The importance of the lymphatic system for achieving transplantation immunity has been differently interpreted in the literature. While the majority of papers stress the changes of the regional lymphatic system after homografts⁴ there are also papers categorically denying its importance⁵. In an earlier paper I have attempted to point out the importance of the regional lymphatic system in establishing transplantation immunity. After extirpation of the regional lymphatic system or its destruction by means of *TS 160* (nitrogen mustard), the survival-rate of the graft could be prolonged for 15–65 days⁶.

The results of treatment of the regional lymphatic system with antibodies against the host seem to be important for a new approach to overcome tissue incompatibility.

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A Method of determining Embryonic Orientation in the Hen's Egg

I WISH to report a successful attempt at detecting embryonic position in the hen's egg using, so far as it is known, a previously untried technique. It consists of X-raying the incubated egg to determine the skeletal morphology of the embryo. With the egg held in a horizontal position the embryo's longitudinal position can be easily detected. On rotating the egg through a 90° angle, exposing it a second time, and then viewing the X-ray plates in the order of taking, the direction in which the head is turned can be accurately determined.

In this way, not only can the normal orientation of embryos be studied but also the lethal nature or hatchability of certain conventional malpositions about which controversy¹ has arisen in the past, since the technique does not involve the death of embryos.

Fig. 1 shows the normal position adopted by embryos approximately 36 hr. before hatching is completed; the long axis of the embryo coincides

Fig. 1

Fig. 2

with that of the egg and the head and beak are turned to the embryo's right across the breast towards the broad end of the egg and in close proximity to the air cell (clearly defined dark area). In Fig. 2 the longitudinal position of the embryo is reversed so that the head is seen towards the small end of the egg away from the air cell, into which it is normal for the embryo's beak and head to enter during the process of hatching.

Detailed results of this work will be reported in the near future; but, for the present, work has shown that (a) the head-between-thighs position of malposition I should be regarded as a transitional stage in the normal orientation of embryos to the hatching position rather than a cause of death or failure to hatch, and (b) embryos adopting malposition II (head in the small end) or malposition III (head to left) have, respectively, a slightly better than one in two and one in five chance of hatching.

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Effect of Temperature and Grafting on Vegetative Growth Phases of Algerian Ivy

THE closely similar English and Algerian ivies, *Hedera helix*, Linn. and *Hedera canariensis*, Willd., do not flower until the juvenile vining type of growth changes into a stiff erect form. This mature type of growth has entire, ovate to lanceolate leaves, and the round stems rarely produce aerial roots. The juvenile trailing stems are somewhat flattened, frequently produce aerial roots, and the leaves are palmately lobed. Both stems and petioles frequently have red pigments. Doorenbos¹ was able to produce many reversions to the juvenile form by grafting the mature fruiting form of English ivy on juvenile two- or three-year seedlings or on juvenile plants grown from cuttings. Plants of adult ivies grown on juvenile understocks for approximately a year outdoors in a lath house in the relatively cool coastal climate of west Los Angeles did not exhibit the reversions described by Doorenbos. Preliminary experiments indicated that mature budded plants on juvenile understocks all reverted to the juvenile form when grown for more than a year at 80° F. but produced few reversions at lower temperatures.