



## Molecular Research on Colorectal Cancer

Guest Editors:

**Dr. Teresa Catalano**

Department of Clinical and  
Experimental Medicine,  
University of Messina, via  
Consolare Valeria, 98125 Messina,  
Italy

**Dr. Gitana Maria Aceto**

Department of Medical and Oral  
Sciences and Biotechnologies,  
University G. d'Annunzio of  
Chieti-Pescara, 66100 Chieti, Italy

Deadline for manuscript  
submissions:

**closed (31 December 2023)**

### Message from the Guest Editors

Colorectal Cancer (CRC) is the third most common malignancy in humans. The incidence of CRC varies widely around the world, as the risk of developing this disease is influenced by environmental, genetic and lifestyle factors. Currently, primary prevention and early detection appear to be necessary weapons to increase survival rates.

Many risk factors can alter the microbiome composition and deregulate immune responses by inducing inflammation. In the colonic epithelium, chronic inflammation and reactive oxygen species (ROS) production impair pathways deputed to tissue turnover and DNA damage repair through metabolic alterations in the intestinal microenvironment.

Adenomas originate from altered functional homeostasis of the intestinal epithelium and are the main precursor of CRC in both high-risk family groups and the general population. Molecular characterization of the interactions between tumor cells and the microenvironment, during tumor progression, could allow the identification of biomarkers, useful for preventive approaches to CRC.





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### Prof. Dr. Felipe Fregni

1. Neuromodulation Center and  
Center for Clinical Research

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Rehabilitation Hospital and  
Massachusetts General Hospital,  
Harvard Medical School, Boston,  
MA 02114, USA

2. Department of Epidemiology,  
Harvard T.H. Chan School of  
Public Health, Boston, MA 02115,  
USA

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*Biomedicines* Editorial Office  
MDPI, St. Alban-Anlage 66  
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