the fourth week, and vanishes in the fifth week after inoculation. Inhibition tests were invariably positive: undiluted or in a 1:2 dilution, the antibody strongly inhibited the degranulation process. Higher dilutions gave a lower degree of inhibition, while 1:32 dilution had only a very weak protective effe t.

Normal rabbit serum offers very little protection against mast cell disruption; the inhibition obtained by these sera, when undiluted, being less than or at best equal to that given by a 1:32 dilution of the specific antibody.

Sera from the actively sensitized animals, used for the in vitro sensitization of peritoneal mast cells from normal rats prior to exposure to antigen, gave positive results in the first four weeks after inoculation.

Disruption of mast cells of actively sensitized rats, as obtained in our experiments and in those of MOTA[14], is in contradiction with HUMPHREY's negative results[17], probably because of the difference in inoculation (via foot pads with adjuvant by Mota and by us, as opposed to the intravenous route used by HUMPHREY).

The in vitro inhibition of mast cell disruption reflects the specificity of this reaction, and could perhaps have future practical use in the diagnosis of allergic states.

The weak protective effect of normal rabbit sera on mast cell disruption is in agreement with KELLER's observation[18].

The action of the sera of actively sensitized rats upon peritoneal mast cells from normal rats is in accordance with MOTA's findings[14]: such sera react similarly to human reagins, and what MOTA named 'MCSAb' appears in our experience after a single sensitizing injection.

These findings suggest a possible relation between mast cell sensitizing antibody and delayed type of hypersensitivity in rats[19].

Résumé. Les «mast cells» péritonéales de Rats hypersensibles à la γ-globuline humaine, subissent une «dégranulation» in vitro en présence de l'antigène. Cette «dégranulation» est inhibée par les antisérums spécifiques. Les sérums de Rats hypersensibles ont la propriété de sensibiliser au même antigène les «mast cells» de Rats normaux.

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Department of Microbiology, Tel-Aviv University (Israel), April 13, 1965.

[18] R. KELLER, Vox sang. *9*, 631 (1964).

[19] Acknowledgment: The authors wish to express their appreciation to Prof. A. KLOPSTOCK, Department of Microbiology, Tel-Aviv University, for helpful interest throughout this investigation. The technical assistance of Mr. J. SCHLOMO is also gratefully acknowledged.

The Brain of the Southern Sei Whale (*Balaenoptera borealis* Lesson)[1]

The brain (Figure 1) of the Southern Sei whale (*Balaenoptera borealis* Lesson) is anatomically investigated. The 12 brains of the collection were prepared from animals caught in the Indian Ocean (Durban area, PILLERI legit 1963) and the Antarctic Sea (Thor Dahl, Sandefjord). The complete weight of the brain (without the dura mater) varies between 3000 g and 5200 g. The average weight of the adult specimens is 4636 g. The cerebrum shows intense furrowing. As in other *Cetacea* the sulci develop frontooccipital around the fissure of Sylvius. The insula is extensive and forms approximately 17 radial gyri. The hippocampus formation is not greatly developed (Figure 2). The bulbus and tractus olfactorius are narrow. The tuberculum olfactorium shows definite bulging and is comparatively large. The thalamus is well developed and forms a distinct pulvinar. The stria terminalis is quite wide. A massa intermedia as connection between both thalami (Figure 3) is missing in all examined specimens. The hypothalamus is narrow and shows a distinct recessus supraopticus and infundibuli. The corpus mammillare is very small. The commissura anterior is minimally developed. The fornix, on the other hand, is well developed and cannot be compared in size to the corpus mammillare and the hippocampus. The neuro- and adenohypophysis are completely separated from one another (Figure 4). The neurohypophysis is elongated and receives its blood supply from the rete mirabile of the dura mater. The dura forms a diaphragm around the infundibulum, which is strengthened rostrally by an intradural cartilage. The corpus striatum (Palaeo- and Neostriatum) are concentrated dorsally from the tuberculum olfactorium. The cauda of the caudate nucleus is narrow and somewhat enlarged at the end. The ventricular system forms shortened cornu occipitale. The lamina quadrigemina shows a slight asymmetry in the size of the colliculi. This asymmetry, however, is not as obvious as in the Right whale (*Eubalaena australis*

