CURRICULUM VITAE

KUMARAN RAJAPPAN

MD, MRCP (UK)

PERSONAL DETAILS

NAME: Kumaran (Kim) RAJAPPAN

DATE OF BIRTH: 11th January 1971

NATIONALITY: British

GMC REGISTRATION: No. 4194341

GENERAL EDUCATION

Brighton College, East Sussex 13 °O' Levels 4 °A' Levels, Mathematics, Further Mathematics, Chemistry, Physics

UNIVERSITY EDUCATION

Magdalene College, Cambridge, October 1989 - July 1992 St. Mary's Hospital Medical School, September 1992 - July 1995

QUALIFICATIONS

BA (Cantab.) July 1992, MA May 1996 MB BS July 1995 MRCP Part 1 January 1997 MRCP Part 2 June 1998 MD (Cantab.) July 2003

AWARDS

Guidant Heart Rhythm Management Fellow (London) 2006-2007 Ralph Noble Prize for a clinical MD, University of Cambridge (November 2003) British Journal of Cardiology/Pfizer Travel Fellowship Grant (March 2002) Lindo Wing Fellowship Award (December 2000) Hariri Foundation Research Project Grant (January 2000) Wellcome Trust Research Award For Elective Studies (September 1994)

PRESENT APPOINTMENT

Consultant Cardiologist & Electrophysiologist John Radcliffe Hospital, Oxford 17th September 2007 to present Hansen Robotic Ablation Lead & Trainer, Oxford Centre of Excellence for robotic catheter ablation

PREVIOUS APPOINTMENTS

Locum Consultant Cardiologist

St. Batholomew's Hospital, London 3rd June 2007 to 31st August 2007

Cardiology and G(I)M* Specialist Registrar, North West Thames Deanery

Dr A.W. Nathan, Dr R.J. Schilling, Dr S.C. Sporton, Dr S. Harris & Dr. M.J. Earley *St. Batholomew's Hospital* 5th October 2005 to 3rd June 2007

Dr D. Lefroy, Dr. P. Bagger & Dr. C. Baker Hammersmith Hospital 1st October 2003 to 4th October 2005

Professor D. Wood, Dr. K. Fox & Dr. C. Baker *Charing Cross Hospital** 2nd October 2002 to 30th September 2003

Dr. N.G. Stephens, Dr. R. Senior & Dr. H. Bethell Northwick Park Hospital* 3rd October 2001 to 1st October 2002

Cardiology Research Fellow investigating pathophysiological changes associated with left ventricular mass regression in patients with aortic stenosis after aortic valve replacement. (supported by British Heart Foundation, PG 98431) leading to MD thesis. Professor D.J. Sheridan, Professor P.G. Camici & Dr. D.J. Pennell *Academic Cardiology Unit, Division of NHLI, Imperial College of Science, Technology & Medicine, 10th Floor QEQM Wing, St. Mary's Hospital, London* 1st February 1999 to 2nd October 2001

Senior House Officer to Dr. H. Cairns, Professor B. Hendry, Dr S.P. Kon & Dr. I.C. MacDougall
RENAL MEDICINE
King's College Hospital, London
5th August 1998 to 31st January 1999

Senior House Officer to Dr. P. Marsden ENDOCRINOLOGY Greenwich District Hospital, London

 6^{th} April 1998 – 4^{th} August 1998

Senior House Officer to Dr. D. Robson and Dr. C.F. Shakespeare **CARDIOLOGY & INTENSIVE CARE MEDICINE** *Greenwich District Hospital, London* 6th August 1997 – 5th April 1998

Senior House Officer to Mr. D. Singh

ACCIDENT & EMERGENCY MEDICINE

Greenwich District Hospital, London 5th February 1997 – 5th August 1997

Senior House Officer to Dr. E.B. Ekpo CARE OF THE ELDERLY MEDICINE

Queen Elizabeth Hospital, Woolwich 7th August 1996 – 4th February 1997

House Surgeon to Mr. N. Menzies-Gow GENERAL SURGERY

Central Middlesex Hospital, London 1st May 1996 – 6th August 1996

House Surgeon to Mr. R.D.L. Stanbridge, Mr. B. Glenville & Mr. R.N. Sapsford **CARDIOTHORACIC SURGERY** *St. Mary's Hospital, London* 7th February 1996 – 30th April 1996

House Physician to Dr. D. Bell and Dr. V. Mak RESPIRATORY & GENERAL MEDICINE

Central Middlesex Hospital, London 1st November 1995 – 6th February 1996

House Physician to Dr M. Dancy and Dr. D. McCrea CARDIOLOGY & GENERAL MEDICINE

Central Middlesex Hospital, London 1st August 1995 – 31st October 1995

PREVIOUS RESEARCH

Wellcome Trust Elective Research at the MRC Laboratories (Jamaica) with Prof. G. Serjeant Seven weeks spent developing a technique to determine the β -globin haplotypes by polymerase chain reaction on the haemoglobin of a cohort of Sickle Cell patients October - December 1994

Part II Pathology Project with Dr. M.J. Mitchison

Six month investigation of the effect of NADPH-oxidase inhibitors on the accumulation of ceroid in mouse peritoneal macrophages using a fluorescence activated cell sorter (FACS)

October 1991 - March 1992

PUBLICATIONS

Bellenger NG, Gatehouse PD, **Rajappan K**, Keegan J, Firmin DN, Pennell DJ. Left ventricular quantification in heart failure by cardiovascular MR using prospective respiratory navigator gating: comparison with breath-hold acquisition. *J Magn Reson Imaging* 2000;11:411-7.

