

CURRICULUM VITAE

DR EDWARD R. DUNCAN MB BChir MRCP PhD

EDUCATION

- 2003-2011 CCT Cardiology, London Deanery
- 2003-2006 PHD, Kings College London, University of London
- 2000-2001 MRCP, Royal College of Physicians (London)
- 1996-1998 MB, BChir, Downing College, University of Cambridge
- 1993-1996 MA, Downing College, University of Cambridge

AWARDS AND PRIZES

- 2007 Basic Science Winner at the British Junior Cardiologists Association Research Awards
- 2006 Young Investigator of the Year, British Atherosclerosis Society
- 2006 Finalist at the British Junior Cardiologists Association Research Awards
- 2003 British Heart Foundation PhD Studentship
- 1998 Final MB Cambridge University - Distinction

CLINICAL INTERESTS

1) Arrhythmia management

2) Catheter ablation

Paroxysmal and Persistent Atrial Fibrillation,

Supraventricular tachycardias

Ventricular Tachycardia and Ventricular Fibrillation.

3) Provision of a device service

Device implantation, extraction and troubleshooting

PUBLICATIONS

ORIGINAL ARTICLES

- 1) Functional nature of electrogram fractionation demonstrated by left atrial high density mapping. *Amir Jadidi, Edward Duncan, Shinsuke Miyazaki, Nicolas Lellouche, Ashok Shah, Andrei Forclaz, Isabelle Nault, Matthew Wright, Lena Rivard, Xingpeng Liu, Daniel Scherr, Stephen Wilton, Frederic Sacher, Nicolas Derval, Sebastien Knecht, Steven Kim, Meleze Hocini, Sanjiv Narayan, Michel Haissaguerre, Pierre Jais. Circ Arrhythm Electrophysiol (in press 2011).*
- 2) A randomised comparison of Cartomerge vs NavX fusion in the catheter ablation of atrial fibrillation: The CAVERN trial. *Malcolm Finlay, Ross Hunter, Victoria Baker, Laura Richmond, Farai Goromonzi, Glyn Thomas, Kim Rajappan, Edward Duncan, Muzahir Tayebjee, Mehul Dhinoja, Simon Sporton, Mark J Earley, Richard J Schilling. JICE (in press 2011).*
- 3) Pulmonary vein isolation with radiofrequency ablation followed by cryotherapy: a novel strategy to improve clinical outcomes following catheter ablation of paroxysmal atrial fibrillation. *M.H. Tayebjee, R.J. Hunter, Victoria Baker, Antonio Creta, Edward Duncan, Simon Sporton, M.J. Earley, and R.J. Schilling. Europace 2011 May 13*
