

# Dementia – so often misunderstood

11am GMT

25<sup>th</sup> February 2019



@ClubVita #dementia



[linkedin.com/company/club-vita](https://www.linkedin.com/company/club-vita)

# Introducing today's panel



**Dr James Pickett**

*Head of Research,  
Alzheimer's Society*



**Prof Seth Love**

*Professor of  
Neuropathology,  
University of Bristol*



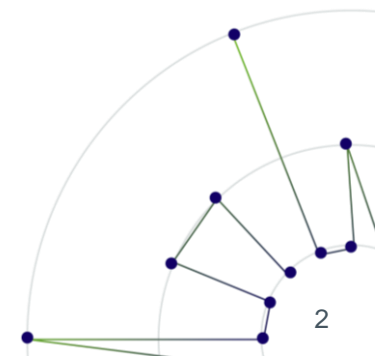
**Dr Nick Cartmell**

*NHS General Practitioner;  
Primary Care Dementia  
Research Advisor,  
National Institute for  
Health Research*



**Erik Pickett (Chair)**

*Longevity risk consultant  
Club Vita*



# Dementia – so often misunderstood

**James Pickett**  
Head of  
Research  
**Alzheimer's  
Society**



INFOGRAPHIC

# The global impact of dementia

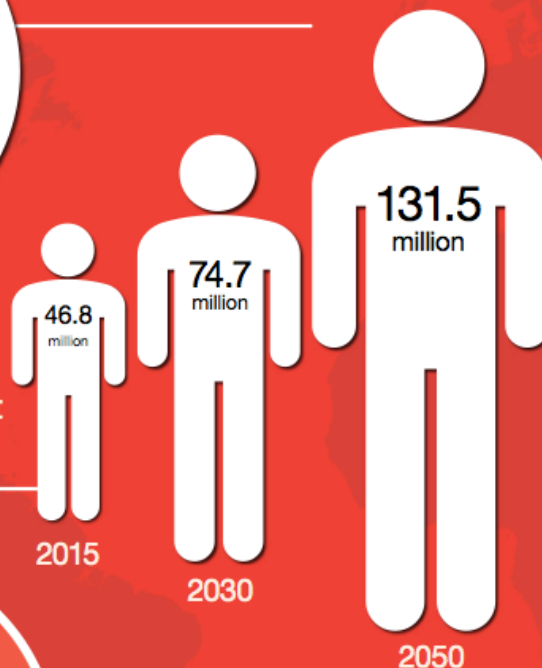


Around the world, there will be 9.9 million new cases of dementia in 2015,

**one every 3 seconds**

46.8 million people worldwide are living with dementia in 2015.

This number will almost double every 20 years.



Much of the increase will take place in low and middle income countries (LMICs): in 2015, 58% of all people with dementia live in LMICs, rising to 63% in 2030 and 68% in 2050.

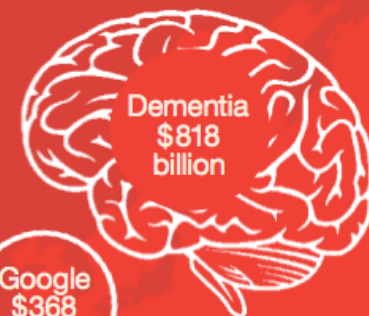
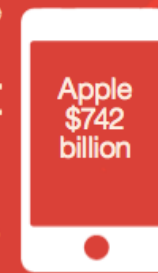


The total estimated worldwide cost of dementia in 2015 is US\$ 818 billion. By 2018, dementia will become a trillion dollar disease, rising to **US\$ 2 trillion by 2030**

If global dementia care were a country, it would be the

**18th largest economy**

in the world exceeding the market values of companies such as Apple and Google



(source: Forbes 2015 ranking).