Rajappan K, Melina G, Bellenger NG, Amrani M, Khaghani A, Pennell DJ, Yacoub MH. Evaluation of Left Ventricular Function and Mass after Medtronic Freestyle versus Homograft Aortic Root Replacement using Cardiovascular Magnetic Resonance. *J Heart Valve Dis* 2002;11:60-66.

Melina G, **Rajappan K**, Amrani M, Khaghani A, Pennell DJ, Yacoub MH. Aortic Distensibility after Aortic Root Replacement Assessed with Cardiovascular Magnetic Resonance. *J Heart Valve Dis* 2002;11:67-74.

Rajappan K, Rimoldi O, Dutka DP, Ariff B, Pennell DJ, Sheridan DJ, Camici PG. Mechanisms of Coronary Microcirculatory Dysfunction in Patients With Aortic Stenosis and Angiographically Normal Coronary Arteries. *Circulation* 2002;105:470-476.

Bellenger NG, Swinburn JM, **Rajappan K**, Lahiri A, Senior R, Pennell DJ. Modern Cardiac remodeling in the era of agrresive medical therapy: does it still exist? *Int J Cardiol* 2002;83:217-225.

Bellenger NG, Marcus NJ, **Rajappan K**, Yacoub M, Banner NR, Pennell DJ. Left Comparison of Techniques for the Measurement of Left Ventricular Function Following Cardiac Transplantation. *J Cardiovasc Magn Reson* 2002;4:255-263.

Rajappan K, Livieratos L, Camici PG, Pennell DJ. Measurement of Ventricular Volumes and Function – a Comparison of Gated PET and Cardiovascular Magnetic Resonance. *J Nucl Med* 2002;43:806-810.

Rajappan K, O'Connell C, Sheridan DJ. Changes in QT interval with exercise in elite male rowers and controls. *Int J Cardiol* 2002;87:217-222.

Rajappan K, Bellenger NG, Melina, Di Terlizzi M, Yacoub MH G, Sheridan DJ, Pennell DJ. Assessment of left ventricular mass regression after aortic valve replacement – cardiovascular magnetic resonance versus M-mode echocardiography. *Eur J Cardiothorac Surg* 2003;24:59-65.

Rajappan K, Rimoldi OE, Camici PG, Bellenger NG, Pennell DJ, Sheridan DJ. Functional Changes in Coronary Microcirculation After Valve Replacement in Patients with Aortic Stenosis. *Circulation* 2003;107:3170-3175.

Bellenger NG, **Rajappan K**, Rahman S, Lahiri A, Raval U, Webster J, Murray G, Coats AJS, Cleland JGF, Pennell DJ, on behalf of the CHRISTMAS Study Steering Committee and Investigators. Effects of Carvedilol on Left Ventricular Remodelling in Chronic Stable Heart Failure: A Cardiovascular Magnetic Resonance Study. *Heart* 2003;90:760-764.

Bellenger NG, Yousef Z, **Rajappan K**, Marber MS, Pennell DJ. Infarct Zone Viability Influences Ventricular Remodelling following Late Recanalization of an Occluded Infarct Related Artery. *Heart* 2005;91:478-483.

Rajappan K, Murphy E, Amber V, Meakin F, Muller B, Fox KF, Baker CSR. Usage of troponin in the real world – a lesson for the introduction of biochemical assays. *Q J Med* 2005;98;337-342.

Livieratos L, **Rajappan K**, Stegger L, Schafers K, Bailey DL, Camici PG. Respiratory Gating of Cardiac Pet Data in List-Mode Acquisition. *Eur J Nucl Med Mol Imaging* 2006;15:320-324.

Kistler PM, **Rajappan K**, Jahngir M, Earley MJ, Harris S, Abrams D, Gupta D, Liew, R, Ellis S, Sporton SC, Schilling RJ. The impact of CT image integration into an electroanatomic mapping systemon clinical outcomes of catheter ablation of atrial fibrillation. *J Cardiovasc Electrophysiol* 2006;17:1093-1101.

Rajappan K, Sporton SC, Schilling RJ. Left atrial tachycardia and inferior vena cava thrombotic occlusion complicating AF ablation successfully treated from the right subclavian vein. *Heart* 2007;93:28.

Rajappan K. Initial clinical experience with EnSite Fusion: another milestone in image integration for AF ablation. *EP Lab Digest* 2007;May (Suppl):3-6.

Kistler PM, Ho SY, **Rajappan K**, Morper M, Harris S, Abrams D, Sporton SC, Schilling RJ. Electrophysiologic and anatomic characterisation of sites resistant to electrical isolation during circumferential pulmonary vein ablation for atrial fibrillation: a prospective study. *J Cardiovasc Electrophysiol* 2007;18:1282-1288.

Richmond L, **Rajappan K**, Voth E, Rangavajhala V, Earley MJ, Thomas G, Harris S, Sporton SC, Schilling RJ. Validation of computed tomography image integration into the EnSite NavX mapping system to perform catheter ablation of atrial fibrillation. *J Cardiovasc Electrophysiol* 2008;19:821-827.

Kistler PM, **Rajappan K**, Harris S, Earley MJ, Richmond L, Sporton SC, Schilling RJ. Impact of image integration on catheter ablation of atrial fibrillation using electroanatomic mapping: a prospective randomized study. *Eur Heart J* 2008;29:3029-3036.

