



FONDAZIONE  
INTERNAZIONALE  
MENARINI

*International Symposium on*  
**New Vistas on Gastrointestinal Motility:  
from Physiology to Therapy**  
**Rome (Italy), September 28<sup>th</sup> – 29<sup>th</sup>, 2007**

Organized by

DEPARTMENT OF PHARMACOLOGY AND  
DEPARTMENT OF INTERNAL MEDICINE  
CATHOLIC UNIVERSITY, ROME (ITALY)

FONDAZIONE INTERNAZIONALE MENARINI

**FINAL PROGRAM**

Auditorium  
Catholic University  
Largo F. Vito, 1



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*Through the centuries, humans have had to fight with symptoms like nausea, vomiting, postprandial fullness, abdominal bloating, abdominal discomfort, heartburn, constipation and diarrhea. These symptoms are not always brought about by structural diseases of the gastrointestinal tract. They can, for example, be caused by alterations of gastrointestinal motility and/or sensation. These disorders affect an important percentage of the population and are therefore serious public health problems. Gastroparesis, gastro-esophageal reflux disease (GERD) and functional disorders [dyspepsia and irritable bowel syndrome (IBS)] are among the most important. Gastroparesis and GERD are disorders that are caused by defects of gastric or lower esophageal sphincter motility. Functional gastrointestinal disorders, like functional dyspepsia and IBS, are considered to be the clinical product of interacting psychosocial factors and altered gut physiology (abnormal motility, altered mucosal immunity, or visceral hypersensitivity) via the brain-gut axis.*

*The aim of this meeting, organized by the Department of Pharmacology and Department of Internal Medicine of the Catholic University of the Sacred Heart, and Fondazione Internazionale Menarini, is to cover a selected range of basic scientific and clinical topics in the field of gastrointestinal motility and neurogastroenterology. Many cutting-edge themes have been included in the program and the speakers have been chosen among leaders in research involving neurogastroenterology and gastrointestinal motility. We believe this meeting will contribute to improve understanding of the physiology and pathophysiology of neuromuscular behavior in the gastrointestinal tract and related pharmacological and clinical aspects of some motor and functional gastrointestinal disorders. It is therefore addressed to a vast audience - anatomists, physiologists, pharmacologists, pathologists, gastroenterologists and, also, general practitioners, surgeons and other clinicians.*

*The first session of the symposium will focus on providing a state-of-the-art picture of the physiology of gastrointestinal motility. It will lay the groundwork for a better understanding of current and new pharmacological treatments of some of the most important motor and functional gastrointestinal disorders. In particular, the treatment of novel aspects of the regulation of lower esophageal sphincter, stomach and colon motility will contribute to an in-depth analysis of new avenues in the pharmacological treatment of GERD, functional dyspepsia and IBS, topics discussed during the second and third sessions. New pharmacological targets for gastrointestinal disorders will be treated, including the endocannabinoid system, protease-activated receptors and ghrelin receptors, together with “old” pharmacological targets, including serotonergic and tachykinergic systems, motilin receptors and ion channels. A general picture outlining the pharmacological aspects of functional gastrointestinal diseases and current and new therapies of GERD, functional dyspepsia and IBS will be also offered during the second and third sessions. The general topic of gastroparesis will be treated, by talking about new avenues in the development of prokinetic drugs. And last, but not least, new approaches to the treatment of opioid-induced constipation will be discussed.*

*Hopeful that this symposium will arouse great interest within the scientific community, we will be very happy to welcome you to Rome at the end of September this year.*

*Paolo Preziosi and Giovanni Gasbarrini  
Co-Presidents of the Meeting*

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## Co-Presidents of the Meeting

### **Paolo Preziosi**

Department of Pharmacology  
Catholic University  
Rome (Italy)

### **Giovanni Gasbarrini**

Department of Internal Medicine  
Catholic University  
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## **Scientific Secretariat**

### **Diego Currò**

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### **Peter Holzer**

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and Clinical Pharmacology  
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## **Organizing Secretariat**

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Http:\\www.fondazione-menarini.it

08.30        **Opening remarks by Prof. Paolo Magistrelli, Dean of the Faculty of Medicine and Surgery**

**Session I - State-of-the-art physiology of gastrointestinal motility**

Chairmen:    **D. Currò** (Rome, I)  
                 **P. Holzer** (Graz, A)

08.45        **M. Costa** (Adelaide, AUS)  
*Lecture on “Architecture of enteric neural circuits involved in intestinal motility”*

09.15        **L. Barthó** (Pécs, H)  
Role of extrinsic afferent neurons in gastrointestinal motility

09.45        **K.M. Sanders** (Reno, USA)  
Rhythmic electrical activity and regulation of gut motility

10.15        **S.J.H. Brookes** (Adelaide, AUS)  
Structural basis of sensory nerve pathways from the gut

10.45        Coffee break

11.15        **L.A. Blackshaw** (Adelaide, AUS)  
New insights in the neural regulation of the lower oesophageal sphincter

11.45        **M. Schemann** (Munich, D)  
Gastric motor patterns

12.15        **S.K. Sarna** (Galveston, USA)  
Novel aspects of enteric neural regulation of colonic motility

