



**BME** PARIS  
BioMedical Engineering  
MASTER'S PROGRAM

# DENDRITIC CELL MIGRATION AT

Open Your Mind Seminar

**Friday, Oct 23 2020**  
**1.30 pm – 3 pm**

Online (Microsoft TEAMS)

## Dendritic cell migration using a quantitative multidisciplinary approach

Dendritic cells are the immune sentinels in charge of patrolling tissues and present the antigens they capture to T lymphocytes to initiate adaptive immune responses. Their immune-surveillance function thus heavily relies on cell migration. Here, I will discuss the key findings that we have made studying the migration of dendritic cells at various scales. This includes the roles played by distinct subcellular actin pools and nucleators in (1) defining the migration mode and type of trajectories that dendritic cells harbor in different tissues, and (2) allowing their response to environmental cues such as physical confinement or hydraulic resistance. I will further describe our results highlighting that dendritic cell migration and endocytic functions are coordinated, which facilitates their capacity to sample the environment and transmit the information collected to T lymphocytes. Finally, I will show evidence on how dendritic cell migration can shape their identity and fate in vivo.

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