



Multi-level integrative 'omics to identify biomarkers in Schizophrenia and other major psychoses (Muliobio)

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Project Partners:

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project aim:

The principal goal of Muliobio is to discover and validate molecular correlates of symptoms of major psychoses enabling disease state diagnosis independently of subjective psychometric evaluations. We define molecular correlates as molecular pathways which are significantly associated with psychosis symptoms and therefore predictive of disease state.

workplan:

We aim to address several issues of prior BM research in psychiatric diseases. These issues are addressed as 4 major objectives

Objective 1: Selecting a unique patient cohort suffering from major psychosis, stratified based on phenomics and genomics

Objective 2: Multi-omics immuno-profiling of the patient cohort covering molecular and cellular phenotypes

Objective 3 Integrating multi-omic profiles with patient disease course using computational biology and machine learning analysis for biomarker discovery

Objective 4 Validating the predictive BM discovered in an independent patient cohort

Exploitation of results:

At the end of Muliobio we will have achieved the discovery and validation of a new biomarker. The next step will be to technically validate the discovered biomarkers. After the technical validation TGS Schulze and colleagues will test the clinical utility via an european-wide RCT and depending on the results the biomarkers will then be labelled CE IVD, with the support of future partners with expertise in health technology assessment and medical devices regulation.