

served venture, not only in the Atlantic but also in any ocean. It was undoubtedly carried there by the Gulf Stream, and it should be noted that the date is June 5, at the beginning of summer.

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² I am grateful to J. M. Fewell, of the U. S. Hydrographic Office, for reading the manuscript of this article and for supplying latitudes and mileages.

Experimental Hypersensitivity

THE mechanism originally proposed by Longcope (1) for the course of the experimental hypersensitivity produced by the injection of large quantities of foreign serum proteins into an animal is the following: (a) a localization of a portion of these antigenic proteins in the tissues of the animal, (b) the formation of antibodies to the protein, and (c) the reaction of the antibody with the antigen localized in the tissue.

Hawn and Janeway (2), Ehrich, Seifter, and Forman (3), and Wissler, Smull, and Lesh (4) have reported that lesions were produced in different organs in rabbits, depending upon which protein fraction of the foreign serum was injected. The first two groups of authors suggest that the different lesions are probably a reflection of selective localizations of different proteins in the various tissues of the body. Wissler *et al.*, however, claim on the basis of unpublished experiments to have "shown no evident selective localization of labeled horse serum in the tissues of normal or sensitized rabbits." Latta (5), also, was not able to show any such selective localization of radioiodinated bovine serum globulin or human serum albumin; but, as Latta claimed, his experiments were not conclusive because of the high backgrounds of the residual blood radioactivity, which would obliterate any small differential localization in individual organs. Coons, Leduc, and Kaplan (6) showed that bovine serum albumin was removed more rapidly from the tissues of a mouse than was human γ globulin, but the relative retention in each organ was the same for the two proteins.

We have carried out experiments (7) which do show that the different proteins of a protein mixture (in this case a crude globulin fraction of normal rabbit serum) localize differently in the various organs of the rat. This was demonstrated by iodinating the globulin fraction of normal rabbit serum with iodine containing traces of the radioactive I^{131} and injecting it into rats. Three days later the rats were sacrificed, the organs perfused, and the radioiodinated proteins that remained there eluted at pH 10-11. Upon injection of these recovered proteins into rats, it was found that the material recovered from the liver localized to a greater extent in the liver than in the kidney, and the material recovered from the kidney localized preferentially in the kidney.

The preferential localization of components of the original protein mixture demonstrated in these assays

supports the hypothesis of Hawn and Janeway and of Ehrich *et al.* in demonstrating that different serum proteins do localize selectively in different tissues. Just which proteins favor which tissues is not defined by our experiment, and it may be that components present in only low concentration in serum are responsible for the localizations that we observed with the normal serum.

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Zoological Nomenclature

NOTICE is hereby given that, as from January 23, 1953, the International Commission on Zoological Nomenclature will start to vote on the following cases involving the possible use of its plenary powers for the purposes specified in brackets against each entry. Full particulars of these cases were published on July 23, 1952, in the *Bulletin of Zoological Nomenclature*, those relating to cases (1) to (4) in Part 8 and those relating to cases (5) to (10) in Part 9 of Vol. 6. (1) *Ancylus* Müller, 1774 (Cl. Gastropoda) [designation of type species]; (2) *atrox* Baird & Girard, 1853, *Crotalus* (Cl. Reptilia, Order Squamata) [validation]; (3) *polysticta* Cope, 1865, *Caudisoma* (Cl. Reptilia, Ord. Squamata) [validation]; (4) *Palaeopsylla* Wagner, 1903 (Cl. Insecta, Ord. Siphonaptera) [designation of type species]; (5) *Heterandria* Agassiz, 1853 (Cl. Osteichthyes) [designation of type species]; (6) *Lobocantha* Kirby, 1837 (Cl. Insecta, Ord. Coleoptera) [suppression, to validate *Platypria* Guérin, 1840]; (7) *tereticauda* Eschscholtz, 1833, *Triton* (Cl. Amphibia) [suppression, to validate *lugubris* Hallowell, 1849, *Salamandra*]; (8) *Euryrhynchus* Miers, 1877 (Cl. Crustacea, Ord. Decapoda) [validation]; (9) *Pontonia* Latreille, 1829 (Cl. Crustacea, Ord. Decapoda) [designation of type species]; (10) Martyn, 1784, *Universal Conchologist* (Ph. Mollusca) [validation of following trivial names published in *arabicum*, *canaliculus*, *crenata*, *denticulata*, *granosus*, *haustrum*, *heliotropum*, *iris*, *linea*, *maculosum*, *opalus*, *papulosum*, *punctulatus*, *purpurata*, *smaragdus*, *sulcatus*, *tigris*, *vermis*.] Comments on the above cases should be sent as soon as possible to the secretary.

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