- 4) Does Ventricular Dyssynchrony on Echocardiography predict response to Cardiac Resynchronisation Therapy? A randomised controlled study. *Ihab Diab, Ravi Kamdar, Edward Duncan, Laura Richmond, Victoria Baker, Dominic Abrams, Mark Earley, Simon Sporton, Richard J Schilling. Heart. 2011 Jun 23*
- 5) Isolated left atrial standstill identified during catheter ablation. *Edward Duncan, Richard J Schilling, Mark Earley. Pacing Clin Electrophysiol 2010, Nov 11.*
- 6) Ablation therapy for atrial fibrillation. *Edward Duncan, Simon Sporton, Horizons in Medicine 2010, No 22.*
- 7) Do traditional VT zones improve outcome in primary prevention ICD patients? *Edward Duncan, Glyn Thomas, Neville Johns, Cameron Pfeffer, Gautham Appanna, Nirav Shah, Ross Hunter, Malcolm Finlay, Richard J. Schilling, Simon Sporton. Pacing Clin Electrophysiol 2010 Nov;33(11):1353-8*
- 8) Long-term efficacy of catheter ablation for atrial fibrillation: impact of additional targeting of fractionated electrograms. *Hunter RJ, Berriman TJ, Diab I, Baker V, Finlay M, Richmond L, Duncan E, Kamdar R, Thomas G, Abrams D, Dhinoja M, Sporton S, Earley MJ, Schilling RJ. Heart 2010 May 18*
- 9) Robotic catheter navigation within the left ventricle. *Edward Duncan, Neville Johns, Richard Schilling, Simon Sporton, Pacing Clin Electrophysiol 2010 Jul 16*
- 10) Intracoronary ethanol ablation – a novel technique for the ablation of ventricular fibrillation. *Edward Duncan, Richard J Schilling, Heart Rhythm 2010 Aug;7(8):1131-4.*
- 11) Distinguishing Far-Field Appendage from Local Pulmonary Vein Signal in the Left Upper Pulmonary Vein During Atrial Tachycardia. *Duncan E, Tayebjee M, Schilling RJ. J Cardiovasc Electrophysiol. 2009 Dec15.*
- 12) Validation of a classification system to grade fractionation in atrial fibrillation and correlation with automated detection systems. *Hunter RJ, Diab I, Thomas G, Duncan E, Abrams D, Dhinoja M, Sporton S, Earley MJ, Schilling RJ. Europace. 2009 Dec;11(12):1587-96*
- 13) A Comparison of periprocedural anticoagulation protocol with low molecular weight heparin or warfarin in catheter ablation of typical atrial flutter. *MC Finlay, V Sawnhey, G Viridi, E Duncan, R Liew, G Thomas, J Tenkorang, S Sporton, M Dhinoja, D Abrams, RJ Schilling, M Earley, J Cardiovasc Electrophysiol. 2009 Sep 28.*

