

Selitrennikoff, C. P. and R. E. Nelson. A screening technique for the isolation of macroconidiation mutants.

pic observations previously used in this lab. More importantly, mutants blocked late in the process of conidiation are not easily recognized in the course of routine macroscopic examination; the method described here permits the discrimination between these and wild types.

Cultures are grown in cotton plugged tubes (7 cm x 1 cm) containing 1 ml Vogel's N + 1.5% agar for 3-5 days in the light at 35°C. Each tube is then inverted and given a single sharp tap against the metal light shade of a fluorescent lamp. The lamp provides a bright light source so that any conidia mechanically freed are visualized as a cloud of particles falling from the aerial hyphal mass towards the cotton plug.

As an example of the power of the method, a single isolate which produced very few freed conidia was readily detected among ca. 3500 tube cultures started from mutagenized 74-OR8-1a conidia (see Selitrennikoff 1972 *Neurospora News* 19: 23). In agreement, microscopic examination (600X) showed that this culture produces chains of conidia and, relatively rarely, individual conidia. Genetic analysis demonstrated that the phenotype is due to a single gene mutation, *csp-1* (conidial separation defective, allele #37), which is tightly linked to *arg-3* on IL. Detailed observations of *csp-1* and aconidial strains will be reported elsewhere. It may be noted that the method has proved useful for the detection of similar mutants in auxotrophs grown on appropriately supplemented media.

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A rapid and simple method for the detection of cultures defective for the development of wild-type macroconidia is presented. This method provides more efficient detection of mutants than microscopic