alzheimer's association®

Business Consortium

Alzheimer's Association Business Consortium (AABC) Meeting Agenda
Teleconference

February 1, 2017
2:00 pm ET / 11 am PT

Toll Free: 1-866-316-2054
Code: 4428 5967 48

1. **Review of 2016 Activities - Jim**
   - BioTech Showcase Panel
   - Webinars
   - Face-To-Face Meetings

2. **Planning for 2017**
   - Webinar Topics (panel format) - Charles
     - Ideas:
       - Reg A+
       - Crowdfunding
       - Angel investors
       - Academic/ clinical collaborations
     - Request for further ideas and panelists
   - Introduction of "Ask the Expert" Sessions - Kira
     - Concept: Q&A sessions with experts in specifics fields
     - Proposed Topics:
       - Regulatory expert for diagnostic companies in AD space
       - Regulatory experts for therapeutics development
       - Legal: Corporate, IP, Securities, Litigation
       - Business development experts
       - Statistics in AD
       - Grant writing
     - Request for further ideas and experts
   - Value of workshops and potential topics - Kira
   - Face-to face meetings- schedule this year and format – Jim
     - AAIC 2017 – London
   - Association with ISTAART PIA's - Jim
   - Improvements to AABC Web-Page- suggestions - Jim
   - Membership- driving membership, target for 2017 - All
   - AOB - All

Professional Interest Area
Overview Descriptions

Alliance of Women Alzheimer's Researchers (AWARE)
Chair: Laura Baker

The Alliance of Women Alzheimer's Researchers PIA is a global network of women investigators whose research is focused on Alzheimer's disease. The goal of this PIA is to form and support an Alliance of Women in Alzheimer's Research to create a balanced global leadership in the Alzheimer's field.

PIA Goals:
1. Provide mentorship for women researchers targeted to specific career stages.
2. Provide a network for women researchers to facilitate collaboration, identification of resources, and identification of professional opportunities.
3. Identify and address specific challenges that hinder the development of women leaders in Alzheimer's Research.

Atypical Alzheimer's disease and Associated Syndromes
Chair: Sebastian Crutch

This PIA brings together a multi-disciplinary group of professionals from international clinical and research centers of excellence with experience and interest in atypical presentations of Alzheimer's disease and associated syndromes.

The goal of the PIA is to address general issues related to AD phenotypic heterogeneity and specific issues related to posterior cortical atrophy (PCA), logopenic phological aphasia (LPA), corticobasal syndrome (CBS) and focal cortical presentations of AD (e.g. amnestic, dyexecutive, apraxic). Members of this PIA will share and publicize practical advice and evidence-based recommendations for the treatment and clinical management of atypical AD.

Biofluid Based Biomarker PIA *(Formerly: Blood-Based Biomarkers PIA)*
Chair: Sid O'Bryant

The purpose of this PIA is to establish validated blood based biomarkers for use in research settings, clinical trials, diagnostics and clinical practice.

This PIA will:
1. Create standards and guidelines for the development of novel blood biomarkers of use in Alzheimer's disease and conditions related to cognitive decline.
2. Create a global working group designed to advance the field of blood-based biomarkers of Alzheimer's disease.
3. Develop a central data repository and sample bank network to foster innovation and validation of blood biomarkers for Alzheimer's disease.

Clinical Trials Advancement and Methods PIA

Chairs: Hiroko Dodge, Lon Schneider, Steven Edland

Effective pharmacological and non-pharmacological prevention and intervention strategies against cognitive impairment in later life are urgently needed. Yet we face new and substantial challenges in being able to assess the effectiveness of new and potential treatments. These include: (1) interventions and treatments of asymptomatic individuals where cognitive and functional impairment are minimal with broad distribution within the groups studied and large variability in outcomes leads to increasing difficulty to assess treatment effects, (2) uncertainty with respect to the selection of “at risk” samples for trials, (3) the appropriateness of outcome measures, (4) discordance between biomarkers and clinical outcomes, and (5) additional challenges in the conduct of randomized trials where controlling for various confounders and predictors stemming from trial settings is required. How to conduct methodologically sound and efficient trials is vital in order to advance potential, new treatments or prevention approaches.

