



With Scientific Input from the National Institute on Aging and Eunice Kennedy Shriver National Institute of Child Health and Human Development at the National Institutes of Health

**Alzheimer's & Down Syndrome Workshop  
Tuesday, March 12- Wednesday, March 13, 2019  
Bethesda, MD**

**Day 1 – Tuesday, March 12**

- 8:30-8:55a.m. Welcome Remarks by the Alzheimer's Association and Perspective from an Advocate - Frank Stephens**
- 8:55-9:10a.m. NIH Perspective**  
Anna Mazzucco (NIH Office of the Director)
- 9:10-9:45a.m. Keynote: Intersection of Alzheimer's & Down Syndrome: What We Know Today**  
Michael Rafii (University of Southern California)

**Session 1: Epidemiology and Factors Impacting Risk for Alzheimer's in Down Syndrome**  
**Session Chair & Moderator:** Joaquin Espinosa (UC Denver)

- 9:45-10:05a.m. Contributions of Comorbid Conditions to Risk for AD in DS**  
Andre Strydom (King's College London)
- 10:05-10:25a.m. Lifestyle Factors and Risk for AD in DS**  
Sigan Hartley (University of Wisconsin, Madison)
- 10:25-10:45a.m. Impact of Sleep on Cognition and AD in DS**  
Fabian Fernandez (University of Arizona)
- 10:45-11:10a.m. BREAK**
- 11:10-11:30a.m. Sex Differences in AD Risk in People with DS**  
Florence Lai (Harvard University)
- 11:30-11:50a.m. Genetic Risk & Resilience Factors for AD in DS**  
Joseph H. Lee (Columbia University)
- 11:50-12:15p.m. Moderated Panel Discussion (Session 1 Speakers, including Eric Doran)**
- 12:15-1:30p.m. LUNCH**

## **Session 2: AD Imaging Biomarkers in Down Syndrome**

**Session Chair & Moderator:** Juan Fortea (Hospital of Sant Pau; Catalan Down Syndrome Foundation)

- 1:30-1:50p.m.      **Amyloid PET Imaging**  
Patrick Lao (Columbia University)
- 1:50-2:10p.m.      **Tau PET Imaging**  
Bradley Christian (University of Wisconsin)
- 2:10-2:30p.m.      **FDG PET Imaging**  
Ben Handen (University of Pittsburgh)
- 2:30-2:50p.m.      **MRI Imaging of AD in DS**  
Adam Brickman (Columbia University)
- 2:50-3:10p.m.      **DTI Imaging of AD in DS**  
Diana Rosas (Harvard University)
- 3:10-3:35p.m.      **Moderated Panel Discussion** (Session 2 Speakers)
- 3:35-4:00p.m.      BREAK**

## **Session 3: AD Non-Imaging Biomarkers in Down Syndrome**

**Session Chair & Moderator:** James Hendrix (LuMind)

- 4:00-4:20p.m.      **Fluid Biomarkers of AD in DS**  
Juan Fortea (Hospital of Sant Pau and Catalan Down Syndrome Foundation)
- 4:20-4:40p.m.      **Endophenotyping of AD in DS**  
Sid O'Bryant (UNT Health Sciences Center)
- 4:40-5:00p.m.      **Exosome Based Biomarkers of AD in DS**  
Ann-Charlotte (Lotta) Granholm (University of Denver / Karolinska Institutet)
- 5:00-5:20p.m.      **Moderated Panel Discussion** (Session 3 Speakers and **Cynthia Lemere**)
- 5:20-5:30p.m.      Close of Day One**  
**Michelle Whitten**, Representative from Global Down Syndrome Foundation
- 5:30-7:00p.m.      Reception For All Attendees**

## **DAY 2: Wednesday, March 13, 2019**

- 8:30-8:45a.m.      Overview of Day One**  
**James Hendrix**, Representative from LuMIND Foundation

#### **Session 4: Biological Underpinnings of Down Syndrome & Alzheimer's**

**Session Chair & Moderator:** Cynthia Lemere (BWH/ Harvard University)

- 8:45-9:00a.m.      **Interplay of Amyloidosis and Immune Dysregulation in Alzheimer's and Down Syndrome**  
Joaquin Espinosa (UC Denver)
- 9:00-9:15a.m.      **Dendritic Spines in DS**  
Jorge Busciglio (University of California, Irvine)
- 9:15-9:30a.m.      **Cerebrovascular Pathology in DS with AD**  
Elizabeth Head (University of California, Irvine)
- 9:30-9:45a.m.      **Mosaic Aneuploidy and Cell Cycle Defects in AD and DS**  
Huntington Potter (University of Colorado Denver)
- 9:45-10:00a.m.     **Tau and Amyloid in Down syndrome with and without Dementia**  
Elliott Mufson (Barrow Neurological Institute)
- 10:00-10:30a.m.    **Moderated Panel Discussion** (Session 4 Speakers)
- 10:30-11:00a.m.    BREAK & CHECKOUT**

#### **Session 5: Practical Considerations for Clinical Trials**

**Session Chair & Moderator:** Sid O'Bryant (UNT Health Sciences Center)

- 11:00-11:20a.m.    **Animal Models for DS and AD to Inform Trial Decisions**  
William Mobley (University of California, San Diego)
- 11:20-11:40a.m.    **Inclusion/ Exclusion Criteria Considerations**  
Priya Kishnani (Duke University)
- 11:40-12:00p.m.    **Identifying MCI in Down syndrome for Clinical Trials**  
Wayne Silverman (University of California, Irvine)
- 12:00-12:20p.m.    **Outcome Measures for Clinical Trials in DS**  
Anna Esbensen (University of Cincinnati)
- 12:20-12:45p.m.    **Moderated Panel Discussion** (Session 5 Speakers & Andre Strydom)
- 12:45-1:45p.m.    Lunch**

#### **Session 6: Clinical Interventions - Landscape of AD trials in DS**

**Session Chair & Moderator:** Michael Rafii (USC)

- 1:45-2:05p.m.      Pipeline of Clinical Interventions for AD in DS**  
Elizabeth Head (UCI)
- 2:05-2:25p.m.      Perspective of NIH on AD studies in DS**  
Laurie Ryan (NIA at NIH)

**2:25-2:45p.m. Current and Recent AD trials in DS: Landscape of Pharmacological Studies**  
Shahid Zaman (Cambridge University)

**2:45-3:05p.m. Pharma Perspective on AD studies in DS**  
Bjorn Sperling (Lundbeck)

**3:05-3:30p.m. Moderated Panel Discussion (Session 6 Speakers)**

**Next Steps & Future Initiatives**

**3:30-4:00p.m. Next Steps, Future Initiatives & Closing Remarks**  
Moderated by: Michael Rafii, Laurie Ryan, and Heather Snyder

**4:00p.m. Departures**