

## NIHR Birmingham Liver Biomedical Research Unit News

### Pioneering stem cell therapies in liver disease to be trialled in Birmingham. 18/3/2014

University of Birmingham researchers are to lead a worldwide collaboration of scientists looking at the possibility of transplanting stem cells from one person to another to reduce inflammation in the liver.

**Prof Philip Newsome** (<http://www.birmingham.ac.uk/staff/profiles/iandi/newsome-philip.aspx>) and **Dr Gideon Hirschfield** (<http://www.birmingham.ac.uk/staff/profiles/iandi/hirschfield-gideon.aspx>), from the University's School of Immunity and Infection, will lead the €5.4 million Mesenchymal stem cells (MSC) to Reduce Liver Inflammation (MERLIN) programme which will include the first clinical trial of mesenchymal stem cells in liver disease in the UK.

The full press release can be seen [here](http://www.birmingham.ac.uk/news/latest/2014/03/Pioneering-stem-cell-therapies-to-be-trialled-in-Birmingham.aspx) (<http://www.birmingham.ac.uk/news/latest/2014/03/Pioneering-stem-cell-therapies-to-be-trialled-in-Birmingham.aspx>) and details of the MERLIN consortium [here](http://fp7merlin.eu) (<http://fp7merlin.eu>).

2013...

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### Ground breaking scan may help identify liver disease 26/11/13

A ground-breaking scan that can identify and help to treat liver disease, could make painful and invasive liver biopsies a thing of the past, thanks to a trial being led by the University of Birmingham.

Nearly 15 million people in the UK are affected by liver disease and this number is increasing. Most suffer from fatty liver disease which is linked to obesity, diabetes and alcohol excess and in severe cases can cause cancer or death. The Chief Medical Officer for England, Dame Sally Davies, identified it as a priority for the NHS in her report on the state of the nation's health and called for urgent action to reverse the trend. Patients who are suspected of having liver disease will usually be sent for an invasive biopsy to assess the level of damage. But, as well as being painful and uncomfortable, biopsies have some drawbacks, including the fact that they cannot be used over and over again on the same patient. The new scan, called LiverMultiscan, could be used numerous times which means doctors will find it easier to monitor the progress of the disease and adapt the treatment plan accordingly for the individual.

The trial is a collaboration between clinicians and scientists at the National Institute for Health Research (NIHR) Birmingham Liver Biomedical Research Unit at the Queen Elizabeth Hospital Birmingham and University of Birmingham, the University of Edinburgh and medical imaging company **Perspectum Diagnostics** ([http://www.isis-innovation.com/news/news/Noninvasive\\_scan\\_to\\_detect\\_early\\_liver\\_disease.html](http://www.isis-innovation.com/news/news/Noninvasive_scan_to_detect_early_liver_disease.html)). It is supported by a grant of £1.2 million from the UK's innovation agency, the Technology Strategy Board.

Until now, non-invasive tests such as blood tests and routine scans have been limited in detecting liver damage, especially in the early stages where patients have the most to gain from treatment. The only current accurate way to diagnose liver disease is through a liver biopsy where a needle is put into the liver and a sample of tissue is taken. This is uncomfortable and carries a small risk of serious complications.

If successful, LiverMultiscanTM, which uses a new type of MRI (magnetic resonance imaging) technology could be used throughout the UK to diagnose patients with liver disease without resorting to biopsies and could be available to patients in the NHS within three years.

Over the next two years the clinical study being undertaken will further assess LiverMultiscanTM and will also use the technology to monitor a group of patients with primary sclerosing cholangitis to see how well changes in the liver can be tracked over time.

Dr Peter Eddowes, NIHR Clinical Research Fellow in Hepatology at the University of Birmingham said:

"Liver disease often has no symptoms and people can go for years not knowing their liver is damaged. Current non-invasive tests lack the sensitivity to reliably pick up early liver disease"

Dr Gideon Hirschfield, the chief investigator on the study said:

"We are pleased to run this study in Birmingham alongside our partners in Edinburgh and Oxford. We hope LiverMultiscanTM will improve the care of liver patients and enable us to provide a quicker, cheaper and most importantly, safer diagnosis."

