

## Welcome

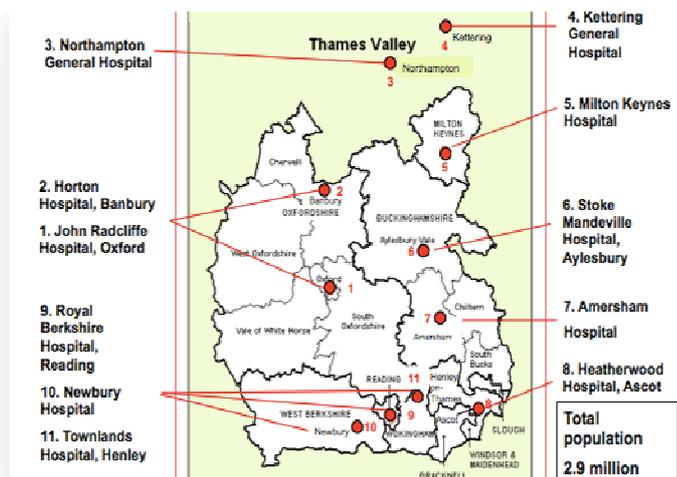
- **What is the Oxford Parkinson's Disease Centre (OPDC)?**
  - We are an interdisciplinary research center investigating the causes of Parkinson's and the earliest changes in the disease.
  - Our researchers come from areas of science which are central to Parkinson's research: molecular genetics, stem cell research, brain cell biology, brain imaging and clinical medicine.
  - We are funded by a £5m Monument Trust Discovery Award from leading research charity Parkinson's UK, granted in 2009.
- **Our aims**
  - Our mission is to accelerate progress towards finding a cure for Parkinson's.
- **In this Newsletter**
  - We present some initial results from our clinical cohort, an interview with a relative participant and announce successful local applications for new Parkinson's research projects



## The Thames Valley Parkinson's Cohort: latest news & early findings - Dr Michele Hu

- **Recruitment:** by the end of 2012, we recruited 940 participants to our study: 682 people with Parkinson's, 202 controls (without Parkinson's) and 56 brothers and sisters of people with Parkinson's
- **Clinic sites:** we are now running research clinics in 11 sites across the Thames Valley (see map)
- **Preliminary findings:**
  - After analyzing data from the first 500 participants, we have found that a deterioration in the following characteristics predict memory symptoms, and may be important early markers to identify people at greater risk of future problems: hand dexterity; balance; ability to smell; anxiety.
  - Using MRI scans, we have shown changes in the brain which reflect improvements in brain function following use of Parkinson's medications
  - We have identified several important proteins in the blood of Parkinson's patients. We are now testing these for accuracy of early diagnosis
  - We are looking at data from 250 people with Parkinson's to better understand the role of genetics in the development of the condition
  - We are training the next generation of young scientists and doctors to lead in Parkinson's research for the future

### Parkinson's Monument Discovery study clinic sites



## New study video launched!

- The team has produced a short film about the Parkinson's Monument Discovery project.
- This is available to view on the OPDC website: <http://opdc.medsci.ox.ac.uk>
- Please have a look and share as widely as possible with friends, relatives and Parkinson's UK branch members!
- 'Probing Parkinson's' podcast, other news and updates also available on OPDC website

## Find out more:

Information on all our current research activities can be found on our website <http://opdc.medsci.ox.ac.uk> and in the 'Current Research' section of Parkinson's UK website [www.parkinsons.org.uk/currentresearch](http://www.parkinsons.org.uk/currentresearch)

For more information on taking part in our research contact your local DeNDroN NHS research team  
 Tel: 01865 234892, Fax: 01865 234609, email: [parkinsons.research@nhs.net](mailto:parkinsons.research@nhs.net)



## Taking part: perspective of a relative participant

Michael Doherty lives in Belfast, Northern Ireland. Michael's brother Sean was diagnosed with Parkinson's in 2009. Michael travelled all the way from Northern Ireland to have his first of three appointments in the Monument Discovery study at Milton Keynes Hospital.

### How has your life changed since your brother's diagnosis?

"It hasn't changed at all. I was very pleased to see my brother in such good form during my recent visit. This could be attributed to his attitude. He plays golf 3 times a week and keeps himself very mentally active. He has lots of friends who are very supportive. Sean has accepted his diagnosis and is keen to live life to the full. He is very supportive of the study, realising its importance and potential to advance our understanding of the condition. He has also been very impressed with the care and advice he has received from his NHS treatment team."

### Why did you decide to take part in the study?

"I wanted to take part to support the efforts my brother is making. I would like to help the medical community in their efforts to diagnose the condition earlier. I'm happy to help in any way so the condition can be alleviated, stopped or even prevented.

As a regular blood donor I strongly believe that we should help others as much as we can. Participating in the study may help researchers find out how conditions like this can be prevented in the first place."

### How has your experience of the research study been so far?

"I was very impressed with the study team. They were very professional and friendly. I didn't feel any pressure at all. The whole experience lasted about two hours. I had a blood test, did some exercises to look at my balance, walking and memory.

"I still have further tests to take, including a MRI scan, a skin biopsy and a lumbar puncture. These have not yet been arranged and there has been no pressure exerted to undertake them."

*"I wanted to take part to support the efforts my brother is making."*

*"Participating in the study may help researchers find out how conditions like this can be prevented in the first place."*

### What do you hope to get out of your participation in the study?

"Nothing personal, but by participating I'm helping the research. Ultimately I would hope that the more people who take part, the better we will understand how the condition can be controlled."

### What would you say to another relative who was considering taking part?

"Get involved. Your participation could assist the efforts that are being made to understand, control or prevent the condition."



### Are you a brother or sister of someone with Parkinson's ?

We would like to invite you to consider taking part in our research, as we believe that your involvement will give us important understanding into the causes of Parkinson's and the earliest changes that occur before this diagnosis. We would like to study 300 relatives of Parkinson's subjects over the next 2 years, to look for early changes that might be present in blood and other clinical tests, and to compare with those seen in Parkinson's subjects. So far 50 Parkinson's siblings have taken part in our study, and we would like another 250 relatives to volunteer over the next 2 years to improve our understanding and early diagnosis of this condition.

For more information call us on (01865) 234892, or email [parkinsons.research@nhs.net](mailto:parkinsons.research@nhs.net)

## Additional research funding secured for Parkinson's

Our participants' valued involvement in the Discovery project has allowed us to secure additional Oxford-based funding to study other aspects of Parkinson's including:

- The prediction of levodopa-induced dyskinesias (involuntary movements) in Parkinson's using Transcranial Magnetic Stimulation (Dr Bin Cheeran working with the OPDC, Parkinson's UK innovation grant)
- The development of a novel Parkinson's biomarker from blood samples using auto-antibodies to the protein alpha-synuclein (Dr Jason Davis working with the OPDC, Parkinson's UK Translational Research Grant)
- The use of induced pluripotent stem cells generated from skin biopsies of living subjects to develop new drug treatments across several disorders, including Parkinson's. This part of the study which will be co-ordinated between Oxford and Lubeck Germany (Dr Zam Cader and the OPDC, European Union Innovative Medicines Initiative)
- The use of Optogenetics, a new technology using light to study brain cells is being developed by Sarah Threlfell an OPDC career development fellow (Parkinson's UK innovation grant)