

Project summary

This project addresses the critical challenge posed by viral encephalitis, a group of conditions that severely harms the brain and often results in neurological disabilities due to the lack of specific treatments. This research aims to uncover the immune-mediated mechanisms underlying brain damage in viral infections. Using single-nucleus RNA sequencing, we will analyze brain samples to identify cellular pathways involved in immune-mediated neuronal damage. These findings will be validated through histopathological examination, cerebrospinal fluid biomarker analysis, and imaging techniques to assess brain volume loss. By exploring the delicate balance between protective and detrimental immune responses, the study seeks to clarify how viral infections affect neurons and glial cells. The project also aims to identify novel therapeutic targets and biomarkers to predict and improve clinical outcomes of patients with viral encephalitis. Ultimately, it aims to identify strategies that might either reduce harmful inflammation or strengthen antiviral defenses while preserving neuronal health, contributing to better survival and recovery for affected patients.

Personal Details:

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Positions and Appointments:

Lausanne, Switzerland November 2020 - ongoing	Centre Hospitalier Universitaire Vaudois (CHUV) Neurology Residency, FMH neurology exam passed on November 2024
Genève, Switzerland May 2020 - October 2020	Post-doctoral research in neuroimmunology Prof. Doron Merkler Laboratory, Université de Genève
Genève, Switzerland May 2019 - April 2020	Hôpitaux Universitaires de Genève (HUG) Internal Medicine Residency
Genève, Switzerland April 2016 - April 2019	MD-PhD in neuroimmunology Prof. Doron Merkler Laboratory, Université de Genève
Montréal, Canada 09-10.2014	Visiting Fellow , McGill University, Department of Neurological Sciences
Palermo, Italy 2009 - 2016	School of Medicine and Surgery , Università degli Studi di Palermo, Grade 110/110 with honors

Fellowships, Prizes and awards:

Lausanne, Switzerland 2024	Junior researcher in clinical research, <i>Faculty of Biology and Medicine, University of Lausanne</i>
Basel, Switzerland 2024	Young Investigator Grant awarded by the <i>Novartis Foundation for Medical - Biological research</i>
Lausanne, Switzerland 2024	Research support from the <i>Fondation Anna et André Livio Glauser</i>
Genève, Switzerland 2023	Prize Etienne Gorjux for experimental pathology, as laureate <i>Geneva Faculty of Medicine</i>
Zürich, Switzerland 2021	Franco Regli Prize for Neurodegeneration, as co-laureate <i>Franco Regli Foundation</i>
Genève, Switzerland 2019	Prize Alexander F. Müller of physiopathology, as co-laureate <i>Geneva Faculty of Medicine</i>
Interlaken, Switzerland 2018	Prize for the the best poster <i>Swiss Society for Allergology and Immunology (SSAI)</i>

