indicated micropinocytotic activity of the oolemma, and it is during stages 10 and 11 that the vitelline membrane is completed (1). Although some dye is evident in the follicular epithelium, its localization is not clear. Ultrastructural studies of ovaries from females injected with ferritin are now in progress and should clarify the route of entry. It therefore appears that the Drosophila oocyte is able to incorporate blood proteins into yolk spheres via micropinocytosis, but conclusive proof requires further investigation. However, this does not rule out the possibility that the alpha yolk spheres also contain proteins synthesized within the ovary.

References: (1) King R. C. 1960. Growth 24: 265; (2) Telfer, W. H. 1961, J. Biophys. Biochem. Cytol. 9: 747; (3) Stay, B. 1965. J. Cell Biol. 26: 49; (4) King, R. C. and Aggarwal, S. K. 1965. Growth 29: 17; (5) King, R. C., Bentley, R. M. and Aggarwal, S. K. 1966. Amer. Naturalist 100: 365; (6) Ramamurty, P. S. 1964. Exp. Cell Res. 33: 601.

Sperlich, D. University of Vienna, Austria. Data on the genetic load in D. subobscura.

A marker strain for the chromosome 0 of D. subobscura was built up by the following way: Va cu ch/+ cu ch - males (Va=Varicose, dominant, homozygous lethal, cu-curly, ch-cherry) were irradiated and crossed to + + + standard females. The heterozygous Va cu ch/ + + + daughters were backcrossed to + cu ch/ + cu ch males and the offspring examined. Those cultures which yielded no recombinants were cytologically analysed. Unfortunately there was no culture with an inversion long enough to prevent crossing-over over the entire chromosome, but a strain (Va cu ch 33) could be found with an X-0 translocation combined with a long inversion on the 0-chromosome (from region 81-98 of the cytological map). Although further irradiation experiments will be carried out for finding a better marker strain the translocation strain was used for a preliminary examination of the genetic load in the chromosome 0 of D. subobscura.

Va cu ch 33 males were crossed to females of the mutant strain Ba (Ba=Bare, dominant, homozygous lethal) and a balanced strain Va cu ch 33/Ba established. Males of a wild Vienna population were crossed to this strain in the following way: P-generation: Va cu ch33/Ba ♀ x Wild♂ ; F_1-generation: Va cu ch33/Ba ♀ x Ba/+ ♂ ; F_2-generation: Va cu ch33/ + ♀ x Ba/+ ♂; F_3-generation: Va cu ch33/Ba : Va cu ch33/+ : Ba/+ : +/+ (1 : 1 : 1 : 1); If there were no wild types in the F_3-offspring (among a total number of 100 flies) the wild chromosome was considered lethal. Among 38 wild chromosomes 12 (32%) proved to be lethal and 2 (5%) to be semi-lethal (less than 5 wild type flies). From the ratio +/+ : Va cu ch33/Ba in the F_3-generation the relative viability of the viable +/+ -homozygotes can be calculated. In a similar way the relative viability of +/+ - or +/1 -heterozygotes can be obtained by intercrossing Va cu ch33/+ females of the F_3-generation of one culture to Ba/+ males of another culture. 24 different interstrain (lethals excluded) and 35 different interstrain crosses were carried out. The relative viabilities of the different genotypes are listed in the table below:

Genotype	$+^A/+^A$ homozygotes	$+^A/+^B$ heterozygotes	+/1 heterozygotes
Rel. viability (+/+ : Va cu ch 33/Ba)	1,1	1,9	1,6

As expected, the viability of +/+ homozygotes is lower than both, the +/+ -and the +/1 -viability. The difference between the latter two classes is not significant (X^2 = 3,4039, p=0,1). There is no evidence that lethal bearing heterozygotes are less viable than lethal free heterozygotes. Further it was found that +/Ba - and 1/Ba - individuals and +/Va cu ch33 - and 1/Va cu ch33 - individuals do not differ very much with respect to viability. The mean number of +/Ba -individuals in the F_3 cultures was 40/per bottle and that of 1/Ba -individuals 36/per bottle. The corresponding number of +/Va cu ch33 and 1/Va cu ch33 was 72/per bottle and 88/per bottle respectively, indicating rather a superiority of lethal heterozygotes than the opposite.