

THEME A: Basic Science and Pathogenesis

A1. Development of New Models and Analysis Methods

Examples: α -synuclein; Amyloid/Abeta; Behavioral models; Neuroinflammation; Novel assays and technologies; Screening studies/platforms; Seeding and spreading of proteinopathies; Tau; TDP-43; Validation of pre-clinical methods

A2. Genetics

Examples: Atypical and other dementias; Genetic factors of Alzheimer's disease; Genetic factors of non-Alzheimer's tauopathies; Genetics of cognitive aging; Endophenotypes; Molecular genetics; Omics and systems biology

A3. Human Neuropathology

Examples: Alpha-synuclein; Amyloid; Clinico-pathologic correlations; Etiopathogenesis--links to brain disease; Imaging-pathologic correlations; Novel methods; Other; Proteinopathies; Selective vulnerability; Tau; Topography of pathology; Vascular

A4. Molecular and Cell Biology

Examples: α -synuclein; APP/Abeta/Amyloid; Axonal transport; Calcium homeostasis; Cell cycle disruption; Endosomal-lysosomal dysfunction; Enzyme activities; Mitochondrial function/energetics; Neurodegeneration and neuroprotection; Neurofibrillary degeneration; Neuroinflammation; Neuronal cell death mechanisms (i.e. apoptosis); Neurotrophin mechanisms; Oxidative stress; Presenilins; Protein clearance/recycling; Protein-protein interactions; Receptors; Signal transduction; Stem cells; IPS cells; Synaptic disruption; Tau; TDP-43; Vascular factors

THEME B: Biomarkers

B1. Biomarkers (non-neuroimaging)

Examples: Differential diagnosis; Human neuropathology; Longitudinal change over time; Method development and/or quality control; Multi-modal comparisons; Novel biomarkers; Plasma/serum/urine biomarkers; Prognostic utility; Use in clinical trial design and evaluation

B2. Neuroimaging

Examples: Animal imaging; Differential diagnosis; Evaluating treatments; Imaging and genetics; Multi-modal comparisons; New imaging methods; Normal brain aging; Optimal neuroimaging measures for early detection and/or disease progression; Novel analytic techniques

THEME C: Clinical Manifestations

C1. Neuropsychiatry and Behavioral Neurology

Examples: Assessment/measurement of neuropsychiatric/behavioral symptoms; Behavioral neurology; Dementia; Mild cognitive impairment/early symptomatic disease; Neuropsychiatry; Non-pharmacologic interventions; Presymptomatic disease/prodromal disease/prodromal states; Treatment development and clinical trials

C2. Neuropsychology

Examples: Computerized neuropsychological assessment; Early detection of cognitive decline with neuropsychological tests; Multicultural issues in assessment of dementia; Neuropsychological correlates of physiologic markers of cognitive decline/dementia; Neuropsychological phenotypes; Normal cognitive aging; Advanced prediction methods

THEME D: Dementia Care and Psychosocial Factors

D1. Dementia Care Research (nonpharmacological)

Examples: Assessment and care planning; Behavioral interventions; Community care; Cross-cultural studies and cultural/linguistic adaptations; Family/lay caregiving; Instrument development; program

evaluation and translation; Long-term care; Therapeutic strategies and interventions; Use of technologies; Neurostimulation; Prediction of future care needs

D2. Psychosocial Factors and Environmental Design

Examples: Environmental design and technology, Living with dementia and quality of life, Social networks; Use of technology to monitor behaviors

THEME E: Dementia Care Practice

E1. Dementia Care Practice (descriptive research)

Examples: Implementation of person-centered care; Managing dementia-related behaviors; Other innovative programs and practices; Supportive and therapeutic environments; Transition and coordination of services; Workforce initiatives

THEME F: Drug Development

F1. Human

Examples: Human trials-Anti-amyloid; Anti-tau; Cognitive enhancement; Inflammation; Nutraceuticals and non-pharmacological interventions; Other behavioral symptoms; Novel outcomes measures; Prevention (clinical); Trial design

F2. Nonhuman

Examples: Lead optimization studies, Natural products and nutraceuticals, Nonpharmacological interventions, Novel screening strategies, Target identification and validation studies-Amyloid; Target identification and validation studies-Cognitive enhancement and other behavioral symptoms, Inflammation and innate immunity, Neuronal and synaptic protection, Proteostasis, Tau

THEME G: Public Health

G1. Epidemiology

Examples: Innovative methods in epidemiology (i.e. assessment methods, design, recruitment strategies, statistical methods, etc.); Prevalence, incidence, and outcomes of MCI and dementia; Risk and protective factors in MCI and dementia; Cross-cultural studies

G2. Health Services Research

Examples: Cost-effectiveness of treatment/prevention and diagnosis; Cost of care; Policy and plans; Services; Impact on diverse communities

G3. Prevention (nonpharmacological)

Examples: Cognitive interventions; Exercise; Lifestyle factors (e.g., smoking, etc.); Multidomain; Nutrition; Lifestyle factors, Impacts in diverse population

THEME H: Novel Statistical Methods

Examples: Applications of machine learning; Novel statistical approaches to analysis of biomarker and/or clinical phenotypic data; Prediction of progression/future patient needs.