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CLASSIFICATION CANCELLED July 7, 1945

DATE 12-29-67

For The Atomic Energy Commission

Robert S. Stone, M. D.  
Metallurgical Laboratories  
P. O. Box 5207  
Chicago 80, Illinois

H. F. Carroll  
Chief, Declassification Branch

Dear Doctor Stone:

BEST COPY AVAILABLE

I am writing concerning our experimental subject, who was given the 50 micrograms equivalent of  $Pu^{238}$  approximately two months ago. This man has formerly been a painter by trade but due to his illness, his economic condition is somewhat difficult, although I believe he owns his own home in Healdsburg, California. Kenneth and I are very much afraid that the man may sell his house and go to live at some distant point which would, of course, put an end to our most interesting series of experiments. This proposal may be totally irregular and out of keeping with army policy but since we have, to date, maintained daily collections of all excretions, it would seem most unfortunate not to have the assurance of his continued presence within a reasonable distance from Berkeley. I think this end could be accomplished if we could pay the man fifty dollars per month. However, there are possible legal and security situations which may present insurmountable obstacles. For this reason, I am telling you about the situation and also informing Colonel Warren by a copy of my letter to you. I certainly feel that if the legal and security requirements of the army can be met, the continued studies on this man, who, at present, is very nearly a normal individual, would be of inestimable value to the problem at hand concerning the metabolism of Plutonium in man. If you have the opportunity, I would appreciate it if you could discuss this situation with Colonel Warren and see what suggestions he may have to offer. I hate to toss a problem like this in your lap but I am afraid to stick my neck out unless I have some official blessing.

Colonel Warren will be interested to know that his  $U^{232}$  bombardment is under way. You will both be interested to know that we are devoting considerable time and energy to unraveling the causes for the anomalous behavior of the  $U^{232}$  produced by the cyclotron at the present high energy as reported to me by Spedding and his associates at Amos.

There is very good evidence to suggest the presence of decay products from the Uranium solution which are beta active and decay to a relatively short-lived alpha period. We are not yet prepared to say whether this is due to branch decay of  $U^{232}$  or what the origin may be. It appears to be greater than the decay products of the  $U^{232}$  itself. However, it is necessary to work this matter out once and for all or some spurious results may be obtained in the tracer studies. I feel quite sure that this effect will not destroy the usefulness of  $U^{232}$  as a tracer but it might be necessary to allow samples to age for a few days to a week or do some other equally simple procedure. This problem is definitely not due, in my estimation, to any contamination of the  $U^{232}$  by fission products, photoactinium or Thorium.

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PROVENANCE

REPOSITORY: OFFICE OF HUMAN RADIATION  
EXPERIMENTS (OHRE)

COLLECTION: PLUTONIUM INJECTION INVESTIGATION  
FILES (OHRE 1)

BOX: 4

FOLDER: IRRELEVANT MATERIAL

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To: Robert S. Stone, M. D.  
From: Joseph G. Hamilton, M. D.

Another question of possible interest to both of you is the fact that Kenneth Scott has developed a better method of large-scale removal of Product from biological material. The entire procedure, with the exception of ashing the urine and feces, can be accomplished within an hour and avoids the troublesome contamination of the final isolated sample from alpha periods in Lanthanum, Zirconium, etcetera. He is now in the process of writing up the procedure and I will see that it is distributed to those interested.

He has also checked the urines of

Twenty-four hour urine samples have been counted and the entire output of Plutonium ranged from .004 to .0185 counts per second, including background. The background of the counter plus chemicals gave blank values of .004 to .020 counts per second so as a result, I think we can conclude that these individuals are not contaminated with more than 0.1 microgram of Plutonium and probably much less.

With very best regards,

Joseph G. Hamilton, M. D.

JGH:amm

cc: Colonel Stafford L. Warren

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