



DIPARTIMENTO DI FARMACIA E BIOTECNOLOGIE

AVVISO DI SEMINARIO

Il giorno **25 settembre 2023**
alle ore **14:30**

in presenza:

Aula B, ex Farmacologia, via Irnerio 48, Bologna BO

oppure in streaming:

<https://teams.microsoft.com/l/meetup-join/19%3aN09c0NlyEssBnF7ObCyDOQwkqDWM1qdd9f7F2nJV9fw1%40thread.tacv2/1631519544944?context=%7b%22Tid%22%3a%22e99647dc-1b08-454a-bf8c-699181b389ab%22%2c%22Oid%22%3a%225a941351-ef41-4aa4-8771-fa50a6d62ca1%22%7d>

Prof. Franck Carbonero

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Elson Floyd School of Medicine, Washington State University-Spokane, Spokane, WA,
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(ospite Prof.ssa Silvia Turrone)

terrà un seminario dal titolo:

INVESTIGATIONS OF GUT MICROBIOME MODULATION FROM GRAINS, BERRIES AND THEIR PHYTOCHEMICAL COMPOUNDS

Collegli e studenti sono cordialmente invitati

ABSTRACT

It is now well established that bioavailability and bioactivity of a significant fraction of dietary polyphenols are directly modulated by the gut microbiota. Polyphenols' bioactivity from foods is further modulated by their physical properties, in particular when chemical bounds are formed with other food molecules such as fiber or Maillard reaction products (MRP).

A better understanding of both the impact of polyphenol on gut microbiota profiles and the fate of microbial phenolic metabolites is primordial to optimize nutritional strategies relying on polyphenols expected antioxidant properties. Furthermore, considering the whole polyphenol-rich foods should become the gold standard, as the complete physiochemical properties of the food matrix also influences the polyphenol/microbiome/host interactions.

In this presentation, I will present data from a variety of studies based on in vitro models, animal studies and human dietary intervention. Foods tested will include tart cherries, cranberries, elderberries and cereal and non-cereal grains (quinoa, barley) in different food presentations.

BIOGRAPHICAL SKETCHES



I am a microbial ecologist with specific interest in nutrition and gut microbiome. My research specifically focuses on the impact of consumption of non-digestible phytochemicals on the animal and human gut microbiome. Until my recent move to Washington State University, I was leading a research group at the University of Arkansas, where we studied the impact of cranberries and tart cherries among other plants on the human gut microbiome. I was also involved in food microbiology and animal microbiome studies. Before that, as a postdoc and PhD student, I was involved in human and non-human primate gut microbiome studies, and environmental microbiology as well as crop science studies, respectively. I am currently establishing a high-throughput gut microbiome phenotyping system based on microbioreactors that will be used to model the impact of crop varieties and food products.