and mesenterial adipose tissue, were found also in retroperitoneal adipose tissue.

In animals adapted to ingesting their daily ration within 2 h, a significant increase of the absolute and relative amount of RNA and the RNA:DNA ratio in the mesenterial and retroperitoneal adipose tissue was found (Table II).

From other work, it is known that as a result of starvation the amount of RNA in the liver, kidneys and spleen[4–6] declines and that after refeeding the RNA:DNA ratio increases[6]. Our results indicate that the same applies to adipose tissue. It can be assumed that during starvation synthetic processes are inhibited not only for lack of energy but also due to a loss of cellular RNA. In the course of refeeding, when synthetic processes are renewed, RNA values in adipose tissue not only return to normal levels, but increase above values of normally fed controls, in particular when calculated per DNA. The raised RNA values in adipose tissue of rats adapted to food intake for 2 h per day, where short-term hyperphagia alternates with fasting, is probably connected with increased synthetic activity of adipose tissue during the refeeding stage, including enhanced formation of enzymes concerned with glycogen and fat synthesis.

Zusammenfassung. Durch experimentellen Hunger (48 bis 72 h) kommt es bei Ratten zu einer RNS-Minderung im mesentherialen, epididymalen und retroperitonealen Fettgewebe. Normale Fütterung oder Adaptation an beschränkte Fütterungsdauer (2 h pro Tag) führen zu einer Erhöhung des RNS-Gehaltes über die Normalwerte.

T. BRAUN, L. KAZDOVÁ, and P. FÁBRY

Physiological Department of the Institute of Human Nutrition, Prague-Krč (Czechoslovakia), August 30, 1965.

[4] H. W. KOSTERLITZ, J. Physiol. *106*, 194 (1947).
[5] J. A. D. COOPER, J. biol. Chem. *200*, 155 (1952).
[6] J. D. SUMMERS and H. FISHER, J. Nutr. *76*, 187 (1962).

Biochemical Modifications of the Crystalline Lens in the Experimental Hypercholesteremia of Rabbits

In the field of experimental hypercholesteremia, regarding the eyeball, we found cholesterol depositions in the iris, the choroid and the ciliary body, as well as in the ciliary process. Similar observations were made by other authors: DONEGAN[1], JANES[2], VERSÉ[3]. Nevertheless, only few data are available in connection with the crystalline lens. This made it necessary to examine biochemically the crystalline lens in experimental hypercholesteremia.

Materials and methods. Our experiments were made on 10 mature rabbits, having the same weight (1900–2200 g) and age. The animals were fed with a basic diet. The rabbits received a daily dose of 1 g cholesterol mixed with corn flour. A daily dose of 1 g cholesterol was given during $5^1/_2$ months to 7 grey rabbits, and during 4 months to 3 albino rabbits. This group was supplemented with 12 control animals.

Biochemical examination of the blood. According to Bloor's method, the serum cholesterol values varied between 100–750 mg%. The cholesterol levels in normal rabbits were 44–79 mg%.

Biochemical examination of the crystalline lens. Using the right crystalline lens, we determined its cholesterol content in 12 control rabbits, as well as in 10 cholesterol-treated animals. These determinations were made according to the method of KINGSLEY and SCHAFFERT[4].

The results are illustrated in the Table. As compared with the controls, we established a 24.6% increase in the crystalline lens of the cholesterol-treated animals, the difference being significant ($p < 0.001$).

Crystalline lens

Rabbit No.	Duration of diet (months)	Dry substance (mg)	Cholesterol content (mg) in 100 g dry substance	Dry substance (mg)	Cholesterol content (mg) in 100 g dry substance
	Cholesterol-treated animals			Controls	
1	5.5	221	713	186	616
2	5.5	214	672	189	532
3	5.5	194	654	232	597
4	5.5	207	702	196	549
5	5.5	206	727	215	602
6	5.5	229	851	198	517
7	4	194	691	178	491
8	4	188	678	209	651
9	4	211	756	201	638
10	5.5	223	849	225	626
11	–	–	–	191	527
12	–	–	–	227	673
Media:		208.7	729.3 ± 22.3	203.9	584.9 ± 17.1

Résumé. Les auteurs ont examiné par des méthodes biochimiques, en particulier celle de KINGSLEY et SCHAFFERT, le cristallin des lapins souffrant d'hypercholestérolémie expérimentale. Comparés aux contrôles, les animaux traités, ont présenté une augmentation de cholestérol de 24,6%, cette différence est significative ($p < 0{,}001$).

L. SCHULLER, M. KEREKES, and C. BEDÖ

Department of Pathological Anatomy (Prosectura), Clinic of Ophthalmology, Department of Hygiene Tirgu-Mures (Romania), September 28, 1965.

[1] J. M. DONEGAN, Trans. Am. ophthalm. Soc. *51*, 475 (1954).
[2] R. G. JANES, Am. J. Ophthalm. *58*, 819 (1964).
[3] M. VERSÉ, Virchows Arch. Path. Anat. *250*, 252 (1924).
[4] G. R. KINGSLEY and R. R. SCHAFFERT, J. biol. Chem. *180*, 315 (1949).