

research in many fields of biological and medical research.” The Commission budget for fiscal 1947 was \$342 million.

Early in its first year, the AEC moved to provide a solid foundation for its biomedical research and education efforts by asking the President of the National Academy

of Sciences to nominate a panel of experts as a Medical Board of Review to advise the Commission. The Board was promptly established, and by June it had issued its initial recommendations, broadly supporting biomedical research and training efforts and proposing a permanent Advisory Committee for Biology and Medicine (ACBM).

In September 1947, the chairman of the AEC appointed seven distinguished physicians and biologists to the ACBM.

Immediately upon its creation, the ACBM recommended that a Division of Biology and Medicine be established to “coordinate medical, biological, and biophysical (health physics) research programs related to atomic energy” and to “direct for the Commission its health physics works and industrial hygiene activities.” The recommendation was quickly adopted. Thus was forged a commitment that has endured for a half-century—a commitment to vigorous research aimed both at nurturing the fruitful use of a new technology in the life sciences and at ensuring public health and safety in the face of that technology’s perils.

Almost thirty years later, the mandate broadened. On the heels of the 1973 oil embargo, the nation’s awareness of energy issues took a new turn: An unlimited flow of oil was no longer a given. Other options must be explored. And nuclear energy was only one of several alternatives whose prospects and consequences called for thoughtful examination. Accordingly, the Energy Reorganization Act of 1974 created the Energy Research and Development Administration, which assumed, and

greatly enlarged on, the AEC’s research responsibilities. In the words of the Congress, ERDA was to engage in and support “environmental, physical, and safety research related to the development of energy sources and utilization technologies.” The new agency’s Division of Biomedical and Environmental Research thus launched significant new programs of research, widening its scope beyond the environmental and health consequences of nuclear energy to encompass conventional and synthetic fossil fuels and renewable energy sources.

Three years later, with the creation of the Department of Energy, energy concerns achieved Cabinet rank. Today, the DOE’s Office of Biological and Environmental Research carries forward the mandate of its predecessors. Born in the shadow of the atomic bomb, biomedical and environmental research continues to shed light on the consequences of energy technologies—and to exploit their boundless promise. The Human Genome Project, for example, is a surprising but logical offspring of long-standing research on health issues and genetic effects, research that is the underpinning of today’s radiation protection standards. Medical research that has produced life-saving radiopharmaceuticals and diagnostic technologies now pursues molecular-level insights into human physiology and disease. And studies of global climate change continue a tradition of environmental research that includes ground-breaking work in modern ecology, pioneering studies of oceanic processes, and one of the nation’s first environmental impact assessments.

The concerns and aspirations that launched the AEC’s Division of Biology and Medicine gave rise to a continuing tradition of research that is as logical—but, in its details, just as unpredictable—as the course of progress itself. The following pages chronicle only a few of the highlights.

