

UK Parkinson's Disease Society Tissue Bank at Imperial College



Why do we store human brain tissue ?

Who are we and what do we do?

Left to Right
Dr David Dexter: Scientific Director
Prof Manuel Graeber:Neuropathologist
Dr Ronald Pearce: Consultant Neurologist
Prof Richard Reynolds:Technical Advisor

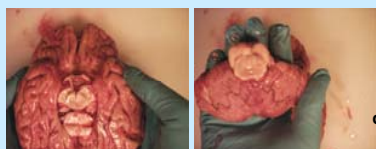


Left to Right
Dr David Dexter: Scientific Director
Louisa Djerbib: Research Technician
Dr Ronald Pearce: Consultant Neurologist
Helen Cairns: Research Assistant
Dr Kirstin Goldring:Tissue Bank Manager
Prof Manuel Graeber:Neuropathologist

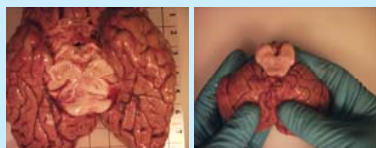
The aim of the new PDS Tissue Bank is to supply high quality samples of human brain and other tissue to scientists studying the causes and treatments of Parkinson's Disease.

What is Parkinson's Disease (PD)?

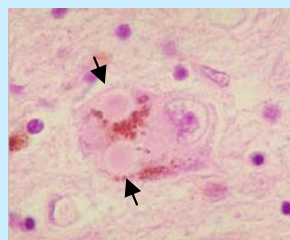
PD is a slowly progressive disease of the nervous system, generally affecting the elderly. It is characterised by rigidity of the limbs, tremor and difficulty in initiating movement. It occurs due to a loss of cells which produce a chemical called dopamine in a particular region of the brain, substantia nigra.



Substantia nigra from normal (control) brain – darkened/pigmented area



Substantia nigra from PD brain – pale/depigmented area



The arrows point out Lewy Bodies, one of the markers of PD

Why do we need human brain tissue for PD research?

Thus far, there are no treatments for PD that can halt the disease or restore damaged parts of the brain. In order to establish new and more effective treatments for Parkinson's, it is necessary to gain a better understanding of the changes that occur in brain tissue and to relate these to healthy ageing, by comparing PD tissue with results obtained from parallel study of normal brain tissue. Human tissue research has already contributed to the development of drugs for Parkinson's such as L-Dopa and greater understanding of how we control movement. Hence, the donation of the human brain is one of the most important legacies that can be made to the progression of research into Parkinson's and other neurological disorders

What tissue is required?

Since PD is a progressive disease of the nervous system, the brain and spinal cord are used in research. The cerebrospinal fluid bathes the brain and spinal cord, so the study of this fluid may also provide useful information. We therefore routinely remove the following tissue:

- The entire brain
- The entire spinal cord
- A sample of cerebrospinal fluid

Who can donate?

Firstly it is important to state that ANYONE can donate to the Tissue Bank!

What is involved in the donation procedure?

If someone is interested in donation, they are sent an information sheet to read, to ensure they can make the important decision of whether to become a registered tissue donor. Then, once the person has discussed it with their family and has decided they wish to donate, there are required to complete three forms; a donor form, which the person signs themselves to show that they wish to donate; a next-of-kin form for a relative to complete; an health information form. The next-of-kin form is essential, due to the fact that following the death of a donor; permission from the next-of-kin has to be obtained before any tissue can be removed. Once the Tissue Bank receives the completed forms, the donor is registered by addition to our database and will be sent a donor card with their own unique donor number. The donor is encouraged to carry the card with them at all time. The donor card shows our 24 hour contact number.



Contact Information

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