

1c-9 Differential diagnosis of Parkinson's disease and dementia with Lewy bodies

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Parkinson's disease (PD) is a neurodegenerative disorder affecting about 1% of the population over 65 years. Atypical Parkinson syndrome arise generally from other neurodegenerative diseases like Dementia with Lewy bodies (DLB). Recent studies reporting a prevalence range of DLB up to 22.8% of all dementia cases. The accurate distinction between PD, DLB and other non- α -synuclein variants with Parkinson syndrome is challenging due to an overlap of clinical symptoms and neuropathological changes. There is currently no assay or imaging method available that provides security for clinical diagnosis of PD and atypic Parkinson syndromes. As a consequence, atypic Parkinson syndromes like DLB are often misdiagnosed as idiopathic Parkinson disease, which may lead to long-lasting mistherapy. Accordingly, there is an unmet need for methods of differential diagnosis of PD, DLB and other non- α -synuclein variants with Parkinson-like syndromes.

We offer a proprietary technology:

- Scientists at the University of Göttingen, Medical Department developed a new diagnostic approach to differentiate between DLB, PD and other neuropathies.
- The methodology involves: (a) extracting exosomes from CSF patient samples, (b) counting number of exosomes and (c) measuring the amount of exosomal α -Synuclein.
- Results include: This differential diagnostic approach resulted in a high sensitivity (>0.85) and specificity (>0.80) to differentiate between DLB and PD, which is more than twice compared to analyzing CSF α -Synuclein total amount.

Status and next steps

- International IP rights have been filed.
- We are looking for a licensing partner.