ing table. It is evident that a sensitive chromosome showing no distortion (k < 0.60; presum-

Chromosome	k value 0.46 - 0.60	0.61 - 0.90	0.91 - 100	Total
Sensitive	85	13	111	209
Insensitive	190	20	3*	213

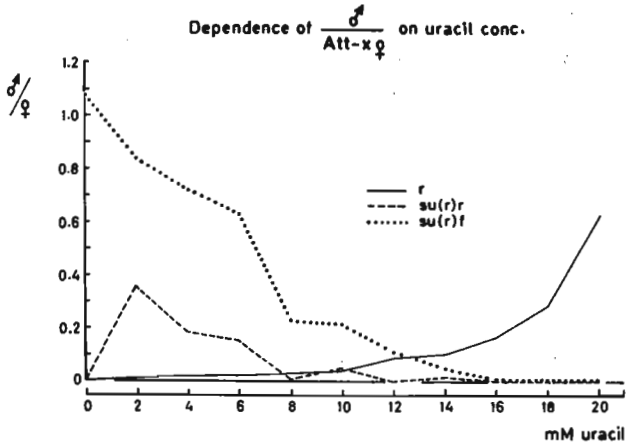
* showed no distortion in tests made in the subsequent generation

ably $SD^+ Da^r$) was produced by recombination from SD-5. The percentage was 40.7%. This finding suggests that the distortion cannot be induced by delta r alone. The percentage of insensitives which showed distorted segregation (k > 0.61) was 10.8%. Since this percentage is far lower for the expected 30%, the action of SD gene appears to be not or not fully expressed in the absence of delta r (SD Da^+ constitution). It is interpreted that the distortion phenomenon may be induced by a complemental interaction between SD gene and delta r.

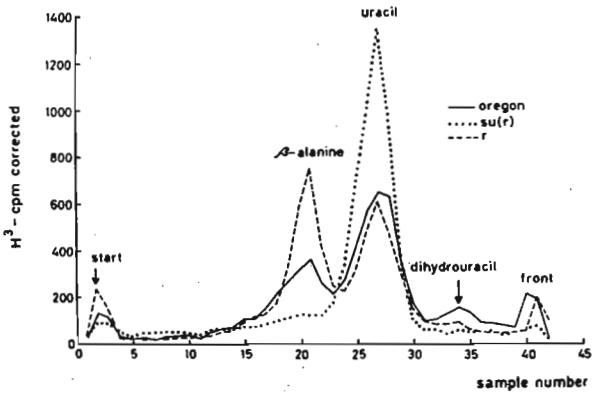
References: Minamori, S. 1971, Japan. J. Genetics 46:169-180; Sandler, L., Y. Hiraizumi and I. Sandler 1959, Genetics 44:233-250.

Bahn, E. University of Copenhagen, Denmark. A suppressor locus for the pyrimidine requiring mutant: rudimentary.

Studies have shown that an EMS induced recessive mutation situated at 1-27.7 is a suppressor of all rudimentary alleles. In contrast to the pyrimidine requiring rudimentary alleles (Nørby, 1970 Hereditas 66:205-214) this mutant is very sensitive to an exogenous supply of pyrimidines. The curves in Figure 1 show that in the cross su(r) f♂ x Att-X♀ on the minimal medium Eledon with increasing concentrations of uracil the suppressor mutant will not survive at concentrations higher than 16 mMolar of uracil. The rudimentary mutant on the contrary will hardly appear at concentrations lower than 12 mM uracil whereas the double mutant being rudimentary as well as suppressor of rudimentary has an optimum of survival at a concentration of 2 mM uracil. Thus, the r and the su(r) mutants clearly act as antagonists with respect to development of the flies on media with different concentrations of uracil. Together with the fact that dihydrouracil and dihydrothymine has no poisonous effect on the suppressor mutant the results suggested that the suppressing effect of the mutant was due to a block in the first step of pyrimidine catabolism.



Chromatography of extract of H^3-uracil fed whole larvae.



In an experiment using paper chromatography of the extract of H^3-uracil fed larvae the results depicted in Figure 2 showed no degradation of uracil in the su(r) larvae whereas the wild type and r larvae had been able to degrade uracil into dihydrouracil and further down to β-alanine. Other experiments based on in vitro degradation of H^3-uracil have given similar results. It is concluded that the suppressor of rudimentary mutant is a metabolic suppressor and that it causes a block in the first step of pyrimidine catabolism by greatly reducing dihydrouracil dehydrogenase activity and that the suppressing effect is due to a consequent sparesome degradation of special importance to a pyrimidine requiring mutant as rudimentary.