

TITLE: Bio-engineered in vitro strategies for testing the role human microbiota in Covid-19 infectivity

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Research activity description: Microbiota turned out to be an active protagonist in the health/disease balance of its host. The *in vitro* culture of the human microbiota may represent a valid tool for deciphering the complex interactions occurring between microbes and the host. The possibility of biofabricated electrospun gelatin structure as scaffold for microbial growth as reliable in vitro model of the human gut microbiota has already been exploited. Herein, we experiment *in vitro*, through a bioengineered platform, how the microbiota peculiarities can modify the infectivity of Covid-19 and, vice versa, how the infection can affect the human microbiota. This approach allows the identification of population subsets with different susceptibility towards Covid-19, favoring an optimization of therapeutic strategies

Collaborators: Research Center "E. Piaggio" - University of Pisa, Department of Biomedical Sciences and Public Health- UNIVPM.