rabbit the pigment within one hour can be demonstrated in the blood and urine.

Animal experiments are now under way to study the toxicity and effectiveness of this antibiotic.

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THE Rh AND Hr FACTORS IN CHIMPANZEES[1]

THE purpose of this paper is to report the results of tests for the Rh blood types and Hr factor on ten chimpanzees, three jungle-born and seven colony-born.

In the Rh and Hr tests,[2] the bloods of all ten chimpanzees behaved alike. In the tests for the Rh blood types, with sera anti-Rh_0, anti-Rh′ and anti-Rh″, the reactions were either negative or weak. When any agglutination occurred, this proved to be due to heteroagglutinins rather than specific Rh agglutinins, as was proved by absorption tests. Thus, absorption of the sera with chimpanzee blood removed the agglutinins for chimpanzee blood without affecting the reactivity of the serum for Rh-positive human blood; while absorption with human Rh-positive blood removed the agglutinins for human blood without affecting the reactions of the sera with chimpanzee blood. These results, therefore, indicate that all ten chimpanzees are Rh negative.

That this conclusion is correct was proved by tests for the Hr factor. In tests with an exceptionally potent anti-Hr serum it was found that the chimpanzee bloods were all agglutinated strongly and to the same titer of the serum (about 250) as human Rh-negative blood. Absorption with chimpanzee blood removed the agglutinin for human Rh-negative blood as well as the reaction for chimpanzee blood and, conversely, absorption with human Rh-negative blood destroyed the reactivity of the Hr serum for chimpanzee blood. Moreover, the anti-Hr agglutinin was absorbed equally well by equivalent volumes of chimpanzee and human Rh-negative red cells.

These investigations are being continued, and additional chimpanzees at the Yerkes Laboratories will be tested.* Most likely, the other chimpanzees will also give reactions corresponding to the human Rh-negative type. Perhaps this uniformity in the reactions of chimpanzee bloods is the final result of the selective action of isoimmunization in pregnancy, without the interference of racial crossing such as is apt to occur in man.[3]

[1] Aided by a grant from the United Hospital fund of New York City.

[2] For technique see: A. S. Wiener, J. P. Zepeda, E. B. Sonn and H. Polivka, *Jour. Exp. Med.*, 81: 559, 1945.

* After this article was submitted for publication, blood from five additional chimpanzees was tested, with similar results in the Rh and Hr tests.

[3] A. S. Wiener, SCIENCE, 96: 407, 1942.

In conclusion it should be mentioned that nine of the chimpanzees gave reactions corresponding to group A, while one gave reactions corresponding to group O. This agrees well with previous reports on a total of 92 chimpanzees, of which 81 belonged to group A and 11 to group 0.[4] The bloods of all ten chimpanzees reacted strongly with our anti-M serum, in conformity with the previous finding that all chimpanzees possess M-like agglutinogens.[5, 6] The anti-N serum which we had available did not agglutinate the chimpanzee bloods, but this does not necessarily contradict the conclusion from tests with other anti-N sera that chimpanzee blood also contains N-like agglutinogens.[6, 7]

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ACCUMULATION OF DDT IN THE BODY FAT AND ITS APPEARANCE IN THE MILK OF DOGS[1]

THE high lipoid-water distribution ratio of DDT suggested that it might be preferentially stored in the adipose tissues of mammals fed DDT. The toxicological behavior of this compound pointed also to possible deposition in body fat. Such a preferential distribution was first indicated by feeding the dibrom analogue of DDT, 2,2-bis(p-bromophenyl)-1,1,1-trichloroethane, to rats and rabbits and determining the increase in tissue levels of bromine. The rise in the bromine content of the fat was many times that in the liver, kidney, brain or blood. These analyses, however, did not show the exact nature of the stored compound. It was not until the specific colorimetric method of Schechter and Haller[2] became available that the material stored in the fat was shown to be the unchanged DDT. The extent to which DDT will accumulate in the fat of chronically fed animals

[4] A. S. Wiener, "Blood Groups and Transfusion," 3rd edition, chapter XIX, C. C Thomas, Springfield, Ill., 1943.

[5] K. Landsteiner and P. Levine, *Jour. Exp. Med.*, 47: 771, 1928.

[6] A. S. Wiener, *Jour. Immunol.*, 34: 11, 1938.

[7] A. S. Wiener, *Am. Nat.*, 75: 199, 1943.

[1] A portion of the funds used in this investigation was supplied by a transfer, recommended by the Committee on Medical Research, between the Office of Scientific Research and Development and the Division of Pharmacology of the Food and Drug Administration.

[2] M. S. Schechter and H. L. Haller, *Jour. Am. Chem. Soc.*, 66: 2129, 1944.