

[www.csiro.au](http://www.csiro.au)

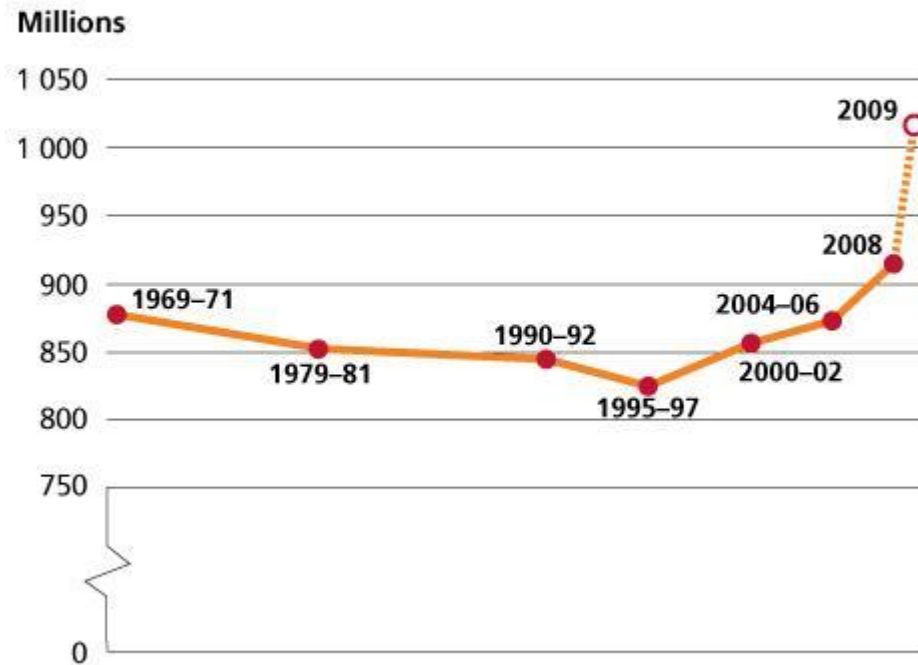
# CSIRO's part in boosting the growth of the biotech sector

**Dr Megan Clark**  
**Chief Executive, CSIRO**  
**October 2009**



# Increasing poverty is a legacy of the GFC

Learning from the past: number of undernourished in the world, 1969–71 to 2009



Source: FAO.

