

CURRICULUM VITAE
RICHARD JOHN SCHILLING

Current title: Professor of Cardiology and Electrophysiology– appointed 2009

Email r.schilling@qmul.ac.uk

Date of Birth: 12 May 1966

Age: 44 Years

Nationality: British

Marital Status: Married

Address: Cardiology department, St Bartholomew's Hospital
West Smithfield
London EC1A 7BE

Work Telephone No: Tel 0207 601 8054

Medical School: St. Thomas' Hospital Medical School
August 1983 - July 1989 London

Qualifications: M.B., B.S. (London) July 1989
M.R.C.P. (UK.) February 1992
MD (London) October 1999
CCST August 2000
FRCP May 2005
FESC 2008

Prizes and Awards: **Rudolph Virchow award for outstanding innovation in electrocardiology** - awarded by the University of Berlin at the 1999 world congress of electrophysiology
British Cardiac Society Young Research Workers' Competition Winner 1998, My research fellow was a Finalist in 2005
Heart Rhythm Society research award. Finalist and honourable mention in 2005

GMC Registration: Full 1.8.90 (No. 3338881)

Society memberships: British and European Cardiac Society
Heart Rhythm UK - Treasurer
Heart Rhythm Society
Atrial Fibrillation Association – Trustee
Arrhythmia Alliance – Executive committee member

Academic activity

I have been the lead of the academic department of cardiac electrophysiology since my appointment at St Bartholomew's and Queen Mary University of London. On my arrival at St Barts academic activity had been dormant for some years. The department has concentrated on clinical research and has been successful in gaining funding from both peer reviewed grants and industry allowing us to grow steadily over the last 5 years. We now have 2 offices which house 3 research fellows, 3 nurses and a research administrator. In addition we have acquired the following clinical research equipment: Electroanatomical 3-D cardiac mapping system, non-contact mapping research analysis station, ECG machine, 3 Holters (7-day), VO2 max measurement equipment, bedside BNP monitoring, Hansen robotic ablation system. My research interests focus on elucidating the mechanism of complex cardiac arrhythmia in the human heart and the development of percutaneous treatments for them. All of my research has been performed in vivo on the intact human heart. Clinical conditions we have investigated include ventricular tachycardia and fibrillation in structural heart disease, congenital heart disease, atrial fibrillation and cardiac dyssynchrony in heart failure. A summary of my research activity is tabulated below.

Research projects that I have been principle or primary investigator (grants awarded prior to my current post in italics):

Dates	Project title	Summary	Protocol source	Funding source	Funding total
2010	A randomised controlled trial to investigate the utility of Robotic Navigation ablation of AF		Schilling	BLT charity	£300000
2010	Leucocyte Telomere Dynamics in patients at risk of sudden death	A collaboration with WHRI	Schilling/Suzuki	BLT charity	£305, 426
2009-ongoing	Development and validation of a new in vitro model of long QT syndrome using induced pluripotency of fibroblasts to the cardiac lineage" (co-investigator)	A collaboration with Nottingham university to develop cell cultures of patients with Long QT syndrome on electrode arrays to facilitate EP testing in vitro.	Nottingham	BHF	£188,000
2009-ongoing	"A study of the clinical impact of lung	A study examining the practical utility of the optivol	Schilling	Medtronic	£70,000

	impedance measurement in patients with heart failure and pacemakers”	impedance facility available in Medtronic resynchronisation devices			
2008-ongoing	“Characterisation of electrograms in chronic AF and the response to catheter ablation”	A mechanistic study characterising electrograms recorded during chronic AF	Schilling	St Jude Medical	£112, 000
2008-ongoing	“Catheter ablation of atrial fibrillation using Hansen medical robotic navigation – a randomised controlled trial”		Schilling	Hansen medical	£50,000
2008-ongoing	“A randomised study comparing pulmonary vein isolation using the cryoballoon with radiofrequency energy in paroxysmal atrial fibrillation”		Schilling	Cryocath	£30,000
2008-ongoing	CAMTAF- catheter ablation of atrial fibrillation in patients with heart failure	a randomised controlled study examining the effects on symptoms and left ventricular ejection fraction of catheter ablation of AF in patients with concomitant heart failure	Schilling	British Heart Foundation	£245,801
2007-ongoing	“TIBI –HF: a randomised trial to investigate the utility of tissue Doppler echo to identify responders to cardiac resynchronisation therapy.”	A randomised study examining whether tissue Doppler predicts response to resynchronisation therapy	Schilling	Boston Scientific	£114, 000
2005-2007	C-CAF a randomised comparison of catheter ablation of AF	A randomised controlled trial of catheter ablation of AF using steerable and non-steerable sheaths	Schilling	Industry	£18,000
2005-2007	CAMACA- comparison of conventional with minimal catheter ablation	A randomised controlled study of a minimal approach to catheter ablation of simple cardiac arrhythmia in order to reduce costs and improve safety	Schilling	British Heart Foundation	£93,364
2005-2007	Cartomerge	A randomised controlled study comparing the use of integrated 3-D CT left atrial	Schilling	Industry	£74,000