PIA Objectives:

1. Develop and advance clinical trial designs in Alzheimer's disease and related cognitive and neurodegenerative disorders of later life. Topics to be discussed include: creation or assessment of sensitive outcome measures, reduction of variability, sample selection approaches, treatment fidelity, multi-modal designs and issues specific to pilot or small sample size trials and/or non-pharmacological trials.
2. Develop and submit dedicated research sessions on clinical trial approaches for consideration at the AAIC, other meetings, and foster the collaborations among members. Collaborate with other organizations such as the Cochrane Collaboration, EPAD, and the Alzheimer’s Association Research Roundtable.
3. Facilitate the Alzheimer’s Association and other funding agencies to support unique pilot clinical trials and methodology studies which could lead to larger prevention/intervention trials.

Design and Data Analytics PIA

Chair: Scott M. Hofer

Data from a variety of sources permit the evaluation of factors across the lifespan that moderate the risk of developing neurodegenerative disorders. Longitudinal designs provide a natural history of individual change in functioning and exposures and increasingly permit the identification of prognostic indicators of progression of dementia. However, particularly in late life, changes in cognition are often tightly bound with multiple chronic conditions and mortality complicate analysis of change. Differences in measurements and sample composition, effects of repeated testing, alternative statistical models, treatment of incomplete data and mortality, and study design can affect the replicability of results and limit comparisons across country and birth cohort.

This PIA will support the application of advanced statistical methods for the analysis of longitudinal studies of aging and dementia, with particular attention to replicability of results, measurement harmonization, innovations in design, and causal methods in longitudinal research.

This PIA also emphasizes the contributions of big data, electronic health records, intensive within-person designs and innovations in unobtrusive measurements for advancing research on neurodegenerative disorders.

PIA Objectives:

1. To support and coordinate joint research activities involving longitudinal, big, and small data and facilitate access to metadata from existing studies.
2. To stimulate innovative research on optimal design, measurement, and harmonization of exposures and outcomes, and research synthesis of multiple sources of data.
3. To provide and organize training in advanced statistical methods and develop and disseminate best practices in the field.

Down syndrome and Alzheimer's Disease PIA
Chair: Elliott Mufson

Individuals with Down syndrome develop Alzheimer's disease (AD) neuropathology with near conformity in their 4th to 5th decade, and are at a much higher risk of developing AD dementia than the general population. Not all research sites have access to DS individuals between the ages of 25 and 40; the years when most likely AD neuropathology develops. Further, DS is a fairly uncommon genetic abnormality, with approximately one in every 700 births; this means that a multi-site collaborative team in terms of clinical trials and neuropathology repositories is more likely to yield breakthrough results than individual efforts. The intention of the Down syndrome and Alzheimer's disease (DS-AD) PIA is to meet two times per year as a group, in order to form a national tissue repository, and also to set up a data sharing network and work with industry to develop treatment targets and biomarkers for DS-AD.

Electrophysiology PIA
Chair: Fiona Randall

Electrophysiological methods have provided important insights into the way the brain processes information, from single neurons to large-scale brain networks. These methods have also contributed to our understanding of how Alzheimer's disease affects brain activity. Electrophysiological methods provide a crucial bridge between brain activity and cognition, and show considerable promise as translatable biomarkers in both preclinical and clinical applications.

The Electrophysiology PIA will provide a forum for education through symposia and lectures provide a platform for networking with members who share subspecialties and support junior scientists and other researchers to learn about the latest developments in the field.

PIA Objectives:
1. Educate and advocate applications of electrophysiological measures, including EEG, MEG and others, in the study of Alzheimer's disease.
2. Organize symposia and other educational activities around specific themes relating to EEG, MEG and other electrophysiological measures applied to Alzheimer's disease.

