

de Mazar Barnett, Beatriz K. Comisión Nacional de Energía Atómica, Argentina. Recessive lethals induced in sperm by X rays, alkylating agents and combinations of both.

A comparison was made of the frequencies of sex-linked recessive lethal mutations induced in mature sperm by (a) X rays, (b) two alkylating agents and (c) a post-irradiation 30 minutes after administration of the chemicals.

The alkylating agents used, a nitrogen mustard (NITROMIN) and a polyethylene-imine (THIO TEPA)

were injected intra-abdominally in a 0.4% saline solution and the irradiation dose was 800r in all cases.

For the experiments, one day old Oregon-R males were treated and 24 hours later mated to "Basc" females, left for one day and then discarded. The females were allowed to oviposit for two additional days.

Standard recessive lethal tests were made with the  $F_1$  females. The results obtained in the  $F_2$  are shown in the table. Taking into consideration these results, as well as others from combined treatments carried out at different intervals, the effect of combined treatments with alkylating agents and X-rays is at least additive with the nitrogen mustard but not with the polyethylene-imine, in which case no combined treatment has ever induced a recessive lethal frequency as high as that induced by the chemical alone.

	Alkylating agent		X rays		Alk. a. X rays 30 m interval	
	No. chrom.	%let.	No. chrom.	%let.	No. chrom.	%let.
NITROMIN ( $7 \times 10^{-2}M$ )	788	1.14	1084	1.92	951	4.94
THIO TEPA ( $3 \times 10^{-2}M$ )	983	12.00	1084	1.92	693	6.63

de Mazar Barnett, Beatriz K. Comisión Nacional de Energía Atómica, Argentina. Extreme variability in oviposition rate.

An attempt is being made to establish the frequency of dominant lethals induced in mature or nearly mature oocytes of females treated with various combinations of X-rays and chemical mutagens, in the hope of elucidating previous data

on recessive lethals induced by these agents. Individual females were mated in vials containing a special medium for egg counts (see note in this issue DIS) and were allowed to lay eggs for 36 hours (this time had to be used since it was the period used previously for the recessive lethal tests). It was found that a variable proportion of the females did not lay eggs at all during the 36 hour period (though most of them did finally lay eggs later). This was true of all groups including the controls.

In addition, there was an extreme variation in the number of eggs laid by the individual females, again in all groups. In some treatments, the range was from 1 to 100, in others 1 to 50, etc. and the distribution of egg number was rarely a normal one.

Schneider, Imogene. Yale University. Inadvisability of using the raft technique for Drosophila organ culture.

In a recent review, the observation was made that although insect organs have been cultured in hanging drops and on solid media for in vitro differentiation studies, there has been no report in the literature of using the rayon raft

technique for this purpose, the latter being a very common practice in vertebrate organ culture (M. Martignoni in Insect Physiology, Oregon State Univ. Press, 1963).

This technique was attempted a number of times in culturing D. melanogaster organs (cephalic ganglia with attached eye-antennal discs, salivary glands, testes and ovaries) using not only rayon rafts but also rafts of nylon monofilament cloth, perforated cellophane and millipore filters. Regardless of the material which served as the raft, the end result was unsatisfactory. Except for testes and ovaries from young third instar larvae, all the above-mentioned