

Another interesting difference was noted between the nursing kittens and the maturer animals. In some instances the red dye Sudan III was dissolved in the fat (butter) administered. In the nursing kitten the liver showed a slight pink color and when a portion of the liver was dried and extracted with ether a distinct pink color was shown in the extract. The same treatment applied to the liver of the more mature animal failed to give the pink color in every instance in which it was tried.

Two possible theories may be suggested to account for the diminution of the chylomicrons in the portal vein of the more mature animals: (1) that a certain proportion of them are eliminated in the intestinal capillaries and excreted into the contents of the intestine; (2) that some of them may be converted into a soluble form—through the absorption of bile salts—and can not therefore be observed under the microscope.

In the nursing kitten it would appear, from the chylomicron count and the Sudan III experiments, that the liver is utilized for the storage of fat, but in the more mature animals this function has apparently been diminished. The storage of fat in the liver of young animals was noted by Koelliker in 1856.

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Biological reactions of X-rays. Effect of X-rays on the rate of specific hemolysis.

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1. The radiation of the individual components of a hemolytic system does not increase the rate of hemolysis of that system.
2. Radiation of the whole hemolytic system increases the rate of hemolysis of that system.
3. X-rays influence the rate at which the equilibrium of a reaction is reached. Further studies are in progress to determine the effect of X-rays on the velocity of chemical reactions.