



UNIVERSITY OF
CAMBRIDGE

Department of
Clinical Neurosciences

Timothy Rittman, Tatjana Schmidt, William Parry-Jones, Pierre Meyer, Chamin Halahakoon, Hita Patel, Lucia Li, Matt Rouse, Katherine Stockton, Alexandra Krugliak, Matt Lambon-Ralph, Negin Holland, Alex Murley, Duncan Street, David Whiteside, Paresh Malhotra, James B Rowe

A structured ontology of clinical features applied across neurodegenerative disorders

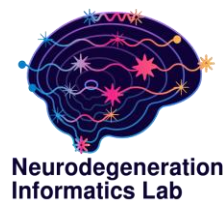
Clinical features of neurodegenerative disorders have the potential to contribute to improved classification, mechanistic understanding, stratification, and prognosis. Here we present a structured ontology of individual items across distinct domains of cognition and motor function. These capture coarse and fine-grained detail of neurodegenerative syndromes.



tr332@medschl.cam.ac.uk

rittman.uk

www.clinical-neuroscience.cam.ac.uk

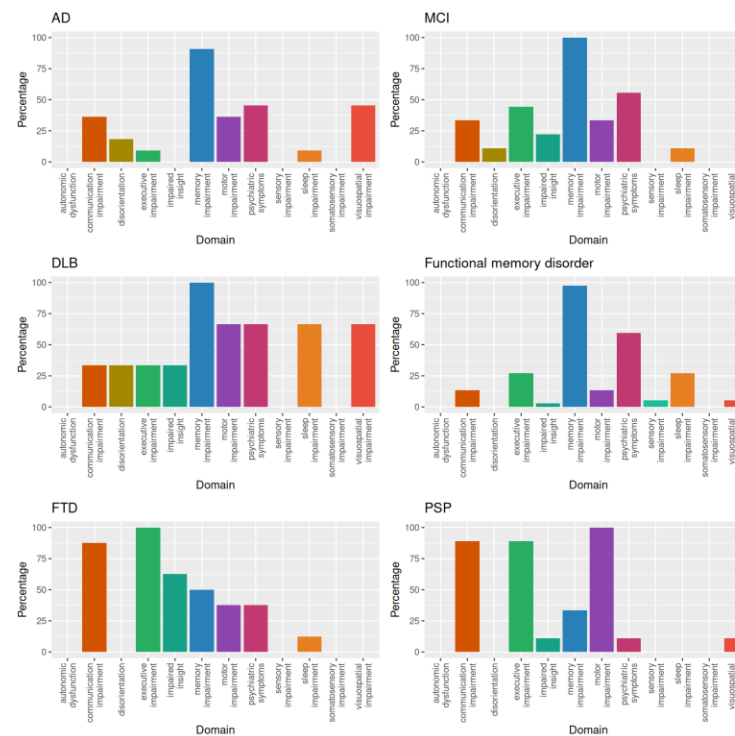


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Participants	n	Age	Sex (M/F)
AD	11	67.1	4/7
MCI	9	78.5	5/4
Attentional Sx	37	57.2	20/17
DLB	3	74.0	2/1
FTD	8	66.8	5/3
PSP	9	70.4	6/3

People were recruited in Cambridge from the Quantitative MRI in NHS Memory Clinics (QMIN-MC) study and the Parkinson's Plus and Related Disorders (PrePPAReD) study

High level domains

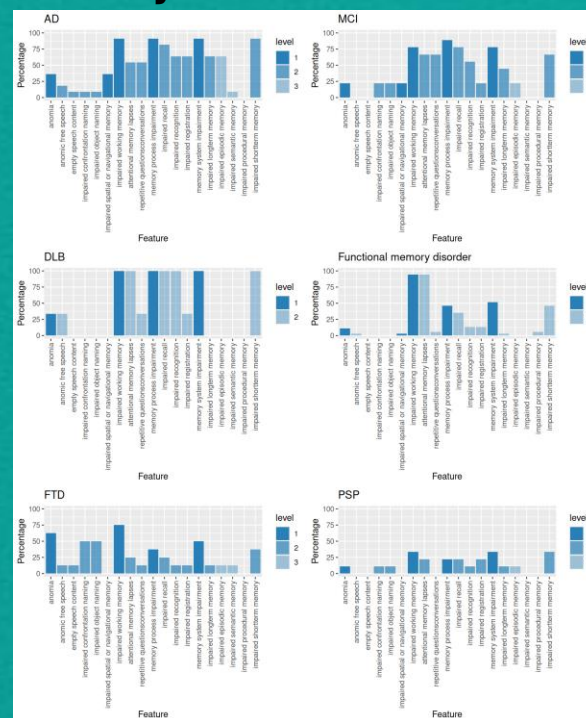


Motor and cognitive neurodegenerative syndromes, and attentional/functional cognitive disorder show differing patterns of higher level ontology domain involvement within and between syndromes. AD = Alzheimer's disease, MCI = Mild Cognitive Impairment, DLB = Dementia with Lewy Bodies, FTD = Frontotemporal Dementia, PSP = Progressive Supranuclear Palsy

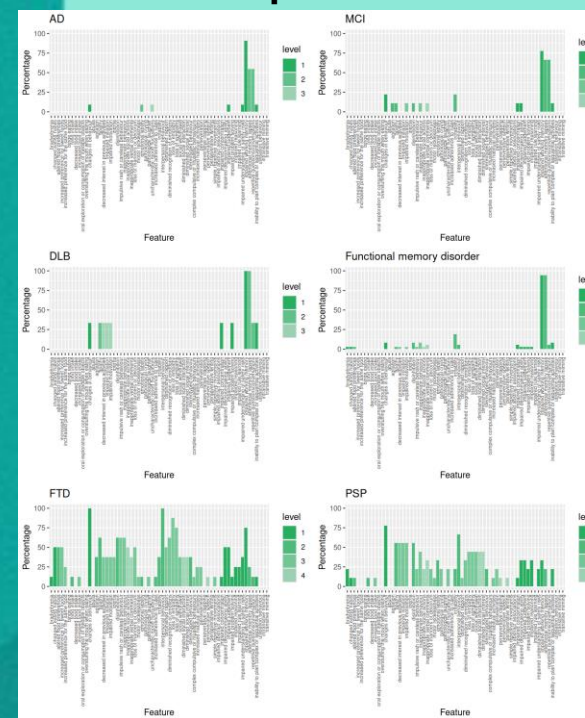


Ontology: 12 higher level domains of cognitive and motor function relevant to neurodegenerative disorders were subdivided into 336 features and organised by expert opinion.

Memory



Executive impairment



Summary

Ontology features capture

- Distinct syndrome patterns
- Heterogeneity within syndromes

This structured ontology provides a novel framework to describe individual and group level clinical features of neurodegenerative disorders

Subdomains of the ontology demonstrate capture heterogeneity between and within cognitive and motor syndromes