Gastric Secretion: Mechanisms and Control covers the proceedings of the symposium held at The Faculty of Medicine, University of Alberta, Edmonton, Canada, on September 13-15, 1965. This compilation mainly focuses on the study of gastric secretion and other biological processes involved. This book is divided into seven parts, beginning with discussions on the anatomy and purpose of gastric mucosa. This book also specifically explains secretion and its stimulation and inhibition. Parts in this book also tackle gastrin and mucus, as well as the neuro-endocrine control. This text ends with concluding remarks, encouraging further studies of the subject.

Control of gastric secretion. By Michael E. Parsons. Biosciences Division, University of Hertfordshire, College Lane, Hatfield, Hertfordshire AL10 9AB. This negative feedback mechanism is believed to be primarily a consequence of the release of somatostatin from the D cells which inhibits gastrin release from the adjacent G cells, although a direct effect of acid on the G cells themselves is not excluded. The intestinal phase of the control of gastric secretion is mainly inhibitory, mediated by both neural and humoral pathways such as the release of gastric inhibitory peptide (GIP). Gastric secretory stimulants. Control of acid secretion is accomplished by a balance of neural, hormonal and paracrine pathways. Acid secretion is initiated directly by stimuli from brain as a reflex response to distension of the stomach and intestines. Following initiation there are many feedback loops that control levels. The parietal cell is responsible for acid secretion. In the resting state the parietal cell is filled with vesicles. Gastrin has trophic effects on gastric oxyntic mucosa. This occurs via several different mechanisms to include: increased fibroblast growth factor, activation of epidermal growth factor receptors and mitogen-activated protein kinase. Histamine. Histamine is present in both mucosal mast cells and enterochromaffin-like (ECL) cells in the oxyntic mucosa close to parietal cells.