



NHS
National Institute for
Health Research

Blood and Transplant Research Unit in Organ Donation and Transplantation

GET INVOLVED NEWSLETTER

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Welcome to our spring issue

by Lynne Stobbart

Our [Get Involved Newsletters](#) provide updates on ongoing and forthcoming activities within the NIHR BTRU in Organ Donation and Transplantation plus feedback on proposals, applications and recent events. As well as dates for your diary and items of interest, each newsletter will shine a spotlight on one of the core research themes of the BTRU. In addition, this issue sees a new feature in which members of our Patient & Public Research Panel share a little bit about themselves and tell us why they decided to get involved in transplantation research.

Feedback: Showcasing Research in Organ Donation & Transplantation

This interactive public event hosted by the Institute of Transplantation at Newcastle's Freeman Hospital in February was well attended and has received positive feedback, generating growing interest in transplantation research and membership of the P&P Research Panel. [See our website for more details.](#)

Cambridge Science Festival

Last month, members of the Cambridge team once again took part in the ever-

popular Cambridge Science Festival. This year they hosted two events: a public lecture on the future of transplantation from a young researcher's perspective and a hands-on session demonstrating perfusion equipment as part of the Cambridge Biomedical Campus Day. Both events were well attended and feedback has been very positive. [Read the full report on our website.](#)

“Get Involved” says: Irene by Irene Soulsby (pictured)

When I was very young, my dad's cousin, George – in his 60s – had hospital tests, which gave some very unusual results. This led to a London university contacting members of my family requesting to interview them, take blood samples and investigate further. I remember being very worried at the time, wondering, “what was a scientist?” and “were they evil?” (Obviously too much Dr Who!) It was thought that George's condition was inherited and the only other people they knew of with the condition were all related and were from a remote African tribe! As a result of this ‘mystery’, when George died in the 1980s, he donated his body to research and this has always stuck in my mind and inspired me.

Having undergone successful treatment for breast cancer in 2003, I feel that I am here because of research. I now take part in lots of research projects; some involve going along to focus groups with patients and members of the public, where we hear about research that is taking place. For the BTRU, I don't have any personal experience of transplantation, but this means that I might have a different perception of matters. I may raise questions that transplant patients or the researchers may not have considered or I might suggest that something might be explained better in a different way. So far, we have been learning about organ transplants and what this involves. This is complex and can be challenging but it has been very worthwhile to be involved and I'm looking forward to learning more and participating in future meetings and events.



Spotlight on:

Theme 4 Resuscitating and reconditioning kidneys ex vivo

by Sarah Hosgood



Theme members:

- Lead – Professor Mike Nicholson (pictured top right)
- Senior Researcher – Dr Sarah Hosgood
- Clinical Fellow – Dr Tom Adams
- PhD Student – Jenna DiRito
- Research Assistant – Tom Moore

Transplantation is the best treatment for end stage kidney failure. However, due to the chronic shortage of organ donors in the UK, many people die waiting for a kidney transplant. To address this problem we have developed a new technology called

normothermic (warm) machine perfusion. This involves warming the donated kidney to near body temperature by circulating an oxygenated red blood based solution, with added protective agents, through the kidney before it is transplanted. Using the same technology as that used in cardiac surgery, the equipment, pictured below left, has been adapted to provide circulation to the kidney outside the body.

Warm perfusion has a number of advantages:

- Firstly, early tests have show that warm perfusion may reduce the length of time it takes for a newly transplanted kidney to start working properly. We are testing this in a large number of kidneys in four centres across the UK.
- Second, there are often concerns about the suitability of a kidney for transplantation and warm perfusion enables us to assess the function of the donated kidney. This helps the transplant surgeon to make a decision whether or not to use a kidney, ensuring that

kidneys are not unnecessarily discarded and that more can be used.

- Third, warm perfusion allows us to administer treatments or drugs directly to the kidney to improve its function. This may be more effective and may have fewer unwanted effects than delivering therapies to the patient. We are testing a number of different treatments that can repair the kidney and hope to introduce these into clinical practice in the next few years.

Collaborations

Theme members are collaborating with Professor Andy Fisher (Theme 3) on lung perfusion to see whether some of the same tests can be employed to test organ function and to allow testing of potential new therapies.

Beyond the BTRU, we are collaborating with other experts and institutions both nationally and internationally. Links have been established with the Swedish company A1M Pharma and with Organ Assist in the Netherlands.



Upcoming Events

On **Wednesday 18th April 2018** there will be a workshop for BTRU researchers and panel members with Northumbria University design student Hazel Crickett. Hazel is completing a Master's degree at the School of Design and is interested in developing interactive materials to promote patient and public engagement and involvement. The workshop will take place between 1 and 3pm in the Institute of Health & Society, Newcastle University.

The next quarterly meeting of the BTRU Patient & Public Research Panel will be held on **Wednesday 25th April 2018** from 2 to 5pm, also at the Institute of Health & Society. Dr Joanne Lally will talk about the various funding streams and mechanisms available to researchers, Professor Andy Fisher and PhD student Chelsea Griffiths will present a proposal on the use of amniotic stem cells in lung transplantation and we will also have an opportunity to explore the Institute of Transplantation's transplant.tv.

The remaining Patient & Public Research Panel meetings for 2018 will take place on the following dates:

- Monday 23rd July, 1–4pm
- Wednesday 24th October, 2–5pm

*Look out for Issue 3 of our
Newsletter in July*