

This reverse- y^2 was not only dominant over y^2 , but also over the y alleles in the stocks y 99b, y 303h, and y ac sc⁸ wa¹³ m. A cytological examination for chromosomal abnormalities has not yet been made.

Buchmann, W. Temperature experiments.

Experiments with temperature shocks were performed in order to study the effects of these temperature shocks on the duration of the developmental stages

and on the presence of modifications of *D. melanogaster*. My experiments, which are not yet completed, showed that temperature shocks slow development. At the same time it was found that there exists a parallelism between the hereditary and nonhereditary variability. The nature of the induced nonhereditary modification depends upon the treated developmental stages and upon the applied temperature.

Cochrane, Flora. Color of testis.

Study of testis color in 20 eye-color mutant stocks of *D. pseudo-obscura* showed that the amount and quality of color present in the testes is comparable to the

amount and quality of the pigment deposited in the eyes during the late phase of their development. It was also found that color appears in the testes at about the time of the onset of the late phase of eye pigment development and may therefore be affected only by genes active during this period.

Crew, F.A.E. and Rowena Lamy. Mosaics in *D. pseudo-obscura*.

Thirty-eight mosaics have been obtained. They appear to be caused by chromosome elimination. First and second cleavage mosaics show no signs of gynandromorphism. Sex-combs develop on XX

legs of male mosaics and not on the XO legs of female mosaics. A fertile female mosaic having an abdomen bilaterally divided into XX and XO tissue produced a high number of sterile exceptional sons, which is considered as evidence that she had incorporated in one ovary some germ cells which were XO in constitution. Vermilion in these mosaics behaves similarly to vermilion in *melanogaster* and *simulans*; that is, it appears as a wild type eye in exceptional tissue. In two female "fore-and-aft" mosaics however in which the head and thorax were XO and the abdomen XX (and v/ /) the eyes were vermilion. Sepia and white show autonomous development in exceptional tissue. There is some indication that sex-dimorphic characters are expressed according to the sex of the mosaic and not according to the constitution of the tissue.