[Su-2\textsubscript{a}, one of the genes which suppress the td-2]

A. M. Lacy
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Abstract
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This linkage data is available in Fungal Genetics Reports: http://newprairiepress.org/fgr/vol1/iss1/20
Lacy, A. M. Su-2a, one of the genes which suppress the td-2 (tryp-3) phenotype, is located on linkage group I, roughly 15 units from al-2 (15300). This value is based on examination of the td- classes only (260 spores) as it is difficult to distinguish with certainty between td+su-2a+ and td+su-2a-.

Su-2, another of the genes suppressing the td-2 phenotype, appears to be located on linkage group III, approximately 22 units from leu-1 (33757). Again, this value is based on examination of td- classes only (153 spores).

Morrow, John. A new morphological marker in Neurospora. Morrow. John. A new morphological mutant Igloo, which arose through ultraviolet treatment, has been mapped and assigned to linkage group I. Igloo is characterized by small, spherical colonies which are densely packed and form no aerial hyphae. The linkage data are as follows:

<table>
<thead>
<tr>
<th>Cross</th>
<th>Igloo, al-2 x ++</th>
</tr>
</thead>
<tbody>
<tr>
<td>PD</td>
<td>NPD TT</td>
</tr>
<tr>
<td>8</td>
<td>1 7</td>
</tr>
</tbody>
</table>

The criterion used for linkage was a ratio of parental ditypes to non-parental ditypes significantly in excess of one to one. Applying the chi-square test gives a probability of about .02. Several asci from the above cross were tested for mating type and on the basis of these considerations Igloo appears to be located to the left of al-2 on chromosome I. Igloo could be allelic or identical to the morphological mutant Cushion, isolated by P. St. Lawrence (unpublished), but no evidence is available on this point.

Murray, N. E. and M. Glassey. A second 'leaky' histidine mutant in linkage group IV. A second methionineless isolates from a cross of me-2 (P143) x tryp-4 (Y2198), pan-1 (5531) grew very slowly on medium supplemented with methionine, indole and pantothenic acid. Subsequently, it was shown that the methionine strain P143 (isolated by filtration enrichment technique following U.V. irradiation of Emerson a) required both methionine and histidine for normal growth. The histidine requirement resulted from a second mutation located a few units distal to the me-2 locus. It is proposed to designate the me-2 mutant isolation number P143m and the hist P143h.

Further information was sought for two reasons. First, a marker distal to me-2 was required to facilitate an analysis of recombination within the me-2 gene using marker genes which, like the me-2 alleles, had been induced in the Emerson wild type strain. Secondly, the new 'leaky' histidine mutant probably represents a class of mutants not readily recoverable by the filtration enrichment technique. Approximately 1,100 histidine mutants have been isolated (Catcheside, 1960. Proc. R. Soc. B 153:179; Webber and Case, 1960. Genetics 45:1605) by a filtration enrichment procedure, but no hist-4 allele was obtained. It was suggested that hist-4 mutants may all be 'leaky' and are therefore selected against by filtration. Both P143h and C141 (hist-4) grow appreciably on minimal medium and both are located in the right arm of linkage group IV, distal to me-2. None of the other six histidine genes is located in this region. No histidine independent isolate was found amongst 87 progeny from a cross of me-2, hist (P143) x hist-4 (C141), but preliminary chromatographic evidence of accumulation products detected by Pauly reagent (Ames and Mitchell, 1952. J. Amer. Chem. Soc. 74:252) indicates a difference between the two histo-