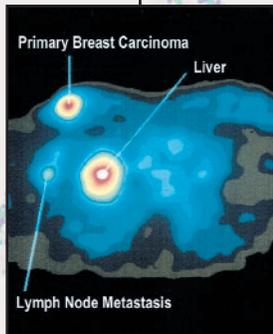


1980

Iodine-131 MIBG for diagnosing and treating rare childhood cancers

New radiopharmaceutical developed by Donald Wieland and other BER scientists at the University of Michigan.

1984



PET image of estrogen receptors in breast tumor

The first PET radiotracer to image a tumor based on a fluorine-18-labeled carrier molecule (fluoroestradiol) that targets a specific hormone receptor of the cell, developed by BER scientists Michael J. Welch (Washington University, St. Louis) and John A. Katzenellenbogen (University of Illinois, Urbana-Champaign).

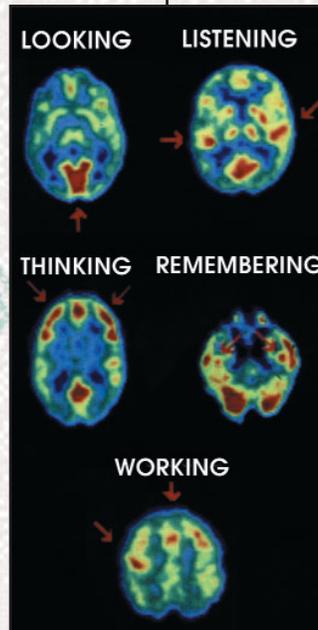
1986



Highest resolution PET scanner in the world

BER scientists led by Thomas F. Budinger (left) design more advanced PET imaging systems.

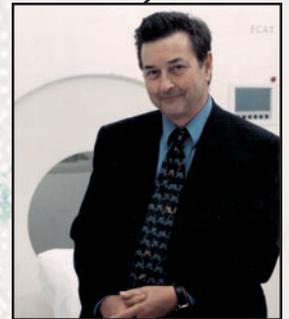
1987



PET scans show different patterns of glucose (sugar) metabolism related to performing various mental tasks

At UCLA, fluorine-18 FDG PET studies, supported by BER, show different patterns of glucose (sugar) metabolism in the brain during five tasks:
 (1) looking at scenery,
 (2) listening to a mystery story with music,
 (3) thinking by counting backwards from 100 by 7s,
 (4) remembering objects previously memorized, and
 (5) working by touching the thumb consecutively to the four fingers.

1990



Enrico Fermi Award from DOE

Presidential award presented to Michael E. Phelps, a BER scientist now at UCLA, for his 1970's work as one of the developers of the first PET camera built for human studies at Washington University, St. Louis.

1998



E.O. Lawrence Award from DOE

Joanna S. Fowler, a BER scientist at Brookhaven, receives this award for her innovations in radiopharmaceutical development and their application for imaging brain chemistry and the biological action of various drugs.