

Sanne Meles

Short Biography:

Sanne Meles received her degree in medical school from the University of Groningen in 2013. This included a research internship at the Feinstein Center for Neurosciences (New York, USA). Her focus on FDG-PET patterns in neurodegenerative disorders, with a special emphasis on Parkinson's disease and its prodromal stage, culminated in a thesis defense with honors in 2020. Since completing her neurology training in April 2023, Sanne has been practicing as a neurologist at the UMCG and Expertise center for Parkinson's disease ('Punt voor Parkinson'). She continues to study biomarkers in Parkinson's disease and aspires to improve its early diagnosis and treatment.

Abstract:

Neurodegenerative diseases feature disintegration of specific neural networks, which can be modeled as disease patterns using FDG-PET and spatial covariance analysis. The Parkinson's disease related pattern (PDRP) models the metabolic profile of a typical PD patient, and can be applied to measure disease progression and response to treatment individual patients. It can also be used in differential diagnosis. We will give an overview of applications of disease patterns in research and clinical practice. To improve the predictive accuracy of FDG PET based disease patterns, we have explored the added value of machine learning approaches using principal component analysis and Generalized Matrix Learning Vector Quantization.