- 14) Vascular Insulin-like growth factor-1 resistance and diet-induced obesity. *Imrie H, Abbas A, Viswambharan H, Rajwani A, Cubbon RM, Gage M, Kahn M, Ezzat VA, Duncan ER, Grant PJ, Ajjan R, Wheatcroft SB, Kearney MT. Endocrinology, 2009 Jul 16.*
- 15) The effect of endothelium-specific insulin resistance on endothelial dysfunction in-vivo. **Duncan ER**, Crossey PA, Walker S, Anilkumar N, Poston L, Douglas G, Ezzat VA, Wheatcroft SB, Shah AM, Kearney MT. *Diabetes 2008 Dec 57 (12) 3307-14*
- 16) The role of IGF-I and its binding proteins in the development of type 2 diabetes and cardiovascular disease VA Ezzat, **ER Duncan**, SB Wheatcroft & MT Kearney *Diabetes Obesity and Metabolism 2008, Mar;10(3); 198-211*
- 17) Insulin resistance and endothelial cell dysfunction: studies in mammalian models. *Kearney MT, Duncan ER, Kahn M, Wheatcroft SB. Exp Physiol 2008 Jan 93(1) 158-63 Epub 2007.*
- 18) Accelerated endothelial dysfunction in mild pre-diabetic insulin resistance: the early role of reactive oxygen species. **Duncan E**, Walker S, Ezzat V, Wheatcroft S, Li JM, Shah AM, Kearney M. *Am J Physiol Endocrinol Metab 2007 Nov; 293(5) Epub 2007 Aug*
- 19) Asymmetric Dimethylarginine and reduced nitric oxide bioavailability in young black african men. *Narbeh Melician, Stephen Wheatcroft, Ogah Okechukwu, Cliona Murphy, Phillip Chowienczyk, Thomas Sanders, Edward Duncan, Ajay Shah, Mark Kearney, Hypertension Apr; 49(4); 873-7.*
- 20) The associations between air quality and the number of hospital admissions for acute pain and sickle-cell disease in an urban environment. *Yallop D, Duncan ER, Norris E, Fuller GW, Thomas N, Walters J, Dick MC, Height SE, Thein SL, Rees DC. British Journal of Haematology 2007 Mar; 136(6); 844-8*
- 21) Insulin and endothelial function: physiological environment defines effect on atherosclerotic risk. **ER Duncan**, V Ezzat, MT Kearney. *Current Diabetic Reviews, Vol 2, No 1, Feb 06, p51-60(10)*
- 22) Windy weather and low humidity are associated with an increased number of hospital admissions with acute pain and sickle cell disease in an urban environment with a maritime temperate climate. *Simon Jones, Edward R Duncan, Nikki Thomas, Joan Walters, Moira C Dick, Susan Height, Adrian D. Stephens, Swee Lay Thein and David C. Rees. British Journal of Haematology 2005, 131, 530-533.*
- 23) Obesity and endothelial function. **ER Duncan**, Ajay Shah, MT Kearney, *Circulation Research. 97(4):e52, August 19, 2005*
- 24) Preserved glucoregulation but attenuation of the vascular actions of insulin in mice heterozygous for a knockout of the insulin receptor. *SB Wheatcroft, AM Shah, JM Li, ER Duncan, BT Noronha, PA Crossey, MT Kearney. Diabetes. 2004 Oct; 53(10):2645-52*
- 25) Risk stratification by cardiac biomarkers following emergency gastrointestinal surgery. *Thomas Cahill, Parvathy Bowes, Edward Duncan, Elizabeth Drye, Shai Sen, Claire Miller, Sophie Reshamwalla, Charles Andrew, Michael Ward, Ameet Bakhai, Int J Vasc Med (In Press 2011)*
- 26) Regression of Coronary In-stent Restenosis. *Thuraia Nageh, Edward Duncan, Martyn R Thomas. Catheterisation and Cardiovascular Interventions 2004 Jun; 62(2):201-202*
- 27) Optimum Medical Management of Angina. *B. Noronha, E Duncan, J Byrne. Current Cardiology Reports Volume 5, Number 4, July 2003.*
- 28) Erythema from imitinab mesilate. **ER Duncan**, K Raj, G Mufti, *British Journal of Haematology, 2003 Jul; 122(1):1*
- 29) Five year survival following Hemi-hepatectomy for Malignant Melanoma of the Liver. **ER Duncan**, M Jiminez-Linan, NV Jamieson. *HPB 2003 Vol 5(1) 46-48*

