The circular portion of the wing disc (cf. Chen '29) grows out into a hollow pouch. In vg the circular portion is markedly smaller than in wildtype. As soon as it begins to grow out - or even earlier - the future proximal portion of the wing is constricted off by a fold. Later this portion becomes obliterated (cf. Goldschmidt '35). For the mutant 17b (unequal wings, Jollos) a temperature-effective period at the end of the larval and beginning of the pupal period was established.

Studies on the early development of vg, on the development of unequal wings and on the development of venation are in progress.

Pupae of wildtype, seven mutant eye-color types, and various combinations of mutant types of D. pseudo-obscura were isolated within one hour of pupation. After incubation at 25° C. for definite periods these were dissected and records kept of times at which pigment first appeared and times at which color changes occurred in the developing eyes. Histological studies of all important stages thus determined are now in progress.

Kichijo, H. Salivary chromosomes of various species. According to Kikkawa's suggestion, the ratio of the total length of autosomes to that of X-chromosome in the salivary gland cell of various species, was examined. The following 15 species gave the ratio about 4:1; melanogaster (A-type according to Metz and Moses' diagram), simulans (A), takahashii (A), immigrans (D), virilis (F), funebris (G), repleta (I), hydei (I), ananassae (L), bipectinata (L), montium (new type), sp-1 (A), sp-2 (A), sp-3 (A), and sp-4 (H). The following four species gave the ration about 1.7:1; pseudoobscura (J), affinis (K), sulcata (new type) and sp-5 (E). Full investigations in connection with the genetics and morphology are now under way in collaboration with H. Kikkawa and F. T. Peng.

Kikkawa, H. Chromosomes of D ananassae. As shown previously, four pairs of the V-shaped chromosomes are seen in the oogonial metaphase of this species. However, the linkage groups to date are only three: X-25 (including multiple allels), II=16, III=11, IV=0. This fact strongly suggests that one pair of the germinal chromosomes are formed by inert substances. Recent studies on both genetical and cytological grounds proved clearly that the smallest pair of the V-shaped chromosomes was almost inert. The most interestin point is that the distal part of one arm of this inert chromosome is homologous to a part of the short arm of Y-chromosome. The detail will be shown before long.

Ludwig, W. Asymmetrie-Index bei Crossover-Versuchen. Erhält man z.B. in einem 3-Punkt-Versuch abc/+++ x abc die Nachkommen (0)=466/382, (1)=39/8, (2)=113/215, (3)=225/322, (1,2)=7/2, (1,3)=20/23, (2,3)=60/125, (1,2,3)=15/1, Total 2312, so