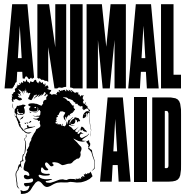


Human Tissue Research

Introduction

Animal Aid – June 2010



It is a poor reflection on the scientific community that every year in Britain hundreds of thousands of animals are bred and killed, to be used in test tube experiments, when an enormous quantity of human material is thrown away. It is not only the destruction of animals that is to be condemned. **The overwhelming advantage of human tissue is its direct relevance to human medicine, and so the continued use of animals must be regarded as bad science.**

History of the Animal Aid campaign for humane research

Animal Aid has been promoting the use of human tissue for medical research since 1991 when we launched our *Humane Research Donor Card (HRDC)*. Those carrying the card signified that they were willing, after their death, for part or all of their body to be used for research. More than 400,000 cards were distributed to the general public.

In addition, a 200,000-signature petition was presented to the Health Secretary, endorsing our call for the use of donated human tissue.

The petition signatories also urged the government to 'establish and co-ordinate a national network of human tissue banks to overcome the shortage of suitable human material' (see page 4 for a current list of research tissue banks as compiled by Dr Hadwen Trust – www.drhadwentrust.org).

The use of the HRDC has since been discontinued, having achieved its major aim of raising public awareness and attracting important scientific and political support for the replacement of animal tissues with donated human tissues. But more campaigning needs to be done, given that half a million animals are still being bred and killed every year in the UK simply so that their body parts can be used for test tube research.

Furthermore, unlike animals used for experiments while they are still alive, these 'body-part animals' don't even turn up in any official statistics. At present, the much-touted National Centre for the Replacement, Refinement and Reduction of Animals in Research (NC3Rs), which is funded by the Home Office, the Medical Research Council and other government and industry bodies, does not bother to collect such data.



Advantages of using human tissue



Aside from any animal welfare issues, the clear scientific advantage of using human tissue is that the data it provides is directly relevant to people, unlike experiments on animals.

Human tissue research plays a vital role in developing a deeper understanding of human disease processes and their underlying mechanisms. This point is made absolutely clear in the following statement by a major pharmaceutical company:

'Studying changes at the molecular and cellular level in human biological samples makes it possible to relate the patient's symptoms to the disease processes (pathology). This in turn increases the likelihood of effective new medicines being developed to treat diseases that currently are either poorly treated (such as osteoarthritis) or do not have suitable treatments (such as multiple sclerosis).'

'Human tissue is used to predict the likely effectiveness of a potential new medicine and to identify some of the possible unwanted effects. It is valuable, therefore, in the drug discovery process by enabling earlier and better predictions about the effectiveness and safety of a new compound'.

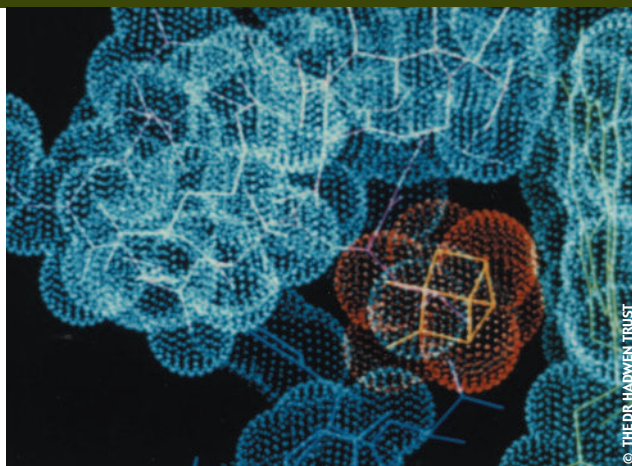
(www.astrazeneca.com/responsibility/research-ethics/human-biological-samples?itemid=7538779&nav=yes)

Sources of donated human tissue

Human tissue can be removed from living persons in the course of medical treatment, as well as from healthy volunteers and from cadavers. In each instance, prior consent must be obtained. Some tissues are readily available, e.g. blood, placenta and umbilical cord; others are available as waste from surgical operations (e.g. cosmetic surgery, mastectomy, circumcision) or from biopsies for the diagnosis of disease (e.g. from liver and kidney).

Post mortem tissues may be removed from cadavers for immediate use or to be frozen for future use. These post mortem tissues could include almost any part of the body – brain, heart, lung and other organs, skin, blood vessels and bone. They should be removed as soon as possible after death, as certain tissues will lose their viability very quickly.

