

Subject: Proposed at Operation Knothole or next nearest occasion.
Small test to establish suitability of a strain to replace
LAF₁ for routine AB and related work.

404005

Suggest set-up at one or two stations, anywhere around the LD₅₀ dose or slightly below, mice of a pure strain for orientation exposure to find out whether this strain could replace the LAF₁ hybrids now in use.

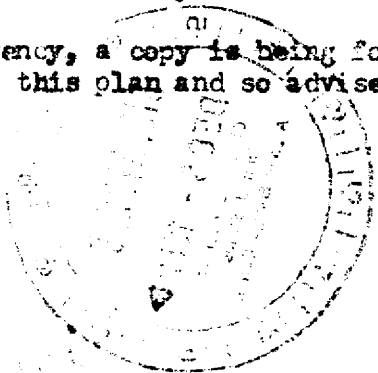
R

The exposure is to be made by those interested in acute studies as biological dosimetry; survivals can be taken care of by us.

Explanation: The LAF₁ mice are excellent, but for purposes of AB exposure test-studies are very expensive and in my opinion are not necessary. In order to get LAF₁ mice, a large breeding colony of two strains (L and A) has to be set up each time to provide hybrids identical in age at time of exposure. The slightest error in hybridization not evident in LD₅₀ tests may be very significant with respect to chronic studies. If a change occurs in either of the breeding parental strains, the hybrids will be different and the analysis will become cumbersome. LAF₁ is homozygous, and it no more imitates hybrids as a parental generation of a pure strain. Now we have some unusual radiation-induced tumors and do not have recipient LAF₁ mice for their study.

Therefore, we plead to try out a single strain to replace LAF₁ mice in the future; much money and time (personnel) could be saved thereby. There will be no difficulty of having such stock maintained by a commercial breeder for studies at home laboratories. In all probability a Jackson Memorial strain would be found acceptable. For selection of this strain Dr. Heston at N.I.H. or Dr. Snell, Jackson Memorial Laboratory, Bar Harbor, could be consulted. Our RF mice should also be considered. They are susceptible not only to lymphoid but also to myeloid leukemias and ovarian, lung, and other tumors. They are very husky and free from Salmonella and other infections. Dr. Christenberry finds them very good for cataract studies.

Because of the urgency, a copy is being forwarded to Dr. Cronkite to evaluate the feasibility of this plan and so advise the planning committee.



BEST COPY AVAILABLE

Jacob Furth
Pathology and Physiology

THIS PAGE ONLY

DEPARTMENT OF ENERGY DECLASSIFICATION REVIEW	
SINGLE REVIEW AUTHORIZED BY: AA SINGARU 11/23/64	DETERMINATION (CIRCLE NUMBER(S))
REVIEWER (ADD):	1. CLASSIFICATION RETAINED
NAME: ML KOLBAM	2. CLASSIFICATION CHANGED TO:
DATE: 11/23/64	3. CONTAINS NO DOE CLASSIFIED INFO
	4. COORDINATE WITH:
	5. CLASSIFICATION CANCELLED
	6. CLASSIFIED INFO BRACKETED
	7. OTHER (SPECIFY):

010 45689
DOE ARCHIVES