Immunity and Neurodegeneration PIA (*Formerly: Innate Immunity PIA*)
Chair: Bruce Lamb

Accumulating genetic, epidemiological, biochemical and histological studies as well as brain imaging and clinical studies suggest that both peripheral and central immune cells likely play acritical role in the development and progression of Alzheimer's disease and related disorders, including many other neurodegenerative diseases. These findings also suggest an opportunity for the development, characterization and testing of novel therapeutic targets focused on immune factors in AD. The Immunity and Neurodegeneration PIA seeks to serve as a unique working group of basic, translational and clinical researchers working on all aspects of immunity to stimulate interdisciplinary research, develop consensus, identify knowledge gaps on issues critical to the field, and integrate and promote investigators in the field. Given that many of the key finding slinking immunity to Alzheimer's disease and neurodegeneration have occurred within the past few years, development of this PIA provides a unique opportunity that currently does not exist, to integrate, promote and facilitate immunity research.

Neuroimaging PIA
Chair: David Wolk

Neuroimaging has emerged as a critical research and diagnostic tool in the field of Alzheimer's disease and other dementias. The Neuroimaging Professional Interest Area (NPIA) will continue to organize the Alzheimer's Imaging Consortium (AIC), which focuses on the clinical application and methodological development of neuroimaging (MRI, PET, SPECT, CT, and others) to Alzheimer's disease, other dementias and normal brain aging.

Neuropsychiatric Syndromes PIA

Co-chairs: Joanne Bell, Krista Lanctôt

Neuropsychiatric Syndromes (NPS) in Neurodegenerative Disease is widely acknowledged as a major public-health priority area in the field of neurodegenerative disease. Experts are reminded of the universal prevalence of these symptoms in Alzheimer's and related conditions, the significant added disability for patients and caregivers associated with NPS and the relative scarcity of effective treatments for NPS. The PIA will focus on defining clinical entities that will serve as targets for research and treatment development in later years. Sub-groups related to specific NPS in Alzheimer's disease, targeting depression, agitation, apathy, psychosis and sleep disorder, will work to develop a series of next steps to meet the PIA's overall objective.

Nutrition, Metabolism and Dementia PIA

Co-chairs: Martha Clare Morris (Academic Chair), Gene Bowman (Industry Chair), Nikolaos Scarmeas (Program Chair) and Benedict Albensi (Communications Chair)

There is an abundance of evidence that suggests nutrition and metabolism play a role in cognitive aging and Alzheimer's dementia. However, the field of study is particularly complex and inconsistencies in the literature make the development of sound public health recommendations a major challenge. This interest group will create a 'hub' at the Association to unite scientists and clinicians from both academia and industry who are interested in advancing the field.

PIA Objectives:

1. Develop and advance clinical and research applications of nutrition in Alzheimer's disease and related disorders.
2. Develop and submit dedicated research sessions on nutrition and metabolism for consideration at the AAIC annual meetings.
3. Foster the development of consensus criteria for nutrition and metabolism research and interpretation of findings on AD and related disorders.
4. Foster the creation of multi-study collaborations around nutrition and metabolism in AD and related disorders.

Perioperative Cognition PIA

Co-chairs: Lis Evered and Esther Oh

There is considerable clinical evidence that anesthesia and surgery independently cause cognitive decline, known as Postoperative Cognitive Dysfunction (POCD). There is also a large body of laboratory evidence demonstrating an association between anesthetic agents and Alzheimer's disease neuropathology. An increasing number of elderly people are requiring surgery and anesthesia, many of whom will have, or be at risk of, Mild Cognitive Impairment (MCI) or Alzheimer's disease. This PIA seeks to encourage communication and collaboration and combine research expertise, to improve cognitive outcomes and informed choices.

