

Plenary Lecture Abstract

Host-microbe interactions in the gut-liver axis**Maria Rescigno***Humanitas University, Milan, Italy*

The microbiota is emerging as an important environmental factor influencing several functions of our body. Many disorders have been associated to a disequilibrium of the microbiota that is called dysbiosis, these include not only gut disorders as inflammatory bowel disease and colorectal cancer, but also systemic disorders like type II diabetes and even neurodegenerative disorders. How does dysbiosis impact on our life? We have described the existence of a vascular barrier in the gut that resembles the blood brain barrier. This barrier excludes the microbiota from entering the portal circulation and reaching the liver and other systemic districts. In this context we have analyzed how microbiota dysbiosis impacts on the barrier and may induce the development of several disorders in the gut liver axis. In particular we have observed the effect of diet on the microbiota and the capacity to interfere with barrier permeability in the context of Non-alcoholic steatohepatitis (NASH) and type II diabetes. We also evaluated how drugs commonly used to treat NASH impact on the gut vascular barrier.