Principal Investigator Grant

Project

Valentina Garibotto
"Cognitive impairment in diabetes and Alzheimer's disease: focus on neuroinflammation"

Granted amount	CHF 275'060
Starting date	1.5.2024
Duration	24 months

Main applicant

Valentina Garibotto, MD
Nuclear Medicine and molecular imaging division
University Hospitals of Geneva and NIMTLab
University of Geneva
Rue Gabrielle-Perret-Gentil 4
1205 Geneva

Cognitive impairment in diabetes and Alzheimer's disease: focus on neuroinflammation

Alzheimer's disease (AD) and type 2 diabetes are both frequent conditions in aging worldwide. AD is the most common cause of cognitive decline and diabetes is associated with a higher risk of cognitive impairment.

One common denominator of the two conditions is neuroinflammation: AD is characterised by the deposition of pathological aggregates in the brain resulting in a neuroinflammatory response and an increase of inflammatory phenomena is considered among the central pathophysiological mechanisms in diabetes. Neuroinflammation can be measured *in vivo* using positron emission tomography (PET) imaging.

This project aims to test whether and how neuroinflammation contributes to cognitive decline in diabetic individuals with AD. We will visualize neuroinflammation using PET, with the hypothesis to find higher neuroinflammation in diabetic subjects as compared to non-diabetic ones. Our results will help understand the mechanisms linking cognitive decline, AD and diabetes.

The final goal is to define personalized diagnostic strategies and prevention programs.