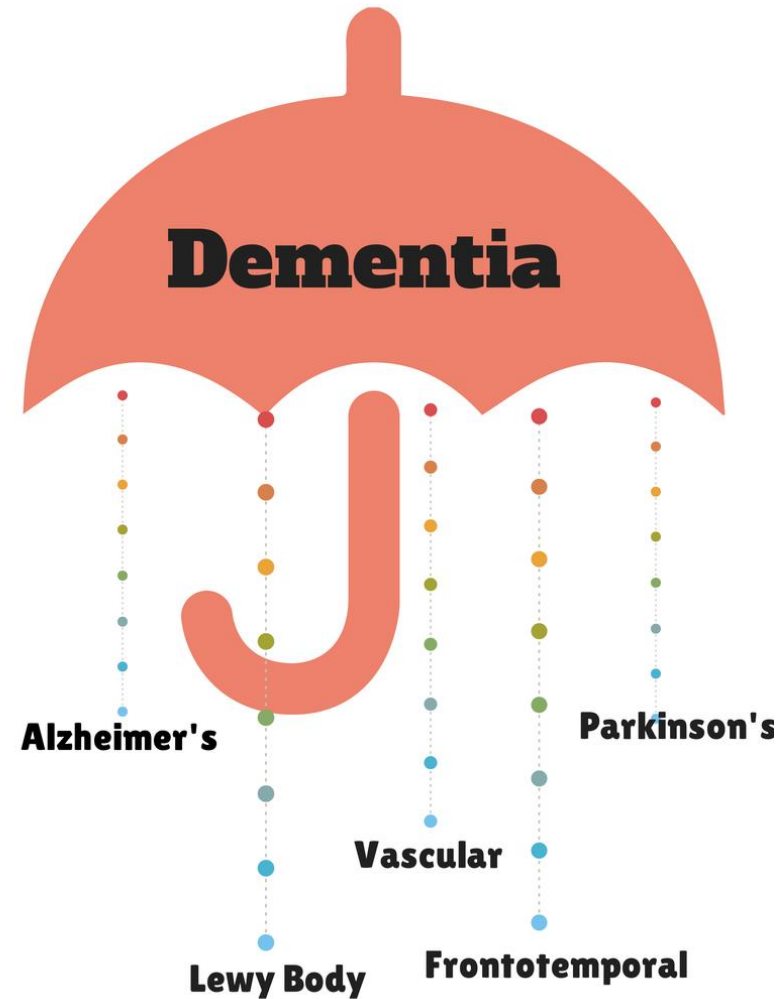
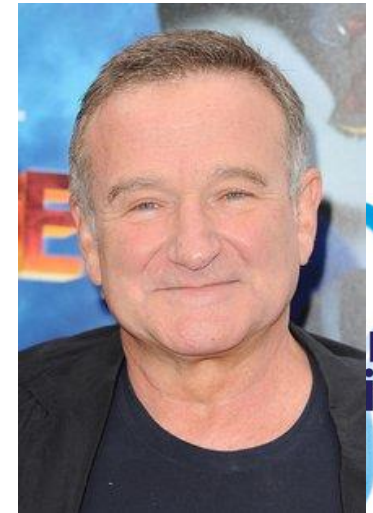


This map shows the estimated number of people living with dementia in each world region in 2015.

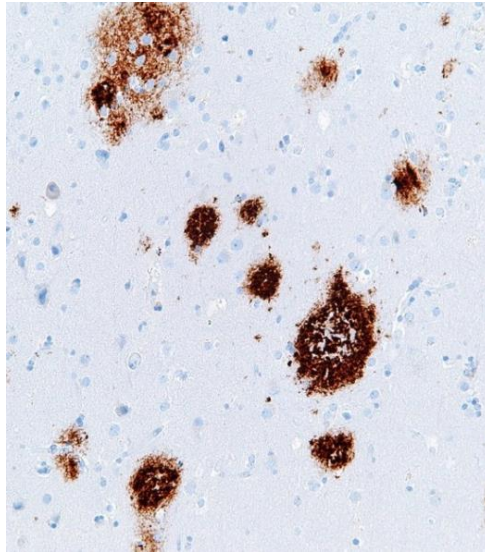
We must now involve more countries and regions in the global action on dementia.



