James W B Bainbridge MA MB BChir PhD FRCOphth

UCL Institute of Ophthalmology,
11-43 Bath Street, London, EC1V 9EL

tel:+44(0)02 7608 6889
j.bainbridge@ucl.ac.uk

Professional History

2012-	NIHR Research Professor	National Institute for Health Research
2011-	Professor of Retinal Studies	UCL Institute of Ophthalmology
2007-	Faculty Investigator	National Institute for Health Research
2007-	Research Theme Leader	NIHR Biomedical Research Centre
2005-	Honorary Consultant Ophthalmologist	Moorfields Eye Hospital
2005-10	Wellcome Advanced Fellow	UCL Institute of Ophthalmology
2004-5	Clinical Fellow in Vitreoretinal Surgery	Moorfields Eye Hospital
2003-4	Specialist Registrar in Ophthalmology	Moorfields Eye Hospital
2000-3	Wellcome Trust Research Training Fellow	UCL Institute of Ophthalmology
1999-00	Specialist Registrar in Ophthalmology	Moorfields Eye Hospital

Education

1989-92	St. Mary's Hospital Medical School, London
1986-89	King's College, Cambridge
1979-86	Queen Elizabeth's School, Faversham, Kent

Qualifications

2003	PhD (Genetics)	UCL
1996	FRCOphth	Royal College of Ophthalmologists
1992	MB BChir	University of Cambridge
1989	BA	University of Cambridge

Awards and distinctions

2009	Foundation Fighting Blindness Board of Directors' Award
2008	The Fincham Medal, Worshipful Company of Spectacle Makers
2004	Moorfields Research Medal
2003	Academy of Medical Sciences Award for Ophthalmology
2002	Academy of Medical Sciences Young Investigator Award Finalist
2001	The Foulds Trophy, Royal College of Ophthalmologists
1991	Thomas Keeping Award, University of Cambridge
1991	Mary Euphrasia Moseley Exhibition, University of Cambridge

Research resume

James Bainbridge is a surgeon-scientist at the NIHR Biomedical Research Centre for Ophthalmology at Moorfields Eye Hospital and UCL Institute of Ophthalmology. His aim is to reduce the prevalence of blindness using translational research to develop effective new treatments for retinal diseases. He is engaged in a programme of research that extends from the laboratory investigation of mechanisms of disease in experimental models to clinical trials of new medical and surgical interventions. In 2007 he performed the world's first gene therapy for inherited blindness, demonstrating proof of-concept that offers hope for people with inherited retinal degeneration. He also lead Europe's first clinical trial of human embryonic stem cells, a first-in-human study to test the potential of retinal cell transplantation in macular degeneration.

Current awards

2011-16	**NIHR** J Bainbridge NIHR Research Professorship	**£1.5 M**
2011-16	**Moorfields Special Trustees** J Bainbridge Support for UCL Chair of Retinal Studies	**£418 K**
2011-16	**RP Fighting Blindness** R Ali and J Bainbridge Gene therapy for retinal degeneration	**£750 K**
2011-12	**The Newman Foundation** J Bainbridge *Salary support for gene therapy technical assistant*	**£24 K**
2011-12	**Rosetrees Trust / UCL Therapeutic Innovation Fund** J Bainbridge, T Sepp and R Ali, UCL IoO *Development of a novel therapeutic antibody*	**£40 K**
2011-12	**Fight for Sight** J Bainbridge and C Lange UCL IoO *The role of vitreous macrophages in proliferative diabetic retinopathy*	**£15 K**
2010-13	**Diabetes UK** D Bates (University of Bristol) and J Bainbridge UCL IoO *Over-expression of $VEGF_{165}b$ as a novel therapy for diabetic retinopathy*	**£84 K**
2010-13	**Medical Research Council** S Moss, J Bainbridge, J Greenwood, UCL IoO *Development of a therapeutic antibody for a novel angiogenic target*	**£739 K**
2010-13	**The Wellcome Trust** J Greenwood, J Bainbridge, S Moss, UCL IoO *The role of apelin/APJ pathway in retinal vascular development and pathology*	**£295 K**
2010-13	**Medical Research Council** J Greenwood, J Bainbridge, S Moss UCL IoO *The role of leucine-rich alpha-2-gycoprotein 1 (Lrg1) in retinal vascular disease*	**£670 K**
2010-13	**Moorfields Eye Hospital Special Trustees** J Bainbridge, Moorfields Eye Hospital *Infrastructural support for Gene Therapy Clinical Trials Coordinator*	**£52 K**
2009-13	**NIHR CLRN** J Bainbridge and R Ali, Moorfields Eye Hospital *Infrastructural support for Gene Therapy Clinical Trials Coordinator*	**£38 K**
2009-12	**Fight for Sight** N Okravi, M Sagoo G Rubin, G Holder, T Peto, J Bainbridge, A Viswanathan and C Bunce, Moorfields Eye Hospital *RCT of Avastin in ischaemic diabetic macular oedema.*	**£158 K**
2009-12	**NIHR Biomedical Research Centre for Ophthalmology** J Bainbridge, Moorfields Eye Hospital *Pilot RCT of Ranibizumab in Diabetic Vitrectomy*	**£50 K**
2008-11	**Fighting Blindness** R Ali, J Bainbridge, UCL Institute of Ophthalmology *Clinical trial of gene therapy for children with LCA*	**£230 K**
2008-11	**Medical Research Council** R Ali, J Bainbridge, D Hunt, UCL Institute of Ophthalmology *Animal models of disease*	**£450 K**
2007-12	**NIHR, for Biomedical Research Centre** J Bainbridge on behalf of Diabetes Theme, Moorfields/UCL	**£2.5 M**
2007-12	**NIHR, for Biomedical Research Centre** Co-applicant for AMD Theme, Moorfields/UCL *Curriculum Vitae James Bainbridge MA MB BChir PhD FRCOphth*	**£2.5 M**

