in 23 countries. The grants come with no strings attached. This year's recipients are being given 5-year grants to support their research. The 13 scientists selected represent a global snapshot of leading-edge research, 8 at U.S. institutions and 5 at research institutions in Europe and Japan. Among the honorees was Markus Schwaiger, MD, professor and director of the department of nuclear medicine and director of research at the Institute of Radiology within the Technische Universität München (Germany). Schwaiger was awarded the grant for his work on multiple aspects of cardiovascular imaging, including cardiovascular PET imaging. He and his research team are frequent contributors to *The Journal of Nuclear Medicine*.

For a complete list of awardees and grantees, see: www.bms.com/freedomtodiscover.

Nuclear Medicine in the UK

In the November issue of *Nuclear Medicine Communications* (2005;26:937-946) Hart and Wall, from the Health Protection Agency (Chilton, UK), reported on the results of a sur-

vey designed to assess trends in the frequencies of nuclear medicine procedures in the UK and to determine the contributions these make to the annual collective effective dose to the UK population. Average activities administered by nuclear medicine departments as reported on questionnaires were compared with guidance on diagnostic reference levels issued by the UK Administration of Radioactive Substances Advisory Committee. The results indicated that the total number of procedures performed annually has increased by 36% over the last decade to approximately 11 procedures per 1000 individuals in 2003-2004. Planar imaging accounted for 73% of all nuclear medicine imaging, with SPECT and PET contributing 16% and 2%, respectively. Nonimaging diagnostic procedures accounted for 7% of all nuclear medicine administrations, and therapy for 2%. Bone scans continue to be the most frequent procedure, with myocardium scans as a close second. Planar imaging is responsible for 62% of the total collective effective dose from diagnostic nuclear medicine in the UK, with SPECT, PET, and nonimaging procedures contributing 33%, 5%, and 0.3%, respectively.

Nuclear Medicine Communications

Cost Effectiveness of PET in Canada

Sloka and Hollet from Memorial University of Newfoundland (St. John's, Canada) reported in the October issue of the *Medical Science Monitor* (2005;11:PH1-6) on a study to determine the cost effectiveness of PET and adequate population bases to support a PET center with cyclotron for the staging of stage I and II breast, recurrent colorectal, and non-small cell lung cancers. They found that in order to break even, each PET device would require 740 new cases per year. If a PET study was introduced into the diagnostic algorithm for each type of cancer, then it was estimated that 1 person in 766 would benefit from a PET scan in any year.

Thus, a population of 567,000 individuals would support the use of a PET center with a cyclotron, a number that the authors concluded would be cost effective in most Canadian jurisdictions.

Medical Science Monitor

Nuclear Medicine in Central and Eastern Europe

In an article e-published on October 12 ahead of print in the *European Journal of Nuclear Medicine and Molecular Imaging*, P. Lass from the Medical University of Gdansk (Poland) reported on the state of nuclear medicine in central and eastern Europe (CEE), defined as the group of 15 countries lying east of the Oder River/Trieste line and west of the present European Union eastern border. Although these countries are home to a quarter of the European Union population, only 10% of European nuclear medicine personnel and equipment are located there. The author notes that the area contains at least 245 nuclear medicine departments, 661 nuclear medicine specialists, at least 376 gamma cameras, 6 dedicated PET units, 3 PET/SPECT centers, 1 manufacturer of gamma cameras, 6 radiopharmaceutical manufacturers, and 2 nuclear medicine scientific journals. Nuclear medicine authors from these countries accounted for 10% of abstracts at annual European Association of Nuclear Medicine meetings and only 5% of articles appearing on the National Library of Medicine's Medline resource. The author called for international cooperation to "improve the level of nuclear medicine in the CEE countries so that it reaches European standards."

European Journal of Nuclear Medicine and Molecular Imaging

NCI Funds Patient Navigator

The National Cancer Institute (NCI) announced on October 27 a total of \$25 million in grants to 8

research institutions to develop an innovative Patient Navigator Research Program. Navigators help patients and their families manage cancer diagnoses and overcome common barriers to obtaining timely and appropriate cancer care and treatment. The 5-year grants will be administered by NCI's Center to Reduce Cancer Health Disparities.

