



Principal Investigator Grant

Project

«Tau RT-QuIC analysis in skin biopsies: a potential novel and non-invasive biomarker for patients with tauopathies»

Granted amount CHF 198'120

Starting date 1.2.2023

Duration 24 months

Main applicant

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Lay summary of the project

The definite diagnosis of neurodegenerative diseases still depends on postmortem neuropathological examination.

Therefore, a timely, precise diagnosis is unfortunately not possible in living patients, when it would be more needed for the correct management and for the discovery of novel effective treatment.

We have demonstrated in previous studies that it is possible to detect in skin, pathological forms of tau, the protein, which forms toxic aggregates in brain causing neuronal death. We now propose a study to set up in skin samples of living patients an ultrasensitive technique to measure the aggregation capabilities of tau, which has already demonstrated excellent sensitivity and specificity in brains post-mortem.

If successful, this project will allow a correct diagnosis in subjects with neurodegenerative diseases by using a peripheral and minimally-invasive skin biopsy. This approach is repeatable in time and could be used to monitor the efficacy of new therapies.