Rajappan K, Kistler PM, Earley MJ, Thomas G, Izquierdo M, Sporton SC, Schilling RJ. Acute and Chronic Pulmonary Vein Reconnection after Atrial Fibrillation Ablation: A Prospective Characterization of Anatomical Sites. *Pacing Clin Electrophysiol* 2008;31:1598-1605.

Garcia D, Camici PG, Durand L-G, **Rajappan K**, Gaillard E, Rimoldi OE, Pibarot P. Impairment of coronary flow reserve in aortic stenosis. *J Appl Physiol* 2009;106:113-121.

Rajappan K, Baker V, Richmond L, Kistler PM, Thomas G, Redpath C, Sporton SC, Earley MJ, Harris S, Schilling RJ. A randomized trial to compare atrial fibrillation ablation using a steerable versus a non-steerable sheath. *Europace* 2009;11:571-575.

Tomlinson DR, Bashir Y, Betts TR, **Rajappan K**. Accuracy of manual QRS duration assessment: its importance in patient selection for cardiac resynchronization and implantable cardioverter defibrillator therapy. *Europace* 2009;11:638-642.

de Bono JP, Bull S, Paisey J, Tomlinson D, **Rajappan K**, Bashir Y, Becher H, Betts TR. Presence of left atrial appendage thrombus in patients presenting for left atrial ablation of atrial fibrillation despite pre-operative anticoagulation. *J Atrial Fibrillation* 2009;1:257-261.

Liew R, Baker V, Richmond L, **Rajappan K**, Gupta D, Finlay M, Thomas G, Earley M, Sporton S, Harris S, Schilling R. A randomized-controlled trial comparing conventional with minimal catheter approaches for the mapping and ablation of regular supraventricular tachycardias. *Europace* 2009;11:1057-1064.

Paisey J, Betts TR, Bono JD, **Rajappan K**, Tomlinson D, Bashir Y. Validation of Coronary Sinus Activation Pattern During Left Atrial Appendage Pacing for Beat-to-Beat Assessment of Mitral Isthmus Conduction/Block. *J Cardiovasc Electrophysiol* 2010;21:418-422.

de Bono JP, Nazir S, Ruparelia N, Bashir Y, Betts TR, **Rajappan K**. Perioperative Management of Anticoagulation during Device Implantation—The UK Perspective *Pacing Clin Electrophysiol* 2010;33:389-393.

de Bono JP, Stoll VM, Joshi A, **Rajappan K**, Bashir Y, Betts TR. Cavotricuspid isthmus dependent flutter is associated with an increased incidence of occult coronary artery disease. *Europace* 2010;12:1774-1777.

Wong KCK, Jones M, Sadarmin PP, De Bono J, Qureshi N, **Rajappan K**, Bashir Y, Betts TR. Larger coronary sinus diameter predicts the need for epicardial delivery during mitral isthmus ablation. *Europace* 2011;13:555-61.

Kalla M, **Rajappan K**, Kalra S, Thomas G, Redpath C, Earley MJ, Sporton SC, Schilling RJ. Routine transthoracic echocardiography to assess pericardial collections in patients after extensive left atrial catheter ablation – a prospective study. *J Cardiovasc Electrophysiol* 2011 Feb 2 [Epub ahead of print].

Wong KC, Jones M, Qureshi N, Sadarmin PP, De Bono J, **Rajappan K**, Bashir Y, Betts TR. Balloon Occlusion Of The Distal Coronary Sinus Facilitates Mitral Isthmus Ablation. *Heart Rhythm* 2011;8:833-839.

Wong KC, Sadarmin PP, De Bono J, Qureshi N, Jones M, **Rajappan K**, Bashir Y, Betts TR. Local activation times at the high posterior wall of the left atrium during left atrial appendage pacing predict roof line block with high specificity and sensitivity. *Europace* 2011 Apr 19. [Epub ahead of print].

Wong KC, Lim C, Sadarmin PP, Jones M, Qureshi N, De Bono J, **Rajappan K**, Bashir Y, Betts TR. High incidence of acute sub-clinical circumflex artery 'injury' following mitral isthmus ablation. *Eur Heart J* 2011;32:1881-1890.

Hunter RJ, McCready J, Diab I, Page SP, Finlay M, Richmond L, French A, Earley MJ, Sporton S, Jones M, Joseph JP, Bashir Y, Betts TR, Thomas G, Staniforth A, Kistler P, **Rajappan K**, Chow A, Schilling RJ. Maintenance of sinus rhythm with an ablation strategy in patients with atrial fibrillation is associated with a lower risk of stroke and death. *Heart* 2011: published online first.

ABSTRACTS

Rajappan K, Rimoldi O, Sheridan DJ, Camici PG, Pennell DJ. Subendocardial Perfusion in patients with Aortic Valve Stenosis and Left Ventricular Hypertrophy. (Oral presentation) *J Cardiovasc Magn Reson* 2000;2(4):300.

Rajappan K, Rimoldi O, Ariff B, Pennell DJ, Sheridan DJ, Camici PG. The Impairment of Coronary Vasodilator Reserve is related to the Severity of Aortic Stenosis. (Oral presentation) *Circulation* 2000;102 (18 Suppl):II-785.

Rajappan K, Livieratos L, Camici PG, Pennell DJ. Comparison of Gated Positron Emission Tomography and Cardiac Magnetic Resonance for Left Ventricular Volume and Function Assessment. Poster presented at the 4th Scientific Sessions of the Society of Cardiovascular Magnetic Resonance, Atlanta, January 2001.

