
Digestive and Liver Disease

An International Journal of Gastroenterology and Hepatology

Vol. 51 No. 5 (2019)

Official Journal of:

Italian Association for Hospital Gastroenterologists and Digestive Endoscopists (AIGO)
Italian Association for the Study of the Liver (AISF)
Italian Association for the Study of the Pancreas (AISP)

Italian Association for Digestive Endoscopy (SIED)
Italian Society of Gastroenterology (SIGE)
Italian Society of Pediatric Gastroenterology and Hepatology (SIGENP)
Italian Group for the Study of Inflammatory Bowel Disease (IG-IBD)

Editors Emeriti

Mario Angelico, *Rome, Italy*
Gabriele Bianchi-Porro, *Milan, Italy*

Editor-in-Chief

Roberto de Franchis, *Milan, Italy*

Managing Editor

Silvia Malosio, *Milan, Italy*

Co-Editors

Savino Bruno, *Milan, Italy*
Silvia Fargion, *Milan, Italy*
Maurizio Vecchi, *Milan, Italy*

Editorial Assistant

Brenda Dionisi, *Milan, Italy*

ASSOCIATE EDITORS DESIGNATED BY THE AFFILIATED SOCIETIES

Carlo Agostoni (SIGENP), *Milan, Italy*
Carolina Ciacci (SIGE), *Naples, Italy*

Edoardo Giannini (AISF), *Genoa, Italy*
Gioacchino Leandro (AIGO), *Castellana Grotte, Italy*
Raffaele Pezzilli (AISP), *Bologna, Italy*

Franco Radaelli (SIED), *Como, Italy*
Fernando Rizzello (IG-IBD), *Bologna, Italy*

SECTION EDITORS

General Gastroenterology

Colm O'Morain, *Dublin, Ireland*
Ambrogio Orlando, *Palermo, Italy*
Edoardo Savarino, *Padua, Italy*
Marco Soncini, *Milan, Italy*
Radu Tutuian, *Bern, Switzerland*
Umberto Volta, *Bologna, Italy*
Angelo Zullo, *Rome, Italy*

Imaging

Annalisa Berzigotti, *Bern, Switzerland*
Cristina Bezzio, *Garbagnate Milanese, Italy*
Onofrio Antonio Catalano, *Boston, MA, USA*
Federica Furfaro, *Rozzano, Italy*

Infectious Disease

Antonella d'Arminio Monforte, *Milan, Italy*

Inflammatory Bowel Disease

Alessandro Armuzzi, *Rome, Italy*
Emma Calabrese, *Rome, Italy*
Steve Collins, *Hamilton, ON, Canada*
Peter Lakatos, *Budapest, Hungary*