# Examples of industry and community impact

## Global firsts in innovation based on CSIRO's science



**Extended wear  
contact lenses**



**World's first effective  
influenza drug – Relenza™**



**hairpinRNAi**



**Bovine Genome Project**

# Examples of major biotech companies based on CSIRO technology



arana  
therapeutics®

Therapeutics  
– *now part of Cephalon*



Molecular  
diagnostics

biota

Anti-infective  
drugs



ElastEon-based  
implants

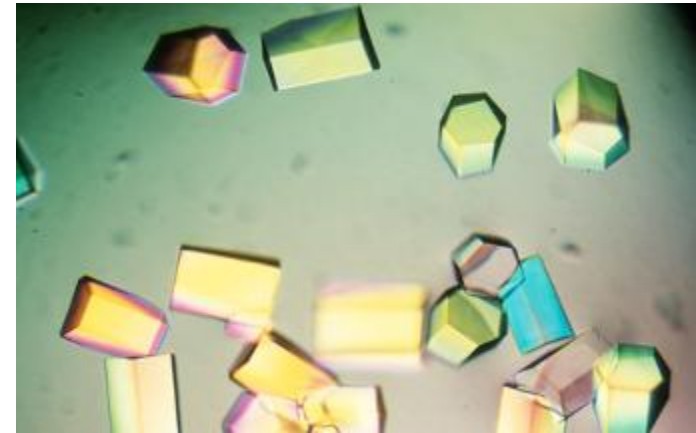
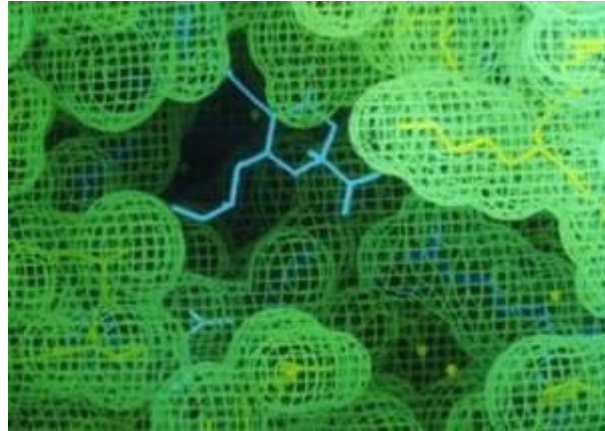
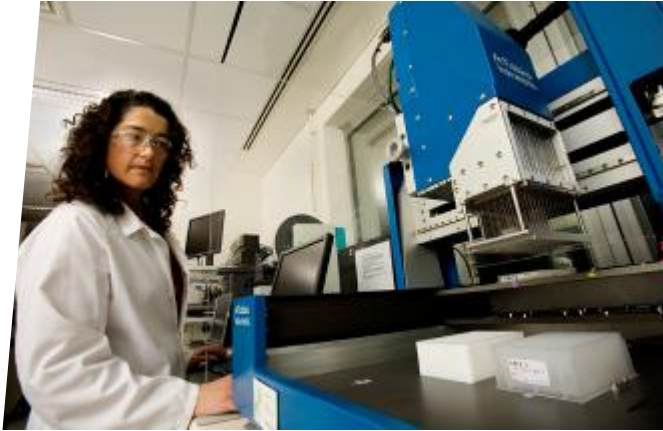


Devices based on  
biodegradable polymers  
– *acquired by Metabolic*



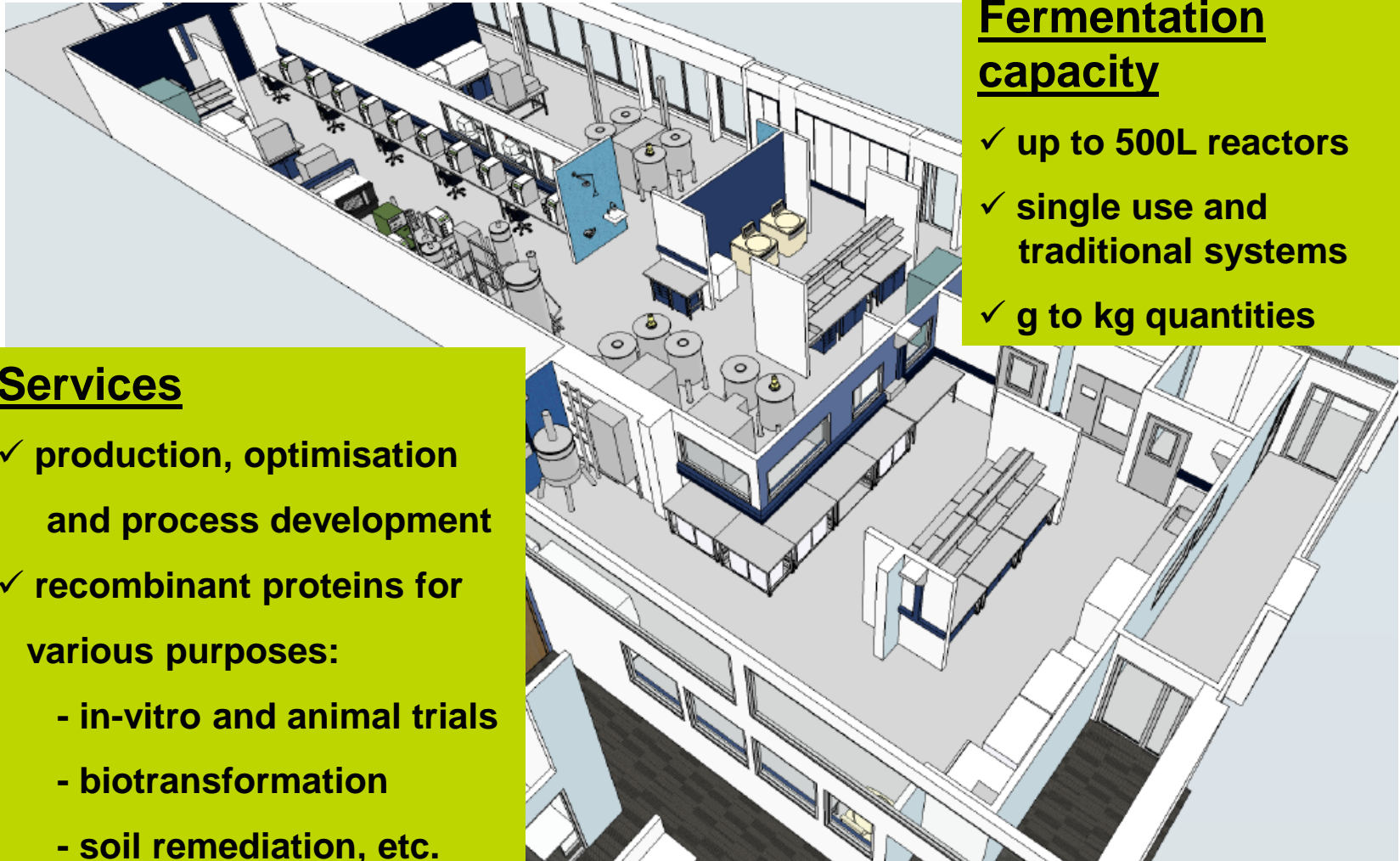
“Avibodies” as  
biopharmaceuticals  
and diagnostics

