

The crossing-over data on which a former hypothesis of the size of the Px inversion was based, was considered on the assumption that the order of the genes was y v sn (Lancefield). It appears that the order is y sn v, and hence crossovers regarded as doubles were really singles. In heterozygous Px the crossing-over values observed are:

| | | | |
|------|-----|---|-------|
| y Px | .15 | } | 12692 |
| Px w | .15 | | " |
| y sn | .6 | } | 2943 |
| sn v | .2 | | " |
| v dy | .1 | } | " |

Crew, F.A.E. and R.

Lamy. Notes on Nomenclature.

It would seem that the naming of mutations is a task that can no longer be safely left to the individual. It is possible that the time has now arrived when a Nomenclature Committee should be instituted.

These remarks are provoked by the fact that in a recent paper (Genetics, 21, 1) Mr. Tan arbitrarily renames our "short₄", calling it "incomplete"; thus brushing aside the reasons for our choice.

It has been suggested that mutations which are phenotypically indistinguishable should be described by the same name, the numbers of the chromosomes carrying their genes being added as distinguishing marks. To us, at least, this seemed to be a reasonable and useful practice. Our "short" which was phenotypically indistinguishable from Lancefield's sex-linked short, was named, therefore, "short₄".

We had no hesitation in accepting Dr. Dobzhansky's and Mr. Tan's re-numbering of the linkage groups, since the numbering previously employed by ourselves was purely chronological and could only be regarded as temporary. But to rename short₄ is quite a different matter, for there seems no valid reason for doing so.

De Marinis, Frank and

A. H. Hersh. Temperature effect on bar-eyed mosaics.

White mosaics of bar-eyed flies raised at 20° C. conform to the relative growth function in regard to the quantitative relation between the red and white facets, as was shown previously for similar mosaics raised at 25° (Hersh, 1934

Science, 80:547). There is practically no shift in the value of a, but b is much lower at 20° than at 25°. For further comparison a series of similar mosaics at 30° is being collected.

Howland, R. B., E. Glancy

and B. Sonnenblick. Development of larval wing-thoracic discs on implantation in *D. melanogaster*.

Implants of the dorsal mesothoracic disc from mature larvae of various mutant types have been made in wild type hosts of the same age. The donors used were ey^D/cid^D, D3, ss, f B, sn³, sc, y sc, and an extreme form of H². The disc gives rise to the wing, half-thorax and half-

scutellum. These regions are distinct in the implant. It is possible to identify the thoracic and scutellar bristles in

favorable cases. Development of the wing is normal except for the absence of venation. Data so far obtained indicate that all mutant discs used develop autonomously without producing any phenotypic modification of the host. However, even in wild type control implants a number of bristles, especially the larger ones, are usually bent and otherwise distorted so that they resemble forked and singed. Since the implant develops in an inverted position, these abnormalities are in all probability due to compression of the bristles during development. This interferes with interpretation of results obtained on implantation of wild type and mutant discs in forked and singed hosts. At the present time, experiments on the implantation of wild type and mutant discs in mutant hosts are under way.

Howland, R. B. and J. W. Jailer. Microcautery of posterior pole-plasm and germ-cell determinants in *D. melanogaster*.

Timed eggs of *D. melanogaster* in which the cleavage nuclei have not yet reached the posterior pole-plasm were dechorionated and aligned on thin slabs of agar.

The posterior region, subjected to heat from the point of an electromicrocauter, was burned to an extent varying from 1/8th to 1/6th of the entire egg. The living portion of the eggs constricts off gradually from the burned mass. A blastoderm is laid around the entire living portion. No germ cells form at the posterior pole. The operated embryos undergo the typical proctodeal-amniotic invagination, but no pole cells are carried inward in this region. From a large number of embryos but one adult hatched. This fly, a male, was crossed to four virgin females. All these females laid sterile eggs. In section of the small mass of testicular tissue of the male no spermatogonial cells or sperms were seen. It is apparent that there is in the prelocalized posterior egg region, either in the pole-plasm or the granular inclusions or both, the essential materials for germ cell formation.

Howland, R. B., E. Glancy and B. Sonnenblick. Interspecific transplantation of wild type and vermilion eye discs in *Drosophila*.

Interspecific implantations of wild type and vermilion eye discs were made within and between four species of *Drosophila*. The stocks used were *D. melanogaster* (Woodbury Δ and v^2) from Washington Square College;

D. simulans (Δ and v) and *D. pseudo-obscura*, Texas Race A (Δ and y sn v) from Pasadena; and *D. virilis* (American Δ and v^3 mt³) from Cold Spring Harbor. The wild type eyes develop autonomously in all cases, the color of the *virilis* Δ eye being darker (more like garnet) than any of the other three species. The diffusible v^+ substance postulated by Ephrussi and Beadly acts upon and modifies to wild type implanted vermilion eye discs of every species except that of *D. virilis* (v^3 mt³). In this case, the eye color though