BOOK CHAPTERS

- 1) Beta-blockers and congestive cardiac failure. **Edward Duncan** and Mark Goethals. A chapter in 'Chronic Heart Failure' (Oxford Cardiology Library) edited by Kearney. Published 2008.

2) End-stage congestive heart failure. **ER Duncan**, AM Shah, MT Kearney. A chapter in 'Palliative Medicine' edited by Bruera, Higginson, von Gunten, Ripamonti. Published 2006.

ABSTRACTS

- 1) A Randomised Trial of Cryoablation vs. Radiofrequency Ablation vs. both for Paroxysmal AF. **ER Duncan**, RJ Hunter, M Tayebjee, V Baker, MS Siddiqui, F Goromonzi, L Richmond, M Dhinoja, S Sporton, MJ Earley, RJ Schilling *Europace* 2011 Oct 2; vol 13; suppl 4.
- 2) A Randomised Controlled Trial of Catheter Ablation versus Medical Treatment of Atrial Fibrillation in Heart Failure (The CAMTAF trial). RJ Hunter, TJ Berriman, I Diab, R Kamdar, L Richmond, V Baker, F Goromonzi, **E Duncan**, V Sawhney, B Unsworth, J Mayet, D Abrams, M Dhinoja, MJ Earley, S Sporton, RJ Schilling *Europace* 2011 Oct 2; vol 13; suppl 4.
- 3) A Randomised Trial Of Cryoablation vs Radiofrequency Ablation vs Both For Paroxysmal AF. **Edward R. Duncan**, Ross J. Hunter, Muzahir H. Tayebjee, Victoria Baker, M. Shoaib Siddiqui, Farai Goromonzi, Laura Richmond, Mehul Dhinoja, Simon Sporton, Mark J. Earley and Richard J. Schilling, *Heart Rhythm*, Vol 8, No 5, May Supplement 2011
- 4) A randomised trial of cryoablation versus radiofrequency ablation versus both for paroxysmal atrial fibrillation. Ross Hunter, Victoria Baker, **Edward Duncan**, Farai Goromonzi, Laura Richmond, Mehul Dhinoja, Mark Earley, Simon Sporton, Richard Schilling. *J Interv Card Electrophysiol* (2011) 30:87-198. Abstract 18-08
- 5) Robotic AF ablation. Is there a learning curve? **E. Duncan**, R Gopal, U. Wickramarachchi, M Tayebjee, R. Hunter, I Diab, R.J. Schilling *Europace* (2010) 12(suppl 2): ii4-ii7
- 6) A randomised controlled trial of catheter ablation of atrial fibrillation comparing manual and robotic navigation. **E Duncan**, R Liew, F Goromonzai, L Richmond, V Baker, G Thomas, M Tayebjee, M Finlay, D Abrams, M Dhinoja, M Earley, S Sporton, R Schilling. *Heart Rhythm*, Vol 7, No 5, May Supplement 2010 PO5-56
- 7) Value of echocardiographic mechanical dyssynchrony assessment in selecting patients for cardiac resynchronisation therapy. I Diab, R Kamdar, R Hunter, R Berriman, **E Duncan**, M Dhinoja, D Abrams, M Earley, S Sporton, R Schilling. *Heart Rhythm*, Vol 7, No 5, May Supplement 2010 PO5-143
- 8) A randomised comparison of Cartomerge versus NavX fusion in catheter ablation of atrial fibrillation. M Finlay, V Baker, L Richmond, K Rajappan, M Tayebjee, **E Duncan**, R Hunter, G Thomas, M Dhinoja, D Abrams, S Sporton, M Earley, R Schilling. *Heart Rhythm*, Vol 7, No 5, May Supplement 2010 PO2-25
- 9) Combined radiofrequency and cryoablation for paroxysmal atrial fibrillation. A novel technique to reduce recurrences. M Tayebjee, **E. Duncan**, V. Baker , M Dhinoja, M. Earley, S. Sporton, R. Schilling. *J Interv Card Electrophysiol* (2010) 27:147-266 Abstract 15-15
- 10) Increasing the role of robotic catheter navigation in the cathlab – First experience in re-do persistent atrial fibrillation ablation **E.Duncan**, M. Tayebjee, U. Wickramarachchi, N. Johns, R. Gopal, R. Hunter, D. Abrams, M. Dhinoja, M. Earley, S. Sporton, R.J. Schilling *J Interv Card Electrophysiol* (2010) 27:147-266. Abstract 14-41
- 11) A randomised controlled trial of catheter ablation of atril fibrillation comparing manual and robotic navigation – experience with the Hansen robotic system. **E. Duncan**, R. Liew, F. Goromonzi, L. Richmond, V. Baker, G. Thomas, M. Tayebjee, M. Finlay, D. Abrams, M. Dhinoja, M. Earley, S. Sporton, R.J. Schilling. *J Interv Card Electrophysiol* (2010) 27:147-266 Abstract 1-6
- 12) Results of the first randomized controlled trial comparing Hansen robotic navigation and manual catheter ablation of atrial fibrillation. **E.R. Duncan**, R. Liew, L. Richmond, V. Baker, F. Goromonzi,

