Table la. Crosses performed between L-83 and lines of normal structural type.

Cross	Parental lines	Genotype and karyotype	References
A	L-83 x L-44	Gp, T(3S-5L) x gp, N-type	PNL 9:26-27
B	L-83 x L-1072	Gp, T(3S-5L) x gp, N-type	Lamm (unpub.)
C	L-83 x L-1458	Gp, T(3S-5L) x gp, N-type	Current values

Table lb. Frequency, in crosses listed in Table la, of various types of trisomies carrying the interchange chromosomes (3^{s}) long or (5^{s}) short, respectively, in addition to the normal karyotype.

	Gene		Extra Chromosome				
	Dom.	Rec.	Long (3^{s})		Short (5^{s})		
Cross	+	-	+	-	+	-	Total
A	Gp :	gp	10	1	0	3	14
B	Gp :	gp	2	0	1	7	10
C	Gp :	gp	5	2	3	2	12
Sum	Gp :	gp	17	3	4	12	36

BSG-STAINTNG ARGUMENTS FOR A SHIFT IN LOGATION OF LINKAGE GROUPS II AND IV

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Because of the appearance of C-bands in the proximity of the secondary constrictions, BSG-staining, as demonstrated by Lamm (3), has become a powerful tool for identifying the satellite chromosomes 4 and 7 in mitosis as well as in meiosis. This method has recently been used by me (2) to verify the interchanges of L-lll T(3S-7S) and L-112 T(5L-7S). Further analysis has been carried out on L-108, L-114, and L-180, belonging to Lamm and Miravalle's tester set (6), and L-58, analyzed by Blixt (1), for the coordination of linkage group IV with a relevant chromosome.

The result of BSG-staining indicates that linkage group II instead of linkage group IV belongs to the short satellite chromosome viz. chromosome 4 (see table and photomicrograph).

1. Blixt, S. 1972. Agri Hort. Genet. 30:1-293.
2. Folkeson, D. 1984. Hereditas 101:119-121.
3. Lamm, R. 1981. Hereditas 94:45-52.
4. Lamm, R. 1983. PNL 15:33-35.
5. Lamm, R. 1982. PNL 14:32-35.
6. Lamm, R. and R. J. Miravalle. 1959. Hereditas 15:417-440.

Table 1. Compilation of cytogenetic results involving four translocation lines.

1	2	3	4	5	6
WL-58 Weibullsholm	T(4-6)	IV & VI	-	Blixt (1)	A
L-108 Lamm	T(2-6)	II & VI	+	Lamm (4)	B
L-180 Lamm	T(3-4)	III & IV	-	Lamm (6)	C
L-114 Lamm	T(4-6)	IV & VI	-	Lamm (5)	D

Key to table:

1. Origin of involved lines
2. Previous assumption of chromosomes involved in the interchanges
3. Linkage groups involved
A. Appearance of C-band in the interchange system (ring of four)
5. Reference
6. Key to photomicrograph

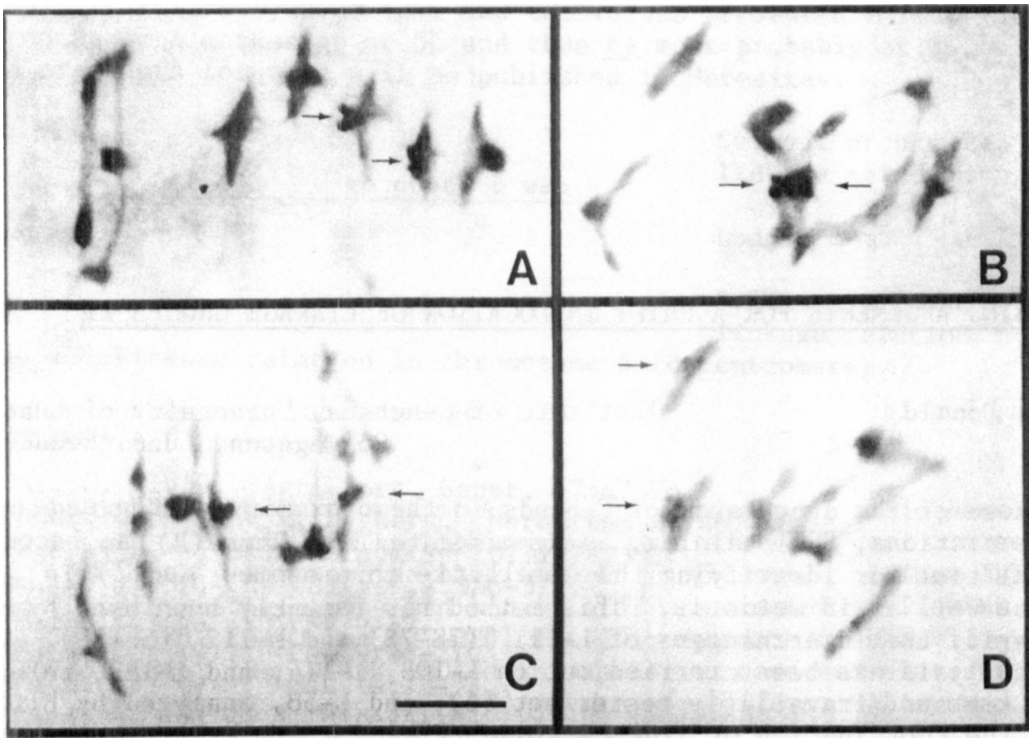

Fig. 1. Giuemsa C-bands in meiosis of pollen mother cells. For key to figure see Table 1. The arrows indicate the location of the C-bands; bar represents 10 mkm.