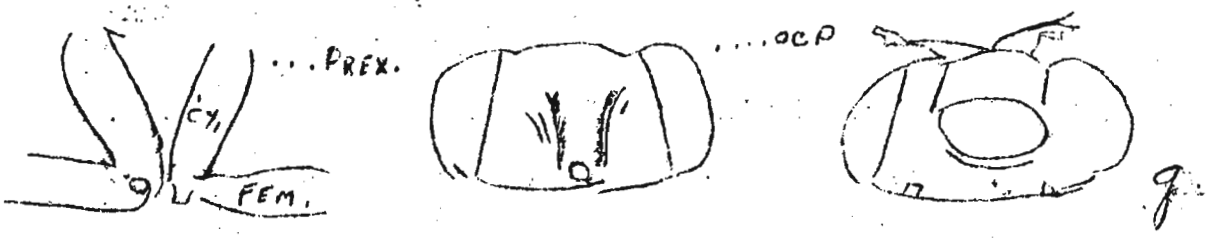
Tokyo, after that we caught them occasionally even in winter, for example on Dec. 29, 1936; and all of them were cultured by corn-meal-agar method. That they were certainly D. repleta was secured by mating them with D. repleta in America which was sent to me by Dr. Kikkawa in Kyoto. On Dec. 12, 1936, one female and six males of scarlet eyes appeared in my culture, and it was a mutant character caused by an autosomal recessive gene, which I named as scarlet. This summer, however, the stocks of wild and scarlet were at the point of death, but fortunately we could capture again the flies in nature in Tokyo on August 25, 1937. Then the culturing of wild and scarlet stocks of D. repleta obtained in Tokyo is now continued.

Neuhaus, M. Crossing-over in the bobbed region. In order to study the frequency of crossing-over in the bobbed region the following crosses were undertaken. Females possessing y sc^4 (y sc^4- a long inversion, the right break occurring in the inert region to left of bobbed) and $\frac{y^2\ w^a}{f\ bb\ Y^L}$ were mated to $\frac{f\ Y^S\ Y^L}{}$ males. F_1 y sc^4 males were tested for fertility. In general those males are sterile, but if an ordinary crossing-over to the right of the inversion takes place then a fertile y sc^4 male arises. And if the X-chromosome of that male contains bb then this indicates that the cross over has taken place to the right of the bobbed locus. 1500 y sc^4 males were tested for fertility and among them one fertile male was observed. A genetical investigation of the X-chromosome of this male showed that the X-chromosome contain bb and the long arm of the Y attached. Similar experiments were carried out with one sc^8 inversion and a testing over 5000 sc^8 males for fertility, but only sterile males were obtained.

Serebrovsky, A. S. On some newly appearing bristles. A detailed study of s^9L-Ry^4 flies has revealed in the latter the appearance of some new bristles, designated by the author as praecoxales and occipitales. The former (prex) arise on the lower surface of the thorax anteriorly to the anterior coxae, one on each side, often asymmetrically and for the most part in homozygous females. Those bristles are fine and more slender and shorter than macrochaetes, being usually directed outwards. The latter (occ) develop on the posterior surface of the head, one on each side, between the edge of the eye and the dark "trapeze". Those short bristles are directed upwards. Apart from the above said, there takes place a doubling of bristles, to which the term of genales (g) is given by the author. When examining the head from beneath, those bristles seem to be directed backwards. The occurrence of the above bristles is apparently caused by the doublication of loci ac^+ and sc in the chromosome of that structure. It is of interest,

that flies having deletions, often display the appearance of the same bristles, probably due to a similar cause of hyperploidy for sc and ac. The study of several deletions has shown each of them to exert a characteristic influence either on prex or on ocp and g. Having compared eleven different deletions, the author was able to distinguish easily some of them according to those characters, when examing groups of flies. Such a circumstance may be utilized in working on deletions. Praecoxales are also to be observed in Hw and in h flies.



Serebrovsky, A. S. Interaction between the genes divers and yellow and scute.

V. V. Sakharov, by whom the divers mutation in D. melanogaster was found, detected the appearance of a new character in y div flies, viz. a strong upcurling of wings, more pronounced than in flies Cy. That phenomenon was studied by the author in combinations of div with other allelomorphs of yellow. In y^3 div (yellow body, black bristles) the wings get curved as strongly as in y^1 div. In y^3 div the wings are seen to curve somewhat less, but still very strongly. In y^N div (gray body, yellow bristles) (see Neuhaus DIS-4) the wings are either flat or slightly curved as in some y^+ div. Thus the degree of the wing curving is parallel to the body color ($y = y^3\ y^{3P}\ y^N$), showing no connection with the color of bristles. At the same time some allelomorphs of scute and achaete were investigated. The sc^3 div flies are of a very poor viability, the same being the cause of the failure in obtaining sc^{10} div. In sc^3 div, sc^6 div and sc^8 div the wings were found to be flat.

Shapiro, N. The frequency of the somatic mosaic occurrence in males and females.

The writer has observed the frequency of the mosaic occurrence in the stock h ss/+ after X-raying heterozygous larvae. The latter were treated at the age from 3 to 48 hours from the moment of egg laying. The dose of irradiation was 1000r. The results are summarized in a table.

	Number of flies	Number of mosaics: hairy	spineless	Total
♀♀	1420	3	6	9
♂♂	1132	3	5	8