

**Dipartimento di Biotecnologie e Bioscienze – UNIMIB**

Thursday, June 29, 2023, 4:30 p.m., BIOS building, room U3-07 / Webex

# Unraveling the Molecular Architecture of the Intestinal Barrier: Insights from Spatial Transcriptomics

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**Abstract:** The complex cellular network that constitutes the intestinal barrier is crucial for maintaining health and preventing diseases. In this talk, I will present the remarkable capabilities of spatial transcriptomics (ST) in unveiling the molecular organization of the entire colonic tissue during mucosal healing and tumorigenesis. By leveraging ST, we revealed a previously undiscovered regionalization of the colon's transcriptomic landscape under steady state conditions, which undergoes dramatic changes during mucosal healing. We identified spatially organized transcriptional programs that define compartmentalized mucosal healing, including regions exhibiting dominant wired pathways. Furthermore, I will discuss the translational potential of our findings by mapping transcriptomic modules associated with human diseases.

Host: **Francesco Strati**

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