### Research Tackles Liver Transplant Failure 1/11/13

The re-infection of transplanted livers with hepatitis C virus (HCV) – which can irreparably damage the new organ - could be halted by administering a drug which blocks the virus entering the liver, **research from the University of Birmingham** (<http://www.birmingham.ac.uk/news/latest/2013/11/Birmingham-research-tackles-liver-transplant-failure.aspx>) presented at the American Association for the Study of Liver Disease (AASLD) 2013 Meeting demonstrates.

### BRU on camera!!

The work of the Liver BRU features on a film made for the **AASLD 2013** (<https://www.aasld.org/livermeeting/Pages/default.aspx>) meeting. The film shows Professor David Adams, Dr Gideon Hirschfield, Professor Philip Newsome and Dr Evaggelia Liaskou talking about the important work of the Birmingham NIHR Liver Biomedical Research Unit. Dr Hirschfield notes that we are in a unique place in liver disease, having the university that leads the way in liver disease research and a *'hospital that has one of the most famous liver units in the world with a track record of liver transplantation going back decades.'* Professor David Adams enthused about the opportunity and impact the unit can have, saying, *"Our vision and what really excited me about this unit is the ability for the first time in my career, is to take basic discovery science from the laboratory into the patient for the benefit of patients with liver disease. We hope this is the beginning of a very exciting era of translational medicine in Birmingham"*

The film was screened in various conference venues and can now be seen on YouTube:

Adobe Flash Player or QuickTime is required for video playback. [Get the latest Flash Player](#) [Get the latest version of QuickTime](#)



Ian receiving his prize from Professor Dave Jones

### 2013 NIHR Senior Investigator Awards

11th March 2013

Professor David Adams who is the director of the Birmingham NIHR Biomedical Research Unit has been awarded the title of **NIHR Senior Investigator** ([http://www.nihr.ac.uk/faculty/Pages/faculty\\_senior\\_investigators.aspx](http://www.nihr.ac.uk/faculty/Pages/faculty_senior_investigators.aspx)). He was one of just 19 out of 109 new applications to receive the award which are made according to criteria of quality and volume of internationally excellent research; its relevance to patients; and the public; impact on improvements in healthcare and public health; impact of individual research leadership including for NIHR; engagement of patients and the public and engagement of healthcare policy makers and planners with their research.

### 2012...

#### Liver BRU on Radio 4

About a third of deaths from liver disease are down to excessive alcohol consumption, but what is responsible for the majority of liver related deaths? Dr Mark Porter investigates this topic with doctors from the Birmingham NIHR Biomedical Research Unit on Inside Health on BBC Radio 4 at 9pm on 31st July 2012.

**More information** (<http://www.uhb.nhs.uk/news/liver-disease-research-focus-of-bbc-show.htm>)

**Podcast** ([http://downloads.bbc.co.uk/podcasts/radio4/medmatters/medmatters\\_20120731-2130a.mp3](http://downloads.bbc.co.uk/podcasts/radio4/medmatters/medmatters_20120731-2130a.mp3))

### Clinical Research Fellow Matthew Armstrong has won a poster prize at the 2012 NIHR Experimental Medicine Research Training Camp



The NIHR Experimental Medicine Research Training Camp was attended by 70 invited PhD students from Biomedical Research Centres, Biomedical Research Units and Collaborations for Leadership in Applied Health Research and Care.

As a condition of attendance at the Training Camp, each trainee had to submit an abstract about their research work. Only 35 were selected for presentation.

Matthew won the best poster prize and was one of only 4 poster prizes awarded. The poster competition was judged by Professor Jim Neilson (Dean of NIHR Trainees), Dr. Denise Best (Academic Careers Manager at Oxford BRU), Margaret Hall and Isobel Boyer (NIHR lay advisors).