

laboratory, are also being repeated. Professor Babkin and Dr. Komarov are planning to work out the active haematopoietic fraction of the gastric juice.

Dr. Komarov, who assists various men with their biochemical problems, has also been doing independent work. This includes the following problems:

- (1) On the interrelation between dissolved mucoprotein and pepsin in the gastric juice: Dr. Webster (who is the next prospect for a residency in Surgery at the Royal Victoria Hospital) has been collaborating with him, and an analysis of their data shows clearly that the secretion of the dissolved mucin is closely related to the secretion of pepsin, all of which has a bearing on the newer theories as to the treatment of gastric ulcer.

Investigation is being made as to whether or not pepsin is secreted as a complex pepsin-mucoprotein compound, or whether both substances are secreted separately and to some extent independently of one another. All this work is being done with dogs upon whom gastric fistulae have been made.

- (2) The nature of the secretagogue constituents of the gastric juice: An effort is being made to isolate the active substances in a pure chemical state. Some crystalline substances have already been isolated, but the identification is not as yet quite clear.
- (3) Non-protein nitrogen of the gastric juice and its physiological significance: It was established already in this laboratory last year that the pure gastric juice contains a considerable amount of non-protein nitrogen. Its physiological significance is being studied, as also the influence exerted by the sympathetic and parasympathetic innervation and different hormones.
- (4) The excretory function of the digestive glands: This study is directed towards investigating to what extent digestive glands participate in the excretion of waste products from the blood. Professor Babkin has suggested studying the influence of various conditions of stimulation, (parenteral administration of metabolites, the influence of removal of kidneys or experimental depression of renal function) on excretion