



# It's Time to Voice Why This Nation Needs to Invest in Molecular Imaging/Nuclear Medicine

**T**hroughout modern history, scientific advances have come up against philosophical and ideological dogma. Science—with its focus on objective goals—must be separated from ideological dogma. Funding for molecular imaging/nuclear medicine programs within the Department of Energy (DOE) is nearly eliminated in this year's proposed federal budget because such research is not considered a core DOE mission. This is at odds with the intended role of DOE's predecessor, the Atomic Energy Commission, which was authorized and directed to promote research activities in the development of medical and biological applications of radionuclides.

President Bush's proposed federal budget, which was announced in February, delivers a severe blow to advances in basic science and instrumentation for molecular/nuclear imaging. These cuts strike at the very heart of our profession—and at our members who are involved in objective basic research.

The proposed fiscal plan nearly eliminates molecular imaging/nuclear medicine programs in DOE's Medical Applications and Measurement Science Program, cutting funding from approximately \$37 million in fiscal year (FY) 2005 to \$13.6 million in FY 2006. Most of the remaining \$13.6 million in FY 2006 will go to research in unrelated fields. The proposed budget would eliminate funding for 84 projects in molecular medicine at 23 universities and 4 national laboratories. For example, reports show that Brookhaven National Laboratory could lose up to \$6 million a year in federal funding. At-risk programs that are spearheaded by many SNM researchers are in jeopardy, including those exploring novel phenotyping, molecular imaging of stem cell survival, imaging of oncogene expression and apoptosis, and labeling of receptor ligands and other compounds as well as programs developing a therapeutic radionuclide tumor-targeting strategy, a dopamine receptor radiopharmaceutical, PET imaging agents for nicotine receptors, and radionuclides for diagnosis and therapy.

As molecular imaging/nuclear medicine professionals, we must sit up and take notice. If this issue is not addressed effectively, it will have profound implications on sustainable developments in our profession. The termination of this funding will weaken the lead-

ership position of our nation in atoms for medical use and in bench-to-bedside applications. These proposed cuts challenge the productivity and creativity of our members and threaten to abolish a highly progressive branch of medical science, thus compromising the innovative care that our patients deserve.

SNM, which is working intently behind the scenes in Washington, DC, strongly opposes the Bush administration's proposed budget cuts and continues to coordinate actions urging Congress to reinstate crucial molecular imaging/nuclear medicine funding to the DOE. The Society continues to send letters to the chairs and members of key committees in the House and Senate, to contact other associations and industry leaders asking them to join our efforts, and to meet with Capitol Hill health care champions.

And yet, while this harsh budget news appears to close doors to innovative research for disease diagnosis and therapy . . . it presents a clear opportunity for you to help SNM articulate why this nation needs to invest in molecular imaging/nuclear medicine. The proposed fiscal plan is nonbinding; it helps guide Congress in developing a budget that the president would be willing to sign. In a budget situation this tight, physicians, technologists, and scientists must join the chorus of voices objecting to the cuts.

Within hours of the budget's release, SNM developed an action plan to counter the proposed budget cuts. In less than 48 hours after the budget's release, we, SNM representatives, visited 2 key senators' offices and had a 2-hour meeting with Office of Management and Budget (OMB) staff. I recently testified on behalf of SNM at a DOE/National Science Foundation advisory committee, asking that crucial funding be restored to DOE's FY 2006 budget. Testifying with me—and showing solidarity of purpose—were SNM members Bennett S. Greenspan, MD, president of the American College of Nuclear Physicians,



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and Michael J. Welch, PhD, a professor of radiology and chemistry and director of the department of radiology's research division at Washington University School of Medicine (St. Louis, MO).

We told the representatives from OMB and the Office of Science and Technology—and I repeated the concerns to Raymond L. Orbach, PhD, director of DOE's Office of Science—that the future of effective therapies and cutting-edge basic research in molecular imaging and nuclear medicine depends on DOE funding. SNM recognizes that there are many competing priorities in the FY 2006 federal budget as well as serious fiscal challenges that the nation faces. However, without funding for molecular/nuclear imaging programs, nuclear medicine research will be severely curtailed, and millions of our patients with cancer, brain diseases, and diseases of the heart could be adversely affected.

Research and development carried out with DOE funding have made pioneering contributions that have formed the basis of molecular imaging/nuclear medicine as practiced today. These achievements have had a major impact on the growth of molecular imaging/nuclear medicine and on the lead our nation enjoys in the field. The list of accomplishments brought about by DOE funding is long and includes the development of the Anger gamma camera, a primary tool; the  $^{99m}\text{Mo}/^{99m}\text{Tc}$  generator, the workhorse; PET, the driving force of modern molecular imaging/nuclear medicine;  $^{18}\text{F}$ -FDG, which promotes metabolic imaging; and many other key radiopharmaceuticals of diagnostic and therapeutic importance that are either in routine practice or promise to keep molecular

imaging/nuclear medicine on the cutting-edge of ever-evolving modern medicine.

However, only Congress can reverse the budget cuts. We simply cannot afford to sit back and watch this situation become a reality. While we all cannot personally provide our perspectives on Capitol Hill, we can let our lawmakers know that these funding cuts are unacceptable. Since SNM issued its call to action, nearly 2,700 messages (both e-mail and print) have been sent to Capitol Hill lawmakers denouncing the proposed budget cuts. Clearly, the impact on Congressional lawmakers would be exponentially greater if *all* of our 16,000 members and *Journal of Nuclear Medicine* subscribers wrote to object to the suggested cuts. SNM has made this process very easy, providing an online legislative action center that supplies recommended e-mail text. The online action center also automatically determines your representatives (based on your zip code) and provides their e-mail addresses.

On behalf of the society, I thank those who have already taken the time to send letters, and I appeal to others to take action and let your national representatives know you support molecular imaging/nuclear medicine programs. Visit the SNM Web site at [www.snm.org](http://www.snm.org) and click on Government Relations for the link to the online legislative action center. The window of opportunity still exists. Please do not procrastinate, as procrastination is the grave in which opportunity can get buried. *SNM and the molecular imaging/nuclear medicine profession need your help!*

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DOE. It is reassuring to note the multiple suppliers of  $^{57}\text{Co}$ , of which there was a recent shortage. Several companies are now making available  $^{68}\text{Ge}$ ,  $^{177}\text{Lu}$ , and other radionuclides appearing more frequently in our nuclear medicine literature.

These lists were reviewed by the following individuals who gave generously of their time: Robert W. Atcher, PhD; Joseph C. Hung, PhD; Henry H. Kramer, PhD; and all the members of the Council on Radionuclides and Radiopharmaceuticals, Inc., to whom he sent these lists; John Pantaleo of the DOE; James A. Ponto,

MS; and Wynn A. Volkert, PhD. These lists are published here with the understanding that the organizations have said that they can or will provide these radionuclides in 2005. It is almost certain that some of these radionuclides cannot be provided without some period of delay for production. If any producers or radionuclides have been omitted, we will publish addenda as needed.

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