# Providing capability and infrastructure



# NCRIS Recombinant Protein Production Facility

- will be the biggest facility in Australia



## Fermentation capacity

- ✓ up to 500L reactors
- ✓ single use and traditional systems
- ✓ g to kg quantities

## Services

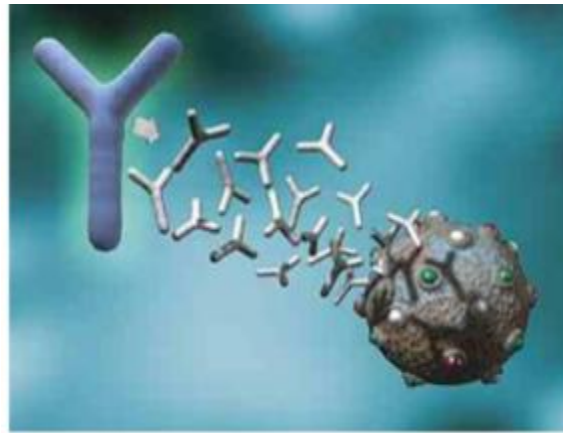
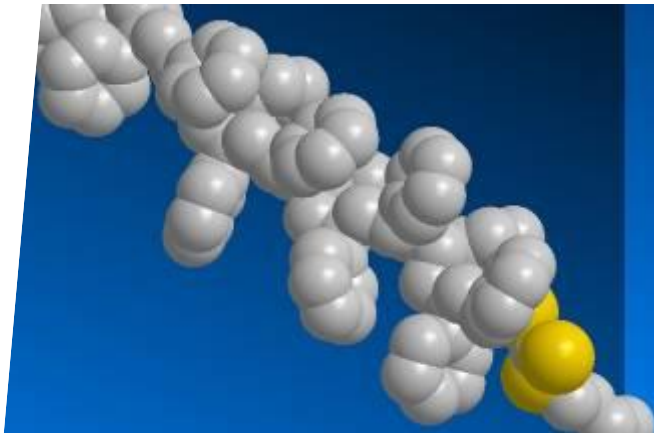
- ✓ production, optimisation and process development
- ✓ recombinant proteins for various purposes:
  - in-vitro and animal trials
  - biotransformation
  - soil remediation, etc.