# Dementia v Alzheimer's

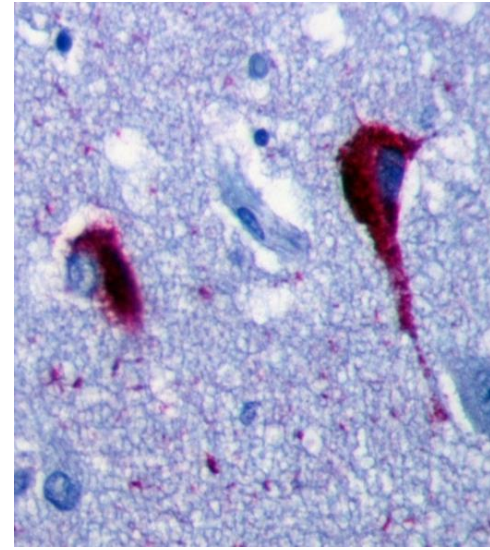


# Brain diseases cause dementia



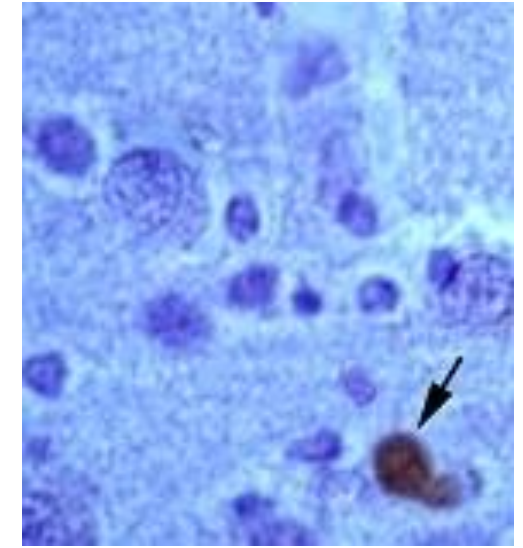
## **Amyloid plaques**

Form around brain cells in Alzheimer's



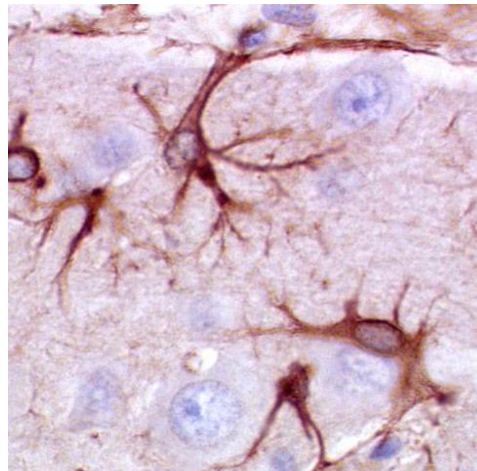
## **Tau tangles**

Alzheimer's and other forms of dementia



## **Lewy bodies**

Dementia with Lewy bodies, Parkinson's

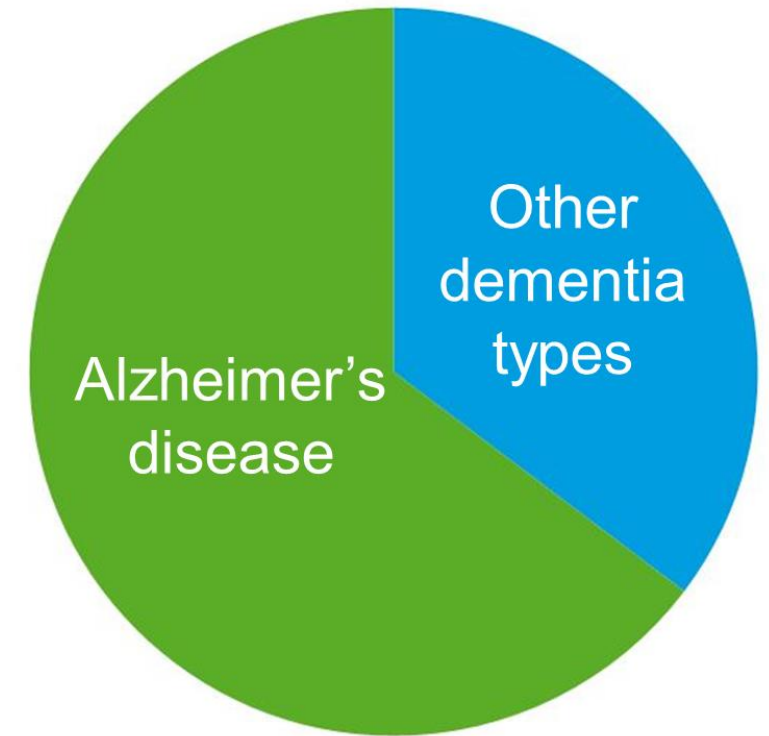


## **Immune system (microglia)**

Activated by protein aggregates