"Studying various forms of patient navigation is extremely important," said Mark Clanton, MD, NCI deputy director for cancer care delivery systems. "This area of research can help us take a huge step toward narrowing cancer health disparities and ensuring that knowledge, ad-

vancements, and technology are shared with patients in all communities."

Patient navigators help coordinate services among medical personnel, schedule appointments with caregivers and specialists, arrange translation or interpretation services and various forms of financial support, facilitate transportation to and from medical visits, and arrange childcare services during diagnosis and treatment appointments. Navigators from primary care or community health settings provide support and guidance, linking patients to existing health care services.

The 4 new program will focus on four cancers for which screening tests are available (breast, cervical, prostate and colorectal) and will focus on cancer patients from racial/ethnic minority groups, patients with low socioeconomic status, and patients from medically underserved areas. Nuclear medicine practitioners should familiarize themselves with the roles and advocacy rights of patient navigators who accompany patients to their practices. For additional information about the Patient Navigator Research Program and grantees, see: <http://crchd.nci.nih.gov>.

National Institutes of Health

(Continued from page 14N)

Yukio Yano in the Berkeley cyclotron, said Anger. According to Pollycove, now a Visiting Medical Fellow with the Nuclear Regulatory Commission, Anger's development of the positron camera helped facilitate the study of blood disorders with ^{52}Fe . "With the positron camera and ^{52}Fe ," said Pollycove, "you could get better distribution and visualization of the iron kinetics." Additionally, use of the positron camera made it possible to use oral or intravenous administration of ^{52}Fe , said Pollycove.

In 1966, Anger developed the first multiplane tomographic scanner, a camera that images multiple planes in the body simultaneously. Nuclear-Chicago Corp. manufactured the camera, which in time was superseded by SPECT instrumentation.

Professional Commendations

The holder of 15 U.S. patents as well as the author of numerous journal articles and book chapters, Anger is the recipient of many major awards and honors, including the John Scott Award in 1964 for the development of the positron camera; Guggenheim Fellowship, 1966; Gesellschaft für Medizin award, 1971; honorary doctorate in science, Ohio State University, 1972; Nuclear Medicine Pioneer Citation, SNM, 1974; Modern Medicine Award for Distinguished Achievement, 1975; SNM First Western Regional award for distinguished contributions to nuclear medicine, 1976; Centennial Year Medal, Institute for Electrical and Electronics Engineers (IEEE), 1984; Société Française de Biophysique Medal, 1988; Georg de Hevesy Memorial Medal, Vienna, 1991; and Honorary Member and Fellow, American College of Nuclear Physicians, 1992.

In 1994, the Education and Research Foundation for the Society of Nuclear Medicine paid tribute to Anger by awarding him the first Cassen Prize, a \$25,000 award to a scientist whose work has made a major advance in nuclear medicine science. According to Patton, who served as president of the

7-member Cassen Prize Committee when Anger was nominated, the selection of Anger was unanimous, and there was no discussion of other nominees.

Current Activities

Since his retirement in 1982, Anger has maintained professional memberships in both SNM and IEEE. Anger keeps abreast of instrumentation developments by reading the literature and attending occasional meetings and conferences. The last instrumentation that Anger finds most intriguing is ADAC's Meuhllener dual PET scanner and Digirad's solid-state gamma camera, a notable advancement, given that the camera is about the size of a laptop computer because solid-state detectors are used instead of the crystals and PMTs used in larger traditional gamma cameras. It is interesting to note that despite the fact that solid-state gamma-ray detector research has been ongoing for many years, the solid-state gamma camera, which was approved by the Food and Drug Administration in May 1997, could make new inroads for nuclear medicine imaging in much the same way the Anger gamma camera did.

"It has been very satisfying to see the development of PET and SPECT and the advances in image resolution and clarity," Anger observed. "I had an extraordinary opportunity at Donner to follow through on my ideas and make the [devices] work." To say that Anger's innovations were the catalyst for the emergence of nuclear medicine may be an understatement, but the development of the first clinically successful radioisotope camera had far-reaching implications for nuclear medicine. "Improvements in the Anger camera, including SPECT and the deployment of different designs for positron imaging, can be seen as an offshoot of Hal's original work," said Budinger. Perhaps Anger's contributions to the field are best summarized by Strauss: "It's hard to say where nuclear medicine would be without Anger's contributions."

*Eleanore Tapscott
SNM, 1998*