The manifestation of dominants in the triploid. Jack Schultz - Most of the dominants available in D.melanogaster have been observed in the triploid, in the course of a series of experiments concerned with the effects of upsets of genic balance on dominance relations. The following are easily classified when present in single dose in the triploid: Bar, Beadex^2, Bristle, Curly, Deformed, Dichaete, Hairless, Hairy-wing, Jammed, Lobe^2, Moire, Stubble. Those which are almost completely suppressed include: Delta, Gull, all Minutes, Notch, Plexate, Plum, Star. It may be noted that in no case is the manifestation as extreme in the triploid as it is in the diploid and many of the first group show a marked diminution of the effect.

A few of these dominants have been studied in double dose. The Minutes and Moire do not survive. The following survive, manifesting the dominant characters in extreme form: Delta, Dichaete, Gull, Hairless, Plexate, Plum, Stubble.

Inversions in the x-chromosome of D.melanogaster - A. H. Sturtevant and G. W. Beadle - As is well known, there exist many different inversions in the X. When two of these are put in the same female, single crossovers occur within the common inverted region, and in several combinations viable crossover offspring are produced. The crossover chromosomes carry net deficiencies and/or duplications for the regions at the end-points of the inversions. These (especially the deficiencies) make it possible to determine the end-points with a precision limited only by the number of recessive mutations whose loci are already accurately mapped adjacent to the breaks.

The nomenclature of the inversions is now in a chaotic state; and becomes intolerably confusing when one begins dealing with crossovers between different inversions. We are using the following scheme: Each inversion is given an arbitrary letter; the sequence in ClB is referred to as "In B", that in y^4 as "In Y". Then, for each pair of inversions, two single crossovers are theoretically possible; these are described by the use of both letters concerned. In the case of the two referred to, the crossover that has the left end of ClB and the right end of y^4 is called "B-Y"; that with the left end of y^4 and the right of ClB (which has not been obtained) would be "Y-B".

The following inversions in the X have been studied in this laboratory. The end-points are given as accurately as our present data allow - they are being determined still more closely in most cases.