principle of both cobra and rattlesnake venom and gave precipitates with rattlesnake venom markedly, and with cobra venom to a less extent.

The work of Flexner and Noguchi has been important as confirmatory of Ehrlich's lateral chain theory of immunity. It was found that the various venoms act as an intermediary body to bring about hæmolysis of the blood of susceptible animals in presence of the blood serum, which completes the hæmolysis by its complementing action. In most cases, in the absence of serum, no hæmolysis takes place. Whenever it does, however, the lysis of the corpuscles has been shown by Kyes to be due to an endocomplement within the blood cells. Unmodified snake serum also produces hæmolysis, but when heated to destroy the complement is not hæmolytic, and does not recover complement from the serum of the alien blood, in this respect differing in its action from venom. Venom itself when fresh contains no complement, but is reactivated by snake complement as well as by the complement of susceptible bloods. The serum of animals inoculated with heated rattlesnake serum protects against the hæmolytic action of rattlesnake serum, and the venoms of rattlesnake, cobra, and moccasin.

The Pancreas in Cirrhosis of the Liver.—STEINHAUS (*Deut. Arch. f. klin. Med.*, 1902, Bd. 74, p. 537) made a study of the pancreas in twelve cases of cirrhosis of the liver. In all, except one instance, the pancreas showed a more or less grave chronic inflammation. The one exception was a typical case of Laennec's cirrhosis of the liver. The chronic inflammatory changes in the pancreas consisted in a connective tissue growth, which was sometimes of a perilobular type, sometimes of a periacinar type, and although occasionally the parenchyma of the organ was in large part replaced by fibrous tissue, in no case were the islands of Langerhans involved. These structures appeared to be normal in every case. A transient glycosuria was noted in one case, and the author calls attention to the possible relation which may exist between chronic inflammatory lesions of the pancreas and the alimentary glycosuria of cirrhosis of the liver.

Ring Bodies (Nuclear Remnants) in Anæmic Blood.—CABOT (*Journal of Medical Research*, 1903, vol. ix. p. 15), using Wright's modification of Leishmann's stain in studying the blood from cases of anæmia, observed peculiar stained ring formations within certain of the red blood corpuscles. These figures were seen in three cases of pernicious anæmia, four of lead poisoning, and one of lymphatic leukæmia. Unlike the ordinary basophilic granulations found so often in the red blood cells from cases of lead poisoning and pernicious anæmia, these figures stained not blue, but bright red. The rings were quite perfect. They varied in size: in some instances being very small, in others encircling the extreme periphery of the corpuscle. Rarely they were twisted or had a figure-of-eight form. Occasionally basophilic granulations were noted in the same corpuscle which contained a ring body. Such figures did not appear in blood specimens stained with hæmatoxylin. The author believes that they may be connected in some manner with cell regeneration, and suggests that they may represent nuclear remains, or, perhaps, portions of the nucleus which have resisted those forces destructive to it, and ultimately to the cell itself.