

Polymorphism in the 3 flank of *his-3* and the origin of *Neurospora* wild-types

P.J. Yeadon and David E.A. Catcheside - School of Biological Sciences, Flinders University, GPO Box 2100, Adelaide, SA 5001, Australia.

The legitimacy of classic wild-type strains deposited in the FGSC has been assessed by examining polymorphisms (Newmeyer et al. 1987 *Neurospora* Newsl. **34**:46-51; Catcheside, D.G. 1975 *Aust J Biol Sci* **28**:213-225). These studies show that Lindegren a (FGSC 541), Lindegren 1A (FGSC 354), Abbott 12a (FGSC 1758) and St Lawrence 79a (FGSC 533) are probably not authentic. We have examined the *cog*-region (distal of histidine-3 on Linkage Group I) in a number of strains and found four different RFLP variants, a different one in each of the alleged progenitor stocks of the modern laboratory strains (Yeadon and Catcheside, 1995. *Curr. Genet.*, in press). The pedigree diagram (based on Catcheside 1975 and Newmeyer et al. 1987) shows the *cog*-region variant present in each of the strains we examined. Our nomenclature for *cog* alleles reflects the first strain in which it was found, for example *cogEa* in Ema. FGSC stock numbers are shown below the strain name. T391, our laboratory stock number, contains *his-3* K26, a mutant generated (Angel et al. 1970. *Aust J Biol Sci* **23**:1229-1240) in Lindegren Y8743 (Barratt and Garnjobst, 1949. *Genetics* **34**:351-369).

Our data confirm the conclusion based on *rec-3* genotype (Catcheside, D.G. 1975) that FGSC 533 is not an authentic ST79a stock as it has a *cog*-region apparently inherited from Lindegren 25a (FGSC 353) although supposedly descended from Emerson strains, both of which have *cog*-regions derived from the Abbott strains. The other suspect strains listed above have *cog*-region alleles compatible with the pedigree. Although the FGSC stocks for Lindegren a (541) and Abbott 12a (1758) are doubtful, the simplest interpretation of our data is that each has the *cog*-region allele present in the genuine strain and is at least a descendant of the strain it is purported to be.

