

**THE LIVER GROUP**  
**CHAIRMAN'S REPORT**  
**FOR THE YEAR ENDING 31 DECEMBER 2009**

This year has been a good year on the path to our goal, the creation of a bioartificial liver, using our innovative technique in which cultured liver cells are suspended within beads of the hydrogel alginate. And this work has become more timely, with the increasing recognition that liver disease is now a major health problem in the UK – in fact now amongst the 5 leading causes of death in adults, and the only one of those ‘top 5’ which is increasing in incidence.

I reported last year on the Grant we secured from the ‘New and Emerging Technologies’ programme of the NIHR, the National Institute for Health Services Research – the Research and Development arm of the National Health Service in England. That grant was to perform a ‘proof of principle’ study in a large animal (porcine) model, using our bio-artificial liver, at a scale only slightly smaller than that which will be required for use in man, and by careful observation demonstrate that the manifestations of liver failure can be reversed.

We started those studies in March 2009 - in collaboration with the University of Cape Town, using the laboratories built in recognition of Christian Barnard as he developed the techniques for the world’s first heart transplant. It has taken a major logistic effort to accumulate the equipment there – and each experiment will need the cells for the bio-reactor to be shipped from London. But by the end of 2009 those experiments had begun, keeping up with the strict milestones required by the Department of Health. As scientists we are very loathe to make any firm claims before the proposed experimental protocols have been completed, but cautious optimism would be a fairly accurate assessment of our state of mind! Our research team in London has worked incredibly hard to scale the bio-reactor up further to ‘man-size’, and I know all the other trustees join with me in expressing our thanks to them for their work in London and to all the collaborators we have enlisted in Cape Town.

I mentioned our disappointment last year that the grant funding from the NIHR came from a cash-limited pool, so we have continued to work to raise funds from our supporters to support key work in the laboratory, and we are enormously grateful for the donations we have received.

Once again, I express my immense gratitude to our supporters, without whom this work would not be possible, and to my fellow trustees for their dedication and help.



Humphrey Hodgson  
Chairman