Liver Disease

Pietro Andreone, *Bologna, Italy*

Jaime Bosch, *Barcelona, Spain*

Maurizia Brunetto, *Pisa, Italy*

Patrizia Burra, *Padua, Italy*

Alessandra Dell'Era, *Milan, Italy*

Maria Francesca Donato, *Milan, Italy*

Rafael Esteban Mur, *Barcelona, Spain*

Anna Fracanzani, *Milan, Italy*

Vincenzo La Mura, *Milan, Italy*

Ana Leo, *Milan, Italy*

Valerio Nobili[†], *Rome, Italy*

Salvatore Petta, *Palermo, Italy*

Fabio Piscaglia, *Bologna, Italy*

Ashwani K Singal, *Birmingham, AL, USA*

Gianluca Svegliati Baroni, *Ancona, Italy*

Pancreatic Disease

Gabriele Capurso, *Rome, Italy*

Alberto Malesci, *Milan, Italy*

Pediatric Gastroenterology

Salvatore Cucchiara, *Rome, Italy*

Surgery

Massimo Falconi, *Milan, Italy*

Gianluca Matteo Sampietro, *Milan, Italy*

Roberto Santambrogio, *Milan, Italy*

Statistical Consultant

Federico Ambrogi, *Milan, Italy*

EDITORIAL BOARD

- Waddah Alrefai, *Chicago, Illinois, USA*
Domenico Alvaro, *Rome, Italy*
Angelo Andriulli, *Foggia, Italy*
Paolo Angeli, *Padua, Italy*
Adolfo Francesco Attili, *Rome, Italy*
Gabrio Bassotti, *Perugia, Italy*
Laurent Beaugerie, *Paris, France*
Robert Benamouzig, *Bobigny, France*
Antonio Benedetti, *Ancona, Italy*
Marc Benninga, *Amsterdam, Netherlands*
Marina Berenguer, *Valencia, Spain*
Roman Bogorad, *Cambridge, Massachusetts, USA*
Jean-Pierre Bronowicki, *Vandoeuvre-les-Nancy, France*
William Brugge, *Boston, Massachusetts, USA*
Elisabetta Buscarini, *Crema, Italy*
Carlo Catassi, *Ancona, Italy*
Umberto Cillo, *Padua, Italy*
Agostino Colli, *Lecco, Italy*
Rita Conigliaro, *Modena, Italy*
Dario Conte, *Milan, Italy*
Gino Roberto Corazza, *Pavia, Italy*
Enrico Corazziari, *Rome, Italy*
Antonio Craxi, *Palermo, Italy*
Gianfranco Delle Fave, *Rome, Italy*
Anthony Demetris, *Pittsburgh, Pennsylvania, USA*
Sharon DeMorrow, *Temple, Texas, USA*
Philippe Ducrotte, *Rouen, France*
Amal Dutta, *Dallas, Texas, USA*
- Stefano Fagiuoli, *Bergamo, Italy*
Pietro Familiari, *Rome, Italy*
Massimo Fantini, *Rome, Italy*
Piero Marco Fisichella, *Boston, Massachusetts, USA*
Heather Francis, *Temple, Texas, USA*
Mirella Fraquelli, *Milan, Italy*
Dennis Freshwater, *Birmingham, UK*
Lorenzo Fuccio, *Bologna, Italy*
Pietro Fusaroli, *Bologna, Italy*
Armando Gabbrielli, *Verona, Italy*
Giovanni Battista Gaeta, *Naples, Italy*
Giuseppe Galloro, *Naples, Italy*
Antonio Gasbarrini, *Rome, Italy*
Eugenio Gaudio, *Rome, Italy*
Shannon Glaser, *Temple, Texas, USA*
Michael Gschwantler, *Vienna, Austria*
Pietro Invernizzi, *Milan, Italy*
Robert Jensen, *Bethesda, MD, USA*
Michel Kahaleh, *Charlottesville, New York, USA*
David Laharie, *Pessac, France*
René Laugier, *Marseille, France*
Astrid Lièvre, *Rennes, France*
Patrick Maisonneuve, *Milan, Italy*
Gianpiero Manes, *Rbo, Italy*
Riccardo Marmo, *Salerno, Italy*
Marco Marzioni, *Ancona, Italy*
Carlo Merkel, *Padova, Italy*
Filomena Morisco, *Naples, Italy*
- Massimiliano Mutignani, *Milano, Italy*
David Mutimer, *Birmingham, UK*
Matteo Neri, *Milan, Italy*
Mattijs Numans, *Leiden, Netherlands*
Maria Caterina Parodi, *Genoa, Italy*
Jean-Marc Phelip, *Saint-Etienne, France*
Paola Piccolo, *Rome, Italy*
Antonio Pinna, *Bologna, Italy*
Massimo Puoti, *Milan, Italy*
Alessandro Repici, *Milan, Italy*
Oliviero Riggio, *Rome, Italy*
Mario Rizzetto, *Turin, Italy*
Renato Romagnoli, *Turin, Italy*
Massimo Rugge, *Padua, Italy*
Tilman Sauerbruch, *Bonn, Germany*
Jean-Cristophe Saurin, *Pierre-Bénite, France*
Vincenzo Savarino, *Genoa, Italy*
Laurent Siproudhis, *Rennes, France*
Etienne Sokal, *Brussels, Belgium*
Mario Strazzabosco, *New Haven, Connecticut, USA*
Giacomo Carlo Sturniolo, *Padua, Italy*
Pier Alberto Testoni, *Milan, Italy*
Giuseppe Tisone, *Rome, Italy*
Gian Eugenio Tontini, *Milan, Italy*
Michael Trauner, *Vienna, Austria*
Vincenzo Villanacci, *Brescia, Italy*
Frank Zerbib, *Bordeaux, France*
Huiping Zhou, *Richmond, Virginia, USA*
-