Chemical Topography of the Brain : Chemical Composition of the Brains of Normal and Fasting Cats. (*Ber. Ukrain. Biochem. Inst., vol. iii, pp.* 125–42, 1928.) *Gorodisskiĭ, H.*

In the brains of normal cats the total phosphorus contents of the different parts decrease in the order : Tract. optic (I), corp. genic. lat. (II) and corp. quad. post. (III), nucl. caudat. (IV), grey substance of the cortical centres (motor, auditory, visual). The distribution of phosphorus-containing lipides follows that of total phosphorus, and the richer the parts are in phosphorus-containing lipides, the greater is the proportion of saturated and the less of unsaturated phosphatides. The brains of fasting cats (5–24 days' hunger, 7–44% loss in weight) show a diminution in total phosphorus of (I) ; the lipide phosphorus (as percentage of total phosphorus) diminishes in all parts. The non-lipide phosphorus increases in (II), (III), and the grey substance of the motor cortical centre. The contents of saturated phosphatides diminish in nearly all parts, but most in (I) and least in (IV).

B. C. A. (Chem. Abstr.).

Creatine Contents of Various Parts of the Brains of Vertebrates. (*Ukrain. Biochem. Zhur., vol. vii, No.* 2, *pp.* 51–71, 1935.) *Palladin, A. V., and Rashba, E. I.*

In cow brain the cerebellum contains the largest amount of creatine, and then in decreasing amount the grey matter of the hemispheres, the white matter of the same and the corpus callosum. The cerebellums of rats, rabbits and guinea-pigs contain most creatine, and the grey matter of the hemispheres of these animals, as well as that of the cow, contains the largest amount of total nitrogen and water.

Ibid., Nos. 3–4, *pp.* 85–116.)

In dog brain the creatine content decreases in the order cerebellum, cerebral grey matter, white matter of hemispheres, medulla ; in the cat, cerebral grey matter and cerebellum greater than white matter of hemispheres and medulla ; in hens, cerebellum greater than lobi optici and hemispheres. In the pigeon large individual variations occur, values for all parts of the brain lying within the same limits. The creatine content of the total brains of lizards, frogs and toads is greater than those of the brains of mammals and birds. B. C. A. (Chem. Abstr.).

Synthesis of Acetylcholine in the Superior Cervical Ganglion. (*Journ. Physiol., vol. lxxxvi, pp.* 40–1, 1936.) *Brown, G. L., and Feldberg, W.*

It appears that the perfused ganglion, subjected to prolonged stimulation, synthesizes acetylcholine. This synthesis is increased by blood and by choline.

E. D. Walter (Chem. Abstr.).

The Acetylcholine Content of the Cerebro-spinal Fluid of Dogs. (*Journ. Physiol., vol. lxxxvi, pp.* 277–84, 1936.) *Feldberg, W., and Schriever, H.*

After intravenous injections of eserine, acetylcholine appears in the cerebro-spinal fluid of dogs. It disappears again after some time. Adrenaline and asphyxia cause the appearance of acetylcholine or an increase of its concentration in the cerebro-spinal fluid, but only after administration of eserine. Central vagus stimulation had no effect of this kind after eserine.

E. D. Walter (Chem. Abstr.).

An Intermediary Substance of Vasodilation. (*Arch. Intern. Physiol., vol. xlii, pp.* 516–33, 1936.) *Fleisch, A., and Gaven-Franel, L.*

Various vasodilators (histamine, adenylic acids of yeast and of muscle, sodium taurocholate) upon injection caused the appearance in the blood of a vasodilator differing from the injected compound and from acetylcholine. It was not present before or after the injection and has not been characterized.

E. W. Scott (Chem. Abstr.).

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