- G. Thomas, M. Finlay, M. Dhinoja, M. Earley, S. Sporton, and R.J. Schilling Europace 2009 Oct 11; suppl 4.*
- 13) Cryoablation vs. radiofrequency ablation for treatment of atrioventricular nodal re-entrant tachycardia: has an increase in tip size and lesion number improved results? *A. Opel, S. Murray, N. Kamath, J. Tenkorang, G. Thomas, M. Finlay, E. Duncan, M. Tayebjee, M. Dhinoja, D. Abrams, S. Sporton, R. Schilling, and M. Earley Europace 2009 Oct 11; suppl 4.*
 - 14) Post-operative B-type natriuretic peptide predicts mortality after gastrointestinal surgery. *Cahill, Bowes, Duncan, Drye, Sen, Rashamwalla, Andrew, Ward, Bakhai. European Heart Journal, Supplement 30, Abstract P813, Sept 09*
 - 15) Increased Shocks with programmed VT zones in Primary Prevention ICDs. A single centre experience. *E Duncan, G Appana, N Shah, C Pfeffer, N Johns, M Finlay, G Thomas, RJ Schilling, S Sporton. Heart, Abstract 93, Vol 95, supplement1, June 09*
 - 16) A Comparison of periprocedural anticoagulation protocol with low molecular weight heparin or warfarin in catheter ablation of typical atrial flutter. *MC Finlay, V Sawhney, G Viridi, E Duncan, R Liew, G Thomas, J Tenkorang, S Sporton, M Dhinoja, D Abrams, RJ Schilling, M Earley, Heart, Abstract 130, Vol 95, supplement1, June 09*
 - 17) Catheter ablation of ventricular tachycardia in structurally abnormal hearts: Results of an incremental strategy to produce good longterm outcomes. *G Thomas, V Sawhney, V Ezzat, E Duncan, T Watts, G Appana, N Shah, M Finlay, S Sporton, RJ Schilling, Heart, Abstract 93, Vol 95, supplement1, June 09*
 - 18) Endothelial specific insulin resistance and endothelial function. *Edward Duncan, S Walker, N Anilkumar, V Ezzat, AM Shah, MT Kearney. Heart, Abstract 66, Vol 95, supplement1, June 09*
 - 19) Periprocedural anticoagulation in ablation of atrial flutter: A comparison of uninterrupted warfarinisation versus subcutaneous heparin. *Malcolm Finlay, Vinit Sawhney, Gaupreet Viridi, Edward Duncan, Reginald Liew, Glyn Thomas, Joanna Tenkorang, Simon Sporton, Mehul Dhinoja, Dominaic Abrams, Richard Schilling, Mark Earley. Heart Rhythm, Abstract PO01-54. Vol 6, Issue 55, May 2009.*
 - 20) Extraction of infected rhythm devices. A single centre experience over 5 years. *Glyn Thomas, Simon Whittingham Jones, Gautham Appana, Vinit Sawhney, Edward Duncan, Malcolm Finlay, Troy Watts, Simon Sporton, Richard Schilling. JICE, Abstract supplement Vol 24, number 3, April 2009. Abstract 22-01.*
 - 21) Catheter ablation of ventricular tachycardia in structurally abnormal hearts: Results of an incremental strategy produce good longterm outcomes. *Glyn Thomas, Vinit Sawhney, Vivienne Ezzat, Edward Duncan, Troy Watts, Gautham Appana, Malcolm Finlay, Simon Sporton, Richard Schilling. JICE, Abstract supplement Vol 24, number 3, April 2009. Abstract 18-08.*
 - 22) Primary prevention implantable defibrillators: Do programmed fast VT zones impact upon the incidence of shocks? A retrospective single centre study. *Edward Duncan, Gautham Appana, Nirav Shah, Cameron Pfeffer, Neville Johns, Malcolm Finlay, Glyn Thomas, Richard Schilling, Simon Sporton. JICE, Abstract supplement Vol 24, number 3, April 2009. Abstract 25-01.*
 - 23) IGFBP-1 protects against obesity-induced vascular dysfunction by preservation of insulin signalling. *V. Ezzat, S Wheatcroft, E. Duncan, J. Sethi, A Shah, M. Kearney. Heart 2007, Vol 93, Suppl 1, Abstract 259*
 - 24) IGFBP-1: A Vasculoprotective Peptide in Obesity and Insulin Resistance. *Vivienne Ezzat, Edward Duncan, Stephen Wheatcroft, Simon Walker, Ajay Shah, Mark Kearney. Circulation, Abstract 3944, Vol 114, No 18, October 31, 2006.*
 - 25) Mild whole body insulin resistance and accelerated endothelial dysfunction during ageing: Increased reactive oxygen species derived from mitochondria despite preserved glycaemic control. *ER Duncan, SJ Walker, VA Ezzat, SB Wheatcroft, JM Li, AM Shah, MT Kearney. Circulation, Abstract 647, Vol 114, No 18, October 31, 2006.*