Rajappan K, Rimoldi O, Schafers KP, Pennell DJ, Sheridan DJ, Camici PG. Evidence of Stress-Induced Subendocardial Hypoperfusion in Patients With Aortic Stenosis Demonstrated by Positron Emission Tomography. (Poster presentation) *J Am Coll Cardiol* 2001;37 (Suppl A):419.

Rajappan K, Mayet J, Rimoldi O, Camici PG, Sheridan DJ. ECG Changes and Microcirculatory Dysfunction in Aortic Valve Stenosis. (Poster presentation) *J Am Coll Cardiol* 2001;37 (Suppl A):482.

Bellenger NG, Swinburn JMA, **Rajappan K**, Lahiri A, Pennell DJ. Modern Medical Therapy Limits Ventricular Remodelling Following Anterior Myocardial Infarction. *J Am Coll Cardiol* 2001;37 (Suppl A):442.

Rajappan K, Melina G, Amrani M, Khagani A, Pennell DJ, Yacoub MH. Evaluation of Left Ventricular Mass after Aortic Root Replacement using Magnetic Resonance Imaging. Results from a Prospective Randomized Trial. Oral presentation at the *1*st *Biennial Meeting of the Society for Heart Valve Disease*, London, June 2001.

Melina G, **Rajappan K**, Amrani M, Khagani A, Yacoub MH, Pennell DJ. Aortic Distensibility after Aortic Root Replacement Assessed with Cardiac Magnetic Resonance. Oral presentation at the 1st Biennial Meeting of the Society for Heart Valve Disease, London, June 2001.

Rajappan K, Rimoldi O, Glenville B, Punjabi PP, Stanbridge RDL, Taylor K, Pennell DJ, Camici PG. Alterations in Coronary Microcirculation with Regression of LVH. (Oral presentation) *J Ht Disease* 2001; 2(1):65.

Rajappan K, Rimoldi O, N Moat, De Souza AC, Pepper J, Pennell DJ, Camici PG, Sheridan DJ. Regression of LVH and changes in coronary microcircualtion after valve replacement in aortic stenosis. (Poster presentation) *Eur Heart J* 2001;22 (Suppl):95.

Rajappan K, Rimoldi O, Ariff B, Pennell, DJ, Sheridan DJ, Camici PG.Coronary microcirculatory dysfunction is related to the severity of aortic stenosis. (Poster presentation) *Eur Heart J* 2001;22 (Suppl):309.

Rajappan K, Rimoldi O, Pennell DJ, Sheridan DJ, Camici PG. A study of transmural blood flow in patients with aortic stenosis using positron emission tomography. (Poster presentation) *Eur Heart J* 2001;22 (Suppl):574.

Rajappan K, Rimoldi O, Pennell DJ, Camici PG, Sheridan DJ. Coronary microcirculatory dysfunction in aortic stenosis. (Oral presentation) *Computers in Cardiology* 2001; 28:289-292.

Rajappan K, Rimoldi O, Ariff B, Pennell, DJ, Sheridan DJ, Camici PG. Impairment of Coronary Microcirculation in Aortic Stenosis Is Related to Aortic Valve Area. (Oral presentation) *Circulation* 2001; 104 (17 Suppl):II-360.

Rajappan K, Rimoldi O, Bellenger NG, Pennell, DJ, Camici PG, Sheridan DJ. Functional Changes in Coronary Microcirculation With Regression of LVH. (Poster presentation) *Circulation* 2001; 104 (17 Suppl):II-113.

Rajappan K, Rimoldi O, Bellenger NG, Pennell, DJ, Camici PG, Sheridan DJ. Factors influencing changes in coronary microcirculatory function after aortic valve replacement for aortic stenosis. (Oral & poster presentation) *Heart* 2002; 87 (Suppl II):8.

Rajappan K, Rimoldi O, Camici PG, Pennell, DJ, Sheridan DJ. Factors influencing coronary microcirculatory function in patients with aortic stenosis after aortic valve replacement. (Oral presentation) *Circulation* 2002; 106 (Suppl):II-640.

Livieratos L, **Rajappan K**, Bailey D, Rimoldi O, Camici P. Respiratory Gating of Cardiac PET Data. (Oral presentation) *Annual Congress of the European Association of Nuclear Medicine*, Amsterdam, August 2003.

Murphy E, Meakin F, **Rajappan K**, Muller B, Baker C. Cardiac Troponin I: clinical and laboratory audit. *Focus* 2004.

Kistler PM, Earley MJ, **Rajappan K**, Harris S, Abrams D, Ellis S, Sporton SC, Schilling RJ. Validation of 3D cardiac CT image integration into an EA mapping system to perform catheter ablation of AF. *ECAS* 2006.

Rajappan K, Kistler PM, Earley MJ, Harris S, Abrams D, Gupta D, Jahngir M, Ellis S, Sporton SC, Schilling RJ. Validation of 3-dimensional cardiac image integration: use of

integrated CT image into electroanatomic mapping system to perform catheter ablation of atrial fibrillation. (Oral presentation) *Heart* 2006; 92 (Suppl II): A18.

Rajappan K, Kistler PM, Earley MJ, Harris S, Abrams D, Gupta D, Jahngir M, Ellis S, Sporton SC, Schilling RJ. The impact of CT image integration into an electroanatomic mapping system on clinical outcomes of catheter ablation of atrial fibrillation. (Oral presentation) *Heart* 2006; 92 (Suppl II): A18.

