REPORTS OF NOTE

On Being a Scientist: Responsible Conduct in Research

1995

"It is incumbent on all scientists and all administrators of science to help provide a research environment that, through its adherence to high ethical standards and creative productivity, will attract and retain individuals of outstanding intellect and character to one of society's most important professions," said Bruce Alberts, president, National Academy of Sciences; Kenneth Shine, president, Institute of Medicine; and Robert White, president, National Academy of Engineering in the preface to *On Being a Scientist: Responsible Conduct in Research*.

On Being a Scientist has been revised since its original 1989 publication to provide better ways to teach the ethics of research to graduate students and junior scientists. The scientific community is built on a foundation of trust that has characterized science and its relationship with society. This trust will endure if the values of ethical scientific conduct are carried from one generation of scientists to the next.

Young scientists still learn the core essentials of research by observing their professors and mentors. According to the report, this process is still vital, but the complexities of science require a more formal introduction to research ethics and their commitments. Philip A. Sharp, head, Department of Biology, Center for Cancer Research, Massachusetts Institute of Technology says, "This publication supplements these traditional, informal interactions and provides a basis for more in-depth discussions among junior and senior scientists. One of its primary goals is to encourage researchers to talk about the core values of science."

Since its publication, 200,000 copies of the 1989 version of *On Being a Scientist* have been distributed to graduate and undergraduate students to acquaint them with the ethical obligations of scientists. The new version includes hypothetical scenarios to give students examples in tackling ethical questions. They help address concerns about issues such as "industrial sponsorship of academic research, the sharing of research materials, credit for work where it is due, fabrication in a grant application, and plagiarism, among other topics."

In order to encourage awareness and discussion of these issues, the National Academy of Sciences in conjunction with other scientific societies is distributing more than 70,000 free copies to graduate students. The publication announcement and an on-line version of the booklet are available on World Wide Web at http://www.nas.edu; via Gopher at gopher.nas.edu; and via FTP at ftp.nas.edu/pub/.

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Consensus Conference on FY 1996 Federal Research Funding in the Biomedical and Related Life Sciences

1994

According to representatives of the nine societies of the Federation of American Societies for Experiment a Biology (FASEB), which met this October in Bethesda, Maryland, an investment in continued biomedical research is an investment in the future health and success of this country. FASEB made funding recommendations for biomedical and life science research programs in fiscal year (FY) 1996 at the National Institutes of Health (NIH), National Science Foundation (NSF), Environmental Protection Agency (EPA), National Aeronautics and Space Administration (NASA), and the Departments of Energy, Veterans Affairs, Agriculture and Defense.

FASEB recommends an overall increase in U.S. spending on research and development in biomedical programs and technology from 2.6% to 3% of the gross domestic product, as well as a 10% increase in the NIH budget for further research in areas in which there have been recent advances: neurosciences, cardiovascular medicine, cancer research and molecular genetics. They also recommended an increase of 14% in funding for research project grants.

Office of Policy Analysis and Research
FASEB
9650 Rockville Pike
Bethesda, Maryland 20814
No charge

Isotopes for Medicine and the Life Sciences

1994

Although the Committee on Biomedical Isotopes of the Institute of Medicine concluded in this report, entitled Isotopes for Medicine and the Life Sciences, that supplies were generally adequate to meet current demands, it recommended that actions be taken to ensure their future availability, noting that some isotopes are now usually supplied by foreign sources.

The recommended actions vary with the type of isotope, and the report addressed all three main categories of isotope used in medical research: isotopes produced in nuclear reactors, such as technetium-99m for medical applications; those produced in atomic particle accelerators such as iodine-123, used in thyroid imaging procedures; and thallium-201 used to determine cardiac function; and enriched stable isotopes, isotopes that do not emit radiation.

The committee, chaired by S. James Adelstein, professor of medical biophysics and dean for academic programmes at Harvard Medical School, was asked to assess the current and anticipated needs in the United States, to review the adequacy of current capabilities — in both the public and private sectors, and to suggest strategies for meeting future needs in research, diagnostic applications and patient care.

Specifically, the committee recommended that the US government should (1) create a national isotope programme, under the aegis of the Department of Energy's Office of Energy Research to consolidate the administration of all isotope-related activities, including production and development, R&D, and education and training; (2) establish a national biomedical tracer facility, national resource dedicated to the production of radionuclides using a particle accelerator; (3) provide additional support to the University of Missouri's research reactor; and (4) maintain the stable isotope production at the Oak Ridge National Laboratory.

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