# Platform development - polymers

R-S(=S)-Z

# RAFT

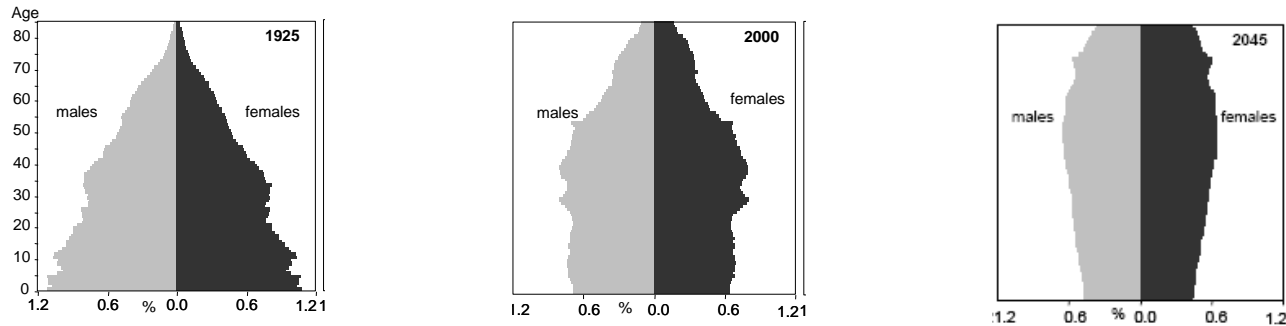
RAFT PATENTS: WO9801478/EP0910587 WO9905099/US6512081 WO9931144/US6747111 US6642318 WO05113612/EP1751194 WO07100719 WO961515/US6291620/EP0791016B WO9504026/US5830966 WO0177198/US7064151 US6355718/US6355718



