

## What's Happening in... Biosciences

### **Biologists work with industry to develop a new drug for Alzheimer's disease**

*The number of people with dementia is steadily increasing. Currently there are about 850,000 cases in the UK, with numbers expected to reach over a million by 2021. The most common cause of dementia is Alzheimer's disease. Researchers at Lancaster University are developing new treatments to stop the development of dementia in its tracks.*

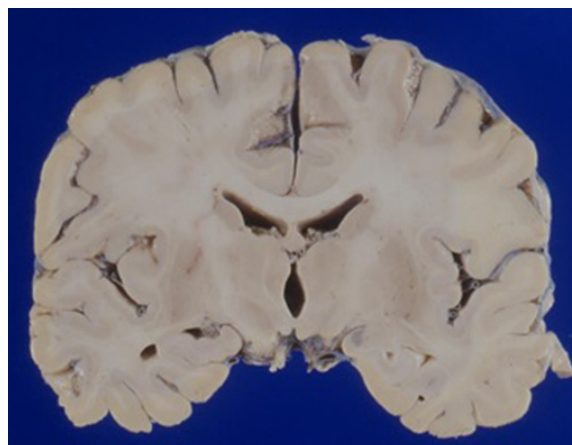
Alzheimer's disease begins when a protein called  $\beta$ -amyloid forms senile plaques that start to clump together in the brain, damaging nerve cells and leading to memory loss and confusion. David Allsop, Professor of Neuroscience at Lancaster University and the first scientist to isolate senile plaques from the human brain, and Dr Mark Taylor have developed a new drug which in laboratory tests reduces the number of these senile plaques and the amount of brain inflammation and oxidative damage associated with Alzheimer's disease.

Clinical trials are an essential step in the development of a new drug. To this end, Professor Allsop and his colleagues have teamed up with the north-west research company MAC Clinical Research to test their new drug on humans. Studies are ongoing to test the safety of the drug. Also, recent data suggest that the drug can pass rapidly from the blood into the brain, across the 'blood-brain barrier'.

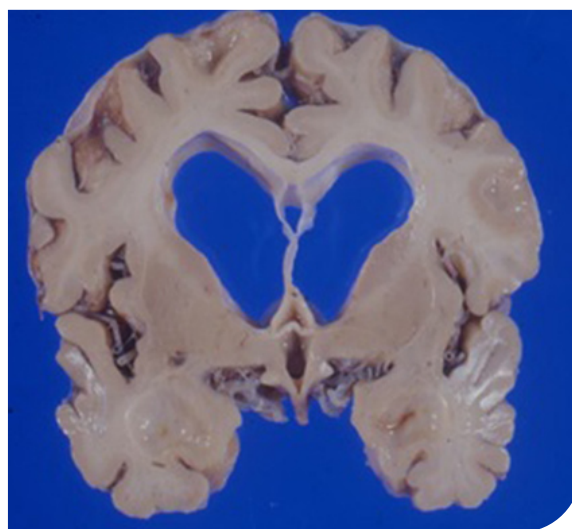
Senile plaques start forming years before any symptoms of Alzheimer's disease manifest themselves. Preventing Alzheimer's disease progression therefore remains a critical unmet need for millions of people worldwide. If it passes regulatory hurdles, the ultimate aim of this research, which is funded by the Alzheimer's Society, is to give the new drug to people with mild symptoms of memory loss at this early stage in order to stop any more damage to the brain.

For further information on this research and our 'Defying Dementia' campaign see: <http://www.lancaster.ac.uk/defyingdementia/>

Bioscience students at Lancaster University can have an opportunity to undertake project work with Prof. Allsop and Dr Taylor, and help their groups make a difference to patients suffering from dementia.



Normal brain



Alzheimer's brain

For more details about the Biology and Biological Sciences degrees at Lancaster University please contact the Biology Admissions Staff: -

**Lancaster Environment Centre,  
Lancaster University,  
LA1 4YQ, UK**

Email: [lec.ug@lancaster.ac.uk](mailto:lec.ug@lancaster.ac.uk)  
or see our website: [www.lancaster.ac.uk/lec](http://www.lancaster.ac.uk/lec)