The Swedish BioFINDER study

	Healthy elderly	Mild cognitive symptoms (SCD & MCI)	Dementia cohort	Parkinsonian symptoms
Brief description	Within the Swedish BioFINDER study cognitively healthy elderly have been included in this prospective, longitudinal cohort study between 2010 and 2014. The participants were recruited from a longitudinal population-based community cohort study (Malmö Diet and Cancer Study) and from this study epidemiological data, clinical examination, food-frequency questionnaire and blood sampling have been collected since the early 1990's.	Within the Swedish BioFINDER study patients with mild cognitive symptoms (SCD and MCI) have been consequatively included between 2010 and 2014 from the Memory clinic at the Skåne University Hospital or Ängelholm's Hospital in Sweden. The cohort is prospective and longitudinal.	The dementia cohort of the Swedish BioFINDER study is consecutively including patients that are diagnosed with dementia after a thorough clinical investigation at the Memory Clinic, Skåne University Hospital. The cohort is prospective and longitudinal.	Within the Swedish BioFINDER study we recruit patients with parkinsonian symptoms, including de novo subjects, from the Neurology clinic at the Skåne University Hospital. The cohort is prospective and longitudinal.
Study design				
Number of cases (n)	**350**	**500**	**350**	**350**
Inclusion criteria	• Absence of cognitive symptoms. Recruited from the population-based Malmö Diet and Cancer study. • Age ≥ 60 years. • MMSE score 28-30 at screening visit (27-30 baseline visit). • Do not fulfill the criteria for MCI or any dementia • Speaks and understands Swedish to the extent that an interpreter not was necessary for the patient to fully understand the study information and cognitive tests.	• Referred to the memory clinics due to cognitive symptoms experienced by the patient and/or informant. These symptoms do not have to be memory complaints, but could also be executive, visuo-spatial, language, praxis or psychomotor complaints. • Age 60 – 80 years. • MMSE score 24 – 30. • Do not fulfill the criteria for any dementia. • Speaks and understands Swedish to the extent that an interpreter not was necessary for the patient to fully understand the study information and cognitive tests.	Fulfills the criteria of dementia due to either Alzheimer's disease, vascular dementia, dementia with Lewy bodies, Parkinson's disease with dementia or frontotemporal dementia.	Fulfills the criteria of Parkinson's disease, Parkinson's disease with dementia, progressive supranuclear palsy or multiple system atrophy. De novo patents with early parkinsonian symptoms are also included.
Exclusion criteria	• Significant unstable systemic illness or organ failure, such as terminal cancer, that makes it difficult to participate in the study. • Current significant alcohol or substance misus. • Refusing lumbar puncture. • Significant neurological or psychiatric illnes.	• Significant unstable systemic illness or organ failure, such as terminal cancer, that makes it difficult to participate in the study. • Current significant alcohol or substance misuse • Refusing lumbar puncture or neuropsychological assessment. • The cognitive impairment at baseline visit can not for certain be explained by another condition or disease such as normal pressure hydrocephalus, major cerebral hemorrhage, brain infection, brain tumor, multiple sclerosis, epilepsy, psychotic disorders, severe depression, alcohol abuse the last five years, on-going medication with drugs that invariably cause cognitive impairment (such as high-dose benzodiazepines).	• Significant unstable systemic illness or organ failure, such as terminal cancer, that makes it difficult to participate in the study. • Current significant alcohol or substance misuse.	• Significant unstable systemic illness or organ failure, such as terminal cancer, that makes it difficult to participate in the study. • Current significant alcohol or substance misuse.
Consecutive regruitement (yes/no)	N	Y	Y	N
Planned follow-up time (years)	6	6	3	6
Time between follow-up visits (months)	Every 24 months new clinical/cognitive/neurological/psychiatric evaluation, CSF/blood sampling and MRI.	Every 12 months new clinical/cognitive evaluation. Every 24 months new clinical/cognitive/neurological/psychiatric evaluation, CSF/blood sampling and MRI.	Every 12 months new clinical/cognitive evaluation.	Every 12 months new clinical/cognitive evaluation. Every 24 months new clinical/cognitive/neurological/psychiatric evaluation, CSF/blood sampling and MRI.
