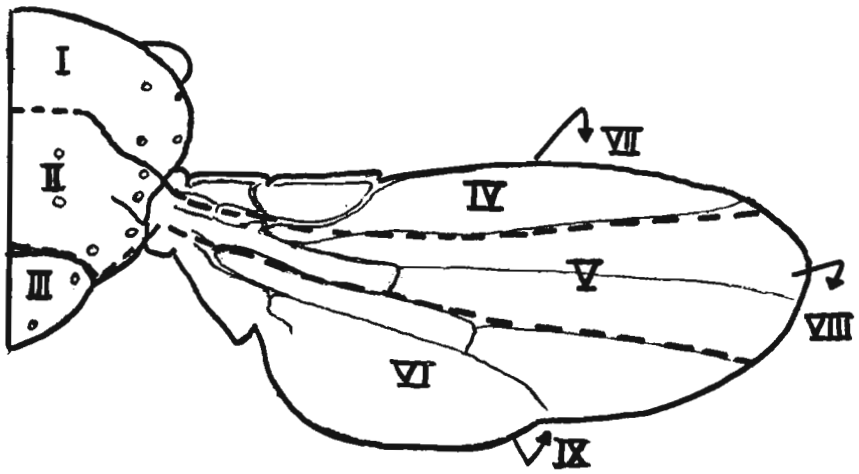

Diagram #1: Subdivisions of the notum and wing indicated by roman numbers.

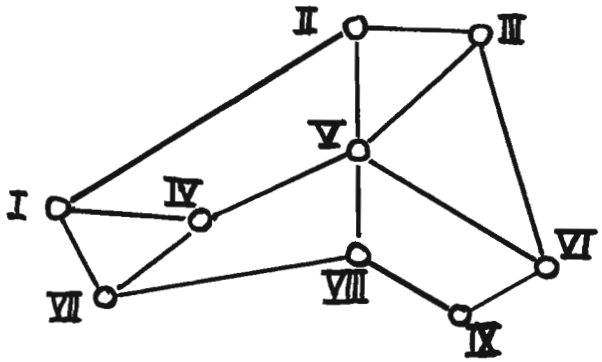

Diagram #2: The primitive morphogenetic map of the regions shown in diagram #1.

Kikkawa, H. Osaka University, Osaka, Japan. Genetic effects of a chemosterilant (Metepa, metaphoxide) in D. melanogaster.

It is well known that chemosterilants are generally fatal to various insects when the concentration is very high. Using a chemosterilant (Metepa), genetic effects have been examined in D. melanogaster by the method of larval test (Kikkawa, H. Ann. Rep. Scient. Works, Fac. Sci. Osaka Univ. 9:1, 1961).

Some strains like Hikone were resistant to this chemosterilant (LD_{50}, about 600 ppm.), while other strains like Canton-S and bw; st; sv^n were sensitive (LD_{50}, about 200 ppm.). The resistance is controlled, at least, by two dominant genes located on the second and third chromosomes respectively. In any strain, the frequency of sterility is higher in the male than the female.

Effects of the chemosterilant on the crossing over frequency and non-disjunction of X-chromosomes are being carried out. As far as our experimental results show, no marked effect has been found.