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Skin Transplantation in Ducks and Pigeons.

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In view of the finding that skin can readily be transplanted in young chicks[1] it seemed desirable to see if a similar procedure would be equally feasible in other commonly used laboratory birds. To this end a few experiments were made with newly hatched ducks and pigeons.

Skin from 2 young mallards supplied grafts for 6 white Pekin ducklings. Of these, 1 graft to the back and 1 to the breast were entirely successful, 2 to the top of the head and 1 to the back failed, and 1 duckling was lost before the fate of its graft could be determined. Mallard skin grown on a Pekin host has produced juvenile mallard plumage.

Through the kindness of Professor C. S. Stoltenberg 20 pigeons were available for the second experiment. Four autoplastic grafts were all successful. Of the exchange grafts between full brothers and sisters, 3 became fully established and 7 others lived for 9, 11, 12, 15, 26, 30+ and 30+ days. When donor and host were not closely related, the grafts lived for 7, 7, 9, 12, 17 and 25+ days.

Because of the rapid growth of the young and the ease with which the condition of the graft may be determined from day to day without the necessity of sacrificing the host, the pigeon seems especially favorable for the study of graded compatibilities of tissues. The data thus far available indicate a sharper differentiation of individuality factors in the pigeon than in the fowl. There is evidence that the grafts which are doomed to fail may nevertheless have varying life expectancies depending upon the part of the body to which they are transplanted.

[1] Danforth, C. H., and Foster, Frances, PROC. SOC. EXP. BIOL. AND MED., 1927, XXV, 75.