- 26) IGFBP-1, a novel peptide that protects against the metabolic and vascular consequences of dietary-induced obesity VA Ezzat, **ER Duncan**, S Johar, SB Wheatcroft, AM Shah & MT Kearney *Diabetic Medicine* 2006; 23 (s2):31
- 27) Temporal changes in the IGF-I/IGFBP-1 axis in a murine model of diet-induced obesity and insulin resistance VA Ezzat, **ER Duncan**, S Johar, SB Wheatcroft, AM Shah and MT Kearney *Heart* 2006, 92(2)e1
- 28) Insulin like growth factor binding protein-1: A vasculoprotective protein in obesity and type II diabetes mellitus V. Ezzat, **E. Duncan**, S. Wheatcroft, A. Shah, M. Kearney. *Heart* 2006, Vol 92, Suppl 1, Abstract 289
- 29) The Accelerated Endothelial Dysfunction Associated With Insulin Resistance Is Mediated By Reactive Oxygen Species - Studies In Mice Heterozygous For A Knockout Of The Insulin Receptor. **Edward Duncan**, Stephen Wheatcroft, Vivienne Ezzat, Jian-Mei Li, Ajay Shah, Mark Kearney. *Circulation*, Abstract 1580, Vol 112, No. 17, October 25, 2005
- 30) Temporal changes in the IGF-I/IGFBP-1 axis in a murine model of diet-induced obesity V.A.Ezzat, **E.R.Duncan**, S.Johar, S.B.Wheatcroft, A.M.Shah and M.T.Kearney *Journal of Physiology* 2005, Vol 566 Abstract PC90
- 31) The accelerated endothelial dysfunction associated with insulin resistance is mediated by reactive oxygen species – studies in mice heterozygous for a knockout of the insulin receptor. **ER Duncan**, SB Wheatcroft, VA Ezzat, JM Li, AM Shah and MT Kearney. *Journal of Physiology* 2005, Vol 566, abstract C80.
- 32) Insulin resistance is a substrate for accelerated endothelial dysfunction in middle age – studies in mice heterozygous for knockout of the insulin receptor gene (IRKO). **ER Duncan**, SB Wheatcroft, JM Li, AM Shah, MT Kearney. *Heart* 2005, Vol 91, Suppl 1, Abstract 83
- 33) Adherence to the national service framework guidelines for the secondary prevention of Ischaemic heart disease. Are we meeting the targets? **ER Duncan**, A Mangoni, S Jackson, *Clinical Science – supplement* (Feb 2003)

OTHER ACCREDITATION

British Society of Echocardiography (BSE) – Full transthoracic echo accreditation 2008

Advanced Life Support Provider (ALS) – renewed 2011

APPOINTMENTS

Consultant Cardiologist Jan 12 – present	Cardiology/Electrophysiology Bristol Heart Institute
Locum Consultant Cardiologist Aug 11 – Dec 11	Cardiology/Electrophysiology St Bartholomew's Hospital, Prof Schilling, Dr Sporton, Dr Earley, Dr Dhinoja
Specialist Registrar NTN Apr 11 – Aug 11	Cardiology/Electrophysiology St Bartholomew's Hospital, Prof Schilling, Dr Sporton, Dr Earley, Dr Abrams, Dr Dhinoja
EP Fellow Feb 11- Apr 11	Cardiac Electrophysiology Hopital Cardiologique Du Haut Leveque, Bordeaux, France Prof Haissaguerre, Prof Jais, Dr Hocini
Specialist Registrar NTN Aug 08 – Feb 11	Cardiology/Electrophysiology St Bartholomew's Hospital, Prof Schilling, Dr Sporton, Dr Earley, Dr Abrams, Dr Dhinoja
Specialist Registrar NTN Oct 07 - Aug 08	Cardiology/GIM Chase Farm Hospital, Dr Davies, Dr Kennon
Specialist Registrar NTN Oct 06 - Oct 07	Cardiology/GIM King Georges Hospital, Dr Knight, Dr Deaner, Dr Harris
Clinical Research Fellow Nov 03 - Oct 06	Cardiology Research Department Kings College Hospital, London, Prof Shah, Dr Kearney
Specialist Registrar LAT April 03 - Oct 03	Cardiology/ GIM QEQM Hospital, Margate, Dr Morgan, Dr Heppel
SHO rotation Oct 00-Mar 03	Kings College Hospital, London Cardiology, Prof Shah, Dr Kearney General Medicine, Prof Jackson Haematology, Prof Mufti Respiratory Medicine, Dr Jackson (Haywards Heath) Care of the Elderly, Dr Evans
SHO Feb-Aug 2000	Accident and Emergency The Whittington Hospital, London, Mr Bannerjea, Mr Heaton
House Surgeon Aug 99-Feb 2000	General Surgery/Urology Addenbrookes Hospital, Cambridge, Mr Varty
House Physician Feb-Aug 1999	Cardiology/General Medicine, Bedford Hospital, Dr Ian Cooper

INTERESTS**SPORT**

Running London Marathon 2001, 2004 & 2006,
The Original Mountain Marathon 2009, 2010

Triathlon London Triathlon 2005, UK Half Ironman 2007

Hiking/Trekking

TRAVEL

I have travelled in Australia, Southeast Asia, Africa, Central and South America, Canada and Europe