irritation of the œsophagus by administration every day of the substance by the stomach tube.

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HÆMATOLOGY

An Rh Antibody Specific for V and R′ˢ

The serum of an Rh negative White woman, Mrs. V. S., contains an antibody which reacts only with the cells of people who have either of two predominantly Negro characters—V and R′ˢ (Table 1). The place of these antigens in the Rh system was previously unknown and a relationship between them unsuspected.

Table 1. Results of Testing the Red Cells of 262 Unrelated but often Selected People with the Serum of Mrs. V. S.

	Negroes				Whites			
	V	R′ˢ	R′	Others	V	R′s	R′	Others
VS+	28	13	0	0	3	2	0	0
VS−	0	0	1	50	0	0	80	85*

* Includes one example of rᴳr and representatives of almost all the known Rh genotypes.

The antigen V [1,2] has, up to now, resisted classification in terms of CDE, though a recent suggestion[3] was that V is the product of interaction between *c* and *e* in *cis* when one or the other of these genes is in an allelic form commoner in Negroes than in Whites.

For some years we and others have been aware that R′r (*dCe/dce*) is usually different in Negroes and Whites: the cells of the great majority of White R′r people are agglutinated by all anti-C sera while the cells of most Negro R′r (R′ˢr) people fail to react, or react weakly, with the anti-C sera of the type whose main antibody component is anti-Ce. The subject has been ably studied by Sturgeon, Fisk, Wintler and Chertock[4] and by Sturgeon[5], who give the symbol rh′ⁿ to what we are calling R′ˢ. (We have avoided n for negro because such racial labels have been objected to and because the character is not confined to Negroes.)

The antibody in the serum of Mrs. V. S., which by chance may conveniently be called anti-VS, clearly distinguishes an antigen common to V and to R′ˢ: absorption of the serum with cells containing V or R′ˢ greatly reduces the strength of the reactions for both kinds of cells. Furthermore, eluates from the absorbing cells confirm these results: eluates from cells containing V react with R′ˢ cells and vice versa.

To make a pattern for the reactions of anti-V and anti-VS all that is needed is the postulation of an antigen eˢ: V would correspond to antigens eˢ and ceˢ, and R′ˢ to eˢ and Ceˢ; anti-V would be anti-ceˢ and anti-VS would be anti-eˢ. The hypothesis would adumbrate the existence of an antibody anti-Ceˢ: it certainly explains neatly the negative or weak reactions of R′ˢr (*dCeˢ/dce*) cells with anti-Ce sera. Family tests would be needed to demonstrate *DCe*ˢ—if it exists.

Growing appreciation of the complexity of Rh prevents us being very confident of any labelling of genes and antigens. However, it is now clear that the antigens V and R′ˢ no longer present particular Rh problems: their behaviour is merely reflecting that of other antigens controlled by *CE* gene complexes.

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Micro-electrophoresis of Human White Cells and Platelets

We have previously reported our experience with determining charges on human red cells, and the changes in charge which occur when the cells are treated with appropriate antisera[1,2]. The purpose of this communication is to present analogous results for human white cells and platelets.

Blood from normal human donors was received into disodium versenate or sodium citrate, and white cells recovered either by centrifugation and buffy coat withdrawal, or by a sedimentation method using polyvinyl pyrollidone. Platelets were obtained by bleeding normal human donors into siliconized vessels containing disodium versenate or sodium citrate. The preparation was then centrifuged at 1,000 r.p.m. for 10 min., the supernatant removed, and again centrifuged at 3,000 r.p.m. for 10 min. Residual red cells were lysed with 1 per cent acetic acid, and the platelets washed three times in phosphate buffer[2].