Project Name:
A. Neutron Therapy
B. Heavy Particle Therapy

	A	B
Date Started:	1940	1954
Date Terminated:	1942	Present

Identification: Lawrence Berkeley Laboratory 714991

Principal Investigators:

James L. Born, Richard A. Carlson, Joseph R. Castro, Claude Chong, Jacob I. Fabrikant, Alexander Gottschalk, Robert P. Kling, John H. Lawrence, John A. Linfoot, Bertram V.A. Low-Beer, Rollin K. McCombs, Edward Manougian, Franco Sangalli, William M. Saunders, Henry H. Stauffer, Robert S. Stone.

Responsible Government Official(s):

Objectives:

To treat certain medical disorders with high-energy particle beams that can be precisely localized to the desired target area and deliver therapeutic radiation doses with minimal radiation to surrounding areas.

Short description:

1. Neutrons to treat malignant disease (1940-1942)
2. Protons (for pituitary ablation) to treat metastatic CaBr (11/54-8/55)
3. Alpha Particles (for pituitary ablation) to treat metastatic CaBr (10/57-3/72); to treat diabetic retinopathy (3/58-12/69)
4. Alpha particles to treat pituitary disorders (acromegaly, Cushing's disease, Nelson's syndrome; chrompophobe adenoma, Prolactin Tumors) (2/58-10/79)
5. Alpha particles (Bragg peak) to treat Parkinsons disease, Brain tumors (1/62-4/66)
6. Alpha particles (Bragg peak) to treat soft tissue tumors. (4/71-10/74)
7. Helium ions to treat AV malformations (1980-present)
8. Helium ions to treat cancer (1975-present)
9. Heavy charged ions (argon, carbon, neon, silicon) to treat cancer. (1978-present)

Supported also by NI

Follow-up visits include routine physical examinations and interval histories, and appropriate supporting clinical laboratory studies and diagnostic studies (special endocrine studies for pituitary tumor patients, etc.).

At time of death, complete information is sought to determine cause of death. When available, the postmortem findings are reviewed.

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Attachments: Copies of above cited references.

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