nous venons d'exposer. Ceci laisserait supposer que les cellules à partir desquelles prend naissance le latex sont hautement différenciées et douées d'un 'métabolisme propre.

Summary. The hydro-alcoholic extract of *Euphorbia characias* Latex contains one unknown amino acid and one new combined form of glutamic acid, isolated by preparative electrophoresis on cellulose powder.

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Specificity of *Glycine soja* Agglutinins

The seeds of *Glycine soja* (syn: *Glycine max, Soja hispida, Dolichos soja, Soja angustifolia*) contain an agglutinin specific for rabbit erythrocytes[1], a cold agglutinin for human erythrocytes[2], and an agglutinin for papainized human erythrocytes[3]. During studies of the specificity of 'non-specific' seed agglutinins for human erythrocytes, I found that *Glycine soja* (var. Bansei) seed extracts strongly agglutinate neuramidinase (virus receptor destroying enzyme)-treated human red blood cells at room temperature and at 37°C. The seeds may therefore be said to contain the anti-T agglutinin of FRIEDENREICH[4].

Complete absorption of the extract with rabbit erythrocytes significantly reduced activity at 4°C for untreated, and at room temperature for papainized or neuramidinase-treated, human group O erythrocytes. Complete absorption with any one of the following materials abolished all activity for the others, and for rabbit erythrocytes: untreated (4°C), papainized, and RDE-treated human group O erythrocytes.

Absorption/inhibition characteristics of *Glycine soja* agglutinins

	Agglutination of erythrocytes			
	Rabbit	Human		
		Untreated (4°C)	Papainized	RDE treated
Unabsorbed	+++	++	+++	+++
Absorbed with erythrocytes				
Rabbit	–	w	+	+
Untreated human (4°C)	–	–	–	–
Papainized human				
RDE-treated human				
Inhibition by				
d-Galactose	–	–	–	–
Lactose				
Melibiose				
Raffinose				
l-Arabinose	w	w	w	w
l-Galactose	+++	++	+++	+++
d-Glucose				
d-Fructose				
Sucrose				
Maltose				
Salicin				
l-Fucose				
d-Digitoxose				
l-Rhamnose				
N-Acetylglucosamine				
N-Acetylgalactosamine (0.2%)	+	++	+++	+++

Inhibition tests with 2% aqueous solutions of various simple sugars showed that the cold agglutinins for human erythrocytes, the agglutinins for papainized and for RDE-treated human red cells, and for rabbit red cells, were all completely neutralized by *d*-glactose, lactose, melibiose and raffinose, and inhibited to the same extent by *l*-arabinose. D-arabinose *l*-galactose, *d*-glucose, *d*-fructose, sucrose, maltose, salicin, *l*-sorbose, *l*-fucose, *d*-digitoxose, *l*-rhamnose, galactosamine, and N-acetylglucosamine did not inhibit. N-acetylgalactosamine (0.2%) inhibited only the agglutination of rabbit erythrocytes.

Glycine soja seeds seem to contain an agglutinin which reacts with a superficial rabbit erythrocyte receptor, and with a similar, but somewhat deeper and less well-adapted structure, on the human erythrocyte membrane. Combination of the *Glycine soja* agglutinin with the human erythrocyte receptor requires the potentiating action of a low temperature or the removal of steric hindrance by enzyme action. Comment on the structure of the receptor must await further studies, such as those of UHLENBRUCK[5], on the action of proteolytic enzymes and of neuramidinase on the human erythrocyte surface.

Studies of chicken erythrocytes led BOREL[6] to state that *Glycine soja* extracts contain anti-T. This does not seem to be strictly correct, because true anti-T agglutinates RDE-treated erythrocytes and not those exposed to proteolytic enzymes. *Glycine soja* extracts seem to contain an agglutinin similar to, but not identical with, anti-T. Its T-activity is only part of a broader specificity. It might be appropriate to mention here that the seeds of some strains of *Glycine soja* (var. Bansei) also contain 'suppressed' anti-A and anti-B agglutinins for human erythrocytes[7,8].

Zusammenfassung. Agglutinine aus Samen von *Glycine soja* (var. *Bansei*) reagieren mit dem T-Antigen von FRIEDENREICH und besitzen eine chemische Struktur, die durch die Einwirkung von Papain aufgeklärt werden konnte.

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Armed Forces Medical College, Poona (India), May 15, 1963.

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