Table 1. Reciprocal translocations from mutagen-sensitive mutants.

| Maternal genotype | Dose | Genotypes of progeny recovered + | T(Y;2) | T(Y;3) | T(2;3) | % trans |
|---|---|---|---|---|---|---|
| w | - | 1366 | 0 | 0 | 0 | - |
| $mus101^{D1}$ | - | 1314 | 0 | 0 | 0 | - |
| $mus104^{D1}$ | - | 1458 | 0 | 0 | 0 | - |
| $mei\text{-}41^{D5}$ | - | 1259 | 0 | 0 | 2 | 0.16 |
| w | 0.2% | 1106 | 0 | 1 | 7 | 0.72 |
| $mus101^{D1}$ | 0.2% | 1291 | 0 | 0 | 0 | - |
| $mus104^{D1}$ | 0.2% | 1553 | 1 | 1 | 5 | 0.45 |
| $mei\text{-}41^{D5}$ | 0.2% | 707 | 1 | 1 | 3 | 0.71 |

The untreated controls produced a surprising result; two independent translocations were recovered from $mei\text{-}41^{D5}$ females, while no spontaneous translocations were recovered from the other crosses. A recent large scale study suggests that the spontaneous translocation frequency is about $10^{-5}$ (Mason et al. in prep.). In previous studies $mei\text{-}41^{D5}$ females did not show an increase in the spontaneous recessive lethal frequency (Graf et al. 1979). Smith (1973) reported an increase in the spontaneous recessive lethal frequency from $emi\text{-}41^{A1}$ males, although Mason (1980) could not find an increase from $mei\text{-}41^{D3}$ or $mei\text{-}41^{D5}$ males. It is not entirely clear why $mei\text{-}41^{D5}$ should increase the frequency of spontaneous translocations but not recessive lethals, although the extremely low spontaneous translocation frequency in the control makes any induced translocations much more noticeable.

References: Graf, Green & Wurgler 1979, Mutation Res. 63:101-112; Mason 1980, Mutation Res. 72:323-326; Smith 1973, Mutation Res. 20:215-220; Wurgler & Graf 1980 in "DNA Repair and Mutagenesis in Eukaryotes" pp. 223-240.

Mather, W.G. & A.K. Pope. University of Queensland, Brisbane, Australia. Inversions from Chiang Mai, Thailand.

In July 1982 thirty-six isolines of D.s. albostrigata and six isolines of D. albomicans were established from Chiang Mai, Thailand.

Inversions in these species were last reported on from a collection made at Phuket in February 1982 (Mather & Pope DIS 59:-).

(a) D.s. albostrigata: Seven simple inversions were detected. All had previously been recorded from East and South East Asia (Table 1).

(b) D. albomicans: Four simple and one complex inversion were detected. All had been previously recorded elsewhere (Table 2).

The material was collected and the isolines established by W.B.M. The laboratory work was carried out by A.K.P.

Table 1. D.s.albostrigata, Chiang Mai.

| Inversion | Chromosome | Het. Freq. % |
|---|---|---|
| $A_5$ | IIL | 27.7 |
| $C_1$ | III | 2.7 |
| $I_2$ | IIL | 22.2 |
| $B_5$ | III | 13.8 |
| $N_5$ | III | 2.7 |
| $C_5$ | IIR | 2.7 |
| $P_5$ | III | 2.7 |

Table 2. D. albomincans, Chiang Mai.

| Inversion | Chromosome | Simple | Complex |
|---|---|---|---|
| $S_5$ | IIL | X | |
| $C_1$ | III | X | |
| $I_2$ | IIL | X | |
| $E_6$ | III | | X |
| $L_3$ | III | X | |