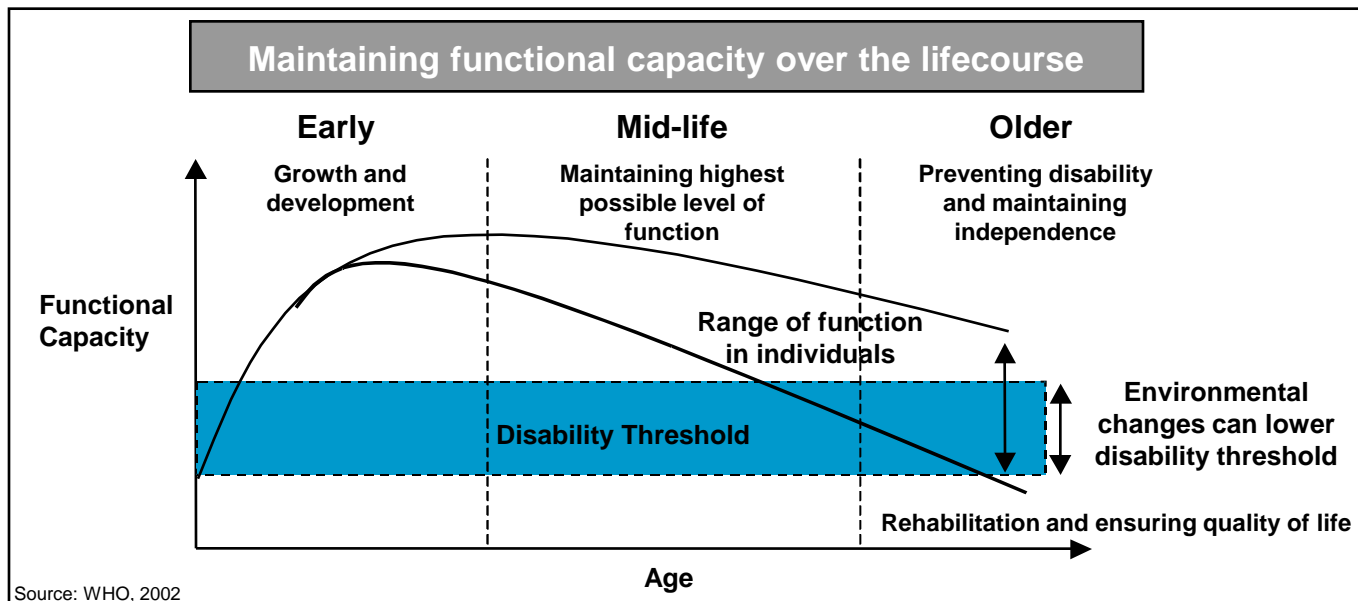
# Platform development – stem cells



# Maintaining function in an aging population

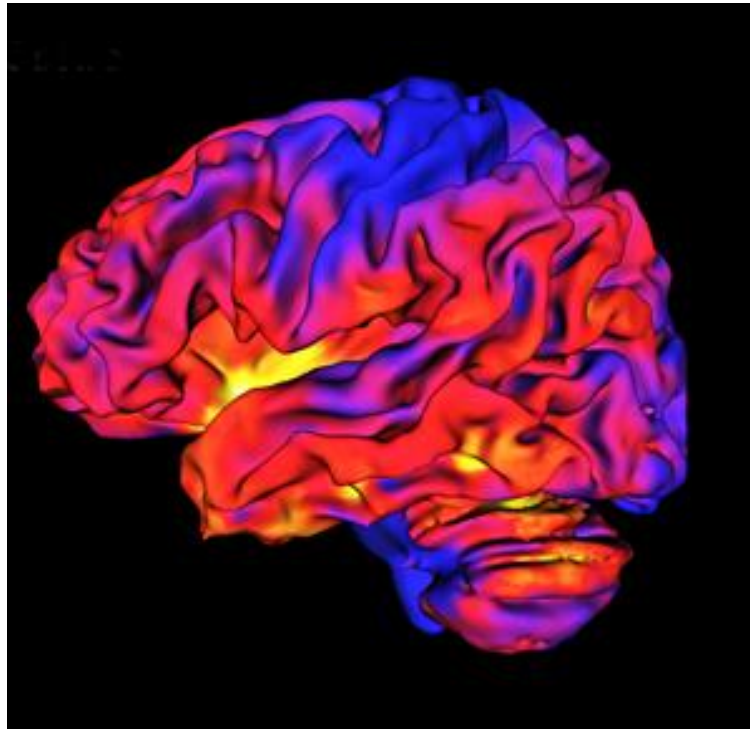


\* Productivity Commission 2005, Economic Implications of an Ageing Australia, Melbourne, April

