

Today's BER Research Leads to the

In the year 2001, **BER Medical Sciences** funds cutting-edge nuclear medicine research at three DOE National Laboratories and more than 20 universities and private institutions. The next eight pages briefly highlight just a few **BER** research projects.

Brookhaven National Laboratory, New York

Located in Upton (Long Island) New York, Brookhaven scientists have conducted **BER** research since 1950, when Brookhaven opened the first nuclear medicine hospital. Today, Brookhaven is one of the world's leading laboratories for the design, synthesis, and application of radiopharmaceuticals. As scientists discover more information about the relationship between genes and disease and behavior, they can identify new molecular targets for imaging the biologic activity of disease.

Nuclear medicine scientists at Brookhaven actively pursue new ideas for the two essential building blocks of novel radiopharmaceuticals:

- Improved methods of using atomic particle accelerators to create a variety of radionuclides, including positron emitters for PET.
- innovative synthetic chemistry for linking radionuclides to biologically important carrier molecules.

Like several other **BER** research sites, Brookhaven has the facilities and expertise to translate the fruits of this basic research into medical imaging tools.



BER Scientists from Brookhaven National Laboratory enjoying a weekend get-together.