B·DEBATE International Center for Scientific Debate BARCELONA

Vall d'Hebron Institut de Recerca VHIR

ANDREW BAKER

CV

PARTICIPANT AT:

UNSOLVED PROBLEMS IN HEART REPAIR

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Andrew Baker, Professor of Molecular Medicine, Institute of Cardiovascular and Medical Sciences, University of Glasgow, UK

Dr. Andrew Baker graduated from the University of London in 1990 with a First Class BSc (Joint Honours) in pharmacology and toxicology and then studied for his PhD with the Leukaemia Research Fund at the University of Wales College of Medicine, graduating in 1994. He then joined the group led by Professor Andrew Newby for his post-doctoral work in Cardiff and developed adenoviral vectors for gene delivery studies in the cardiovascular system. This was at the very early stages of gene therapy. Dr Baker then transferred to a lectureship at the University of Bristol (Bristol Heart Institute) to continue studies on adenovirus-mediated gene transfer to assess vascular function in different model systems. At the same time he initiated his independent research programmes focusing on how to engineer delivery systems for optimal use in vivo in gene therapy applications. In 1999, Dr Baker joined Professor Anna Dominiczak's group at the University of Glasgow as a Senior Lecturer in Molecular Medicine, then as Reader and now as Professor of Molecular Medicine. He is based at the British Heart Foundation Glasgow Cardiovascular Research Centre (BHF GCRC), which is a translational centre of excellence with a focus on primary and secondary prevention at cardiovascular disease. Gene therapy aims to harness the power of the genome in a clinical relevant setting, with a focus on diseases with unmet clinical need. For his work on cardiovascular disease, this initially included the generation of replication-defective adenovirus vectors that mediated overexpression of a variety of genes including metalloproteinase inhibitors (TIMPs), inhibitors of matrix degradation in pathological conditions. These vectors were used successfully to inhibit vein graft neointimal thickening in human and pig models. He is currently engaged in research to further develop gene therapy aimed at different aspects of vein graft biology, as well as development of vectors that mediate sustained gene overexpression in vivo.