Rajappan K, Sporton SC, Schilling RJ. Left atrial tachycardia and inferior vena cava thrombotic occlusion complicating AF ablation successfully treated from the right subclavian vein. (Oral presentation) *Heart Rhythm* 2006; 3: S61.

Kistler PM, **Rajappan K**, Earley MJ, Harris S, Abrams D, Gupta D, Jangir M, Sporton SC, Schilling RJ. Pulmonary vein electrical reconnection in arrhythmia recurrence following catheter ablation of atrial fibrillation. (Poster presentation) *Eur Heart J* 2006; 27 (Suppl): 729.

Kistler PM, **Rajappan K**, Earley MJ, Harris S, Abrams D, Jangir M, Ellis S, Sporton SC, Schilling RJ. The impact of CT image integration into an electroanatomic mapping system on clinical outcomes of catheter ablation of atrial fibrillation. (Poster presentation) *Eur Heart J* 2006; 27 (Suppl): 728.

Rajappan K, Kistler PM, Ho SY, Harris S, Abrams D, Sporton SC, Schilling RJ. Electrophysiologic and anatomic characterisation of preferential sites for electrical isolation during circumferential pulmonary vein ablation. (Oral presentation in Young Investigator Award session) *Europace* 2007; 9 (Suppl 2): 7.

Kalla M, **Rajappan K**, Kalra S, Sporton SC, Schilling RJ. A study to identify the prevalence and timing of pericardial effusions after left atrial catheter ablation (LACA) for atrial fibrillation (AF) and atrial tachycardia (AT). (Poster presentation) *Heart Rhythm* 2007; 4: S337.

Rajappan K, Kalra S, Kalla MJ, Earley M, Harris S, Gupta D, Abrams D, Sporton SC, Schilling RJ. The impact of linear ablation along the coronary sinus on the outcomes of catheter ablation for permanent atrial fibrillation. (Oral presentation) *Heart* 2007; 93 (Suppl I): A13.

Rajappan K, Kistler P, Kalla MJ, Kalra S, Richmond L, Earley M, Harris S, Gupta D, Abrams D, Sporton SC, Schilling RJ. Catheter ablation for permanent atrial fibrillation: are oucomes improved by ablation restoring sinus rhythm without electrical cardioversion? (Oral presentation) *Heart* 2007; 93 (Suppl I): A14.

Kistler P, **Rajappan K**, Harris S, Gupta D, Richmond L, Ellis S, Sporton SC, Schilling RJ. The impact of image integration on catheter ablation of atrial fibrillation using electroanatomic mapping: a prospective randomised study. (Oral presentation) *Heart* 2007; 93 (Suppl I): A14.

Kalla M, **Rajappan K**, Kalra S, Sporton SC, Schilling RJ. A study to identify the prevalence and timing of pericardial effusions after left atrial catheter ablation (LACA)

for atrial fibrillation and atrial tachycardia. (Oral presentation) *Heart* 2007; 93 (Suppl I): A13.

Kistler P, **Rajappan K**, Yen Ho S, Morpher M, Harris S, Abrams D, Gupta D, Sporton SC, Schilling RJ. Electrophysiological and anatomic characterisation of sites resistant to electrical isolation during circumferential pulmonary vein ablation for atrial fibrillation: a prospective study. (Moderated poster presentation) *Heart* 2007; 93 (Suppl I): A84.

Rajappan K, Kistler P, Kalla M, Kalra S, Richmond L, Earley MJ, Harris S, Gupta D, Abrams D, Sporton SC, Schilling RJ. Catheter ablation for permanent atrial fibrillation: are outcomes improved by ablation restoring sinus rhythm without electrical cardioversion? (Oral presentation) *Eur Heart J* 2007; 28 (Suppl): 129.

Rajappan K, Kistler P, Kalra S, Kalla M, Earley MJ, Harris S, Gupta D, Abrams D, Sporton SC, Schilling RJ. The impact of linear ablation along the coronary sinus on the outcomes of catheter ablation for permanent atrial fibrillation. (Poster presentation) *Eur Heart J* 2007; 28 (Suppl): 167.

Berriman TJ, **Rajappan K**, Thomas G, Redpath C, Kamdar R, Mullan V, Richmond L, Gupta D, Harris SJ, Earley MJ, Sporton SC, Schilling RJ. A randomized control trial of catheter ablation vs. medical therapy in treatment of atrial fibrillation in heart failure patients: CAMTAF. *Europace* 2007;9 (Suppl 5):5.

Liew R, Mullan V, Richmond L, **Rajappan K**, Gupta D, Thomas G, Redpath C, Earley MJ, Harris SJ, Sporton SC, Schilling RJ. Comparison of conventional with minimal catheter approaches for the mapping and ablation of cardiac arrhythmias: a randomized contolled trial. *Europace* 2007;9 (Suppl 5):7.

Rajappan K, Kistler PM, Mullan V, Thomas G, Redpath C, Earley MJ, Harris SJ, Sporton SC, Schilling RJ. A randomized trial to compare atrial fibrillation ablation using a steerable vs. non-steerable sheath. *Europace* 2007;9 (Suppl 5):12.

Rajappan K, Kistler PM, Richmond L, Hughes A, Mullan V, Gupta D, Harris SJ, Ellis S, Sporton SC, Schilling RJ. The impact of image integration on catheter ablation of atrial fibrillation using electroanatomic mapping: a prospective randomized study. *Europace* 2007;9 (Suppl 5):13.

