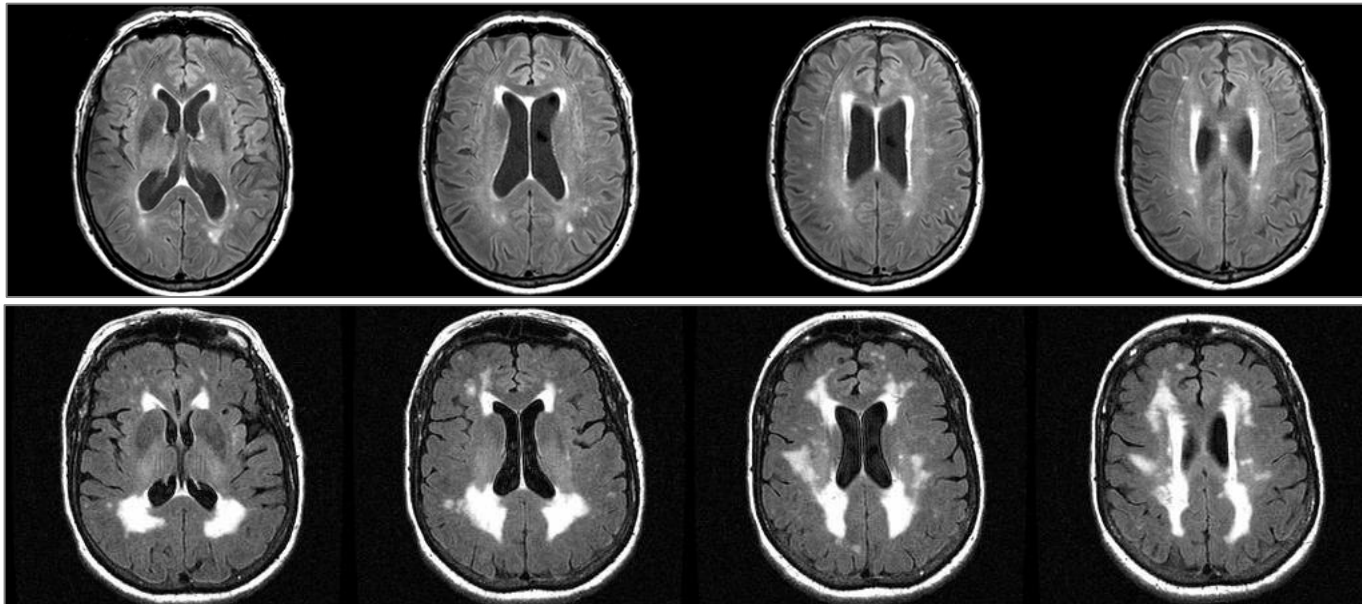


Canadian ADNI

Sandra E. Black, O.C., MD, FRCP(C), FRSC, FANA
Brill Chair in Neurology, Dept of Medicine, U of Toronto
Executive Director, Toronto Dementia Research
Alliance
Hurvitz Brain Sciences Research Director, Sunnybrook
Research Institute, Toronto Canada

*Presented on behalf of Canadian ADNI
investigators supported by CIHR
World Wide ADNI Telecon
May 6, 2015*

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



10 cc WMH

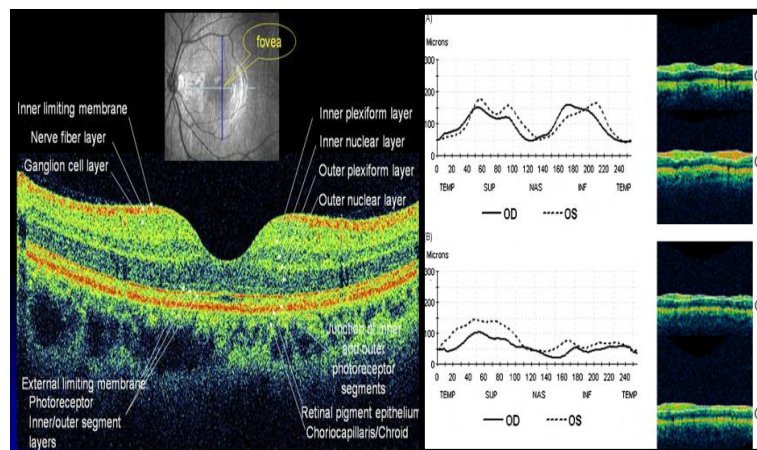
50 cc WMH

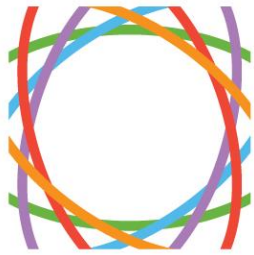
150 patients from memory or stroke clinics with WMH > 10 cc compared to 150 matched patients from ADNI with minimal WMH undergo 3T multimodal MRI, deoxyglucose and florbetapir PET at baseline and 2 years

Funded by CIHR in partnership with Lilly-AVID

Brain Eye Amyloid Memory (BEAM) Study

- Participants: 65 amnesic/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)





ONTARIO
BRAIN
INSTITUTE

ONDRI: Study Design

- 5-year observational cohort study with annual longitudinal assessments
 - 11 centers involved across Ontario
 - **Sample Size:** 600 subjects
 - AD/MCI (150)
 - ALS (90)
 - FTD (60)
 - PD (150)
 - VCI (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
 - MCI
 - V-MCI
 - AD
 - Mixed Dementia
 - LBD, PDD
 - PD-MCI
 - FTD
- **Assessments:**
 - Clinical Assessment
 - Genomics
 - Biosamples from blood, saliva, and cerebrospinal fluid
 - Neuropsychological Assessment,
 - Neuroimaging.





Organization of the CCNA

CROSS-CUTTING PROGRAMS

**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

- 1600 patients

**Theme 3:
QUALITY OF LIFE**

- 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

TRAINING & CAPACITY BUILDING

KNOWLEDGE TRANSFER

ELSI

WOMEN & DEMENTIA

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