females having almost complete penetrance. Expressivity however was extremely variable. The blistering effect was not always in both wings. Rather than being confined to the four cells mentioned, the effect appeared on the entire wing in a random fashion. The blisters themselves showed wide variation in size. This extreme variability was also noted in the males of the above cross, implying the effect of autosomal modifiers.

The locus of vs^{671} was mapped by back crossing female vs^{671}/ec v to vs^{671} males and observing the male progeny. The results were:

ec + v	294	ec + +	107
+ vs^{671} +	444	+ vs^{671} v	71
ec vs^{671} +	70	ec vs^{671} v	6
+ + v	80	+ + +	39
		Total	1111

This gives an ec-vs^{671} interval of 17.6 Morgans, a vs^{671}-v interval of 20.1 Morgans, and an ec-v interval of 37.6 Morgans. The coefficient of coincidence is 1.9 which would suggest that double crossing-over in this region is enhanced.

Since the number of reciprocal crossover types are unequal in each category, penetrance for vs^{671} might be incomplete due to the new genetic background. Applying Mayo's approximation of 77% penetrance, determined for vs^{67J} (DIS 41:58), to the results obtained here, the hypothesis is not upheld.

If vs^{671} does not really enhance crossing over between ec (5.5) and V (33.0), a possible hypothesis to account for the lower number of vs^{671} individuals among the crossover progeny is that vs^{671} interacts with ec and/or v to reduce viability. Another possibility is that the viability of vs^{671} is decreased when the Canton-S chromosome in which it was induced is broken up by crossing over. The Canton-S vs^{671} chromosome as an integral un unit may impart high viability. This high viability could be lost when the integrity of the chromosome is lost through crossing over.

D. MELANOGASTER

RESEARCH NOTES

Burr, Mary Jo and Alice S. Hunter.
Barquisimeto, Venezuela. Glutamate-aspartate transaminase activity of D. melanogaster.

This work is part of a large project on temperature adaptation in several species of Drosophila. The enzyme glutamate-aspartate transaminase was chosen for study since other workers have found changes in amino acids related to adaptation temperature of Drosophila.

The assay employed contained 0.045 mg pyridoxal phosphate, 60 µM DL-aspartic acid, 30 µM alpha ketoglutarate and 1.5 ml of a supernatant fraction of the homogenate in a total volume of 4.8 ml 0.05 phosphate buffer at pH 7.6. The appearance of oxaloacetate was determined by the increase in optical density at 280 mµ. The reaction was carried out at 20°C and was followed for 30 minutes at 5 minute intervals.

Female D. melanogaster grown at 15°C have higher transaminase activity than do those grown at 25°C when measured at 20°C. Also the glutamate-aspartate transaminase activity of other species, both stenothermal and eurythermal, is being assayed.