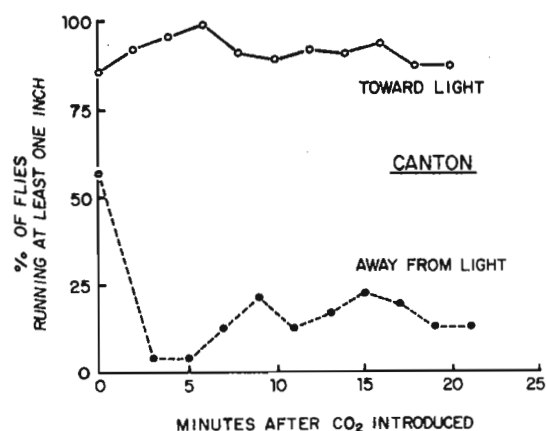
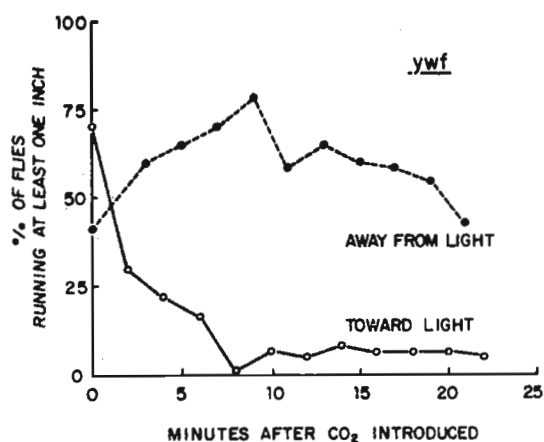


Kaplan, W.D., and B. Hanstein. City of Hope National Medical Center, Duarte, California. A mutant stock showing negative phototaxis in the presence of CO₂.

Flies of a ywf stock carried in this laboratory for the past several years show a normal response to light. Placed in a 5-7/8 inch test tube containing air, and given one minute to run horizontally toward a fluorescent light, 70% move at

least one inch from the bottom of the tube toward the source of the light in an otherwise darkened room. 85% of the flies of a Canton-S stock exhibited this positive phototactic response.

When placed in an atmosphere of 20% carbon dioxide, however, the ywf stock responds by moving away from the light source. Placed at the end of the tube closest to the light, they begin to move away from the light. At nine minutes after the introduction of CO₂, 78% move at least one inch away from the light in a minute. At 8 minutes less than 10% run one inch toward the light. This is in contrast to the Canton-S stock which in the presence of 20% CO₂ continues to run toward the light and not run away from it. (see graphs). The zero



minute point on the graph is before CO₂ was introduced and the flies are in air. The curves are for the same groups of flies run on alternate minutes toward and away from light, and given one minute to run. Total number of flies in the four ywf groups was 60, and in the four Canton-S groups, 61.

White-eyed flies of a bw st stock, and just w by itself did not show this reversal. The reason for this behavior is currently under investigation.

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Lefevre, G., Jr. San Fernando Valley State College, Northridge, California. A cytological analysis of X-ray-induced recessive sex-linked lethals.

Salivary chromosome preparations of sex-linked lethals recovered following exposure of mature sperm from wild-type males to 2000r and 3000r doses of X rays were analyzed for the presence of detectable rearrangements in the euchro-

matic portion of the X chromosome (1A through 19F). Among 190 lethal X chromosomes recovered in the 2000r experiment, 70 (36.8%) carried rearrangements; among 125 lethals from the 3000r experiment, 55 (44.0%) were detectably abnormal. These values are not significantly different. It would appear that, insofar as mature sperm are concerned, the proportion of recovered X-ray-induced lethal effects that are associated with rearrangements is not dose dependent.