

Of the three 2-6 interchanges with the break in the nucleolus organizer, two have been tested. Both give normal 1:1 ratios, indicating that the deficiency which includes at least part of the organizer of chromosome 6 does not function.

C. R. Burnham
R. L. Phillips

6. Notes on the 1-5 interchanges.

We now have all but 7 of the 40 stocks listed in the 1961 ARS 34-16 publication by Longley. Seven of the stocks have not been checked in intercrossovers or linkage tests. Multiple-point linkage tests that include bm_1 as one of the markers served as a test to determine genetically whether the break was in the short or the long arm of chromosome 5. The genetic data and the results of intercrossovers agree on the following changes in placement of the breaks in chromosome 5. Cytological observations alone are the basis for the changes in positions made for chromosome 1. Those with breaks found to be in a different arm from that listed:

6899 S.40 - L.10	not S-S
6197 S-S	not S-L
e S.01-S.12	not L-L
7219 S.20-L.42	not L-S
a L.64-L.49	not L-S
8041 L-S	not L-L

The information is not complete for 1-5 (6401).

J. Stout
C. R. Burnham

7. Chromosome pairing in intercrossovers between stocks of interchange that involve the same two chromosomes.

Type 2a, interchange points in opposite arms in both chromosomes. In the intercrossovers involving T1-5 interchanges, the frequencies of "pairs" at diakinesis ranged from 5 to 100%. When the interchange points in both chromosomes in both interchanges were at .4 or closer to the centromeres, the diakinesis configurations were all or mostly LOII. When one or more of the interchange points was at .5 or farther away from the centromeres, fewer of the configurations were pairs and more were chains, rings, or other types of associations of the 4 chromosomes. Complex configurations of 4 were observed which are probably the result of crossovers in both differential segments. Often these can be described only as a clump. Similar configurations in *Pisum* have been pictured by Lamm and Miravalle (1959, *Hereditas*). The frequencies