

Glancy, E. A. and R. B. Howland. A study of the histology of bristle growth in normal and mutant flies, especially in the mutants used previously for transplantation studies, is being carried on. The tormogen and trichogen cells in the mutant singed do not differ from wild type cells in relationship to each other or to the hypoderm, nor can they be distinguished from the wild type cells cytologically. Yet the singed bristle, from the moment it can be recognized (approximately 30 hours after puparium formation at 25° C.), is conspicuously stouter than the wild type, and is curved or otherwise distorted.

Goldschmidt, Richard. A note on Thus far 5 cases of so called mass mutation in *Drosophila* are on record (Spencer has in addition pointed to the existence of this phenomenon in a general way). Two of these have occurred in pure Florida stock (Gold-

schmidt '29, erroneously attributed to the simultaneous heat treatment, Demerec '37 ("explained" by a gene for mutation). The third (Plough and Holthausen '37) occurred in a Florida-cross. A fourth set of cases was found in Goldschmidt's plexus-blistered stock and a fifth by the same author in a cross bs x Oregon. In studying a certain position effect which is common to most third chromosome inversions Mr. Gardner found that crosses involving pure Florida stock produced the same effect. A salivary analysis by Mr. Kodani revealed a large inversion in the third chromosome of this stock (Meanwhile also found by others). The plexus-blistered stock (this is a purely descriptive name) is a very complicated translocation stock, as will be described in detail later. The standard bs, supposed to be an ordinary recessive, turned out, both genetically and in salivary analysis (latter by Mr. Kodani) to contain a translocation with strange position effects upon the bs expression. Thus all stocks which thus far produced the mass mutation phenomenon contained major chromatin rearrangements. A detailed description of our material is being prepared.

Green, Melvin. Variations in the expression of vesiculated-29c.

The mutant vs^{29c} usually manifests itself as a liquid-filled vesicle in the region of the first and second posterior cells of the wings. Deflation of the vesicle soon after emergence results in a glassy, ruffled condition of the wing. Individual varia-

tion is frequently encountered in size of vesiculation; and in a few cases flies appear with one wing completely wild type. The effects of temperature on vs^{29c} are now being studied. Preliminary experiments in which development took place at a temperature of 30 degrees \pm 1 degree C (except for a 2 hour egg-laying period at room temperature) gave the following results: 25/545 males or 4.6 \pm 1.03%SD had wild type wings; 53/452 females or 11.7 \pm 4.1%SD had wild type wings. The wild type males and females showed by tests to be genotypically vs. In two years handling of the stock at room temperature no males or females with both wings wild type have been observed.

Honer, E. Cytogenetic investigations on a complex dumpy.

A single dumpy¹ arose in the F₂ of a cross of X₀ x Oregon. This dumpy was found to manifest itself only within a special genotypical milieu where it behaves like a dominant; homozygous lethal. Flies which

contain the milieu only have quite normal wings but tend to give phenocopies of dumpy when bred at higher temperatures (28-30° C). The milieu is built up by modifiers which are about to be classified. As dumpy gives a strong compound effect with the known dumpy (dp-2-13,0) (the wings are much more shortened