# Current state of play

- Of the top ten causes of death it's the only one that we don't have effective ways to try and prevent, treat or cure the disease.
- Current treatments don't stop dementia progressing
- No treatments for 300,000 people in the UK
- A third of people living with dementia do not have a diagnosis
- No standardised care pathway for dementia





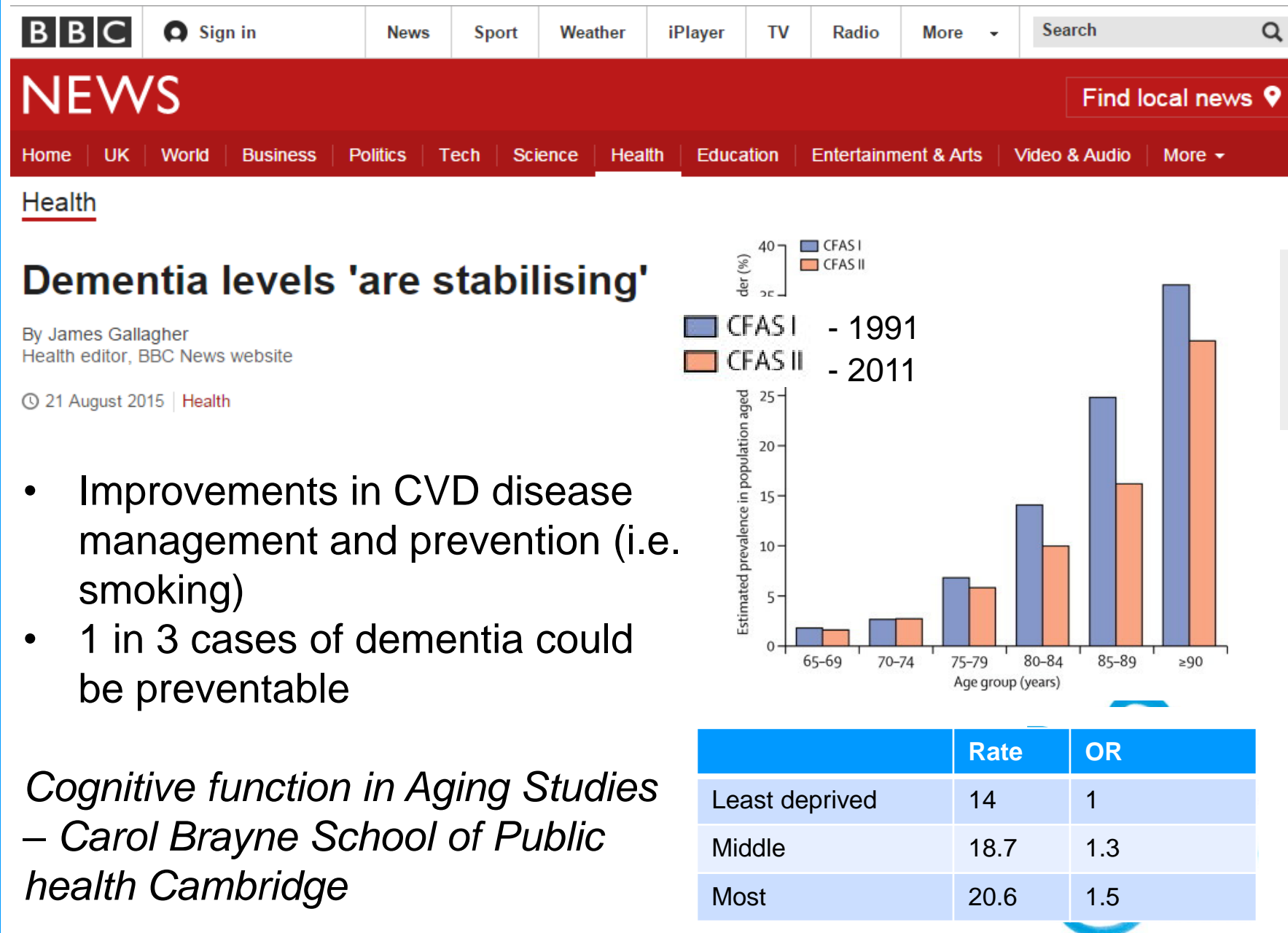
# Dementia in the UK: scale, costs and research



