Nantes Université | *CR2TI UMR1064 "NEMO" Team5 [NEuroinflammation, Mechanisms and therapeutic Options]*

- **Multiple Sclerosis Genetics (OFSEP & IMSGC) [Researcher & Projects Manager]**, **Project Leaders:** Prof. Pierre-Antoine Gourraud & Dr. Nicolas Vince

Multiple sclerosis (MS) risk is significantly influenced by genetic variation, with over 200 genetic variants currently associated with MS susceptibility. However, the complete genetic landscape of MS, particularly the influence of genetic variants on disease progression, remains unresolved.

Objectives:

The primary goal of this project, conducted within the OFSEP-HD framework, is to identify genetic determinants that influence the progression of MS and to assess the relevance of known genetic susceptibility signals in relation to MS severity.

Sub-objectives:

- Evaluate Known Susceptibility Signals: Assess the relevance of existing genetic susceptibility signals with disease severity.
- Investigate New Genetic Variations: Explore new genetic variations associated with MS progression in genomic regions identified by GWAS with SNP markers for susceptibility.
- Identify New Genetic Regions: Discover new genomic regions associated with MS progression by comparing genetic profiles of different subgroups of MS patients.

This project aims to provide a comprehensive understanding of the genetic factors influencing MS progression, which could lead to improved management and treatment strategies for MS patients. For more information, contact us at: pierre-antoine.gourraud@univ-nantes.fr / nicolas.vince@univ-nantes.fr / sonia.bourguiba-hachemi@univ-nantes.fr

- **NeuroDINet: Neuroinflammation Diseases Immune-omics familial study Network project [Researcher & Projects Manager], Project Leader**: Dr. Nicolas Vince

The **Neuroinflammation Diseases Immune-omics Familial Study Network (NeuroDINet)** project aims to advance neuroinflammation research through innovative genomic approaches. the project seeks to uncover the etiologies of neuroinflammatory diseases within multiplex families.

Objectives: Establish a Genomics Network for Familial Studies & Explore Neuroinflammation Diseases through Immune-Omics:

Approach: The project employs targeted recruitment and the development of new analytical techniques, benefiting from close collaboration with OFSEP. This approach ensures the inclusion of families with diverse profiles and facilitates the acquisition of new samples to advance genetic and multi-omics analyses.

The ultimate goal is to equip genomic medicine with innovative tools for identifying key genes, optimizing treatment, and managing neuroinflammatory diseases. This will enhance genetic counseling and propel personalized medicine, integrating diverse omics data to improve patient care. For more information, contact us: at nicolas.vince@univ-nantes.fr / sonia.bourguiba-hachemi@univ-nantes.fr