Richmond L, **Rajappan K**, Voth E, Earley MJ, Harris SJ, Sporton SC, Schilling RJ. Validation of computed tomography image integration into the Ensite mapping system to perform catheter ablation of atrial fibrillation. *Europace* 2007;9 (Suppl 5):16.

Rajappan K, Kister PM, Thomas G, Izquierdo M, Earley MJ, Sporton SC, Schilling RJ. Acute and chronic pulmonary vein reconnection after AF ablation: prospective characterization of anatomical sites. (Poster presentation) *Heart Rhythm* 2008;5: S167.

de Bono JP, Bull S, Paisey J, Tomlinson D, **Rajappan K**, Bashir Y, Betts T. The presence of left atrial thrombus despite anticoagulation in patients undergoing left atrial ablation for atrial fibrillation cannot be predicted by clinical risk factors. (Poster presentation) *Heart* 2008; 94 (Suppl II): A9.

Paisey JR, Tomlinson D, de Bono J, **Rajappan K**, Betts T, Bashir Y. Reliable beat-tobeat assessment of mitral isthmus conduction or block based on coronary sinus activation pattern during left atrial appendage pacing: a simple method to facilitate mitral isthmus ablation. (Poster presentation) *Heart* 2008; 94 (Suppl II): A100.

Paisey JR, Tomlinson D, de Bono J, **Rajappan K**, Bashir Y, Betts T.Comparison of single ablation catheter versus multipolar mapping catheter for assessment of pulmonary vein conduction. (Poster presentation) *Heart* 2008; 94 (Suppl II): A101.

Widespread variation in UK practice for peri-operative management of anticoagulation during device implantation." de Bono JP, Nizar S, Ruparelia N, Betts TR, Bashir Y and Rajappan K. Europace. 2008 (Suppl 2), ii12

"Variations in all-cause mortality and absolute risk reduction in published ICD trials and their subgroups: development of a tool to facilitate informed consent on an individualized patient basis." Sadarmin P, Tomlinson D, de Bono J, Rajappan K, Bashir Y, and Betts TR. Europace 2008 (Suppl 2), ii11

"Reliable beat to beat assessment of mitral isthmus conduction or block based on coronary sinus activation pattern during left atrial appendage pacing – a simple method to facilitate mitral isthmus ablation". Paisey J, Tomlinson D, de Bono JP, Rajappan K, Betts T and Bashir Y. Europace 2008 10 (Suppl1), i165

Sadarmin P, Tomlinson D, de Bono J, **Rajappan K**, Bashir Y, Betts, TR. Variations In All-Cause Mortality And Absolute Risk Reduction In Published Icd Trials And Their Subgroups: Development Of A Tool To Facilitate Informed Consent On An Individualised Patient Basis. *HRC* 2008

Hunter RJ, Berriman T, Richmond L, **Rajappan K**, Dhinoja M, Abrams D, Earley MJ, Sporton SC, Schilling RJ. Early results from the catheter ablation versus medical treatment of AF in heart failure (CAMTAF) trial. *J Intervent Cardiovasc Electrophysiol* 2009.

Sadarmin P, Wong KC, Tomlinson DR, de Bono J, Paisey J, **Rajappan K**, Bashir Y, Betts TR. Absolute risk reduction in published ICD trials and subgroup analyses. *Heart Rhythm* 2009;6 (Suppl 5): S186.

Wong KC, de Bono J, Paisey J, Tomlinson DR, Sadarmin PP, **Rajappan K**, Bashir Y, Betts TR. Can ECG algorithms predict the site for successful paraseptal accessory pathway ablation? *Heart Rhythm* 2009;6 (Suppl 5): S205.

de Bono JP, Ruperalia N, Nizar S, Bashir Y, Betts TR, **Rajappan K**. Antibiotic Prophylaxis During Device Implantation, a UK Perspective. *Heart Rhythm* 2009.

de Bono JP, Nizar S, Ruperalia N, Betts TR, Bashir Y, **Rajappan K**. United Kingdom Perspective on Perioperative Management of Anticoagulation in Patients Undergoing Device Implantation. *Heart Rhythm* 2009.

Sadarmin P, Tomlinson DR, de Bono J, **Rajappan K**, Bashir Y, Betts TR. Absolute risk reduction from implantable cardioverter defibrillator trials: development of a toll to educate physicians and provide informed consent. (Poster presentation) *Heart* 2009; 95 (Suppl I): A58.

Sadarmin P, Wong KCK, Bashir Y, **Rajappan K**, Betts TR. Primary prevention implantable cardioverter defibrillators: where's the block? A pilot study in a regional cardiac centre. (Poster presentation) *Heart* 2009; 95 (Suppl I): A59.

Finlay MC, Richmond L, **Rajappan K**, Earley MJ, Liew R, Thomas G, Tenkorang J, Hunter R, Baker V, Goromonzi F, Sporton S, Dhinoja M, Abrams D, Schilling RJ. The CAVERN study: a randomised comparison of Cartomerge and NavX Fusion in catheter ablation of atrial fibrillation. (Poster presentation) *Heart* 2009; 95 (Suppl I): A80.

Sadarmin P, Wong K, de Bono JP, Paisey J, Bashir Y, **Rajappan K**, Betts TR. Cardiologist's attitudes towards ICD implantation and adherence to national guidelines. *Europace* 2009.

