Dunn, L. C. Effects of minutes on developmental rate and on eye size of mutants.

Supplementing report in DIS-3, M1 has retarding effect on larvae, similar to Mw. Mw, M1, M33j, Mz and $M1^2$ act as minus modifiers of L/+ and L^4/+ in order given, also as minus modifiers of L/L. Mw, M1 and Mz are lethal in pupal stage when combined with L^2/+. Mw, M33j and $M1^2$ are minus modifiers of B/+ and B/B. Mw, M1, M33j and $M1^2$ are lethal or of very low viability with ey^D/+; Mw, M1 and $M1^2$ are of very low viability in combination with Dfd/+.

L and L^4 prove to be very sensitive to changes in larval growth rate brought about by culture conditions (temperature, crowding). Retardation of early growth results in increase in size of Lobe eye; effect especially marked when a Minute is also present, often resulting in eyes larger than wild-type.

Bar and Lobe have cumulative effects in reducing eye size; Bar Lobe flies often show Bar in one eye, Lobe other.

Neither L or L^2 has any marked effect on developmental rate.

Gottschewski, G. Eine deficiency ohne einen genetisch bzw. cytologisch nachweisbaren Ausfall eines Chromosomenstuckes.

Nach Hitzeexposition eines ss/ss ♀ (18-24 Std. in 35-36°) wurde von Goldschmidt mehrere Male eine Mutation gefunden, die vor allen durch Kerben an den Flügelspitzen gekennzeichnet waren (phanotypisch = cut-Beaded-Kombination). Die mutation wurde von mir $Notch^G$ genannt. N^G/+ ♀ x fa ♂ (34j23): F_1 ♀ N^G fa 56 ♀ + 61; ♂ + 71. N^G/+ ♀ x spl ♂ (35f12): F_1 ♀ N^G spl 41; ♀ + 53; ♂ + 59. N^G/+ ♀ x ec ♂ (34j23): F_1 ♀ N^G ec 166; ♀ + 163; ♂ + 157. N^G/+ ♀ x ec ♂ (35e18) F_1 ♀ N^G 9; ♀ + 7; ♂ + 9. Demnach liegt eine Df für fa und spl vor. Ob die Df immer den Locus ec einschliesst, ist noch zu entscheiden. Ein Verlust einer Chromosomenstrecke erscheint nach den genetischen Befunden unwahrscheinlich, da der Faktorenaustausch zwischen Genen, die Df einschliessen, nicht kleiner, sondern grösser ist (Vgl. Linkage data). Der cytologische Befund: Carmin-Eisessig-Quetschpraparate zeigt eindeutig, dass die Banden in der fa-region unverandert sind. In keinem Praparat hat sich eine Abanderung von der für Deletionen bzw. Chromosomen-deficiencies typischen Struktur nachweisen lassen.

Hoover, Margaret E. Salivary limits of delta-49 inversion.

Delta-49 (d1-49) inversion which has been found and analyzed at the Austin Laboratory is a useful x-chromosome balancer since it is not lethal when homozygous and it prevents entirely crossing over from cv to g and reduces it greatly in other regions of the chromosome. A study of good salivary chromosome preparations seems to indicate that cytologically d1-49 extends from 4D2 to and including 11F3. A well spread figure was found in material heterozygous for d1-49 in which the x was split from the left end of the

inversion through to the chromocenter, one half of the split being the normal and the other, the inverted half. In such a figure the bands could be carefully followed along the length of the chromosome to the end of the inversion where the matching bands were found in corresponding positions. This figure was also checked by C. B. Bridges. Although the similarity in size and shape of 4D1 and 12A1 make it possible that this interpretation is incorrect, evidence seems to indicate that 4D1 and 12A1 are the outside limits of d1-49.

Karp, M. L. The distribution of mutant genes affecting the number of sternital bristles in chromosome 3 of D. melanogaster. In chromosome 3 of D. melanogaster the presence of at least six mutant genes affecting the number of sternital bristles, independently of the possible effect of the gene markers, has been shown. These genes possess a considerable power of action, approximately 5 to 15 per cent of the manifestation of the character. Being opposite in tendency and alternately located, they are more or less balanced, not only along the whole length of the chromosome, but within its small regions as well. In the chromosome, causing the reduction of 5-6 bristles on 2 sternites of the abdomen, were detected genes which determine conjointly the reduction of 18-21 bristles on the same 2 sternites, and on the other hand there were found genes which together intensify the character by 12-20 bristles. Hence the genic balance of the chromosome examined offers the possibility of a considerable change as to the extent of the manifestation of the character.

Kaufmann, B. P. Drosophila ananassae (D. caribbea) In the autumn of 1933, D. caribbea was collected in the vicinity of Tuscaloosa, Alabama, which is considerably north of the range of distribution of the species as indicated by Sturtevant. Male flies of this stock have a J-shaped Y-chromosome, whereas the stock used by Metz (1916) had a rod-shaped Y. Recently a Nipponese stock, secured through Dr. W. P. Spencer, has been examined. This also has a J-shaped Y. Additional material, especially from America, is desired for further study.

Kerkis, J. Sex-Linked vestigial like mutant in Drosophila simulans On May 28, 1935 a single male was found in a normal mass culture of D. simulans which was like a vestigial of D. melanogaster. This male was crossed with normal simulans v. The F_1 was normal. Flies from F_1 were inbred and in F_2 there were 269 normal ♀♀, 105 normal ♂♂, and 81 vestigial ♂♂. There were no vestigial ♀♀. Males from F_2 were crossed to their sisters and in F_3 homozygous flies were produced from which a stock has been propagated. One of the ♂♂ was mated to a yellow white attached ♀♀ of D. simulans and gave in F_2 308 vestigial