TABLE 1. ACTION OF GLUTAMIC ACID

Composition of the reaction mixture: 5 drops of plasma, a number of drops of glutamic acid and activators, completed with water to a volume of 9 drops. Gl. = glutamic acid, 3 mgm./ml.; N.P.A. = non-protein activator, 2 mgm./ml.; T.K. = thrombokinase

No.	Number of drops			Clotting time
	Gl.	N.P.A.	T.K.	
1	0	—	—	22 min. 20 sec.
2	1	—	—	32 min. 00 sec.
3	3	—	—	210 min.
4	4	—	—	>270 min.
5	0	1	—	4 min. 45 sec.
6	1	1	—	8 min. 30 sec.
7	2	1	—	22 min. 40 sec.
8	3	1	—	>50 min.
9	0	—	1	7 min. 00 sec.
10	1	—	1	12 min. 10 sec.
11	2	—	1	30 min. 25 sec.
12	3	—	1	>50 min.

Besides colamine and serine, glutamic acid always occurred among the products of hydrolysis of the cephalin fraction. Chargaff[2] had already discovered a spot on his paper chromatograms of the products of hydrolysis of the monoaminophospholipids, indicating the presence of a substance with a lower R_F-value than serine, but he did not identify it. We believe that this was also glutamic acid.

Glutamic acid increases the time of coagulation of chicken plasma and counteracts the action of the non-protein activator(s) as well as the action of thrombokinase (from human placenta); Table 1 shows the results of one of numerous experiments. The action of glutamic acid does not depend upon a possible small change of *p*H.

Sphingosine was found by means of paper chromatography among the products of hydrolysis of the phospholipid of brain, which may have contained sphingomyelin. The inhibition of the coagulation of chicken plasma was studied with samples of sphingosine prepared from sphingomyelin obtained from pig's brain. The inhibition is counteracted by the non-protein activator(s), but not at all, or scarcely, by thrombokinase. Table 2 gives an example of an experiment.

Further addition of thrombokinase in experiments 3, 11 and 4, 12 caused no coagulation within 22 min.; addition of non-protein activator on the contrary caused extremely rapid coagulation in 25 and 55 sec., respectively.

Addition of both sphingosine and non-protein activator to the chicken plasma gives coagulation-times shorter than those obtained with the activator alone (see Table 2, 5, 6). We are unable to explain this surprising fact.

Sphingosine has the same solubility properties as Tocantins's 'anticephalin'[3] but differs from the latter by being thermostable.

TABLE 2. ACTION OF SPHINGOSINE

Composition of reaction mixtures similar to that in Table 1. Sph. = sphingosine (2·8 mgm./ml.).

No.	Number of drops			Clotting time
	Sph.	N.P.A.	T.K.	
1	0	—	—	43 min. 55 sec.
2	1	—	—	85 min. 00 sec.
3	2	—	—	>186 min.
4	3	—	—	>186 min.
5	0	1	—	4 min. 00 sec.
6	1	1	—	2 min. 30 sec.
7	2	1	—	3 min. 30 sec.
8	3	1	—	3 min. 30 sec.
9	0	—	1	2 min. 03 sec.
10	1	—	1	3 min. 35 sec.
11	2	—	1	>46 min. 30 sec.
12	3	—	1	>46 min. 30 sec.

An inhibitory effect of sphingomyelin was only observed when the sample gave a positive ninhydrin reaction, caused by the presence of sphingosine. Purified samples were completely ineffective in all systems.

Details of this work will be published elsewhere.

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Adrenocorticotropic Hormone in the Whale

APART from a verbal communication[1] on the isolation of adrenocorticotropic hormone from whale pituitaries, nothing has to our knowledge been published on the adrenocorticotropic principle of the whale. We therefore wish to report in brief the results of our first investigations into the subject.

For different reasons, we used in our preliminary experiments to be reported here the whole glands (anterior and posterior lobes and the stalk) of fin whale and blue whale in the proportion in which their glands were collected (about 3 : 1). They were worked up according to the procedures[2,3] described for pig and sheep pituitaries, as modified by Fishman[4]. From 1 kgm. of frozen glands 6·25 gm. of 'crude prolactin' was isolated with a content of adrenocorticotropic hormone corresponding to 24 per cent of the Armour *La-l-A* standard, estimated by the ascorbic acid depletion method[5] on rats hypophysectomized by means of the technique used by Smith[6], as modified by Böe[7].

Five grams of 'crude prolactin' yielded 0·40 gm. of adrenocorticotropic hormone with an activity in the depletion test equal to 1·4 times that of the Armour standard.

A detailed report of these and further experiments will be published elsewhere.

The whale glands were collected by the members of the Norwegian Association of Whaling, A/S Thor Dahl, Sandefjord, Svend Foyn Bruun, Tönsberg, Melsom og Melsom, Larvik, and Anders Jahre and Co., A/S, Sandefjord, to whom we wish to express our thanks.

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