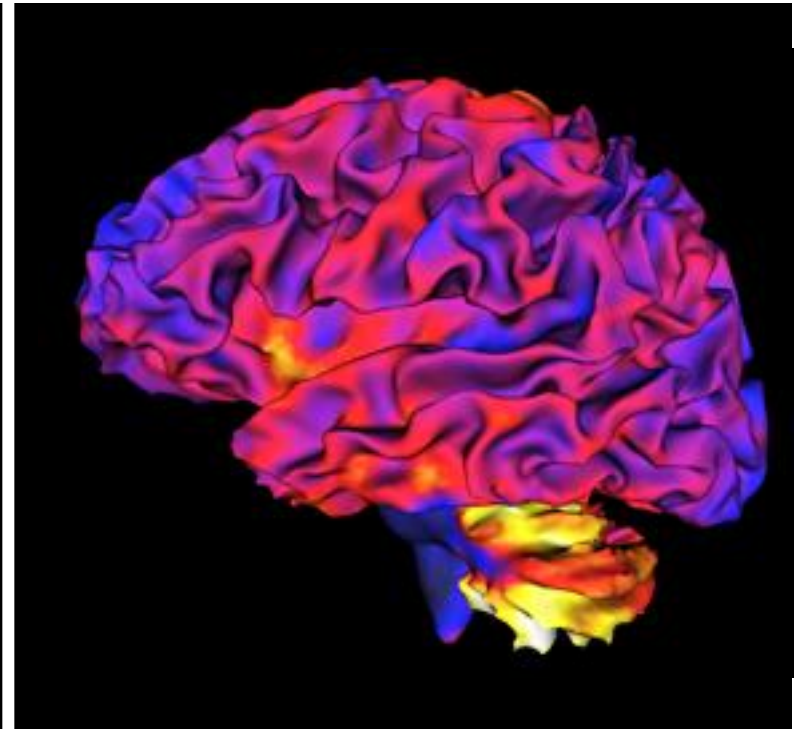


Included in the paper of PMSEIC "Promoting Healthy Ageing in Australia" 2003

# Imaging of Alzheimer's affected brain

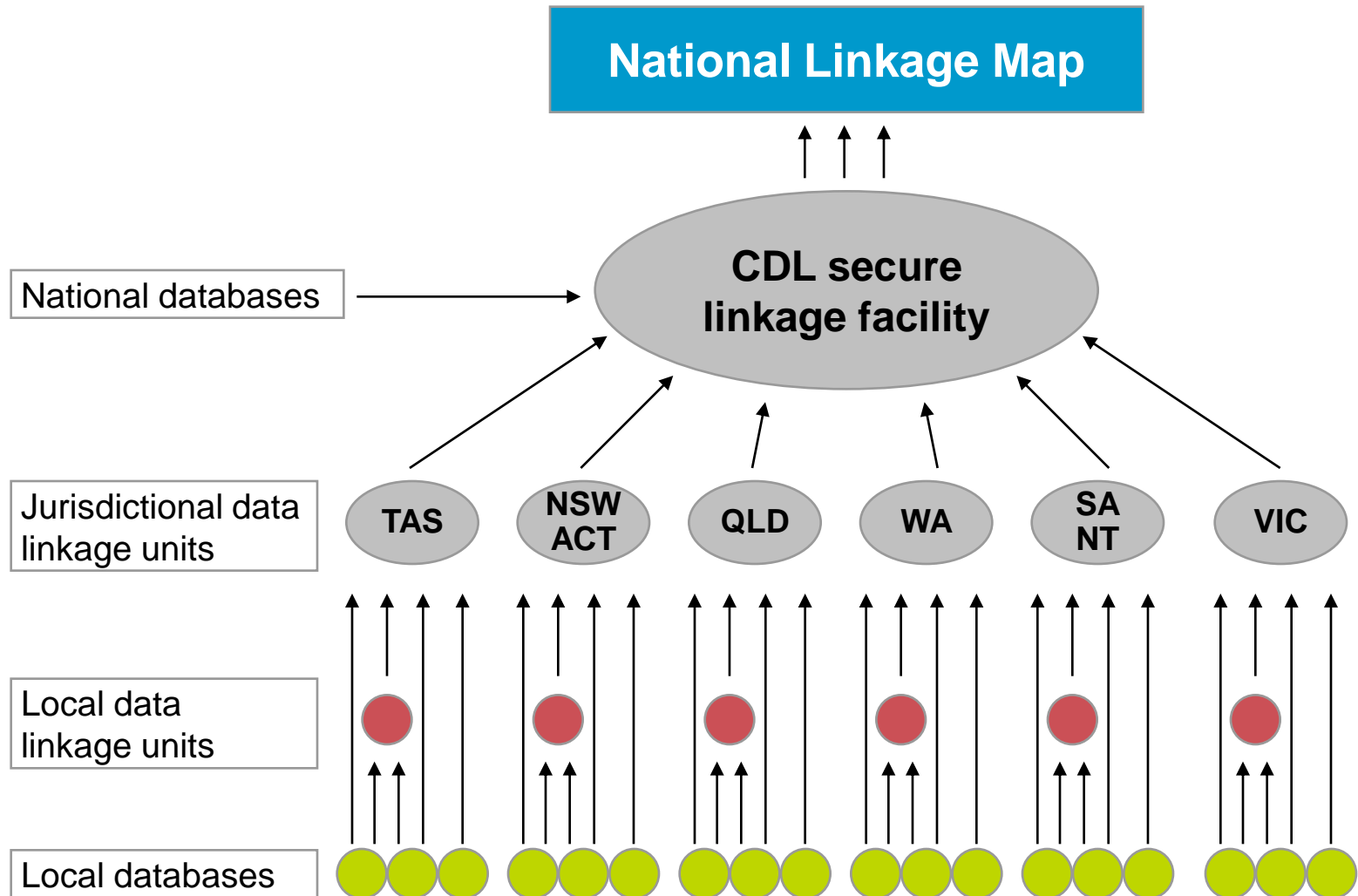


A healthy brain



An Alzheimer's affected brain

# Sharing data



# Conclusion



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# Thank you

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