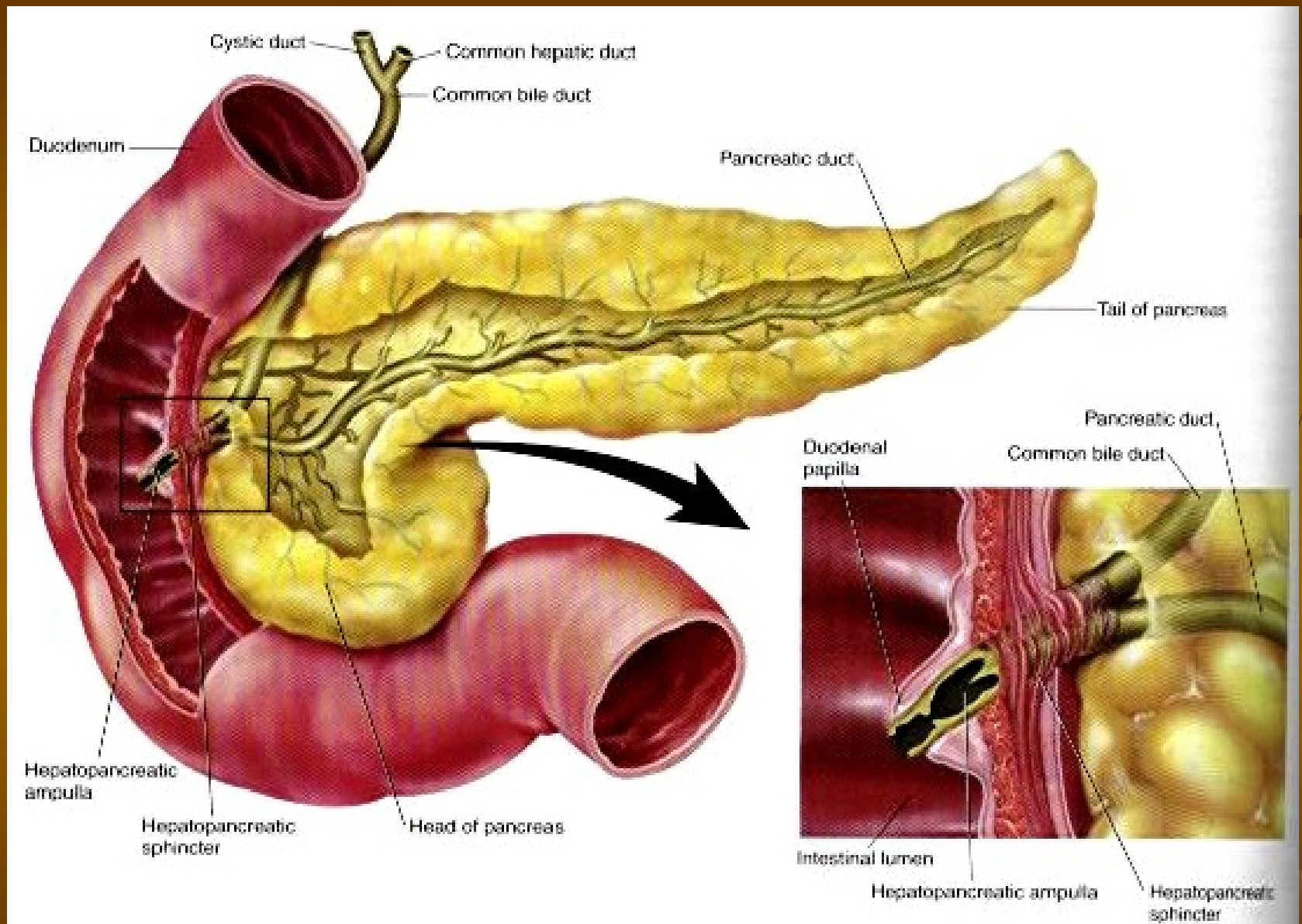
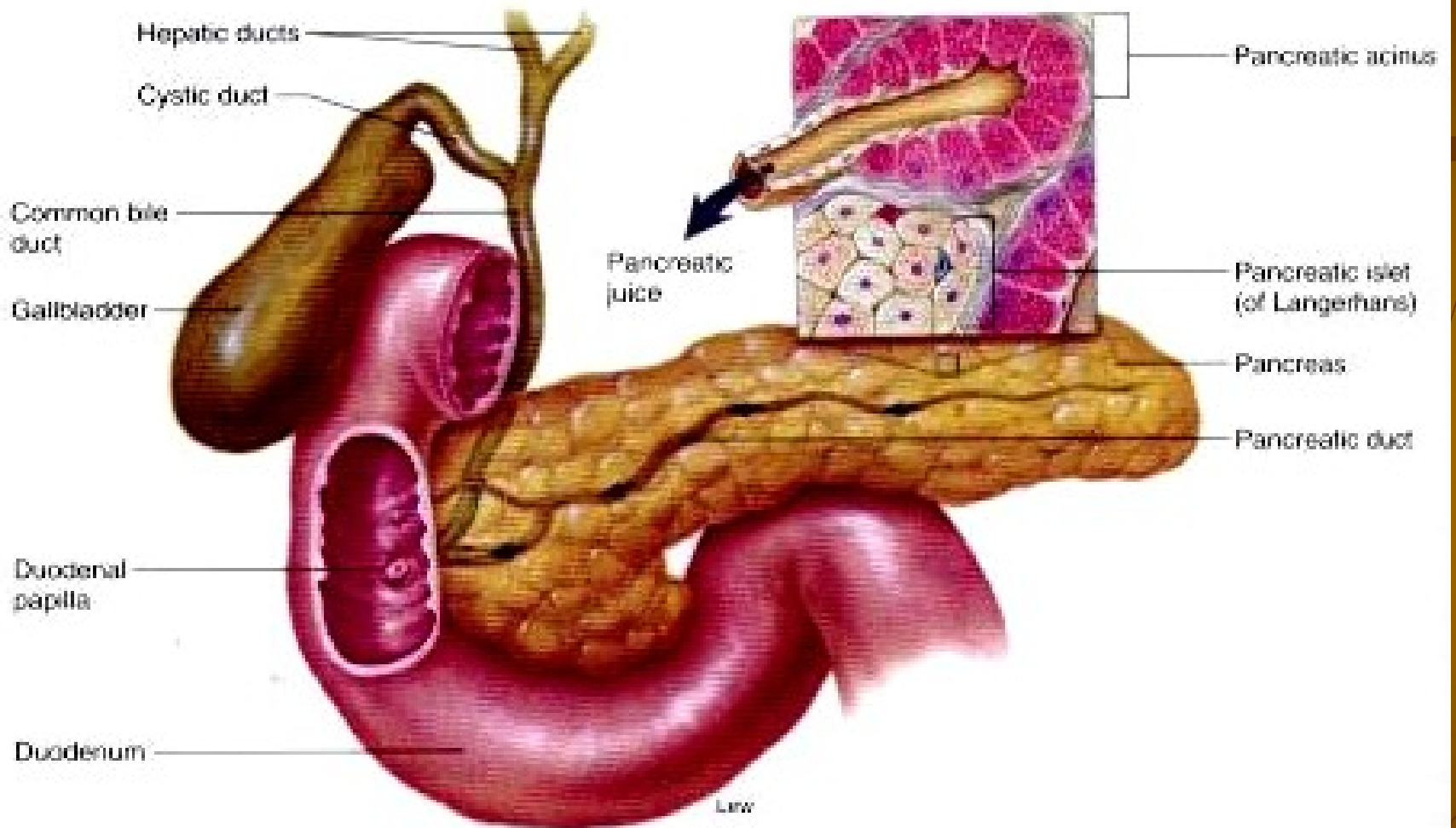


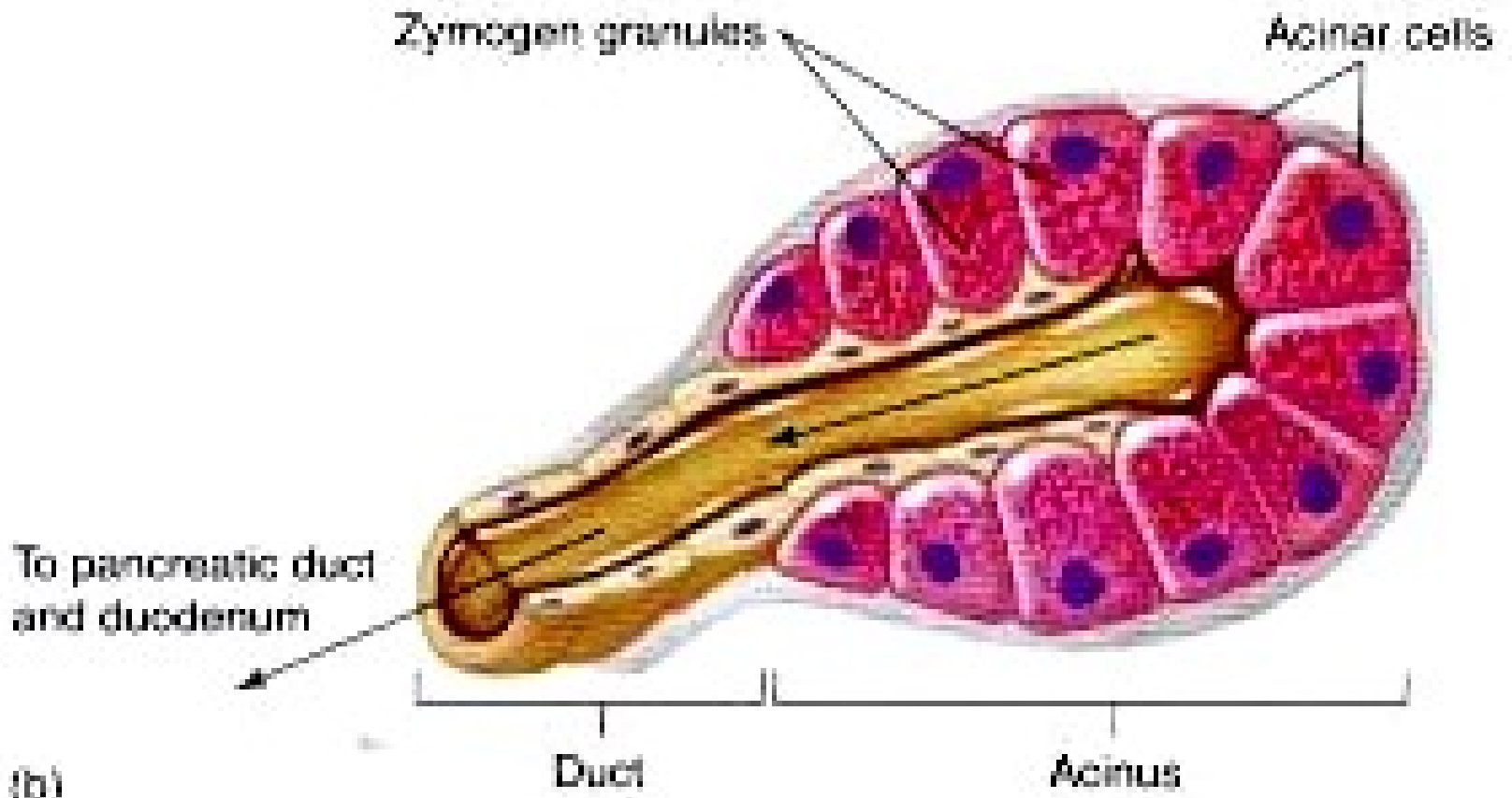
Pancreas

Dr. Mohammed alzoghaibi

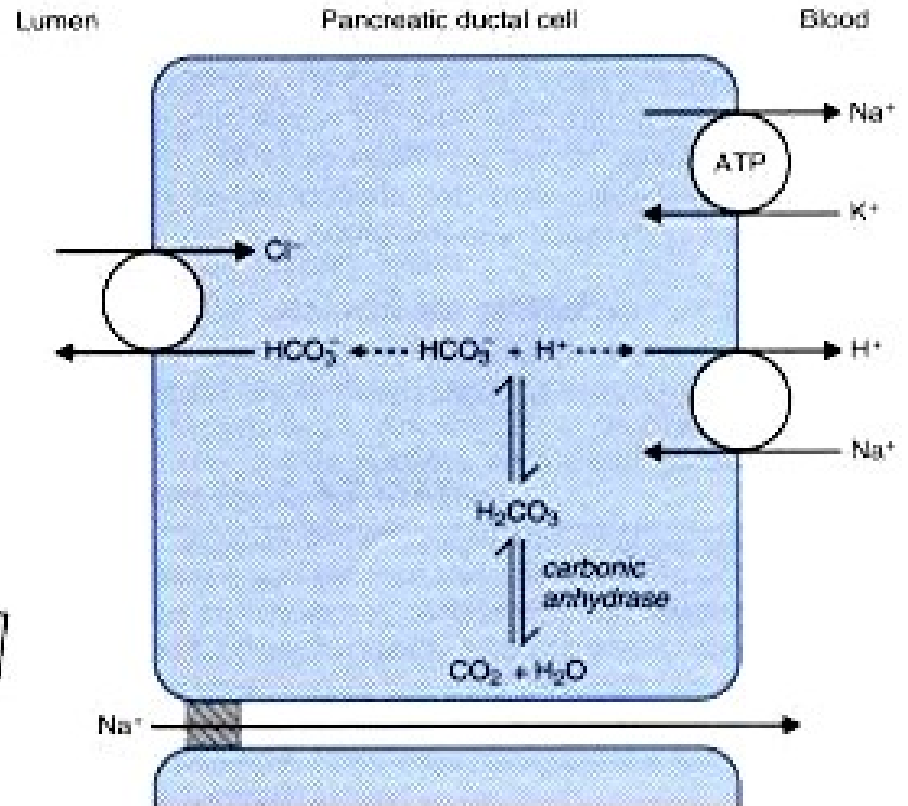
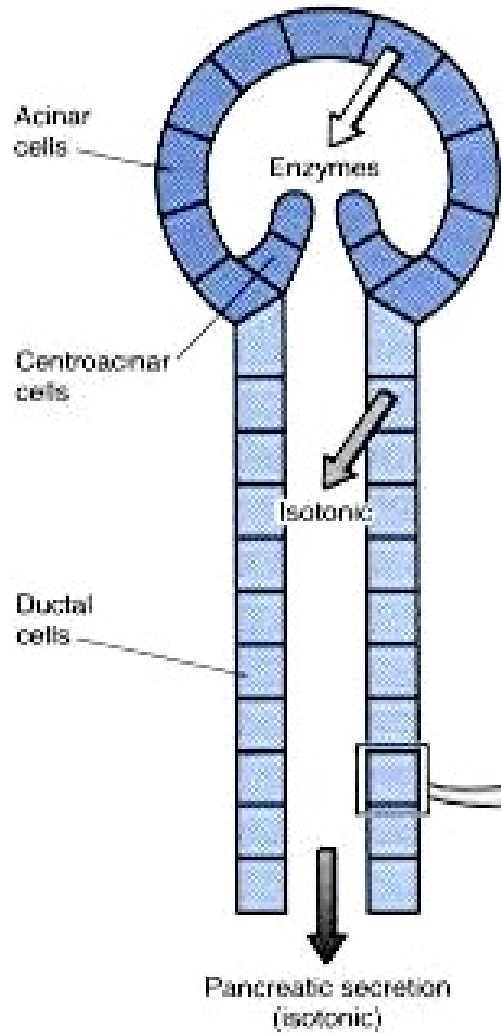