- Dementia costs: 2x cancer, 3x heart disease, 4x stroke
- 7x greater investment in cancer than dementia research



# A ticking time bomb or reason for hope?



# About us

- UK's leading dementia charity
- United against dementia for 40 years
- The only UK charity that campaigns for change, funds research to find a cure and supports people living with dementia today



A unique  
opportunity



[Emily.Kilkenny@alzheimers.org.uk](mailto:Emily.Kilkenny@alzheimers.org.uk)

Alzheimer's Society

# Sources and estimates

Alzheimer's Society, Dementia 2014 report

[https://www.alzheimers.org.uk/sites/default/files/migrate/downloads/dementia\\_uk\\_update.pdf](https://www.alzheimers.org.uk/sites/default/files/migrate/downloads/dementia_uk_update.pdf)

PHE, Dementia Intelligence Network

<https://digital.nhs.uk/data-and-information/national-indicator-library/dementia-65-estimated-diagnosis-rate>

Primary papers from :

Carol Brayne, Fiona Matthews, and colleagues –  
Cognitive Function in Ageing Studies (CFAS)

Martin Knapp, Carol Jagger and colleagues –  
Modelling Dementia (MODEM) study





# Thank you

[James.pickett@alzheimers.org.uk](mailto:James.pickett@alzheimers.org.uk)  
[@jamespickett12](https://twitter.com/jamespickett12)

[alzheimers.org.uk/research](https://alzheimers.org.uk/research)

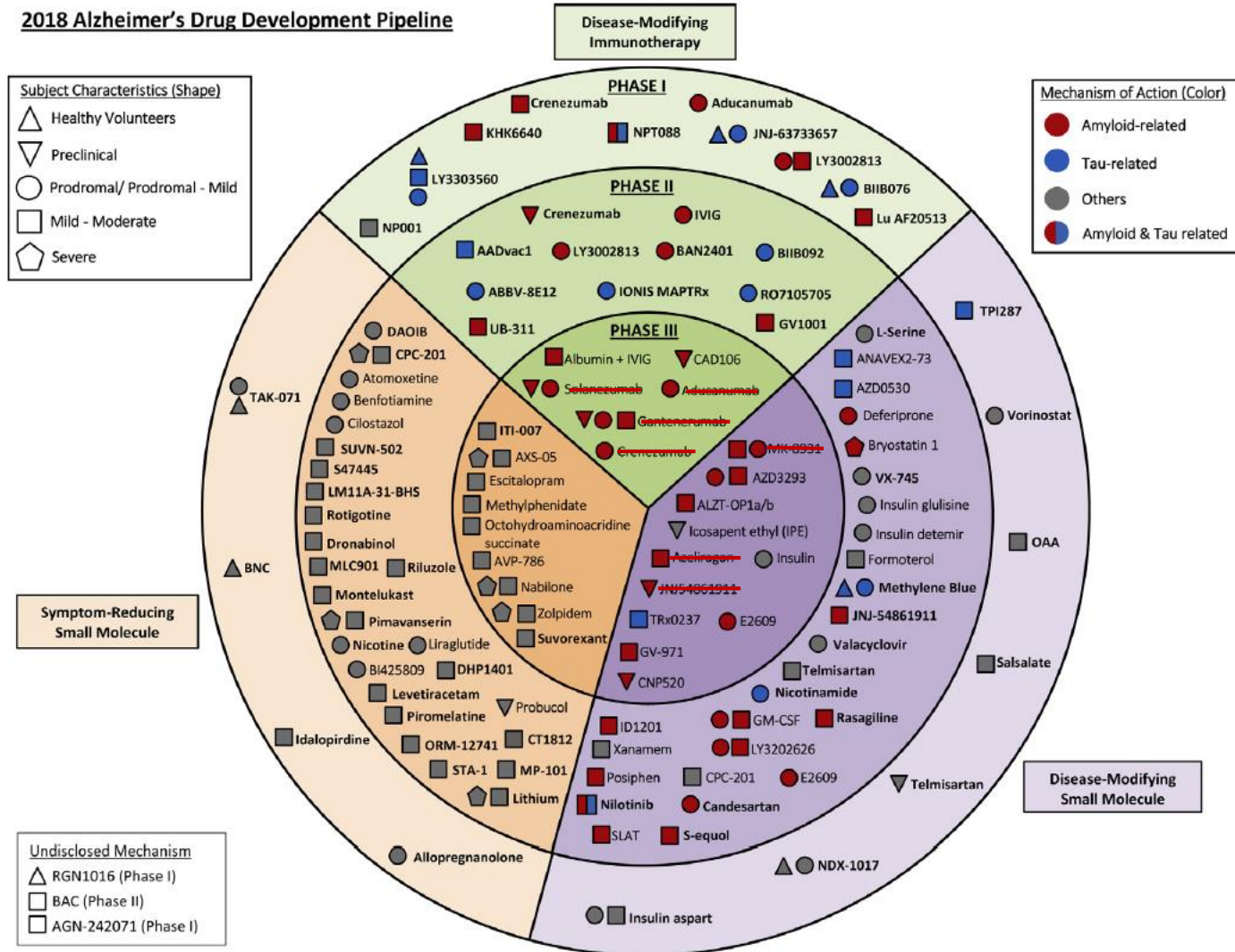
# Where are we with research into treatment of Alzheimer's disease?

