



## RESEARCH TOPIC MEM21

### **Knee microbiota in the pHYsiopathology of oSteoarthritis. Microbes could play an imporTant rOle in a presumed Non-infectious disease (KEYSTONE) Curriculum MEM**

#### **Laboratory name**

Mucosal immunology and microbiota Unit, IRCCS Humanitas Research Hospital

#### **Pre-clinical Supervisor**

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#### **Abstract**

The microbiota plays an important role in several ailments including inflammatory bowel disease, cancer, and other syndromes such as irritable bowel syndrome. Here we want to evaluate the role of the microbiota in the pathophysiology of the knee joint (osteoarthritis) and whether it can be a predictor of the failure of a surgery.

#### **Main technical approaches**

No specific skills are required but the candidate will acquire knowledge on the microbiota, on how to analyze the microbiota and isolate strains of interest.

#### **Scientific references**

- Oresta et al 2021 Science Transl Med. doi: 10.1126/scitranslmed.aba6110
- Carloni et al. Science 2021. DOI: 10.1126/science.abc6108
- Bertocchi et al. Cancer cell 2021 DOI: 10.1016/j.ccell.2021.03.004
- Darwich et al. 2021 DOI: 10.1136/jitc-2021-003224
- Zagato et al. Nature Microbiol. 2020 doi: 10.1038/s41564-019-0649-5

#### **Type of contract**

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