MISTRAL

DECIPHERING THE ROLE OF THE MICROBIOME
ON HIV PATHOGENESIS AND CURE

The basis of our research

The microbiome comprises all genetic material within microbiota, the set of microorganisms living in specific niches, one of which is the human gut. It has been shown that the microbiome plays an important role in the functioning of the immune system, so microbiome disturbance may cause immune disorders and chronic inflammation. Those conditions are hallmarks of HIV infection, yet few publications have addressed the potential role of the microbiome in HIV/AIDS. The focus of the EU-funded MISTRAL project is the relationship between the gut microbiota and HIV/AIDS, specifically HIV-1.

Your microbiome: as unique to you as your fingerprint

Immune disorders like HIV infection can modify the balance of microbes in the gut microbiome. Scientists hope to be able to decipher the "ideal microbiome" so as to apply that knowledge in treatments.

Our goal

MISTRAL ultimately aims to identify biomarkers to underpin the development of interventions that mitigate HIV infection and that enhance response to vaccines and t herapies. The MISTRAL project will include an open-access database to upport inpatient screening and stratification and a cloud-based tool to facilitate microbiome interpretation in research and clinical settings.

Steps to follow

- Determine how microbiome influences in the HIV responses
- Improve the HIV vaccine responses with bacteria
- Study who will develop HIV clinical complications
- Detect antibiotic-resistant bacteria
- New computer tools for easy microbiome characterization

WHO WE ARE

MISTRAL brings together a team of world-class HIV and microbiome researchers

IrsiCaixa
Institut de Recerca de la Sida

MÉDITERRANÉE INFECTION

Karolinska Institutet

Projecte dels NOMS hispanosida

EMORY UNIVERSITY

IDIBAPS

ISGlobal Barcelona Institute for Global Health

ASPHALION

AELIX THERAPEUTICS

VEDANTA BIOSCIENCES

chip Centre of Excellence for Health, Immunity and Infections

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