Non-pharmacological Interventions PIA *(Formerly: Psychosocial Understanding and Intervention PIA)*

Chair: Alex Bahar-Fuchs

Current evidence suggests that many aspects of dementia, including the effects of the illness on the day-to-day functioning, psychological well-being, physical health and relationships of the people with the illness and their family members are amenable to treatment with psychosocial interventions. Environmental factors can also affect functioning and quality of life. In addition, psychosocial, lifestyle and environmental factors impact on risk of developing dementia, and interventions in these areas can contribute to risk reduction. The members of this group are scientists conducting research to identify and understand the psychosocial aspects of dementia so as to provide optimal psychosocial interventions to maximize the well-being of those affected by dementia, and prevent or delay the onset of dementia for those at risk of developing the condition.

Reserve, Resilience and Protective Factors PIA

Chair: Yaakov Stern **Co-chairs**: Gaël Chételat and Michael Ewers

The Reserve, Resilience and Protective Factors PIA will focus on epidemiologic, clinical/neuropsychological and neuroimaging/biomarker approaches to understanding reserve and resilience. A major emphasis will be placed on potential underlying structural and functional brain mechanisms. The PIA will also explore intervention strategies that target mechanisms underlying reserve or resilience in order to promote individual brain health and prevent or delay the onset of dementia.

PIA objectives:Our initial objectives are to:

1. Establish a collaborative forum and network to foster knowledge and research on the mechanisms that may promote reserve and resilience and help prevent or delay cognitive aging and Alzheimer's disease.
2. Develop consensus guidelines on research criteria for studying brain reserve and resilience, and propose strategies to investigate the different underlying brain mechanisms (neuroprotective or compensatory).
3. Promote collaborative projects on the topic, including joint prospective neuroimaging studies, joint grant applications, and merging data sets collected by PIA members.

Subjective Cognitive Decline PIA

Chair: Frank Jessen

The preclinical state of Alzheimer's disease (pre-mild cognitive impairment) is becoming of increasing importance with regard to early detection and prevention of Alzheimer's dementia. Subjective cognitive decline (SCD) may represent the first symptomatic manifestation of Alzheimer's disease. Thus, SCD can serve two purposes: First, it can be used as an entry condition in large-scale prevention trials, because it represents an at-risk state for future Alzheimer's dementia. Second, it can be applied as a clinical indicator for biomarker-based detection of Alzheimer's disease at the pre-MCI state. At present, despite increasing interest, there is a severe lack of standards to facilitate research on SCD in the field of Alzheimer's disease. The PIA aims at organizing and structuring research on SCD. The PIA serves as the structural platform for the international SCD-initiative (SCD-I), which was formed in 2012 and includes

leading clinical and epidemiological AD researchers. The PIA is a forum for scientific exchange, collaborations, standardization efforts and information about SCD.

The objectives of the SCD – PIA are:

- To standardize and harmonize research efforts on SCD in Alzheimer's disease.
- To develop improved criteria for SCD for use in clinical intervention trials.
- To increase awareness in research and clinical care for the relevance of SCD as an at-risk sign of Alzheimer's disease and as a very early symptom of Alzheimer's disease.
- To submit research sessions for the AAIC on SCD.
- To develop and publish consensus papers on SCD research.
- To promote scientific exchange including young investigators across participating sites.

Technology PIA

Chair: Jesse Hoey

The Technology PIA is a network of investigators and relevant stakeholders who share an interest in facilitating the use of technology in research and practice for people with Alzheimer's disease and other dementias.

Vascular Cognitive Disorders PIA

Co-chairs: Christopher Chen and Deborah Gustafson

The overall aim of the Vascular Cognitive Disorders PIA is to encourage a global, multidisciplinary basic, translational and clinical research focus on vascular causes and correlates of cognitive impairment in general, and vascular cognitive disorders in particular, with integration and participation of students, younger researchers, and senior mentors. It will also help build collaborations among researchers in AD, other neurodegenerative diseases and vascular dementia.