

oocytes when recessive lethals are measured but are one-tenth to one-twentieth as sensitive when hatchability is measured. He postulates that the increase in sensitivity of stage 7 oocytes with regard to recessive lethals may be due to an increased production of chromosomal aberrations, perhaps small deficiencies. It would be of interest to see if EMS behaves similarly when the same treatment techniques are applied.

Although an increase in recessive lethal frequencies is not shown clearly for each brood when Oregon R 60 females are compared with Canton S females, the table does indicate that a higher overall frequency for the Oregon R females probably exists, presumably due to the larger number of ovarioles. The use of this stock might then make the study of mutations arising in the female germ line less laborious.

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University of Calcutta, India. Developmental changes in puffing pattern in the mutant "ft" in *D. melanogaster*.

The mutant "fat" (ft;2:12.0) of *D. melanogaster* shows certain "vacuolar lipo-protein bodies" in the larval salivary gland cells (Slizynski, 1964; Rai Chaudhuri, 1968). This effect is accompanied by an initiation and increase in puffing activities in various sites

of their chromosomes. Analysis of the sequential changes in the puffing pattern of these sites in ft during the late third instar to prepupae has been made and summarily presented below.

Table 1. Comparison of puffing activity in the wild type and ft third instar larvae and prepupae.

Group	puffing Sites	Oregon R+		ft	
		Larvae	Prepupae	Larvae	Prepupae
A	15CD	++	±	-	+
	18B	+	++	-	+
	53DE	+	++	-	+
	66D	+	±	-	+
	83EF	±	++	-	+
	85CD	±	±	-	±
	85EF	+++	++	-	++
B	42B	++	++	+++	-
	100EF	++	±	+++	±
C	7B	-	-	-	+
D	1A	-	-	+	+
E	2B	++	+	+++	++
	21B	++	+	+++	++
	61A	+	-	++	+
	74EF	+	-	+++	-
	75AB	+	-	+++	-
	47A	++	+	++	++
	50CD	++	+	+++	++
	72BC	+	+	++	+

Altogether 77 sites have been found to show activity during one or the other stages (from late third instar to prepupa). Among them, 42 were active during the late third instar, and the remaining 35 sites were active only during the prepupa; 23 puffs were active during both stages.

A comparative analysis of puffing patterns in ft larvae and prepupae with those in Oregon R+ shows (Table 1) that 7 puffs which are present either during the late third instar or prepupa in the wild type are absent in the ft larvae (Group A). Two puffs present in Oregon R+ larvae and prepupae are super-activated in ft larvae only (Group B). A single puff one each in Groups C and D is present either in pre-

Table 1. Legend:

+++ : Activity index 2 or more
 ++ : Activity index >1.6<2
 + : Activity index ~1.5
 ± : Activity index ~1.2 to 1.3
 - : Activity index 1.0

pupae (Group C) or in both stages of ft (Group D). Five puffs in ft larvae and three puffs in ft prepupae become more activated as compared to those in Oregon R+ (Group E). Three other puffs which are present in both stages of Oregon R+ and ft show a reduced activity in wild type strain as compared to ft larvae and prepupae (Group F).

References: Rai Chaudhuri, A., 1969, DIS 44: 118. Slizynski, B.M., 1964, Cytologia 29: 330-336.