

OFFICE MEMORANDUM

701484

TO : Wright H. Langham, H-4

DATE: May 27, 1960

FROM : William D. Moss

SUBJECT: PLUTONIUM ACTIVITY IN C. W. KELLEY'S TISSUE SECTIONS

SYMBOL : H-5 Lab

*file
Kelley
Pu data*

Chemical analysis by our routine urine assay procedure - TTA extraction, electrodeposition and nuclear track count-of histological sections from C. W. Kelley's tissues gave the following plutonium alpha activity:

Tissue	No. Sections Analyzed	D/m/Three Sections	D/M/Sections
Lung	3	0.022	0.007
Liver	3	0.016	0.005
Bronchial Lymph Node	3	0.072	0.024
Bronchial Lymph Node	3	0.258	0.086
Bronchial Lymph Node	3	0.230	0.077

Further attempts will be made to detect plutonium in the tissues by autoradiographic methods. In terms of tracks per section, the number will only be one half the D/M value. The possibility of finding plutonium in situ will be very small unless the deposition is highly concentrated in several sections.

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Bill

William D. Moss
Laboratory Section
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mcs

cc: M. F. Milligan, H-5
J. M. Wellnitz, H-4

LANL

0007346

OFFICE MEMORANDUM

: W. H. Langham

DATE: November 16, 1959

FROM : D. F. Petersen

SUBJECT: QUANTITATIVE ESTIMATION OF URINARY AMINO ACIDS, CRITICALITY ACCIDENT
DECEMBER 30, 1958. PRELIMINARY REPORT BY TELEPHONE, 11/13/59.

SYMBOL : H-4

Frozen 25 cc samples of urine were sent at Dr. Arthur Kretchmer's request to the Oak Ridge institute for nuclear studies. It is Dr. Kretchmer's opinion that excretion data obtained by fractionation on a Moore-Stein column are extremely abnormal. The outstanding features observed were marked reduction in α -amino nitrogen excretion, abnormally large amounts of Taurine, glutamine and β -amino isobutyric acid some of which appeared to be complexed, a reduction in the glycine/alamine ratio from a normal of 4 to 1 and diminished excretion of serine and valine. These data agree quite well with our studies using paper separation. Dr. Kretchmer has requested additional material which I will send subject to your approval. We have now received either verbal or written preliminary reports on all material except that sent to Dr. Hempelmann.

DFP:trw

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