At present there is no nationwide system for the collection, storage and distribution of human tissue for research. Some hospitals have specialised tissue banks where they collect samples of donated tissue, and researchers often make their own arrangements with local hospitals and doctors to acquire human tissue. There are also a number of brain banks across the country that collect and store tissue for research into neurological disorders such as Alzheimer's.



What you can do

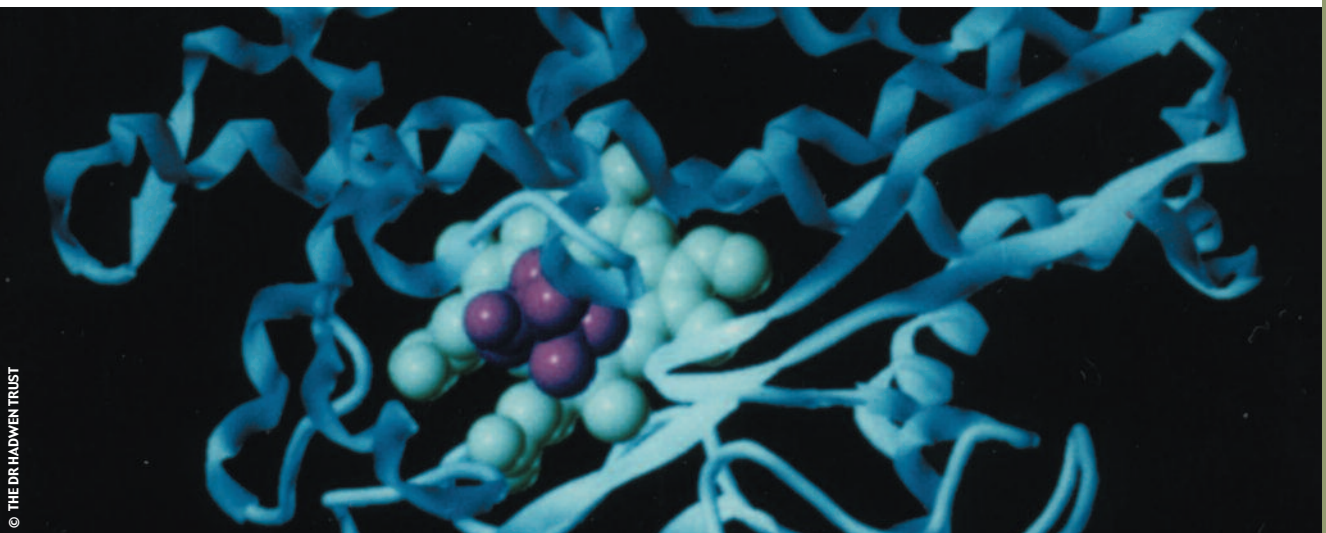
You may be able to help replace animal research, and aid medical progress, by donating your tissue to research. Although it is impossible to guarantee that your tissue will be used in place of animal experiments, helping to make human tissue more readily available can make the use of animal tissue less likely.

Anyone who wishes to donate their tissue to research should consider the following options. It is imperative that you make your wishes known to your family, because the decision as to whether or not your tissue will be used after your death ultimately depends upon their consent being given:

- **Contact your local hospital. If you are having a biopsy taken, or are about to undergo an operation, you can ask the hospital whether your tissue can be used in research. This will depend on what research is taking place locally that requires the type of tissue taken from you, and the availability of storage facilities.**
- **Contact one of the specialist human tissue banks overleaf.**
- **Investigate the possibilities now – tissues deteriorate rapidly after death and quickly become unstable, so where possible you should register your desire to donate tissue with a hospital or tissue bank.**
- **Inform your next of kin of your wishes, as they are likely to be asked for their consent.**

Note: If you sign up to UK Transplant (the NHS organ donor register), you should be aware that organ transplantation takes precedence over all other considerations. In other words, if you donate your body to UK Transplant, any organs that are useful for transplantation will first be used for that purpose. Relatives of the deceased can specifically give permission for organs or tissues to be used for research, where organs are either surplus to requirement or unsuitable for transplantation.

Usually organs and tissue are collected by specially trained hospital staff within hours of death. Your body is then returned, and your family will be able to make normal funeral arrangements.



