Committee on Research Priorities for Preventing and Treating Alzheimer's Disease and Related Dementias

Meeting #3 and Public Workshop
January 16 and 17, 2023
PUBLIC AGENDA

Meeting Objectives

- Engage a diverse group of stakeholders in exploring promising areas of AD/ADRD research that may have the potential to catalyze further scientific breakthroughs or accelerate translation of discoveries to effective preventive and therapeutic interventions.
- Explore barriers to the advancement of AD/ADRD research and opportunities and tools to address these impediments to progress.
- Investigate successes and failures experienced in other biomedical research fields and discuss how lessons learned from these experiences could be translated to the AD/ADRD research context.

TUESDAY, JANUARY 16, 2024

500 Fifth Street NW, Washington, DC 20001, Keck 100

8:30 a.m.	**Welcome and Review of Meeting Objectives** *Tia Powell,* Committee Chair

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OPEN SESSION
Session I: Envisioning the Future of AD/ADRD Research

Session Objectives

- Hear from funders of research aimed at preventing and treating AD/ADRD about their perspectives on future research priorities and infrastructural and technological barriers that limit progress in those priority research areas.
- Discuss opportunities to accelerate translation from basic to clinical research and catalyze advances in AD/ADRD prevention and treatment.

8:40 a.m.	**Overview of Session Objectives** Tia Powell*, Committee Chair, Moderator*
8:45 a.m.	**Panelist Remarks** Maria Carrillo, *Alzheimer's Association* Russ Paulsen, *UsAgainstAlzheimer's* Meg Smith, *Cure Alzheimer's Fund* Ian Kremer, *LEAD Coalition*
9:25 a.m.	**Committee Discussion**

OPEN SESSION
Session II: Lessons Learned from Successes and Failures in Other Fields

Session Objectives

- Explore the experiences in other research fields with learning from failure and opportunities to translate those lessons into successes.
- Examine the process by which research priorities evolved in other biomedical research fields over time, specific strategies used to accelerate and support translation, and efforts that were made to enhance diversity and inclusion in all aspects of research.
- Discuss the development of precision medicine approaches and the diversification of the therapeutic portfolio in the context of other diseases.

10:10 a.m.   **Overview of Session Objectives**
                    Ken Ramos, *Committee Member, Moderator*

10:15 a.m.   **Panelist Remarks**
                    Emelia Benjamin, *Boston University*
                    Laura Esserman, *University of California, San Francisco*

10:35 a.m.   **Committee Discussion**

11:10 a.m.   **Break** (10 min)

OPEN SESSION
Session III: The Exposome and Risk and Protective Factors for AD/ADRD

Session Objectives

- Discuss modifiable risk and protective factors across diverse populations and implications for priority research on strategies for preventing and treating AD/ADRD.
- Elucidate priorities for research at the intersection of social determinants of health and AD/ADRD and how those may help to address existing disparities in AD/ADRD.
- Explore barriers and opportunities for the timely translation of knowledge on risk and protective factors to effective, accessible interventions.

11:20 a.m.   **Overview of Session Objectives**
                    Maria Glymour, *Committee Member, Moderator*
                    Pamela Lein, *Committee Member, Moderator*

11:25 a.m.   **Presentations**
                    Lisa Barnes, *Rush University*
                    Gary Miller, *Columbia University*
                    Maria Corrada, *University of California, Irvine*
                    Margaret Pericak-Vance, *University of Miami*

11:45 p.m.   **Discussant Perspectives and Committee Discussion**
                    Expert Discussants
                    Kirk Erickson, *University of Pittsburgh*
                    Amy Kind, *University of Wisconsin*
                    Gill Livingston, *University College London*
                    Jennifer Weuve, *Boston University*

12:45 p.m.   **Lunch** (45 min)

OPEN SESSION
Session IV: Molecular and Cellular Mechanisms of Neurodegenerative Disease

Session Objectives

- Explore research priorities related to mechanistic hypotheses for AD/ADRD, including those that are shared across multiple forms of dementia and have great potential to illuminate the mechanistic underpinnings of brain health and disease and broaden approaches to AD/ADRD prevention and treatment.
- Discuss promising advances and remaining gaps in tools, technologies, and analytical methods needed to advance the identification of effective intervention strategies for AD/ADRD.