Selected publications

Lange C Luhmann U, Mowat F, West E, Sayed H, Smith AJ, Sowden J, Maxwell PH, Ali R, Bainbridge JWB
Von Hippel-Lindau protein in the RPE is essential for normal ocular growth and vascular development
Development, 2012

McKenzie J, Fruttiger M, Abraham S, Lange C, Ghandi P, Wang X, Bainbridge J, Moss S, Greenwood J.
Apelin is required for non-neovascular remodelling in the retina
Am J Pathology, 2011 in press

Mowat F, Luhmann U, Gonzales F, Lange C, Duran Y, Smith AJ, Maxwell PH, Ali R and Bainbridge JWB.
Endogenous erythropoietin protects neuroretinal function in ischemic retinopathy
Am J Pathology, 2011 in press

Limb A, Martin K and the 6th ARVO/Pfizer Ophthalmics Research Institute Conference Working Group
Current Prospects in Optic Nerve Protection and Regeneration
Investigative Ophthalmology & Visual Science, 2011:52(8);5941-54

Mihelec M, Pearson RA, Robbie SJ, Buch PK, Azam SA, Bainbridge JW, Smith AJ, Ali RR
Long-term preservation of cones and improvement in visual function following gene therapy in a mouse model of Leber congenital amaurosis (LCA) caused by GC1 deficiency
Hum Gene Ther 2011

Lange C, Membrey L, Ahmad N, Wickham L, Maclaren R, Solebo L, Xing W, Bunce B, Ezra E, Charteris C, Aylward GW, Yorston D, Gregor Z, Zambarakji H, Bainbridge J.
Pilot randomized controlled trial of face-down positioning following macular hole surgery
Eye 2011 In Press

Lange C, P Stavrakas UFO, Luhmann J da Silva, RR Ali, Gregor Z, Bainbridge J
Intraocular Oxygen Distribution in Proliferative Diabetic Retinopathy
Am J Ophthalmol 2011 In Press

Mowat F, Luhmann U, Duran Y, Smith AJ, Harten S, Shukla D, Maxwell PH, Ali R and Bainbridge JWB.
HIF-1alpha and HIF-2alpha are differentially activated in cell populations in retinal ischaemia.
PLoS ONE. 2010; 5(6);e11103

Bainbridge JW, Smith AJ, Barker SS, Robbie S, Henderson R, Balaggan K, Viswanathan A, Holder GE, Stockman A, Tyler N, Petersen-Jones S, Bhattacharya SS, Thrasher AJ, Fitzke FW, Carter BJ, Rubin GS, Moore AT, Ali RR.
Effect of Gene Therapy on Visual Function in Leber's Congenital Amaurosis.
N Engl J Med. 2008 358:2231–2239

Mowat F, Petersen-Jones S, Williamson H, Williams D, Luthert P, Ali R and Bainbridge J.
Detailed topographical characterisation of cones and the area centralis of the canine retina.
Mol Vision 2008;12:2518-27

da Silva J, Kwan A, Bunce C and Bainbridge JWB.
Predicting visual outcome following retinectomy for retinal detachment.
Br J Ophthalmology 2008;92(7):954-8

Bainbridge JWB, Mistry A, Schlichtenbrede FC, Smith A,.. Thrasher AJ, Sargan D and Ali RR.
Stable rAAV-mediated transduction of rod and cone photoreceptors in the canine retina.
Gene Therapy 2003;10:1336-44

Bainbridge JWB, Mistry A, Binley K, De Alwis M, Thrasher A, Naylor S, Ali RR.
Hypoxia-regulated transgene expression in retinal and choroidal neovascularisation.
Gene Therapy 2003;10(12):1049-54

Bainbridge JWB, Jia H, Selwood D, Ali RR, and Zachary I.
Peptides encoded by exon 6 of VEGF inhibit neovascularisation in vivo.
Biochem Biophys Res Commun 2003;302(4):793-9

Bainbridge JWB, Mistry A, De Alwis M, Paleog E, Baker A, Thrasher AJ and Ali RR.
Inhibition of retinal neovascularisation by gene transfer of soluble VEGF receptor sFlt-1.
Gene Therapy 2002;9:320-326

Bainbridge JWB, Stephens C, Fowler K, Demaison C, Halfyard A, Thrasher AJ and Ali RR.
In-vivo gene transfer to the mouse eye using an HIV-based lentiviral vector: efficient longterm transduction of corneal endothelium and retinal pigment epithelium.
Gene Therapy 2001;8:1665-1668.

Ali RR, Sarra GM, Stephens C, Bainbridge JWB, Fauser S, Reichel M, Hunt D, Bhattacharya S, Thrasher AJ.
Restoration of photoreceptor outer segments in rds mice by gene therapy.
Nature Genetics 2000;25(3):30-310