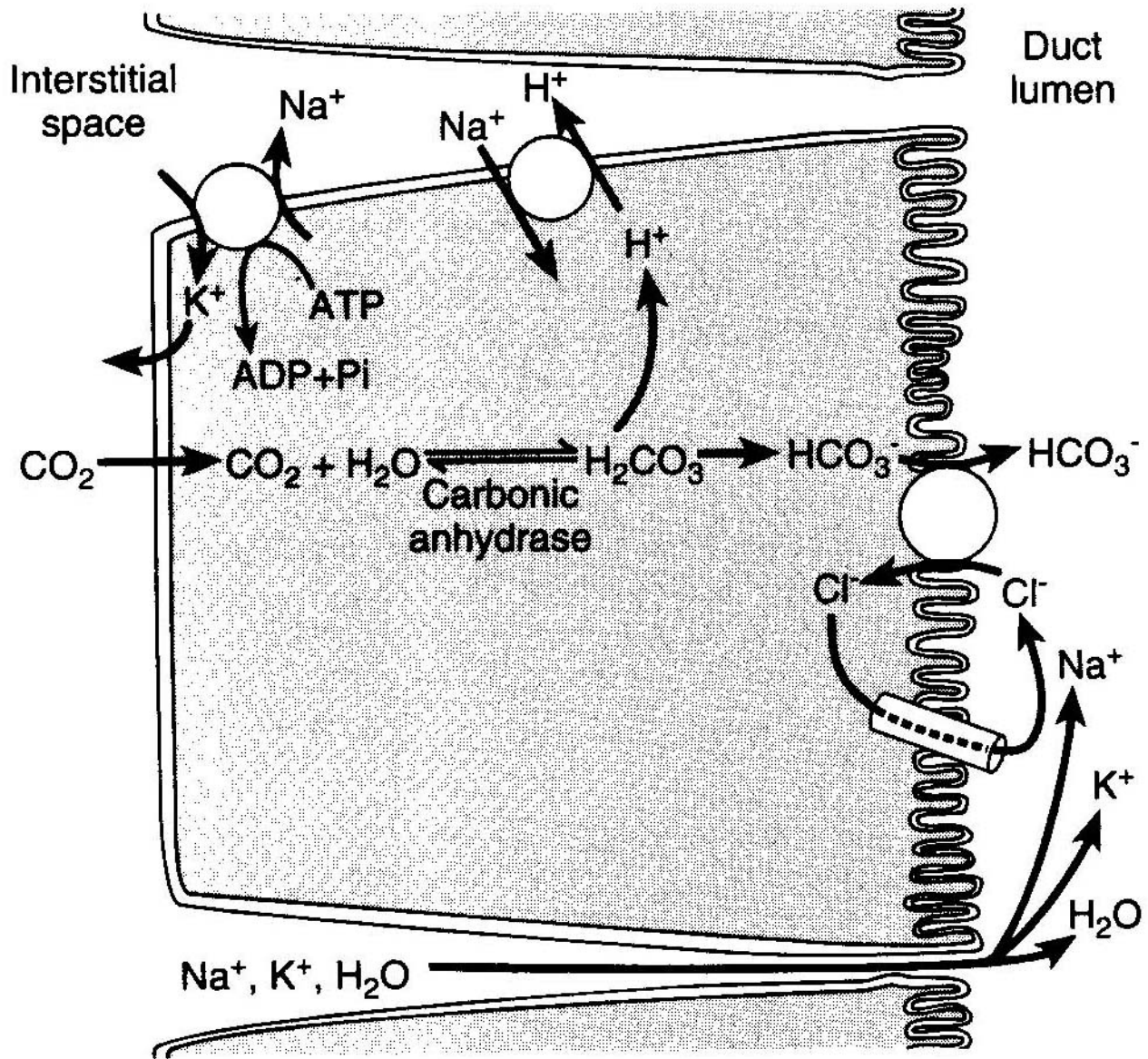


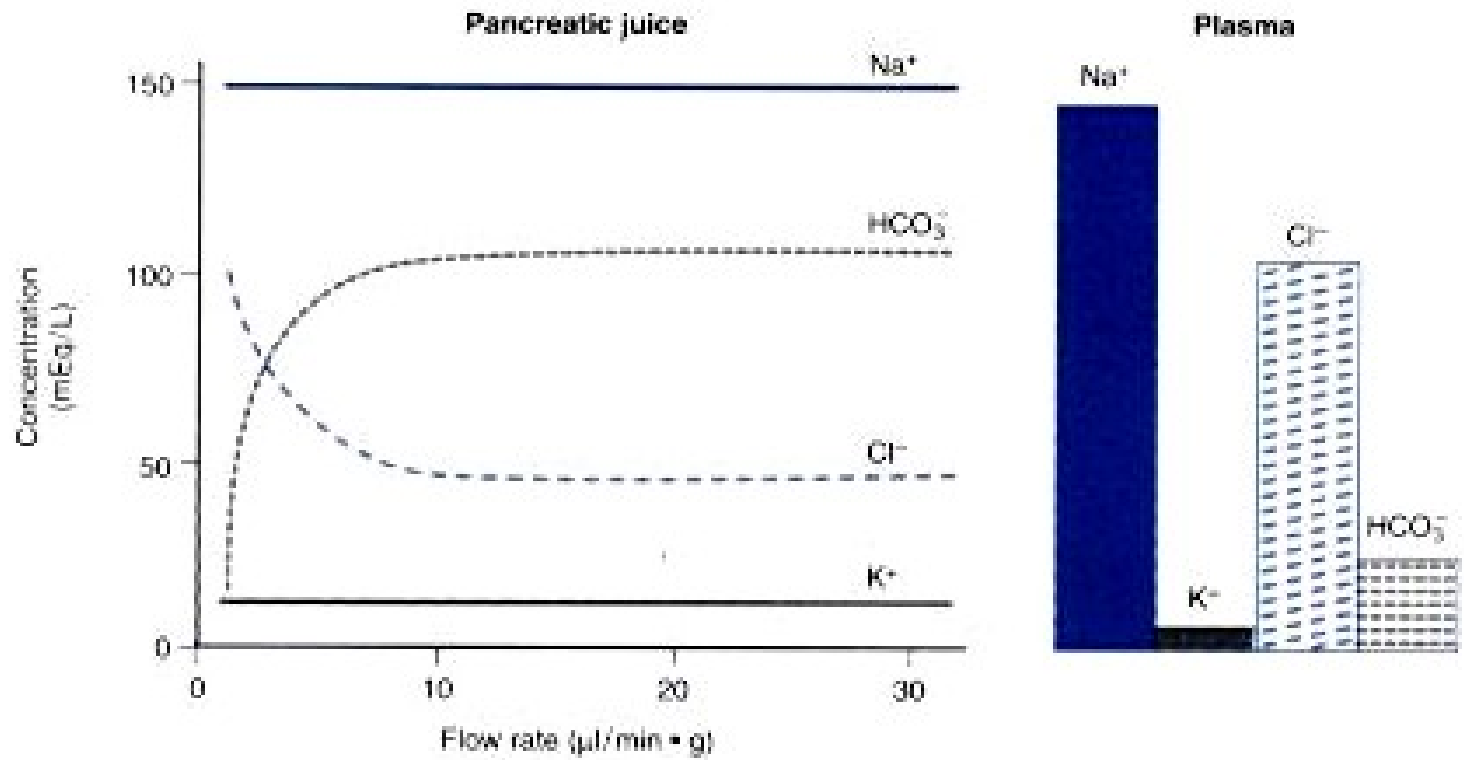




PANCREATIC SECRETION



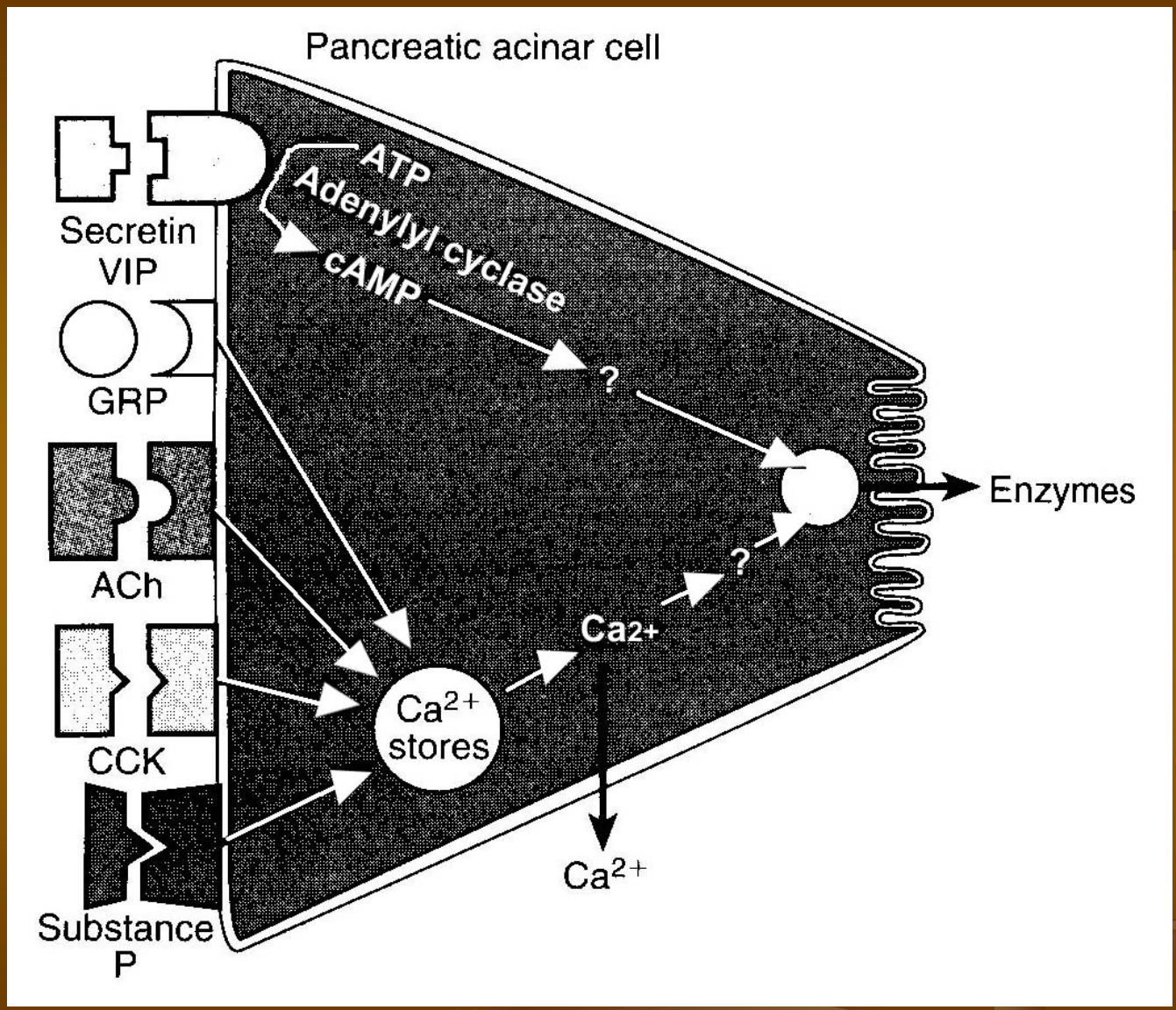




Characteristics of Pancreatic Enzymes

| Enzyme | Specific Hydrolytic Activity |
