

OFFICE MEMORANDUM

401055

TO : Dr. T. L. Shipman - H-DO  
FROM : C. C. Lushbaugh  
SUBJECT: ADMINISTRATION OF Cr<sup>51</sup> TO VOLUNTEERS  
SYMBOL : H-4

DATE: May 23, 1957

APPROVED	<u>Allen - G. D.</u>
DATE	<u>5-23-57</u>
BY	<u>G. J. E. J.</u>
FOR	<u>Human Studies</u>

As you know, we are planning this summer to make an extensive study of the use of radioactive chromium as a tag upon the living circulating red cell in man and experimental animals. In particular, we wish to study the applicability of the whole-body counter to this technique. The only method available at the present time requires withdrawing multiple blood samples, which require extensive technical manipulation and give a decay curve which is extremely difficult to interpret in the sick person. Since the whole-body counter would measure the entire body's retention of chromium and since the evidence indicates that the retained chromium is on the red cell, the whole-body counter should be able to make a determination in 100 seconds that at the present time requires a technician several hours to complete. For this purpose, we plan to tag the red cells of about ten normal persons and about ten patients. Dr. Murray Friedman of Santa Fe, whose son Harold will be working with us, is trying to obtain patients from all over the state with various blood dyscrasias.

Dr. DeBriere of the Los Alamos Medical Center assures me that the Hospital Bed Fund of the Los Alamos Medical Center Women's Auxiliary will attempt to defray the hospitalization costs of the out-of-town patients. The Special Studies Laboratory of the Los Alamos Cancer Clinic will perform the controlling hematological studies, so there should be no clinical costs accruing from this study. Drs. Robert Grier, Paul Lee, Charles Shafer, and Sidney DeBriere have agreed to help me with these

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