



## Pharmacomicrobiomics in Non-communicable Disease

Guest Editor:

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### Message from the Guest Editor

Dear Colleagues,

Pharmacomicrobiomics is a new branch that deals with investigating the interactions between the microbiome and the response to xenobiotics, defined as the effect of changes in the microbiome on drug action and toxicity. Noncommunicable diseases (NCDs) are the result of a combination of genetic, physiological, environmental and behavioral factors.

Recent data have shown that one in four drugs that we routinely take to treat nonintestinal diseases alter the gut microbiome, causing adverse events, with an increase in bacterial resistance. This complexity means that pharmacological studies require a molecular biology approach studying cell signaling and the complex host–microbe–drug interactions. Consequently, investigating the concept of pharmacomicrobiotics is important for understanding how the microbiota is involved in drug responses.

Hence, the purpose of this Special Issue is to provide an overview of the relationship between pharmacomicrobiomics and NCDs in order to better understand the molecular mechanisms and how this new branch could lead to a new therapeutic approach.

Prof. Dr. Amedeo Amedei

*Guest Editor*





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