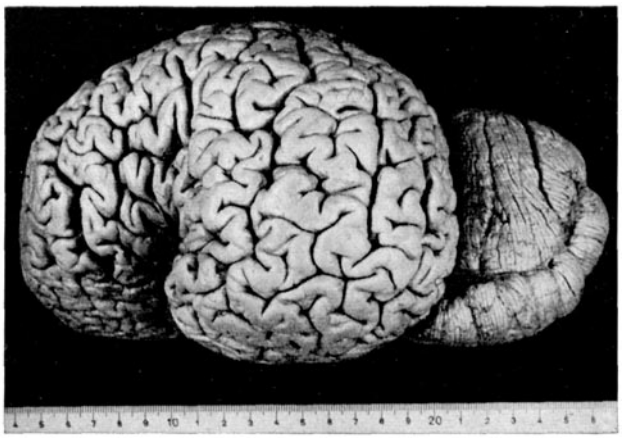

Fig. 1. Lateral view of the brain of the Southern Sei whale (*Balaenoptera borealis* Lesson).

[1] Supported by Grant 2630/63 of the Schweizerischer Nationalfonds zur Förderung der wissenschaftlichen Forschung and the Stiftung zur Förderung der wissenschaftlichen Forschung an der Universität Bern.

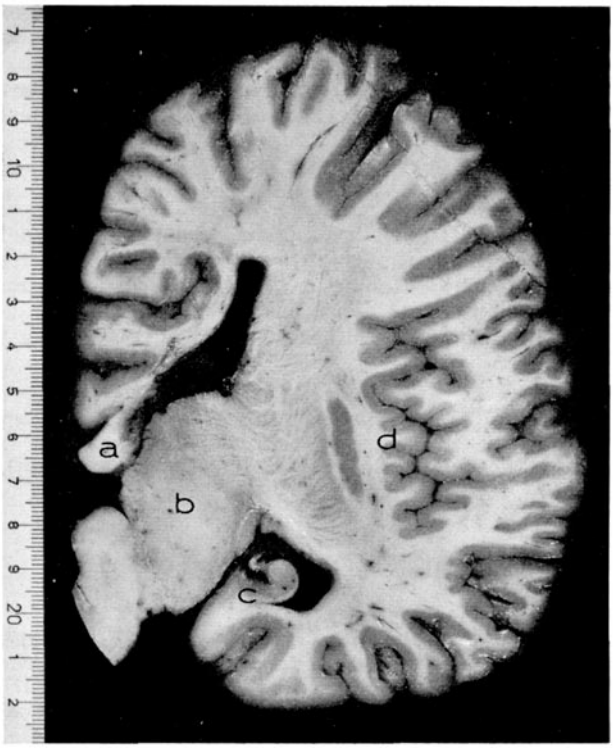

Fig. 2. Coronal section of the right hemisphere: a = corpus callosum, b = thalamus, c = cornu ammonis, d = insula reili.