Sadarmin P, Meldrum N, Watson E, de Bono JP, Bashir Y, **Rajappan K**, Betts TR. Is it safe to assume patients know their alarms? An ICD survey. *Europace* 2009.

de Bono JP, Stoll VM, Joshi A, **Rajappan K**, Bashir Y., Betts TR. Cavotricuspid isthmus dependent flutter is associated with increased incidence of occult coronary artery disease. European Society of Cardiology 2009.

KCK Wong, J de Bono, PP Sadarmin, N Qureshi, Y Bashir, **K Rajappan**, TR Betts. Can high posterior wall activation times during left atrial appendage pacing reliably confirm roof line block? *Heart Rhythm Congress* 2009.

KCK Wong, PP Sadarmin, J De Bono, N Qureshi, Y Bashir, **K Rajappan**, TR Betts. Acute Electrophysiological Changes after Circumferential Pulmonary Vein Ablation for Paroxysmal Atrial Fibrillation. *Europace* 2010;12 (Suppl 2):I69.

KCK Wong, PP Sadarmin, M Jones, N Qureshi, Y Bashir, **K Rajappan**, TR Betts. Coronary Sinus Diameter Predicts Difficult Mitral Isthmus Ablation. *Europace* 2010;12 (Suppl 2):I69.

KCK Wong, C Lim, PP Sadarmin, J de Bono, N Qureshi, M Jones, Y Bashir, K Rajappan, TR Betts. Mitral Isthmus Ablation Is Associated With A High Incidence Of Acute Circumflex Artery Injury. *Europace* 2010;12 (Suppl 2):I55.

KCK Wong, C Lim, PP Sadarmin, J de Bono, N Qureshi, M Jones, Y Bashir, K Rajappan, TR Betts. Mitral Isthmus Ablation Is Associated With A High Incidence Of Acute Circumflex Artery Injury. *Heart Rhythm Society* 2010.

Wong KCK, Sadarmin PP, de Bono JP, Qureshi N, Bashir Y, **Rajappan K**, Betts TR. Left atrial local activation times during left atrial appendage pacing facilitate the assessment of roof line block. *Heart Rhythm* 2010;7 (Suppl 5):S99.

KCK Wong, M Jones, N Qureshi, J De Bono, **K Rajappan**, Y Bashir, TR Betts. Balloon occlusion of Coronary sinus facilitates mitral isthmus ablation. *ESC* 2010.

KCK Wong, M Jones, N Qureshi, J De Bono, **K Rajappan**, Y Bashir, TR Betts. Incidence of recovered conduction following previously successful linear ablations. *ESC* 2010.

KCK Wong, M Jones, N Qureshi, J De Bono, **K Rajappan**, Y Bashir, TR Betts. Balloon occlusion of Coronary sinus facilitates mitral isthmus ablation. *Heart Rhythm Congress* 2010.

KCK Wong, M Jones, N Qureshi, J De Bono, **K Rajappan**, Y Bashir, TR Betts. Incidence of recovered conduction following previously successful linear ablations. *Heart Rhythm Congress* 2010.

KCK Wong, PP Sadarmin, M Jones, N Qureshi, Y Bashir, **K Rajappan**, TR Betts. Coronary Sinus Diameter Predicts Difficult Mitral Isthmus Ablation. *Heart Rhythm Congress* 2010.

Wong KCW, Lim CS, Sadarmin PP, de Bono J, Qureshi N, Jones M, Bashir Y, **Rajappan K**, Betts TR. High incidence of acute circumflex artery injury following mitral isthmus ablation. (Poster presentation) *Heart* 2010; 96 (Suppl I): A77.

Makosch GA, Griffiths A, Meredith T, Qureshi N, Wong KCW, de Bono J, Bashir Y, Betts TR, **Rajappan K**. Catheter ablation of atrial fibrillation whilst taking therapeutic warfarin: a British experience. (Poster presentation) *Heart* 2010; 96 (Suppl I): A79.

Sadarmin P, Wong KCW, **Rajappan K**, Bashir Y, Betts TR. Primary prevention ICD audit – low referral rates. (Poster presentation) *Heart* 2010; 96 (Suppl I): A82.

Di Biase L, Gallinghouse GJ, **Rajappan K**, Schilling RJ, Kautzner J, Mohanty P, Lorgat F, Dello Russo A, Tondo C, Natale A. Preliminary acute results of Robotic Catheter Ablation of Atrial Fibrillation utilizing the Lynx Robotic Catheter System in humans: safety and feasibility. (Poster presentation) *Boston AF* 2011.

Hunter RJ, McCready James, Diab I, Page S, Richmond L, Earley MJ, Sporton S, Jones M, Joseph JP, Bashir Y, Betts TR, Thomas G, Staniforth A, Kistler P, **Rajappan K**, Chow A, Schilling RJ. Does catheter ablation of atrial fibrillation reduce risk of stroke and death? (Oral presentation) *Heart Rhythm* 2011.

Wong KC, Jones M, Qureshi N, **Rajappan K**, Bashir Y, Betts TR. A single centre experience of mitral isthmus ablation using a deflectable long sheath and powers up to 40-50 watts through a 3.5mm irrigated-tip catheter. (Poster presentation) *Heart Rhythm* 2011.

Wong KCK, Jones M, Qureshi N, Muthumala A, Betts TR, Bashir Y, **K Rajappan**. Mitral isthmus ablation is feasible, efficacious and safe using the Hansen SenseiTM Robotic ablation module. *EuroPace* 2011 Wong KCK, Jones M, Qureshi N, De Bono J, **Rajappan K**, Bashir Y, Betts TR. Single centre experience of mitral isthmus ablation with steerable sheaths and high power (up to 50W) at the annular end. *Europace* 2011

Burg MR, Muthumala A, Qureshi N, Jones M, Wong K, Betts TR, **Rajappan K**, Bashir Y. Pulse generator replacement as a risk factor for cardiac device infection – pooled analysis of published studies. (Poster presentatation) European Society of Cardiology 2011.