Cognitive testing				
MMSE (yes/no)	Y	Y	Y	Y
Memory test(s) (yes/no)	Y	Y	Y	Y
Executive test (yes/no)	Y	Y	Y	Y
Attention/cognitive speed (yes/no)	Y	Y	Y	Y
Visuospatial test (yes/no)	Y	Y	Y	Y
Evaluation by a Neuropsychologist	N	Y	N	N
Other clinical measures				
Depression scale (e.g. HADS) (yes/no)	Y	Y	Y	Y
Registration of hallucinations (yes/no)	Y	Y	Y	Y
ADL scale (e.g. FAQ) (yes/no)	Y	Y	Y	Y
Motor examination (e.g. UPDRS) (yes/no)	Y	Y	Y	Y
Clinical Dementia Rating (yes/no)	Y	Y	Y	Y
Global Detoriation Scale (yes/no)	Y	Y	Y	Y
CSF/blood biomarkers				
CSF stored (number of cases)	Y	Y	Y	Y
Plasma stored (number of cases)	300	500	200	300
Serum stored (number of cases)	300	500	200	300
Blood stored (number of cases)	300	500	200	300
Blood in PAXgene tubes stored (number of cases)	300	500	0	300
CSF Aβ42 levels analysed (yes/no)	Y	Y	Y	Y
CSF Tau levels analysed (yes/no)	Y	Y	Y	Y
CSF P-tau levels analysed (yes/no)	Y	Y	Y	Y
CSF biomarker data analysed as part of clinical routine practice (sample by sample)?	N	Y	Y	N
CSF biomarker data analysed as part of research study (batch analyses)?	Y	Y	Y	Y
MRI/CT				
Computed tomography (CT) (number of cases)	0	500	300	0
3 Tesla MRI (number of cases)	300	450	35	200
Name of 3 Tesla scanner	Siemens Trio	Siemens Trio	Siemens Trio	Siemens Skyra
T1 (high resolution) (yes/no)	Y	Y	Y	Y
FLAIR (yes/no)	Y	Y	Y	Y
Diffusion MRI (yes/no)	Y	Y	Y	Y
Resting state fMRI (yes/no)	Y	Y	Y	Y
T2* / SWI (yes/no)	Y	Y	Y	Y
Spectroscopy (yes/no)	Y	Y	Y	N
PET				
FDG PET (number of cases)	10	10	10	10
Amyloid PET (number of cases)	140	280	10	0
Name of amyloid PET ligand	Flutemetamol	Flutemetamol	Flutemetamol	Flutemetamol
Tau PET imaging (number of cases)	10	10	10	10
Name of tau PET ligand	^{18}F-T807	^{18}F-T807	^{18}F-T807	^{18}F-T807
Genetics				
APOE genotype (yes/no)	Y	Y	Y	Y
GWAS (yes/no)	Y	Y	Y	Y
Epidemiology				
Family history of dementia/PD (yes/no)	Y	Y	Y	Y
Education (yes/no)	Y	Y	Y	Y
Premobid IQ (National Adult Reading Test) (yes/no)	N	Y	N	N
Smoking (yes/no)	Y	Y	Y	Y
Blood pressure (yes/no)	Y	Y	Y	Y
Cardiovascular disease (yes/no)	Y	Y	Y	Y
Diabetes (yes/no)	Y	Y	Y	Y
Stroke/TIA (yes/no)	Y	Y	Y	Y
Hypertension (yes/no)	Y	Y	Y	Y
Hyperlipidemia (yes/no)	Y	Y	Y	Y
Depression (yes/no)	Y	Y	Y	Y
Epidemiological data 10-20 years before inclusion in the present study?	Y	N	N	N
Cell models				
Fibroblasts (yes/no)	Y	Y	Y	Y
IPS cells (yes/no)	Y	Y	Y	Y
IN cells (yes/no)	Y	Y	Y	Y
Neuropathology				
Planned (yes/no)	Y	Y	Y	Y
Number of cases	0	0	0	0

Approximate numbers are given.