Seth Love

*University of Bristol*

Current approaches

### 2018 Alzheimer's Drug Development Pipeline



*Cummings et al. Alzheimers Dement 2018; 4: 195-214*

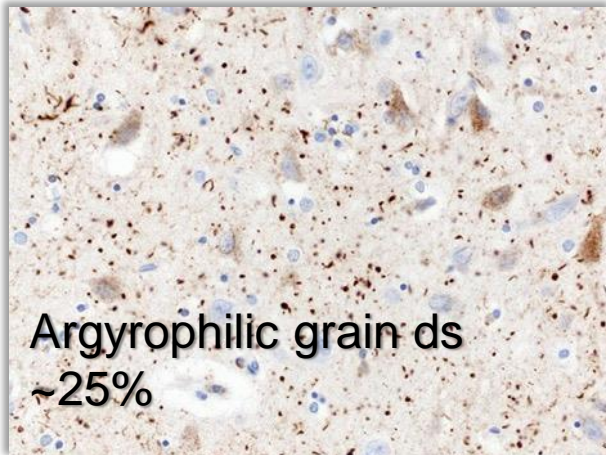
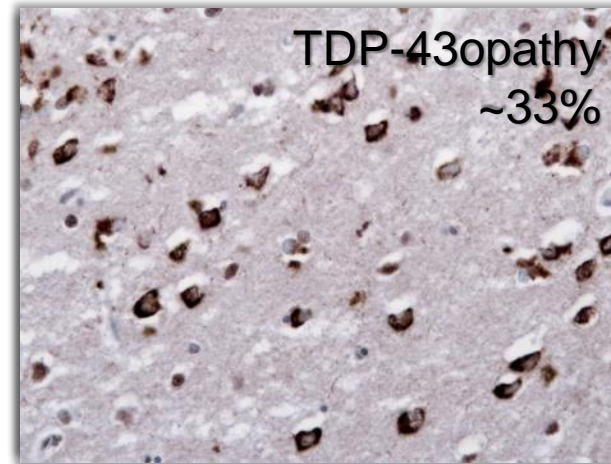
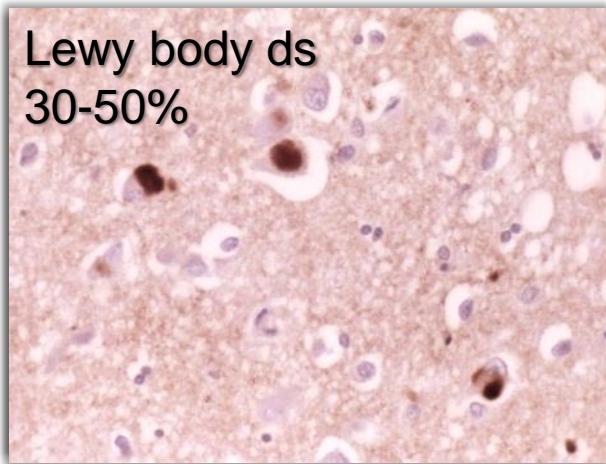