|---|--|
| Proteolytic | |
| Endopeptidases | |
| Trypsin(ogen) | Cleaves peptide linkages in which the carboxyl group is either arginine or lysine |
| Chymotrypsin(ogen) | Cleaves peptides at the carboxyl end of hydrophobic amino acids, e.g., tyrosine or phenylalanine |
| (Pro)elastase | Cleaves peptide bonds at the carboxyl terminal of aliphatic amino acids |
| Exopeptidase | |
| (Pro)carboxypeptidase | Cleaves amino acids from the carboxyl end of the peptide |
| Amylolytic | |
| α -Amylase | Cleaves α -1,4-glycosidic linkages of glucose polymers |
| Lipases | |
| Lipase | Cleaves the ester bond at the 1 and 3 positions of triglycerides, producing free fatty acids and 2-monoglyceride |
| (Pro)phospholipase A ₂ | Cleaves the ester bond at the 2 position of phospholipids |
| Carboxylester hydrolase (cholesterol esterase) | Cleaves cholesteryl ester to free cholesterol |
| Nucleolytic | |
| Ribonuclease | Cleaves ribonucleic acids into mononucleotides |
| Deoxyribonuclease | Cleaves deoxyribonucleic acids into mononucleotides |

The suffix -ogen or prefix pro- indicates the enzyme is secreted in an inactive form



REGULATION OF PANCREATIC SECRETION

