milk before blood samples were taken. When twins came, one was placed, at once, upon cow's milk for control. At the time of birth none of the young showed specific hæmolysins in the blood serum. But those getting the colostrum and first milk rapidly acquired, and retained, the specific antibodies. The colostrum in those cases was very rich in hæmolysins, but the antibodies disappeared from the milk output after a few days, in so far as we were able to ascertain.

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The effects of intraperitoneal injections of adrenalin on the partition of nitrogen in the urine of dogs.

By **JACOB ROSENBLOOM** and **WILLIAM WEINBERGER.**

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Underhill and Closson have shown that the *subcutaneous* injection of adrenalin chlorid solutions into dogs is not attended by any significant change in the proportion of the urea, ammonia and creatinin nitrogen of the urine.

In our work we used two specimens of the colorless adrenalin chloride, 1:1000, of Parke, Davis and Co. They were purchased in the open market. Each was tested for its pressor action at the conclusion of the corresponding injection experiments and was then found to be practically as active as ever.

The metabolism experiments were carried out by the methods in use in this laboratory.

Intraperitoneal injection of adrenalin chloride solutions was without effect on the proportions of nitrogen in the forms of urea, ammonia, creatin and creatinin, purins and allantoin.

In one adrenalin injection period of eighteen days, a total of 62 c.c. of a 1:10,000 adrenalin solution was given intraperitoneally and in another injection period of six days a total of 29 c.c. of a 1:1000 adrenalin chloride solution was administered.

The following table shows the different percentages of nitrogen for the several experimental periods:

PERCENTAGE OF TOTAL NITROGEN.

Periods.	Urea N, per cent.	Ammonia N, per cent.	Creatin and Creatinin N, per cent.	Purin N, per cent.	Undetermined N, per cent.
I. (Fore period).....	88.5	3.64	2.51	0.16	5.19
II. (First injection period)	85.7	3.75	2.50	0.20	7.86
III. (First post injection period).....	86.5	3.61	3.33	0.24	6.32
IV. (Fore period).....	86.7	3.65	3.20	0.19	6.26
V. (Second injection period)	87.0	3.92	3.73	0.16	5.19
VI. (Second post injection period).....	84.2	4.29	3.62	0.17	7.72

81 (606)

Experiments on the diffusibility of cholesterol-esters and of lecithan compounds.[1]

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I. CHOLESTEROL ESTERS.

It has been shown in this laboratory that ether solutions of various biological substances pass through rubber membranes into ether.

We have found that cholesterol-benzoate, cholesterol-stearate, cholesterol-oleate and cholesterol-palmitate dissolved in ether will readily diffuse through rubber into ether.

Cholesterol-stearate with a molecular weight of 652.61 diffuses, whereas the various lecithans, with molecular weights considered to be 770 to 785, do not. If we assume that the diffusion of a substance depends on the size of its molecules, the above facts strengthen Hiestand's conclusion that the molecular weight of egg-yolk lecithin is 1446, which figure he obtained by a molecular weight determination.

[1] This study is one of a projected series on *lipins*, which in turn constitutes a section of a comprehensive plan of research on the composition of protoplasm as well as the structural and dynamic relationships of cell constituents and products. These investigations are now in progress in the Laboratory of Biological Chemistry of Columbia University, at the College of Physicians and Surgeons, and under the auspices of the George Crocker Special Research Fund.