BOOKS/BOOK CHAPTERS

Rajappan K, Schilling RJ. Principles of Noncontact Endocardial Cardiac Mapping in *Cardiac Mapping* eds. Shenasa et al.; Wiley-Blackwell Dec 2008.

Bashir Y, Betts TR, **Rajappan K**. *Cardiac Electrophysiology and Catheter Ablation*. Oxford University Press June 2010.

REVIEWS/EDITORIALS/COMMENTARIES

Rajappan K, Bellenger NG, Anderson L, Pennell DJ. The role of Cardiovascular Magnetic Resonance in heart failure. *Eur J Heart Failure* 2000;2(3):241-252. (Review)

Rajappan K, Mayet J. Left ventricular hypertrophy and aortic stenosis: a commentary. *Br J Cardiol* 2003;10:217. (Commentary)

Rajappan K, Fox KF. Temporary cardiac pacing in district general hospitals – sustainable resource or training liability? *Q J Med* 2003;96:783–785. (Editorial)

Rajappan K, Schilling RJ. Non-contact mapping in the treatment of ventricular tachycardia after myocardial infarction. *J Intervent Cardiovasc Electrophysiol* 2007;19:9-18. (Review)

Kistler PM, Schilling RJ, **Rajappan K**, Sporton SC. Image Integration for AF ablation – pearls and pitfalls. *Heart Rhythm* 2007;4:1216-1221. (Review)

Rajappan K. Permanent pacemaker implantation technique:part I. *Heart* 2009;95:259-264. (Invited review)

Rajappan K. Permanent pacemaker implantation technique:part II. *Heart* 2009;95:334-342. (Invited review)

CASE REPORTS

Morris-Jones R, Staughton RCD, Walker M, Sheridan DJ, **Rajappan K**, Leonard J, Hardman C. Lichen myxoedematosus with associated cardiac abnormalities. *Br J Derm* 2001;144:594-596.

Rajappan K, Lefroy D. An unusual case of VT. Heart 2005;91:145.

Evans PJ, **Rajappan K**, Stocks GM. Cardiorespiratory symptoms during pregnancy-not always pulmonary embolism. *Int J Obstet Anaes* 2006;15:320-324.

Liew R, **Rajappan K**, Gupta D, Kistler P, Schilling RJ. Percutaneous epicardial ablation of incessant "normal heart" ventricular tachycardia. *J Intervent Cardiovasc Electrophysiol* 2007;18:265-267.

Manjaly Z-R, Sachdev B, Webb T, **Rajappan K**. Ablation of arrhythmia in pregnancy can be done safely when necessary. *Eur J Obstet Gynecol Reprod Biol*. 2011 Feb 17. [Epub ahead of print].

COURSES

ADVANCED LIFE SUPPORT PROVIDER COURSE

Certificate awarded by The Resuscitation Council (U.K.) *Greenwich District Hospital* 5th December 1996

ADVANCED LIFE SUPPORT INSTRUCTOR COURSE

Certificate awarded by The Resuscitation Council (U.K.) *Royal Berkshire Hospital, Reading* 7th November 1997

RADIATION PROTECTION COURSE IN ACCORDANCE WITH IR(ME)R 2000

Certificate awarded by HITEC, Directorate of Imaging Hammersmith Hospitals NHS Trust, London 22nd November 2002

EFFECTIVE TEACHING SKILLS WORKSHOP

Certificate awarded by London Chest Hospital Education Centre Barts and The London NHS Trust, London 30th January 2006

MANAGEMENT COURSE FOR SPECIALIST REGISTRARS

Certificate awarded by London Chest Hospital Education Centre Barts and The London NHS Trust, London 30th October to 1st November 2006

TEACHING COMMITMENTS/PROFESSIONAL INTERESTS

Educational supervisor to Core Medical Trainees, Oxfordshire Deanery Clinical supervisor for Cardiology ST 1 & 2 trainees, John Radcliffe Hospital Member of the NIHR Evaluation, Trials and Studies Coordinating Centre (NETSCC) Health Tecnology Assessment College of Experts

Peer reviewer for Heart, Europace, Atherosclerosis, International Journal of Cardiology, BioMed Central; grant application reviewer for Singapore National Medical Research Council

ALS Instructor & Medical Course Director.

Assistance in supervision of Cardiovascular Sciences BSc. Project, Imperial College School of Science, Technology & Medicine.

Tutor to students undertaking Final MB examination in Medicine.

Trainee Representative, Speciality Training Committee, Noth West Thames Cardiology (2002-2004)

Teaching on Barts and the London MRCP course

MEMBERSHIP OF PROFESSIONAL BODIES

Executive Committee Member Arrhythmia Alliance Heart Rhythm UK British Cardiovascular Society British Medical Association

INTERESTS

Water-polo (Captain of Magdalene College, Cambridge), Rugby, Hockey, Skiing Scuba-diving (Professional Association of Diving Instructors, Advanced Open Water Certificate)

Music (Played the Trombone for Brighton Youth Orchestra for two years, including tours to France, Germany, Austria and Hungary. Founder of The Cambridge University Symphony Orchestra)

Flying (Private Pilot's License)