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## IDEA

Mycotoxins are toxic components produced by fungi that may contaminate crops and/or the environment we live in. It is therefore important to investigate the impact of mycotoxin exposure on human health. My project aims contribute to the FLEXiGUT study and to investigate the role of multiple mycotoxin exposure on the gut microbiome-inflammation axis.

## HOW

Biomonitoring of contaminants and the gathering of -omics data for biological samples (n=800) collected at different time points, will allow capturing the exposome from prenatal life onwards.

## RESULTS

An integrative multi-omics data processing approach will be applied to investigate the impact of contaminant exposure in microbiota alterations and gut inflammation, but also to provide insights into the mechanisms by which the exposure might be exerting its effects.

## IMPACT

Exposure to environmental and dietary contaminants has been associated with gut microbiota dysbiosis. Interestingly, the Bacteroides2 enterotype has recently been linked to gut inflammation, revealing the existence of a gut microbiome-inflammatory axis. This project aims to characterize human life course environmental exposure, including food intake, to assess and validate its impact on gut inflammation and related biological processes and diseases.



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