

## PREFACE

A critical survey of literature on glands of Brunner revealed that there are a number of research articles published on morphology, biochemistry and histochemistry of these glands. These are present in the submucosa of anterior part of the duodenum. Their ducts open in the crypts of Liberkühn. They are generally mucus secreting cells. The secretory products are glycoproteins, in some cases they are carboxyglycoproteins and in some they are sulphated glycoproteins. These glands also secrete a number of enzymes such as acid proteases, dipeptidases and aminopolypeptidases.

But control over Brunner's glands is not yet established. Vagus does have an effect on Brunner's glands, but its significance in relation to total response is still unresolved. It is also established that neither secretin nor gastrin is the hormone controlling Brunner's gland secretion. The role of steroids on Brunner's glands secretion is also not yet studied. As Brunner's glands are exocrine glands they may give response to steroids, as salivary glands, pancreas, mammary glands etc.

The present investigation on the Brunner's glands of rat is undertaken with a view to understanding the hormonal control over secretion of these glands. The dissertation is divided into five chapters. The first chapter reviews gross anatomy, microscopic anatomy, ultrastructure, cytochemistry, hormonal control, sexual differences of Brunner's glands and process of

PREFACE contd.

exocrine secretion and its hormonal control, plan of proposed work with reasons. The second chapter describes material and methods, carried out for the completion of this work. The third and fourth chapters are devoted to the study of Brunner's glands secretion and its control in male and female rats respectively. The fifth i.e., the last chapter deals with general discussion, summary and concluding remarks.