1:30 p.m.   **Overview of Session Objectives**
                    Christian Behl, *Committee Member, Moderator*

1:35 p.m.   **Opening Remarks**
                    Zaven Khachaturian, *Alzheimer's & Dementia*

1:45 p.m.   **Panelist Remarks**
                    Virginia Lee, *University of Pennsylvania*
                    Bart de Strooper, *UK Dementia Research Institute*
                    Jürgen Götz, *University of Queensland*
                    Bruce Lamb, *Indiana University*
                    Ameer Taha, *University of California, Davis*
                    Ralph Nixon, *New York University*

2:20 p.m.   **Committee Discussion**

3:00 p.m.   **Break** (15 min)

OPEN SESSION
Session V: Advancing Knowledge Across the Life Course

Session Objectives

- Identify gaps in existing cohorts (e.g., diversity of participants, lack of data on factors from earlier phases of life, cost) and discuss the importance of obtaining representative population samples from across the life course.
- Discuss opportunities for using unconventional markers and methods (e.g., digital phenotyping, plasma biomarkers, multi-omics approaches) to expand understanding of the complexity of brain health and

AD/ADRD disease over the life course and how these can be incorporated into longitudinal data collection efforts.

- Explore technological approaches to overcome existing infrastructure and resource barriers.

3:15 p.m.   **Overview of Session Objectives**
                Nilüfer Ertekin-Taner, *Committee Member, Moderator*
                Hector González, *Committee Member, Moderator*

3:20 p.m.   **Panel Discussion with Committee**
                Laura Baker, *Wake Forest University*
                Dawn Mechanic-Hamilton, *University of Pennsylvania*
                Rachel Buckley, *Harvard Medical School*
                Sid O'Bryant, *University of North Texas*
                Goldie S. Byrd, *Wake Forest University*
                Mark Mapstone, *University of California, Irvine*

4:10 p.m.   **Adjourn Public Session**

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OPEN SESSION
Day 2 Opening Remarks

8:30 a.m.   **Welcome**
           Tia Powell, Committee Chair

8:35 a.m.   **The Fundamental Importance of Early and Accurate Diagnosis**
           Daniel Gibbs, author and neurologist living with dementia

8:45 a.m.   **Committee Q&A**

OPEN SESSION
Session VI: Unlocking Innovation to Aid Detection, Diagnosis, and Monitoring

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Panel 1: Development and Use of Digital Technologies to Assess Human Health
Objectives:
- Explore opportunities and research priorities for the development and use of sensitive digital tools and unconventional biomarkers to catalyze advances in the monitoring of human brain health and the detection and diagnosis of AD/ADRD.
- Examine challenges and lessons learned from other fields/contexts related to the development and use of technology to assess and monitor human health.
- Discuss challenges related to the use of deep learning systems in biomedical research (e.g., black box effect).

8:50 a.m.   **Overview of Panel Objectives**
           Rhoda Au, *Committee Member, Moderator*

8:55 a.m.   **Panelist Remarks**
           Yannis Paschalidis, *Boston University*
           Jeffrey Kaye, *Oregon Health and Sciences University*
           Diane Cook, *Washington State University*

9:15 a.m.   **Committee Discussion**

Panel 2: Considerations for the Implementation of Tools to Detect, Diagnose, and Monitor AD/ADRD
Objectives:
- Consider the real-world implementation needs for tools to monitor brain health and detect and diagnose AD/ADRD, considering how these needs might inform the design and function of tools and markers in the early stages of research and development.
- Explore lessons learned from successes and failures related to the global implementation of distinct tools and markers to predict and describe human brain health.

9:55 a.m.   **Overview of Panel Objectives**
           Chi Udeh-Momoh, *Committee Member, Moderator*

10:00 a.m.	**Panelist Remarks**
	Niranjan Bose, *Gates Ventures*
	Agustín Ibáñez, *Global Brain Health Institute*
	Debby Tsuang, *University of Washington*
	Tim MacLeod, *Davos Alzheimer's Collaborative, Health System Preparedness*
	David Cutler, *Harvard University*

10:25 a.m. **Committee Discussion**

10:55 a.m. **Break** (10 min)

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OPEN SESSION
Session VII: Addressing Barriers to Research Translation in AD/ADRD

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Session Objectives

- Examine the current landscape of targets and interventions in AD/ADRD prevention and treatment research.
- Explore methods to accelerate AD/ADRD research and to successfully translate research from discovery to application by learning from past successes and failures.
- Describe approaches that could aid the development of tools to support nonclinical and clinical research and to build capacity and buy-in for open science practices.
- Discuss strategies to enhance diversity, inclusion, and engagement in AD/ADRD prevention and treatment research.

11:05 a.m. **Overview of Session Objectives**
        Rita Balice-Gordon, Committee Member, Moderator

11:10 a.m. **Opening Remarks**
        Jeffrey Cummings, *University of Nevada, Las Vegas*

11:20 a.m. **Panelist Remarks**
        Rema Raman, *University of Southern California*
        Charlotte Teunissen, *Amsterdam University Medical Centers*
        David Bennett, *Rush University*
        Michael Irizarry, *Eisai*
        Kristine Yaffe, *University of California, San Francisco*

11:45 a.m. **Committee Discussion**

12:15 p.m. **Adjourn Public Session**