The location of the in-associated breakpoint at 77D3-5 in T(1;3)w^{vco} (Schultz, cited by Bridges & Brehme, 1944; Lindsley & Grell, 1968) and the breakpoints of the three in or ri position mutations and an in-deficiency obtained in our specific-locus experiments (Hannah-Alava, 1964 Mutation Res. 1) supports the genetic evidence that both loci are to the left of 78C:

Dp(1;3)in^{61j2} with the nucleolus organizer (probably from the X-chromosome) inserted into 3L at 77B-D;

T(2;3)in^{60i2} a complex translocation (and inversion(s) in 3L) with breaks in 62D-F, 77B and 80C;

Df(3)in^{61j1}, a deficiency for sections 76F to 77D inclusive;

T(2;3)ri^{60b2} with the one breakpoint in 3L after 77E3 and before 78A1.

Inasmuch as T(2;3)C11 and T(2;3)C65, with breakpoints in 77A showed no position allelism in compounds with either in or ri, the tentative position for the in locus is 77B-D, and for the ri locus is 77E-78C, possibly 77E-F, in the salivary map.

Ginter, E. K., B. A. Kusin. Institute of Medical Radiology, USSR. Growth of the imaginal discs of Drosophila in the adult host.

The growth of eye-antennal and wing discs after their transplantation into 2-3 days old adult females was investigated in connection with the problem of the "regulative" ability of the discs. The imaginal discs from 40, 52, 72 and 84 h. larvae were used for implantation. The discs were allowed to grow in the adult host for 1, 3, 7 and 14 days. After cultivation the discs were removed from the abdomen of the hosts and their volumes were measured with the help of a micropipette with known diameter (Table).

Table

Growth of eye-antennal and wing discs in the abdomen of adult fly.

Volume of discs ($x10^{-4}$ mm^3)

Donors age(h.)	40		52		72		84	
Days of cultivation	No. of discs	Mean volume	No. of discs	Mean volume	No. of discs	Mean volume	No. of discs	Mean volume
0	20	9.2±0.53	6	21.2±0.64	19	102.3±4.55	17	114.3±3.04
1	20	14.1±0.45	15	24.4±1.85	22	92.4±4.11	20	106.4±3.38
3	24	25.3±1.98	16	56.2±3.80	22	71.3±3.75	29	94.0±3.52
7	22	60.4±5.09	24	70.1±3.30	16	84.3±5.10	20	86.2±3.11
14	20	89.5±4.32	21	88.0±4.87	30	86.7±2.95	21	88.0±4.11
0	18	4.9±0.24	6	17.5±0.86	20	111.5±5.73	23	124.0±4.46
1	10	15.3±1.03	17	24.2±1.39	17	99.2±3.81	15	131.9±5.79
3	24	27.1±1.65	15	57.9±6.07	17	89.1±5.34	33	114.5±3.22
7	20	60.9±5.57	22	77.3±3.62	22	81.2±4.72	15	102.1±6.46
14	25	87.8±4.22	21	96.1±4.65	31	85.0±3.56	21	88.7±5.17

The greatest increase in the discs volume in situ was observed from 52 to 72h. In the adult fly only the discs from young larvae (40, 52h) continued their growth. The growth rate of the discs in culture was lower than that in situ, and only after 14 days cultivation the discs reached the dimensions of the discs from 72h. larvae. The implanted discs from 72 and 84 h. larvae did not grow in the adult flies, on the contrary their volumes diminished significantly after their cultivation. After a few days of cultivation of the implanted eye discs the traces of red pigment were observed. It may be supposed that the maximum size of the intact discs is genetically controlled.