Problems with current approaches

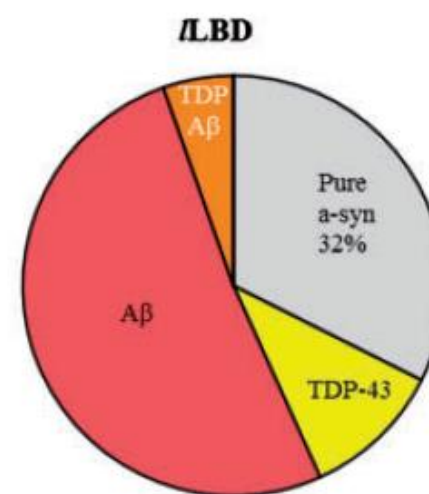
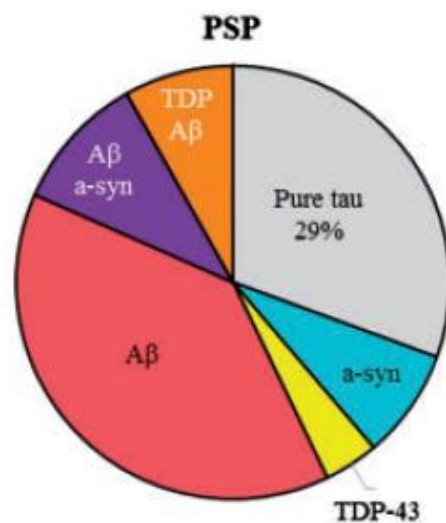
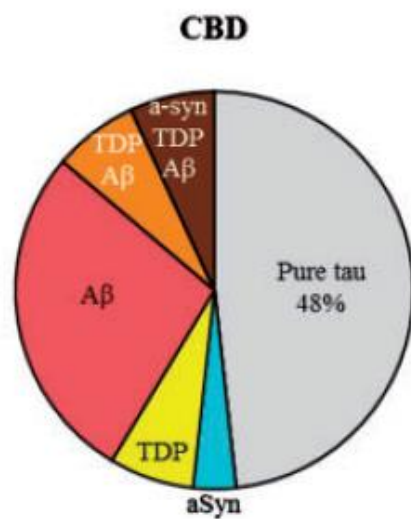
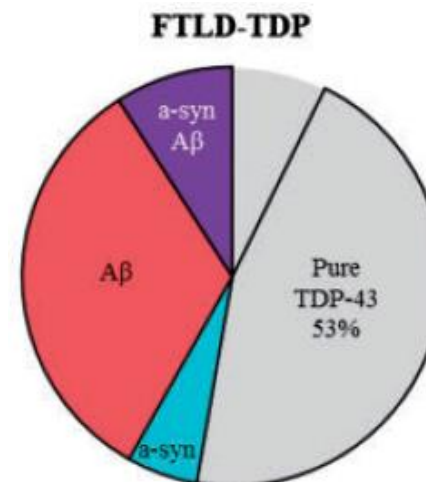
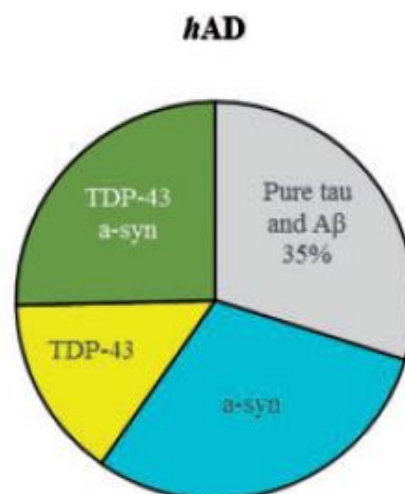
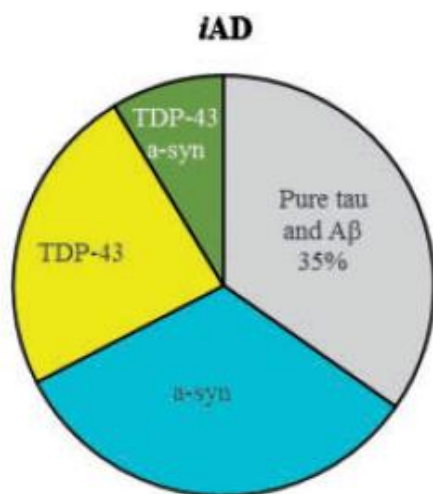
- Amyloid cascade hypothesis?
- Earlier intervention?

