Canadian ADNI

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Amyloid and glucose PET imaging in Alzheimer and Vascular Cognitive Impairment patients with significant White Matter Disease: Medical Imaging Trials Network of Canada- Amyloid Brain Project

150 patients from memory or stroke clinics with WMH>10 cc compared to 150 matched patients from ADNI with minimal WMH undergo 3T multimodal MRI, deoxyglucose and florbetapir PET at baseline and 2 years

Funded by CIHR in partnership with Lilly-AVID
Brain Eye Amyloid Memory (BEAM) Study

- Participants: 65 amnestic/multidomain MCI, 65 AD, 65 LBD-PD, 65 subcortical VCI, 60 normal controls
- Multimodal MRI, flutemetamol PET, detailed cognitive testing, gait and balance, eye tracking, genetics, OCT, lens amyloid
- Recruited from Toronto Dementia Research Alliance, stroke prevention and movement disorders clinics (U of T)

Funded by Brain Canada; Partners GE, Cognoptix
ONDRI: Study Design

- 5-year observational cohort study with annual longitudinal assessments
- 11 centers involved across Ontario

- **Sample Size**: 600 subjects
  - AD/MCI (150)
  - FTD (60)
  - VCI (150)
  - ALS (90)
  - PD (150)

- **Assessments**:
  - Neuropsychological Assessment
  - Gait and Balance Assessment
  - Eye Tracking
  - Ocular Assessments - SD-OCT
  - Genomics
  - Neuroimaging

Funded by the Ontario Government
Canadian Consortium for Neurodegeneration in Aging
Study Design

Scientific Director: Howard Chertkow

- 5-year observational study with longitudinal follow-up at 2 years
- 35 centers across Canada involved

Sample Size: 1600 subjects
- SCI - Mixed Dementia
- MCI - LBD, PDD
- V-MCI - PD-MCI
- AD - FTD

Assessments:
- Clinical Assessment - Neuropsychological Assessment,
- Genomics - Neuroimaging.
- Biosamples from blood, saliva, and cerebrospinal fluid

Funded by CIHR and several partners
## Organization of the CCNA

### CROSS-CUTTING PROGRAMS

#### TRAINING & CAPACITY BUILDING

1. Genetics of NDD  
2. Inflammation & Growth Factors
3. Protein Misfolding  
4. Synapses & Metabolomics  
5. Lipids & Lipid Metabolism  
6. Nutrition, Lifestyle, & Prevention of AD

#### KNOWLEDGE TRANSFER

14. How Multi-Morbidity Modifies the Risk of Dementia and the Patterns of Disease Expression  
15. Gerontechnology & Dementia  
16. Driving & Dementia  
17. Interventions at the Sensory and Cognitive Interface  
18. Effectiveness of Caregiver Intervention  
19. Integrating Dementia Patient Care into the Health Care System  
20. Issues in dementia care for rural and indigenous populations

### ELsi

1600 patients

### WOMEN & DEMENTIA

#### Theme 1: PREVENTION

1. Genetics of NDD  
2. Inflammation & Growth Factors
3. Protein Misfolding  
4. Synapses & Metabolomics  
5. Lipids & Lipid Metabolism  
6. Nutrition, Lifestyle, & Prevention of AD

#### Theme 2: TREATMENT

7. Vascular Aspects of NDD  
8. Lewy Body Dementia  
9. Biomarkers  
10. Cognitive Intervention and Brain Plasticity  
11. Prevention and Treatment of Neuropsychiatric Symptoms  
12. Mobility, Exercise, and Cognition  
13. Frontotemporal Dementia

### QUALITY OF LIFE

14. How Multi-Morbidity Modifies the Risk of Dementia and the Patterns of Disease Expression  
15. Gerontechnology & Dementia  
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### Eight Platforms to Support the Teams

1. Clinical Cohorts  
2. The Normative Comparison Group  
3. Imaging/Database/Information Technology  
4. Blood, Saliva & CSF Biosamples  
5. DNA Sequencing  
6. Brain Banking  
7. Transgenic Colonies  
8. Academic Clinical Trials