NIH FOA Focuses on Future BRAIN Research

In January, the National Institutes of Health (NIH) posted additional information about an imaging-focused funding opportunity announcement (FOA) component of the Brain Research through Advancing Innovative Neurotechnologies (BRAIN) Initiative. BRAIN is a collaborative effort announced in April 2013 by President Obama, with a goal of "revolutionizing our understanding of the human brain." NIH is one of several federal and private agencies involved in the collaboration, which has been highlighted in previous Newsline issues. The current FOA, titled BRAIN Initiative: Planning for Next Generation Human Brain Imaging, is an R24 mechanism designed to support formation and development of interdisciplinary teams that will "plan innovative approaches to substantively expand the ways by which brain structure and function can be imaged in humans." Activities supported by the awards include planning activities (such as meetings or conferences), prototype development projects, and small-scale pilot studies in mammals or humans that would provide proof of principle for transformative approaches to assessing human brain structure and function. The proposed concepts resulting from these efforts are "expected to be high-risk, high-impact, and disruptive." At the completion of the R24 award, NIH indicates that it will expect investigators to be prepared to develop next-generation brain imaging technology for use in humans within 5 years. NIH noted that "this FOA is designed to provide the needed resources to form teams to meet the challenge of developing novel and transformative interdisciplinary approaches to human brain imaging."

In May 2013 a Working Group of the Advisory Committee to the NIH director was charged with helping to articulate the scientific goals of the NIH BRAIN Initiative and develop a multiyear scientific plan for achieving those goals. On September 16, the Working Group issued an interim report (available at www.nih.gov/science/brain/index.htm) identifying high-priority research areas for NIH funding in 2014. This FOA and other BRAIN Initiative FOAs issued in FY14 will be based on these findings. They constitute the inaugural set of NIH BRAIN Initiative projects, with an expected initial investment of $40 million targeted toward tool and technology development. The NIH BRAIN Working Group's final report will be delivered in June 2014 and will include recommendations for specific goals and milestones for the multiyear NIH BRAIN Initiative.

The Brain Imaging R24 FOA has been allotted $4 million, with a target of 9 to 10 awards at up to $300,000 per year for a 3-year period. The deadline for submissions is March 13, and initial responses indicate that numerous collaborative submissions are in preparation.

National Institutes of Health

NM Technology Training Survey

The American Society of Radiologic Technologists (ASRT) on January 10 released the results of a survey of directors of radiography, radiation therapy, and nuclear medicine training programs assessing trends in program enrollment and graduation in 2013. The survey, conducted by e-mail in October, included more than 501 responding sites. Although radiography and radiation therapy programs saw a slight increase (an average of 1 additional first-year student per site) in 2013 over 2012, nuclear medicine technology programs saw an average decrease of 0.5 students per program. An estimated 1,280 students enrolled in U.S. nuclear medicine training programs in 2013, down from 1,407 in 2012.

Results from the survey indicated that some program directors appear to be limiting enrollment numbers. In 2013, radiography program directors turned away an average of 36.3 qualified applicants per class and radiation therapy programs turned away an average of 17.1 students. The figure for nuclear medicine programs was an average of 7.8 students. "After factoring in the number of students who weren't admitted and the available slots in programs, we estimated that more than 15,500 students were turned away in 2013," said John Culbertson, ASRT director of research. "In addition, about 46% of radiography program directors who participated in the survey said their program was not at full capacity in 2013, which possibly indicates that many directors are carefully monitoring their enrollment."

When asked whether their program is at full enrollment, only 23.9% of nuclear medicine program directors indicated that they are currently at capacity. Programs not at full enrollment were asked how many additional students their program could accommodate. On average, nuclear medicine programs said they could accommodate an additional 7.9 students. If enrolled, this would mean an estimated 770 additional students in training. However, 81.8% of nuclear medicine technology programs indicated that they plan to leave their enrollment numbers unchanged. In part this is because of the less-than-promising employment outlook for many graduates. Since 2009, the average percentage of new graduates employed as nuclear medicine technologists has dropped more than 20% across all regions of the country. From the class of 2012, only 65.0% of graduates of nuclear medicine programs were able to find employment in their field within 6 months—a percentage that varied widely depending on geographic location. On a positive note, this represents an increase of 1.4% from the previous year.

Nuclear medicine training program directors also responded that, in the near future, 53.7% of programs will "definitely continue to operate," 38.8% will "likely continue to operate", 6.0% will close, and 1.5% will likely close. Complete results of the survey are available at: www.asrt.org/docs/default-source/research/2013.pdf?sfvrsn=0.

American Society of Radiologic Technologists