- Amyloid cascade hypothesis?
- Earlier intervention?
- Multiple early amplifiers of disease
  - Tau
  - Inflammation
  - Hypoperfusion
- Multiple age-associated concurrent disease processes
  - Limbic TDP43 encephalopathy
  - Lewy body disease
  - Argrophilic grain disease
  - Cerebrovascular disease

# In a cohort of people with AD







Future research

- Better stratification
  - Better imaging
  - Better biomarkers
  - Polygenic risk profiling
- Combined interventions

# RISK REDUCTION

---

- Don't smoke
- Keep a healthy weight
- Manage hypertension, depression, COPD, diabetes carefully
- Do regular exercise and plenty of social interaction...
- ...but don't drink alcohol excessively
- Personal risk assessment: <https://anuadri.anu.edu.au/take-the-assessment.html>
- Most risk factors are for Alzheimer's *and* Vascular Dementias



# IDENTIFICATION

---

- Dementia is a social syndrome
- It is currently medicalised: diagnosis is by specialist or GP
- For diagnosis person needs to present to their GP *and be willing to be diagnosed* (stigma)
- Requires objective evidence of cognitive impairment *plus* functional impairment (*cf* MCI)
- There is no diagnostic test: tests are done mainly to exclude other diagnoses
- There are benefits *but also potential harms* from pursuing a diagnosis

# MANAGEMENT

---

- Explanation
- Medication (treatment *but also* de-escalating other medication)
- Manage co-morbidities (which almost always co-exist), encourage self-care
- Advance planning
- Driving and DVLA (geographical context)
- Consider interpersonal relationships
- Encourage activation

# Questions?



**Dr James Pickett**

*Head of Research,  
Alzheimer's Society*



**Prof Seth Love**

*Professor of  
Neuropathology,  
University of Bristol*



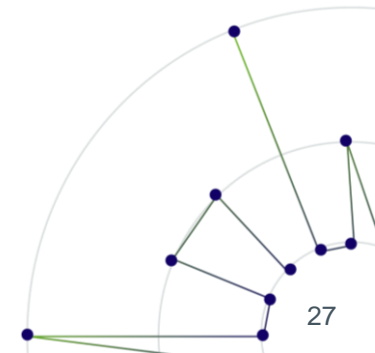
**Dr Nick Cartmell**

*NHS General Practitioner;  
Primary Care Dementia  
Research Advisor,  
National Institute for  
Health Research*



**Erik Pickett (Chair)**

*Longevity risk consultant  
Club Vita*



# Thank you

This Powerpoint presentation contains confidential information belonging to Club VITA LLP (CV). CV are the owner or the licensee of all intellectual property rights in the Powerpoint presentation. All such rights are reserved. The material and charts included herewith are provided as background information for illustration purposes only. This Powerpoint presentation is not a definitive analysis of the subjects covered and should not be regarded as a substitute for specific advice in relation to the matters addressed. It is not advice and should not be relied upon. This Powerpoint presentation should not be released or otherwise disclosed to any third party without prior consent from CV. CV accept no liability for errors or omissions or reliance upon any statement or opinion herein.