725084

BROOKHAVEN NATIONAL LABORATORY

MEMORANDUM

DATE: January 23, 1951

REPOSITORY RECORDS HOLDING AREA BLDG 444
COLLECTION PROJECTS - CLINICAL
BOX No. 4
FOLDER HUMAN PROJECTS 1950-1963

TO: BNL Committee on Use of Radioactive Isotopes in Human Subjects

FROM: James S. Robertson, M.D.

SUBJECT: Project H-11: Use of I-131 as a tracer in adults and children

SCM-12

It is proposed that we use I-131 in tracer studies in humans, including nephrotic children. This isotope has a half-life of 8.0 days and its decay scheme is well established. There is an abundance of literature on its use in humans, including information on its uptake and loss from the thyroid and on its biological effects. Fifty microcuries is commonly accepted as a safe tracer dose in adults and at some institutions 100 microcuries are used. In adults not known to have a dysfunction of the thyroid we shall use less than 50 microcuries. There is no published information on the uptake of iodine by the thyroids of nephrotic children. The weights of their thyroids are not known. The available evidence indicates that 5 microcuries may be regarded as a safe tracer dose and this dose will be not exceeded in these studies.

We have permission to use I-131 in the study and treatment of Graves' disease and thyroid carcinoma (SCM - 1).

Medical Department

JSR:ij
cc (4) M. Fox

Approved: Lee E. Farr. Lee E. Farr, M.D.
S. C. Madden S. C. Madden, M.D.
Wm. M. Hale W. M. Hale, M.D.
D. L. Jellinger D. L. Jellinger, M.D.

1176093