

1. Record Nr.	UNINA9910583002303321
Titolo	Physiology of the gastrointestinal tract . Volume 1 and 2 // editor-in-chief, Hamid M. Said ; associate editors, Fayez K. Ghishan [and three others]
Pubbl/distr/stampa	London, England : , : Academic Press, , 2018 ©2018
ISBN	0-12-812426-1 0-12-809954-2
Edizione	[Sixth edition.]
Descrizione fisica	1 online resource (2 volumes (xxxvii, 1687, 124 pages)) : illustrations (some color)
Collana	ClinicalKey
Disciplina	612.32
Soggetti	Gastrointestinal system - Physiology Digestive System Surgical Procedures Gastrointestinal system
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Volume 1. Section I: Basic cell physiology, genetics, and growth of the GI tract -- Transcription and epigenetic regulation -- Gastrointestinal hormones -- Growth factors in the intestinal tract -- Hedgehog signaling in gastrointestinal morphogenesis and morphostasis -- The role of hippo signaling in intestinal homeostasis -- Notch pathway regulation of intestinal cell fate -- WNT signaling in the intestine: development, homeostasis, disease -- The cell cycle -- Cell death -- Molecular physiology of gastrointestinal function during development -- Section II: Neurogastroenterology. Development of the enteric nervous system -- Enteric neurogenesis -- The physiology and pathophysiology of interstitial cells of Cajal: pacemaking, innervation, and stretch sensation -- Enteric nervous system structure and neurochemistry related to function and neuropathology -- Enteric nervous system: brain-in-the-gut -- Brain processing of gastrointestinal sensory signaling -- Extrinsic sensory afferent nerves innervating the gastrointestinal tract in health and disease -- Neuroimaging of brain-gut interactions in functional gastrointestinal

disorders -- Enteric neural regulation of mucosal secretion -- Neuromuscular function in the biliary tract -- Physiology of gastric motility patterns -- Clinical and translational aspects of normal and abnormal motility in the esophagus, small intestine and colon -- Neurophysiologic mechanisms of human large intestinal motility -- Neuromuscular physiology of the pelvic floor -- Section III: Host environmental interaction. Tight junctions and the intestinal barrier -- Gut barrier: adaptive immunity -- Gut barrier: innate immunity -- Chemosensing in the colon -- Mucosal restitution and repair -- Luminal chemosensing and mucosal defenses in the upper GI tract -- Intestinal tuft cells -- Section IV: Gut microbiome. Gastrointestinal microbial ecology with perspectives on health and disease -- Diet effects on gut microbiome composition, function, and host physiology -- Influence of the gut microbiome on immune development during early life -- Gut microbiome and metabolism -- Microbial physiology of the digestive tract and its role in inflammatory bowel diseases -- Volume 2. Section V: Physiology of secretion. Salivary gland secretion -- The cell biology of gastric acid secretion -- Structure-function relationships in the pancreatic acinar cell -- Regulation of pancreatic secretion -- Bile formation and the enterohepatic circulation -- Mechanisms of hepatocyte organic anion transport -- Mechanisms of hepatocyte detoxification -- Physiology of cholangiocytes -- Section VI: Digestion and absorption. Molecular mechanisms of polarized protein trafficking in epithelial cells -- Sugar absorption -- Protein digestion and absorption -- Enterocyte fatty acid handling proteins and chylomicron formation -- Genetic regulation of intestinal lipid transport and metabolism -- Digestion and intestinal absorption of dietary carotenoids and vitamin A -- The vitamin D system: biological and molecular actions in the intestine and colon -- Bioavailability of vitamin E -- Intestinal absorption of vitamin K: cellular and molecular mechanisms -- Intestinal absorption of water-soluble vitamins: cellular and molecular mechanisms -- Water transport in the gastrointestinal tract -- Na⁺/H⁺ exchange in mammalian digestive tract -- Intestinal anion absorption -- Ion channels of the gastrointestinal epithelial cells -- Molecular mechanisms of intestinal transport of calcium, phosphate, and magnesium -- Mechanisms and regulation of intestinal iron transport -- Trace metal absorption and transport -- Section VII: Integrated GI physiology and pathophysiology. The gastrointestinal tract and control of food intake -- Mechanisms of helicobacter pylori-induced gastric inflammation -- Host-pathogen interactions in pathophysiology of diarrheal disorders -- Recruitment of inflammatory and immune cells in the gut -- Mechanisms of gastrointestinal malignancies -- Neuropathophysiology of the irritable bowel syndrome -- Pathophysiology of diarrhea and its clinical implications

Sommario/riassunto

Physiology of the Gastrointestinal Tract, Sixth Edition, a Two-Volume set, covers the study of the mechanical, physical and biochemical functions of the GI Tract by linking clinical disease and disorder, thus bridging the gap between clinical and laboratory medicine while also covering breakthroughs in gastroenterology, such as the brain-gut axis and microbiome. Additionally, information is provided at the organism level, including animal models of gastrointestinal disorders and therapeutic possibilities. The book covers a wide range of conditions, from food allergies, constipation, chronic liver disease and IBS, also exploring emerging techniques to diagnose and normalize functions of the GI tract. As a highly referenced book, this is a useful resource for gastroenterologists, physiologists, internists, professional researchers and instructors teaching courses for clinical and research students. Discusses the multiple processes governing gastrointestinal function

Presents new information on the brain-gut axis and microbiome Edited by preeminent scientists in the field Includes coverage of issues, such as food allergies, constipation, chronic liver disease, IBS, Crohn's disease, and more. --Publisher