12.45        Conclusions of chairmen

13.00        Lunch

**Session II - Emerging targets for gastrointestinal motor disturbances I**

Chairmen: **M. Camilleri** (Rochester, USA)  
**S.K. Sarna** (Galveston, USA)

- 14.45 **A. Lehmann** (Möln dal, S)  
Novel treatments of GERD: focus on the lower oesophageal sphincter (LES)
- 15.15 **D. Grundy** (Sheffield, UK)  
The 5-HT system in the gut: roles in the regulation of visceral sensitivity and motor functions
- 15.45 **J. Tack** (Leuven, B)  
Current and emerging pharmacological therapies of functional dyspepsia
- 16.15 Coffee Break
- 16.45 **A. Lecci** (Florence, I)  
Relevance of the tachykininergic system to gastrointestinal motility
- 17.15 **A. Gasbarrini** (Rome, I)  
New insights into the pathophysiology of IBS: intestinal microflora, gas production and gut motility
- 17.45 **V. Stanghellini** (Bologna, I)  
Overlapping functional syndromes: the way forward for medical therapy?
- 18.15 Conclusions of chairmen

**Special Lecture – A window on history**

08.40        **M. Balestrero** (Rome, I)  
The evolution of Western-European eating habits

**Session III - Emerging targets for gastrointestinal motor disturbances II**

Chairmen:    **V. Stanghellini** (Bologna, I)  
                 **J. Tack** (Leuven, B)

09.00        **P. Holzer** (Graz, A)  
New approaches to the treatment of opioid-induced  
constipation

09.30        **A.A. Izzo** (Naples, I)  
Marijuana and the gut: the gastrointestinal  
endocannabinoid system

10.00        **L. Bueno** (Toulouse, F)  
Protease-activated receptors as drug targets

10.30        Coffee break

11.00        **T.L. Peeters** (Leuven, B)  
Old and new targets for prokinetic drugs: motilin  
and ghrelin receptors

11.30        **G. Farrugia** (Rochester, USA)  
Ion channels as targets for treatment of gastrointestinal  
motility disorders

12.00        **M. Camilleri** (Rochester, USA)  
*Lecture on* “New therapeutic approaches in irritable  
bowel syndrome”

12.30        Concluding remarks

13.00        Lunch

## **GENERAL INFORMATION**

### **Meeting venue**

The venue for the Meeting will be:

Auditorium, Europe Congress Centre, Catholic University, Largo F. Vito, 1  
I-00168 Rome (Italy). Phone +39 06 30511.51-71.

### **Secretariat during the Meeting**

The Secretariat will be open at the following times:

Friday, September 28<sup>th</sup>, from 08.30 a.m. to 06.30 p.m.

Saturday, September 29<sup>th</sup>, from 08.30 a.m. to 01.00 p.m.

### **Official language**

The official language of the Meeting will be English.

### **CME Credits**

CME Credits have been applied for from the Italian Health Authorities.

### **Technical facilities**

Facilities will be available for computer presentations and overhead projections. A business center with PC (Powerpoint for Windows) will be available for check and preview of presentations. It is essential that speakers take their CD to the business center at least one hour before the session starts.

The center will be open at the following times:

Friday, September 28<sup>th</sup>, from 08.30 a.m. to 06.30 p.m.

Saturday, September 29<sup>th</sup>, from 08.30 a.m. to 01.00 p.m.

### **Lunches and coffee breaks**

Lunches and coffee breaks will be served in the Meeting area.

### **Abstracts book**

Participants will receive the Abstract book at the Meeting.



# **LIST OF CHAIRMEN, SPEAKERS, CO-PRESIDENTS OF THE MEETING AND SCIENTIFIC SECRETARIAT**

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## **Monica BALESTRERO**

Rome (Italy)

## **Loránd BARTHÓ**

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University Medical School of Pécs  
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Atherton and Winifred W. Bean Professor  
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Bologna (Italy)

**Jan TACK**

Center for Gastroenterological Research  
Catholic University Leuven  
Leuven (Belgium)

Therapy. Trauma. Urology. CHAPTER 27 Gastrointestinal Motility. OBJECTIVES. After studying this chapter, you should be able to: List the major forms of motility in the gastrointestinal tract and their roles in digestion and excretion. Distinguish between peristalsis and segmentation. Explain the electrical basis of gastrointestinal contractions and the role of basic electrical activity in governing motility patterns. Two major patterns of motility are peristalsis and segmentation, which serve to propel or retard/mix the luminal contents, respectively. Gastrointestinal dysfunction frequently occurs in liver cirrhosis and increases with disease severity. The major abnormalities are altered gastrointestinal motility, disr. Liver cirrhosis; Gastrointestinal motility; Intestinal absorption; Intestinal permeability. Introduction. Various abnormalities in gastrointestinal structure and function have been described in patients with liver cirrhosis, including altered gastrointestinal motility, intestinal permeability and absorption. While these changes may not be as clinically overt as other common complications of chronic liver disease, they not only influence nutritional status, but can also contribute to clinical complications such as hepatic encephalopathy and spontaneous bacterial peritonitis. Gastrointestinal Diseases / drug therapy\*. Gastrointestinal Diseases / physiopathology\*. Gastrointestinal Motility / drug effects. Gastrointestinal Motility / physiology\*. Humans.