Kastritsis, C.D.[1] and J. Grossfield[2]. [1]University of Texas Southwestern Medical School, Dallas, Texas. [2]Purdue University, Lafayette, Indiana. Balbiani rings in D. auraria.

Since different strains of D. auraria differ with respect to their ability to mate in darkness, and since this trait is at least under partial genetic control (Grossfield, 1970), an investigation was undertaken to explore possible cytological correlations.

Different strains were found to differ by a number of inversions and, in addition, two strains were found to exhibit two Balbiani rings (Fig. 1) in one of the chromosomes of the

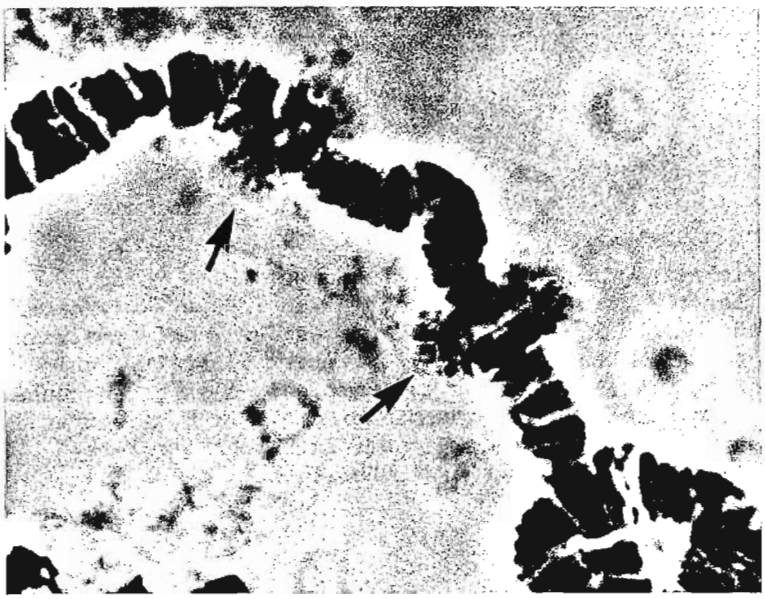

Fig. 1. Phase contrast photomicrograph of D. auraria polytene chromosome. Arrows point at two Balbiani rings.

salivary glands cells. Due to the fact that Balbiani rings have not been described in Drosophila before, we feel that our observation warrants this note. Our preliminary data indicate that these may be stage-specific structures. Research is now under way to further investigate the implications of the phenomenon.

Reference: Grossfield, J., 1970. Genetics 65:s27.

Würgler, F.E., R. Büchi and P. Maier. Swiss Federal Institute of Technology, Zürich, Switzerland. Relative viability of different types of Drosophila melanogaster males without a free Y chromosome.

If R(1)2,y B / B^S Y y^+ males are X-rayed and mated to nonirradiated females partial as well as complete loss of sex chromosomes is indicated by non-Bar males. The reports of Graf and Würgler (DIS-46, 73-74, 1971) and Würgler and Kälin (DIS-46, 79-80, 1971) show that the rates of chromosome losses recorded depend on the type of females used in the test crosses. The data obtained for X-irradiation of ring-X males with 2000 R in nitrogen are summarized in the following table ("Oster" = Inscy;dp bw;st p^p and "XY" = y^2 su(w^a)w^a KS.KL y^+ (Parker 110-8)):

females	spontaneous rate of loss	X-ray experiment	corrected for spontaneous loss	relative rate
Oster	0.54 %	2.33 %	1.8 %	1
y sn	0.71	4.37	3.7	2.1
XY	2.2	8.7	6.7	3.7