cation of an auto-antigenic character of guinea pig follicular fluid, as claimed by Lyons and Van de Carr.

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An Attempt to Determine the Blood Groups of Mummies.

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The authors have shown previously[1] that dried human muscle may be used to determine the blood group of the person from which it came. The extension of the study to mummified tissue suggested itself, as information which might be thus obtained would be of interest in connection with the problem of the origin of the human blood groups and might be of value to anthropologists and archeologists. The present paper is a preliminary report of this work.

The technic was as described in the above reference. Anti-A and anti-B testing fluids, prepared by specific adsorption of immune rabbit sera, and also human sera of types B and A were used. These were adjusted in strength so that they agglutinated "+" at a dilution of 1:4 and "±" at 1:8. About 0.3 ml. was placed on each sample of about 0.05 gm. of finely ground mummified tissue. After thorough mixing and standing overnight in the icebox, the supernatants were allowed to come to room temperature and tested against A and B erythrocytes. The results are given in Table I.

It is evident that, in contrast to the American material, some of

TABLE I.
Tests for Adsorption of Agglutinins by Mummified Tissue.

I. American Indian Specimens										
Test Fluid	Test Cells	Specimen No. 1	2	3	4	5	6	7	8	9
Anti-A	A cells	+	+	+	+	+	+	—	+	+
Anti-B	B "	+	+	+	+	+	+	+	+	+
Type B serum	A "	+	+	+	+	+	+	—	+	+
" A "	B "	+	+	+	+	+	+	+	+	+

II. Egyptian Specimens							
Test Fluid	Test Cells	Specimen No. 1	2	3	4	5
Anti-A	A cells	+	+	+	+	+
Anti-B	B "	—	+	—	—	+
Type B serum	A cells	+	+	+	+	+
" A "	B "	—	+	—	—	+

[1] Boyd, W. C., and Boyd, L. G., *Science*, 1933, **78**, 578; *J. Immunol.*, in press.

the Egyptian material, in spite of its great age, seems to remove both of the kinds of anti-B agglutinin used, and thus displays a specific adsorptive power. It seems quite possible that the Landsteiner blood groups can be determined by such methods; it is unfortunate that M and N do not seem to be demonstrable in muscle.

Work is now in progress to establish more definitely the presence of the agglutinogen B in these specimens, and to determine if an anti-O serum[2] can be prepared which will make possible the decision between a type O and a specimen which has simply lost all of its agglutinogens because of deterioration. Also, it would obviously be desirable to test a great many more samples, and the authors hope to do this if sufficient material can be obtained.

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Further Studies on the Coagulo-Flocculation Test for Malignant Tumors.

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A modified procedure of the coagulo-flocculation test for malignant tumors[1] is described, based on additional studies of protein fractions of normal serums, those in various diseases and malignant tumors. The essential constituents are: (1) Diluted blood serum inactivated at 60°C. for ½ hour, which should be neither contaminated nor hemolized. (2) The antigen is prepared by extracting finely ground beef heart with 95% alcohol in the ratio 1:10 for 3 days at 37°C. and overnight at room temperature and then filtering. (3) A saturated watery solution of sodium chloride.

The serums are diluted with water before their use in the test according to the percentage of hemoglobin. Dare's hemoglobino-

[2] See references in Sasaki, H., *Z. f. Immunitätsf.*, 1932, **77**, 101.

[1] Weiss, E., *Arch. Path.*, 1932, **13**, 106.