

## FACTSHEET HUMAN EXPERIMENTATION-85 (SFS5.001)

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**Project Name:** Therapeutic Application of High Energy Sources; Potentiation of Radiation Effects with Modifiers

**Date Started:**  
**Date Terminated:**

**Institution:** Argonne Cancer Research Hospital  
**Funding Source(s):** AEC

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**Identification:** AT(11-1)69

**Project Duration:**

**Principal Investigator(s):** M.L. Griem

**Responsible Government Official(s):** John R. Totter, Ph.D.  
James L. Liverman, Ph.D.

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**Objective(s) of Project:** To compare the relative efficiency of supervoltage radiations (x-ray, cobalt-60 gamma rays, electrons and fast neutrons) in the treatment of cancer; and to explore the use of drugs as agents to increase the lethal effects of radiation on tumors.

**Port Description:** Hodgkin's disease and other lymphomas are being treated by a combination of laparotomy to improve staging and diagnosis, and carefully planned radiation to indicated organs of involvement. A number of malignancies are being treated with ultrahigh dose rate electrons to study the effects of this radiation. Chromium-51 radioactive permanent implants are also being evaluated. Head and neck malignancies are being subjected to combined treatment schedules, including drug pre-treatment and split-course radiation. The sensitizing qualities of hydroxyurea and cytosine arabinoside are being tested on a hair follicle indicating system before being tested on animal tumors and patients.

**Follow-up Data:**

**References:** N.S.A. 02:1365 (1972)  
N.S.A. 01:1614 (1968)  
N.S.A. 01:1615 (1968)  
N.S.A. 80C0051566 (1979)

**Attachment(s):**