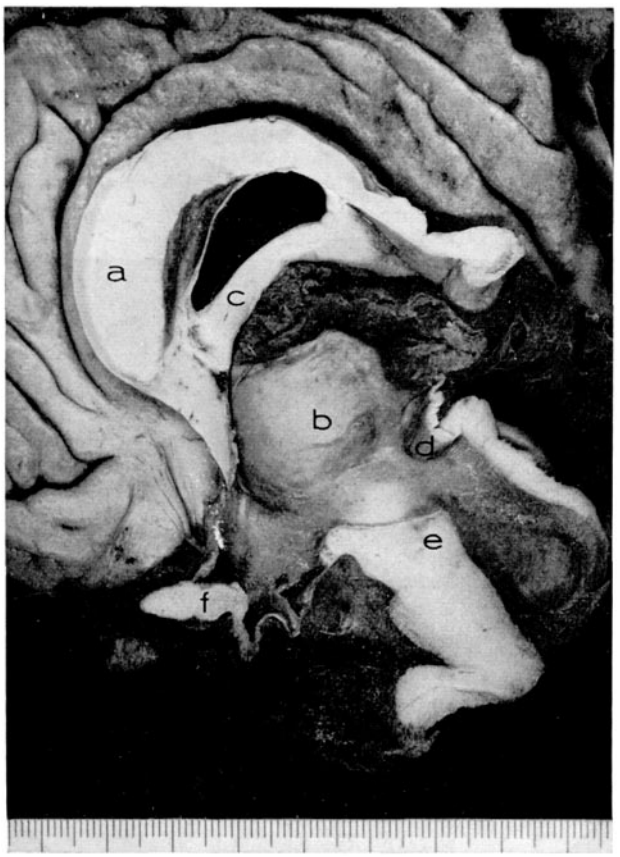

Fig. 3. Sagittal section of the brainstem: a = corpus callosum, b = thalamus (without massa intermedia), c = fornix, d = commissura posterior and habenula, e = mesencephalon, f = chiasma.

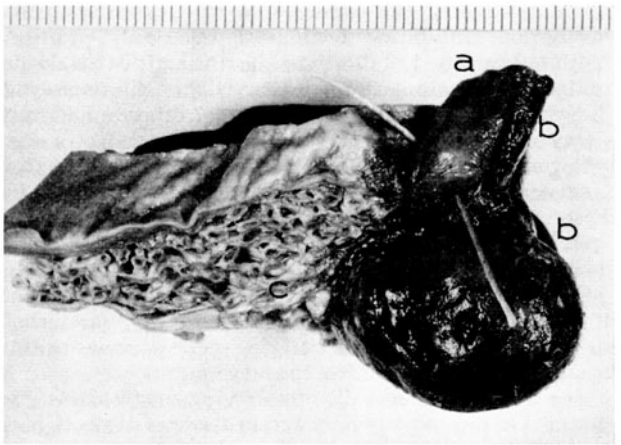

Fig. 4. Lateral view of the hypophysis: a = neurohypophysis, b = adenohypophysis (separated from another), c = rete mirabile of the dura mater.

	Balaenoptera borealis %	Homo sapiens %
Regio olfactoria	0.3	0.18
Cornu ammonis	0.18	0.79
Basal ganglia	1.3	2.25
Thalamus	2.5	0.96
Hypothalamus	0.12	0.26
Hypophysis	0.15	0.04

Desmoulins; PILLERI[2]). The cranial nerves are examined in detail and the calibre of each root is measured; the fifth nerve being the thickest, followed by the eighth. The cerebellum is very well developed. The nodulus forms a long pedunculus flocculi. The flocculus is formed by two weakly developed folia groups.

The comparison of the hypothalamic quotient (hypothalamus length: length of the cerebrum; PILLERI[3]) between the Sei whale and the Right whale (*Eubalaena australis*) indicates a higher cerebral level in the Sei whale. From a comparative weight analysis between the brain of the Sei whale (T.298, brain weight 3000 g) and that of *Homo sapiens* (male 62 years, brain weight 1600 g) differences appear in the relative weight of certain areas of the brain (see Table).

Zusammenfassung. Es werden die wichtigsten anatomischen Merkmale des Gehirns von *Balaenoptera borealis* Lesson (Seiwal) hervorgehoben. Vergleichend-anatomische Zusammenhänge mit dem Gehirn von *Eubalaena australis* Desmoulins (Southern Right Whale) und quantitative Unterschiede zwischen dem Gehirn des Seiwals und dem des Menschen sind erwähnt.

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[2] G. PILLERI, Acta zool., Stockholm *46*, 245 (1964).
[3] G. PILLERI, Acta anatom., Basel *51*, 241 (1962).