

Grossman, A.I. The Hebrew University, Jerusalem, Israel. α -glycerophosphate dehydrogenase in males and females of *Drosophila melanogaster*.

Three alleles have been recently described in the α -Gpdh locus of *Drosophila melanogaster*, and the isozymes produced by these alleles have been identified (Koreneva & Grossman 1970). The identification of specific isozymes is achieved by electrophoresis, but in a survey of some wild

populations in the Soviet Union we found several flies in which the bands were smeared and did not allow definite identification. The same phenomenon was also found in other studies.

Flies were collected from a wild population in Qiryat Anavim, 10 km west of Jerusalem. Whole fly homogenates were prepared on glass, in a drop of distilled water. These homogenates were run in starch gel electrophoresis, with a discontinuous buffer system, TRIS - citric acid, pH 7.9. Staining was done by the usual procedure.

The front lines of the samples from females showed further movement than those of males, and their bands came out smeared and unclear (Figure 1). It was impossible to determine the

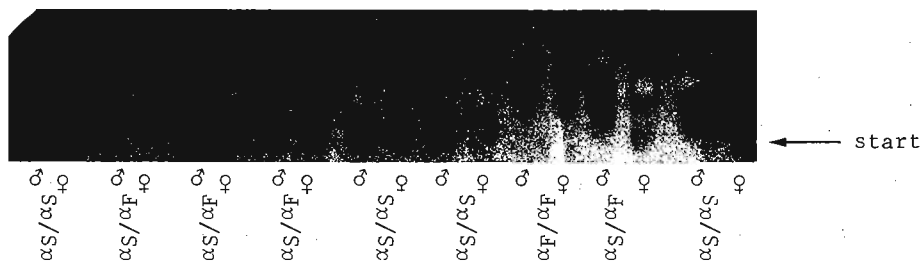


Figure 1

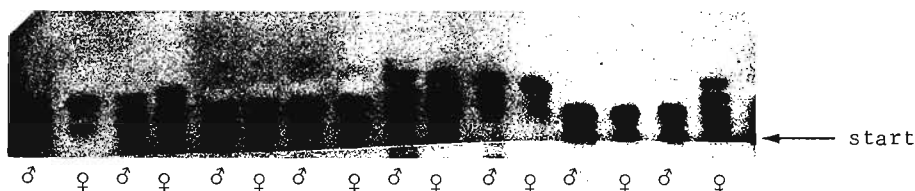


Figure 2

genotypes of the females with respect to the α -Gpdh locus. Clear bands were obtained after electrophoresis was performed with homogenates of females after removal of the abdomen (Figure 2).

It may be that the inability to get clear bands from whole fly homogenates of females is due to the presence, in these homogenates, of proteins associated with developing eggs.

References: Koreneva, L.G. and A.I. Grossman 1970, *Genetica* (Russ.) 6(6):126-128.

(Continued from preceding page)

Considering that all the exceptions arose through crossing over, but were white-eyed instead of wildtype, it may be postulated that "incorrect" recombination has created new hypomorphic alleles. In line with this, they could be interpreted as more or less important deficiencies of the white gene with meiotic mispairing and unequal exchange at their origin. Alternatively, the w^{iv} -derivatives (w^{fr} and w^{hg}) might already be double mutants of white. In that case, the allelic crosses carried out would represent trifactorial exchange experiments, so that new sublocus combinations would be expected to appear, comprising from zero to three mutated sites.

Supported by Fonds National Suisse de la recherche scientifique, grant 3.224.69.