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List of UK human tissue banks

Brain Bank for Autism & Related Developmental Research

A brain bank collecting both healthy and autistic brains to facilitate research into autism. Pre-registration is possible online. *Brain Bank for Autism & Related Development Research, Neuropathology Department, Level 1, West Wing, John Radcliffe Hospital, Oxford OX3 9DU.* Phone for emergency donation: 0800 089 0707. Register online at www.brainbankforautism.org.uk
Email: info@brainbankforautism.org.uk

Brains for Dementia Research

A collaboration by the Alzheimer's Society, the Alzheimer's Research Trust and the Medical Research Council (MRC) to improve the supply of brains for dementia research and networking five leading brain research centres at Oxford, London, Cardiff, Newcastle and Manchester. Accepts both healthy and diseased brains. *Brains for Dementia Research Coordinating Centre, Wolfson Centre for Age Related Diseases, King's College London, St Thomas' Street, London, SE1 1UL.* www.brainsfordementiaresearch.org.uk
Tel: 020 7848 8377. Email: bdr.office@kcl.ac.uk

Bristol University

Bodies can be bequeathed specifically for research purposes or for training of student doctors. *Bequest Office, Dept of Anatomy, University of Bristol, Southwell Street, Bristol BS2 8EJ.* Tel: 0117 928 7415.
<http://www.bristol.ac.uk/anatomy/bequests>

Ethical Tissue, Bradford

Collects and supplies a range of human tissues for biomedical research. Collection is from patients coming into hospital for treatment and from healthy volunteers. *Ethical Tissue, ICT Bioincubator, Tumbling Hill Street, University of Bradford, West Yorkshire, BD7 1DP.* Tel: 0127 423 5897 <http://www.ethicaltissue.org/>
Email: enquiries@ethicaltissue.org

Keratec Eye Bank

Eye bank and corneal research laboratory run by the charity Keratec, at St George's Hospital in London. Eyes are obtained from donors in the St George's NHS Trust Hospital group. *The Keratec Eye Bank, St George's, University of London, Cranmer Terrace, London, SW17 0RE.* Tel: 020 8672 1238. Email: eyebank@sghms.ac.uk

MRC Brain Bank for Neurodegenerative Disease

Collects human brain tissue, both healthy and diseased, for research into neurological disorders. Donor information packs available. *The Brain Bank Coordinator, PO65, Institute of Psychiatry, 4 Windsor Walk, London, SE5 8AF.* Tel: 020 7848 0290.
Email: brainbank@iop.kcl.ac.uk

Leeds Tissue Bank

Collects post-mortem tissue for research, especially cancer and orthopaedic research. *Leeds Tissue Bank, Room 4.12, Section of Pathology and Tumour Biology, Wellcome Trust Brenner Building, St. James's University Hospital, Leeds, LS9 7TF.* Tel: 0113 343 8508.
Email: medpath9@leeds.ac.uk

UK Multiple Sclerosis Tissue Bank

Brain tissue can be bequeathed by donors with or without MS. Information packs, donor cards and newsletter available. *The UK Multiple Sclerosis Tissue Bank, Division of Neuroscience and Mental Health, Imperial College London, Hammersmith Campus, Du Cane Road. London, W12 0NN.* Tel: 020 7594 9734.
Email: ukmstissuebank@imperial.ac.uk

Queen Square Brain Bank for Neurological Disorders

Collects post mortem brain tissue for research into neurological disorders, including Parkinson's disease, dementia and others. Tissues are supplied to researchers worldwide. Newsletter and a donation consent form available from: *Susan Stoneham, Administrator, Queen Square Brain Bank, Institute of Neurology, 1 Wakefield Street, London, WC1N 1PJ.* Tel: 020 7837 8370.
Email: qs-bb@ion.ucl.ac.uk

Parkinson's Disease Society Tissue Bank

Accepts donations of brain tissue from patients with or without Parkinson's disease and other movement disorders. Tissue from healthy 'control' individuals is especially needed. Donations accepted from across the UK. Information packs and donor cards available from *PDS Tissue Bank, Division of Neuroscience and Mental Health, Burlington Danes Building, Imperial College London, 160 Du Cane Road, London, W12 0NN.* Tel: 020 7594 9732. Email: pdbank@imperial.ac.uk

Newcastle Brain Tissue Resource

Collects post mortem brain tissue from healthy older people and patients with neurological disease. There is a registration system in place for those aged 65 and over. *Newcastle Brain Tissue Resource, Institute for Ageing and Health, Newcastle University Campus for Ageing and Vitality, Newcastle upon Tyne, NE4 5PL.* Contact the Research Nurses on Tel: 0191 248 1231 or 0191 248 1229. Email: nbtr@ncl.ac.uk

South West Dementia Brain Bank

Collects brain tissue from dementia and non-dementia brains. Donations possible. *Dementia Research Group, The John James Building, Frenchay Day Hospital, Frenchay Hospital, Bristol, BS16 1LE.* Tel: 0117 340 3070.
Email: Laura.E.Palmer@bristol.ac.uk

