

1. Record Nr.	UNINA9910780804503321
Autore	Miftahof Roustem
Titolo	Mathematical modeling and simulation in enteric neurobiology [[electronic resource] /] / Roustem Miftahof, Hong Gil Nam, David Lionel Wingate
Pubbl/distr/stampa	Hackensack, NJ, : World Scientific, c2009
ISBN	1-282-44120-5 9786612441202 981-283-481-8
Descrizione fisica	1 online resource (350 p.)
Altri autori (Persone)	NamHong Gil WingateDavid L
Disciplina	616.3
Soggetti	Gastrointestinal system - Innervation - Mathematical models Gastrointestinal system - Innervation - Computer simulation
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references (p. 296-312) and index.
Nota di contenuto	Overview of enteric neurobiology -- Myoelectrical activity of the smooth muscle -- Pharmacology of myoelectrical activity -- Physicochemical basis of synaptic transmission -- Neuronal assemblies -- Multiple neurotransmission -- Functional unit -- Dynamics of intestinal propulsion.
Sommario/riassunto	The book recognizes the complexity of biological phenomena under investigation and treats the subject matter with a degree of mathematical rigor. Special attention is given to computer simulations for interpolation and extrapolation of electromechanical and chemoelectrical phenomena, nonlinear self-sustained electromechanical wave activity, pharmacological effects including co- localization and co-transmission by multiple neurotransmitters, receptor polymodality, and drug interactions.