but disappeared quickly as the temperature began to fall. This phenomenon was accompanied by a prolongation of the bleeding time.

Studies on the viscosity of the blood also were made in the hope of discovering the factors responsible for the leucopenia and the leucocytosis, but no constant variations were observed.

This is a preliminary report.

[1] Howard, H. J., *China Med. J.*, 1927, xli, in press.

[2] Mills, C. A., and Kitzmiller, K. V., *Arch. Int. Med.*, 1926, xxxviii, 544.

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Is Uricase Present in Soy Beans?

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Némec (1920) reported that a very "active" enzyme, uricase, is present in soy beans, and formulated an oxidative process of decomposing uric acid with the formation of urea. Horvath[2] (1926) remarks that this process may be a possible source of error in the determination of urea nitrogen in blood by the aeration urease method. Since this method has gained wide popularity, it is important to know whether uricase is present or absent in soy beans. Takeuchi and various other workers have reported that the aqueous extract of soy bean had no action on uric acid and many other protein derivatives.

Experiments were arranged under conditions exactly the same as those described by Némec.[1] Potassium urate was dissolved in boiling water (0.3 gm. in 100 cc.). Chinese yellow soy beans were ground to a fine powder, 5 grams of which were poured into an Erlenmeyer flask. Then 100 cc. of the potassium urate solution were added, followed by 5 cc. of toluol. The flask was fitted with a rubber stopper carrying a 3 inch tube and a bubbling tube reaching nearly to the bottom of the flask. The air, after being filtered through glass wool and 10 per cent sulphuric acid (Némec used sublimate) was led into the flask at a rate of 25 liters per 24 hours. In the control flask, 100 cc. of distilled water were used in lieu of potassium urate solution. The ammonia formed was received in a similar flask containing N/50 sulphuric acid. The temperature was

kept constant at 35° C. Four experiments gave concordant results. Table I records the results of one typical experiment together with those of Némec.

TABLE I.

Duration	Némec					Author			
	Control		Potassium urate			Control		Potass'm urate	
	H_2SO_4*	NH_3	H_2SO_4*	NH_3	NH_3 from urate	H_2SO_4	NH_3	H_2SO_4	NH_3
hours	cc.	mg.	cc.	mg.	mg.	cc.	mg.	cc.	mg.
24	8.7	5.31	23.4	14.30	8.99	0.4	0.14	0.5	0.17
72			30.6	18.69		0.7	0.24	0.7	0.24
120	11.8	7.21	31.8	19.43	12.22	0.6	0.20	0.7	0.24
144	11.3	6.90	34.2	20.89	13.99	0.6	0.20	0.8	0.27

* 1 cc. of acid equals 0.000611 grams NH_3.

These results show no evidence of the presence of any appreciable amount of uricase in soy beans.

[1] Némec, A., *Biochem. Z.*, 1920, cxii, 286.

[2] Horvath, A. A., *J. Biol. Chem.*, 1926, lxviii, 343.

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Denaturation of Hemoglobin.

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The present study arose from an inquiry into the question: Is the denaturation of hemoglobin reversible? According to general experience denaturation of proteins is irreversible, but reversion of denatured hemoglobin has been reported by Anson and Mirsky.[1, 2]

These workers found that when an alkaline solution of hemochromogen was neutralized, a small amount of hemoglobin was obtained. On the basis of this observation they concluded that there is a reversible equilibrium between hemochromogen and hemoglobin:

$$\text{Hemoglobin} \rightleftarrows \text{Hemochromogen},$$

and that the position of the equilibrium depends on hydrogen ion concentration. Adding acid or alkali to hemoglobin converts it into