

## Office Memorandum • UNITED STATES GOVERNMENT

TO : C. W. Shilling, M. D., Deputy Director  
Division of Biology and Medicine

DATE: January 5, 1959

FROM : William E. Lotz, Medical Research Branch <sup>WEL</sup>  
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SUBJECT: VISIT TO BROOKHAVEN NATIONAL LABORATORY - DECEMBER 16-18, 1958

SYMBOL: EMM:WEL

My immediate reaction to our visit to ENL was the feeling that the limited time spent at the Laboratory did not permit a thorough evaluation of the programs - especially to a new man. If time had permitted our spending at least two days per department, I am certain that I would have obtained a better feeling of the research being carried out. Since this was not practical, it is my belief that each senior investigator should have given a 10-15 minute summary of his work. After this our time could have been more expeditiously spent in the separate laboratories of these people.

I attended the introductory remarks of Dr. Haworth and the general reviews of Drs. Curtis and Farr concerning their respective departments. My reaction to this was that the information was too vague to be of value. I would have preferred hearing individuals giving specific data on their own research problems.

During my free time I talked to those people in the Biology and Medical Departments who are presently engaged in tritiated thymidine studies -- mainly:

H. Quastler: Dr. Quastler is studying the turnover times of mucosal cells lining the intestines with tritiated thymidine and autoradiography. By labelling these cells with tritiated thymidine, he is able to follow the progressive movement of those cells originating in the crypts up the villi until they are sloughed off at the time of their death. The life of such a cell is approximately two and one-half days. Quastler takes extensive precautions to avoid contamination of his laboratory with H<sup>3</sup>. The animals are maintained in a negative pressure glove box from time of injection to sacrifice, and all tissue preparations for autoradiography are made in this enclosure.

R. B. Painter: He is using tritiated thymidine to trace the events in the DNA cycle in human cancer cell cultures (HeLa). Dr. Painter appears to be an energetic and enthusiastic worker who is doing a fairly decent job. He, like the rest of the Medical Department personnel, is looking forward to moving into new quarters. Their present laboratories are certainly overcrowded and dingy.

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E. P. Cronkite: Dr. Cronkite is using tritiated thymidine to study blood cell formation. From his studies it appears that the label first appears in erythrocytes, then in myelocytes, and finally in megakaryocytes.

V. P. Bond: Dr. Bond is also conducting hematological studies with tritiated thymidine and autoradiography. Bond incubated peripheral blood for one hour in the presence of tritiated thymidine and found that five types of cells were labelled. He thinks that perhaps these cells could give protection after radiation. He also found that cells without a nucleus could divide as well as those with.

A. Tsuya: Dr. Tsuya, who is a radiologist from Japan, is working with Dr. Bond on the thymidine problem. Dr. Tsuya spent a year in the Medical Division of ORINS and is now spending a year at Brookhaven. According to him, he is learning a lot at Brookhaven and enjoying his visit immensely.

In general, I believe that the Medical Department has a staff of well qualified men who are doing a good job. The morale seems to be good, and in general all seem to be very enthusiastic about their work. However, I wonder if the work isn't too heavily slanted toward the use of tritiated thymidine.