Defeating dementia: progress and challenges on the road to 2025

Funding & Incentives panel

Moderator: Dr Steven Hyman
Harvard University Distinguished Professor and Director, Stanley Center at the Broad Institute of Harvard and MIT

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Professor Bart de Strooper
Director of the UK-Dementia Research Institute, Professor at University College London, UK
And Professor at University of Leuven and VIB, Belgium

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WHY DIDN’T WE MAKE MORE PROGRESS?

Breakthrough Observation in 1906

Alois Alzheimer
1864-1915

Über eine eigenartige Erkrankung der Hirnrinde
Allgemeine Zeitschrift für Psychiatrie und Psychisch-gerichtliche Medizin. 1907 Jan;64:146-8
Scientific research in AD

1906

Acetylcholine hypothesis

Tau (1986)

1970

1987:
- 1st clinical trial
- APP

1990

APOE 4 (1993)

2000

FDA approval:
2003
2010

2018:
Good Results with Aducanumab Ban2401

mouse chimera model (2017)

2017:
- Tau imaging
- Tau cryo-EM structures
- Microglia neuroinflammation
- Trem2
- Biomarkers
- APOE 4 (1993)
- Gamma-secretase (1998)
- BACE1 (1999)
- Presenilin (1995)

2003:
- 1st AD mouse model (1995)

2001:
- amyloid imaging (2004)

1984:
- Identification of β-amyloid
1986:
- Tau
Scientific Gap in dementia research

Number of publications

- Alzheimer: 130,000
- AIDS: 250,000
Number of Phase 3 trials since 2000:

- Cancer: 6,550 trials
  - 677 successful (10%)
  - Number of approved drugs since 2000: 180 (success rate ~2.7%)
- Alzheimer: 234 trials
  - 46 successful (20%)
  - Number of approved drugs since 2000: 4 (success rate ~1.7%)

“...I can think of no other condition where innovation, especially breakthrough innovation, is so badly needed...[Dementia] is not just a public health priority. It is a public policy priority...

When the private sector... does not want to invest in R&D [research and development] we need to look at why... And when [the] market fails, we require strong leadership...

You are stepping in to take the slack and making sure people affected by such devastating disease can have the hope that they need...”

Margaret Chan
Director General, WHO
2007-2017
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Hilary Evans
Chief Executive Officer, Alzheimer’s Research UK

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People with dementia are at the centre of our work

- Translating scientific understanding into promising treatments
- Testing and trialling promising treatments
- Delivering outcomes that matter most to people living with dementia and their carers
- Improving our scientific understanding
- Accelerating access to treatments
- Public health – risk reduction and awareness

BRAINS FOR DEMENTIA RESEARCH
Increasing knowledge - Finding a cure
A partnership between Alzheimer’s Research UK and Alzheimer’s Society
In association with the Medical Research Council
23% of people identified dementia as caused by brain disease or degeneration and 46% identified it as loss of memory.
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Dr Laurence Barker
Chief Business Officer, Dementia Discovery Fund

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Funding and Incentives Panel Discussion
WDC 5th Anniversary Summit – Laurence Barker, CBO, Dementia Discovery Fund
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Mandate from the WDC: To develop meaningful new treatments for dementia

Key components of the funding challenge include novelty of mechanism, lack of ‘traditional’ capital, early stage nature of approaches

DDF’s approach to addressing the challenge:
  o To increase the number and diversify the types of therapeutic approaches being pursued to treat dementia
  o Use an innovative, focussed venture capital model
  o Invest from an early stage onwards

Mission: To invest in novel science to create meaningful new treatments for Alzheimer’s Disease and other forms of dementia, thereby generate returns for investors

The first time charity, government, pharma and significant public/private investors have teamed up with a venture capital firm on this scale and with this level of collaboration

Managed by SV Health Managers, who bring a proven 20-year track record of venture investing

DDF completed its fundraising at an oversubscribed £250m (~$350m) in March 2018
DDF will invest based on compelling novel science and unique insights for dementia therapeutics, rather than well-explored approaches such as amyloid removal.

Seek to leverage expertise and insights from neighboring fields such as immunology and oncology into the dementia field.

Collaborate with key groups to better enable the development of novel therapeutics, including the Dementia Research Institute, the Diagnostics Accelerator and others.
Investing across all stages of dementia drug discovery to generate clinical impact

- Target identification
- Target validation
- Hit identification
- Hit to lead
- Lead optimization
- Pre-clinical development
- Early clinical development

Project funding

Company funding

Academic

syndication

pharma

syndication

IPO

- NB3 Project
- Rhizome Project
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Dr Paul Stoffels
Chief Scientific Officer, Johnson & Johnson

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Questions?

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Lunch

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Are we on Track?

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Dr Richard J. Hodes
Director, National Institute on Aging

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