2005-2006	Epicardial percutaneous placement of left ventricular pacing leads	reconstructions to guide catheter ablation of atrial fibrillation A prospective observational study developing techniques for percutaneous placement of left ventricular leads for biventricular pacing, avoiding open-chest surgery	Schilling	Industry	£78,000
2004-2007	IDEF-13	An observational study examining the utility of a biventricular defibrillator	Industry	Industry	£10,000
2004-2006	Bipolar Radiofrequency Ablation of AF patients undergoing Surgery	A prospective observational study of the efficacy of surgical radiofrequency ablation of patients with long-standing atrial fibrillation undergoing cardiac surgery for other reasons	Schilling	Industry	£69,461
2003-2005	HAT	A randomised controlled study of use of automatic external defibrillators in patients after anterior myocardial infarction who are at low risk of sudden death	Multicentre trial	Industry	£25,000
2003-2006	Simultaneous use of electroanatomical and non-contact mapping to define the role of fixed and functional conduction block in the genesis of arrhythmia after the Fontan procedure	A study investigating the mechanisms of atrial arrhythmia in patients with congenital heart disease who have undergone a Fontan surgical correction. This study also developed strategies allowing successful cure of these patients with catheter ablation	Schilling	British Heart Foundation	£157,211
2002-2004	Electroanatomic vs. fluoroscopic mapping for catheter ablation procedures: a prospective randomised study	A randomised controlled study of the safety and efficacy of non-fluoroscopic mapping systems for guiding straightforward catheter ablation cases and examining the reduction in X-ray exposure to patient and staff	Schilling	Unfunded	cost neutral
2002-2006	Simultaneous use of electroanatomical and non-contact mapping to investigate the mechanisms of chronic atrial fibrillation and guide percutaneous radiofrequency ablation	A study to develop a curative percutaneous strategy for permanent atrial fibrillation using catheter ablation	Schilling	British Heart Foundation	£88,147
2002-	A multicentre	A multicentre randomised	Schilling	British	£199,458

2005	randomised controlled trial comparing direct current cardioversion with tricuspid annulus-inferior vena cava isthmus ablation for coarse atrial fibrillation	controlled trial investigating the utility of right atrial isthmus ablation for the treatment of atrial fibrillation with a coarse P-wave morphology		Heart Foundation	
2001-2005	Safety of early mobilisation after angioplasty with reopro	A randomised controlled study of early mobilisation of patients after radial approach coronary angioplasty versus femoral approach during reopro infusion	Schilling	Industry	£69,491
2001-2003	Sex discrimination in ICD prescription	An observational study examining the sex distribution in referral for implantation of defibrillators comparing this to coronary disease rates	Schilling	Industry	£89,000
2000-2002	Cheyne stokes respiration as a risk factor for ventricular arrhythmia in heart failure	A controlled study examining whether hypoxia caused by Cheyne stokes respiration is associated with malignant ventricular arrhythmia and therefore the reason Cheyne stokes respiration is associated with poor prognosis.	Schilling	Industry	£130,000
1999-2003	<i>Mechanisms of human left atrial fibrillation</i>	<i>Investigation of the mechanisms of the initiation and maintenance of atrial fibrillation in the human left atrium</i>	<i>Schilling</i>	<i>British Heart Foundation</i>	<i>£99,853</i>
1999-2001	<i>Non-contact mapping of the human tricuspid annulus: mechanisms of atrioventricular nodal reentry tachycardia</i>	<i>Investigation examining the mechanisms of activation of the human AV node and the initiation of atrioventricular nodal reentry tachycardia</i>	<i>Schilling</i>	<i>British Heart Foundation</i>	<i>£87,025</i>
1998-2000	<i>The determinants of the diastolic conduction pathway in the re-entrant circuits of monomorphic ventricular tachycardia in the infarcted human heart</i>	<i>Investigation of the mechanisms of ventricular tachycardia in ischaemic and structural heart disease</i>	<i>Schilling</i>	<i>British Heart Foundation</i>	<i>£94,358</i>
1996-1999	<i>Feasibility and validation of non-contact mapping of ventricular tachycardia in the</i>	<i>Validation and development of a novel 3-D mapping system which is now in widespread clinical use around the world. Winner of British cardiac</i>	<i>Schilling</i>	<i>British Heart Foundation</i>	<i>£87,143</i>

Publications

Papers

- 1) Duncan E, Schilling RJ Intracoronary ethanol ablation - a novel technique for the ablation of ventricular fibrillation. *Heart Rhythm*. 2010 Apr 12. [Epub ahead of print]
- 2) Opel A, Murray S, Kamath N, Dhinoja M, Abrams D, Sporton S, Schilling R, Earley M Cryoablation versus radiofrequency ablation for treatment of atrioventricular nodal reentrant tachycardia: cryoablation with 6-mm-tip catheters is still less effective than radiofrequency ablation. *Heart Rhythm*. 2010;7(3):340-3.
- 3) Hunter RJ, Schilling RJ. Termination of atrial fibrillation by flecainide: mechanistic insights from spectral analysis. *Europace*. 2010;12(4):453-4.
- 4) Duncan E, Tayebjee M, Schilling RJ. Distinguishing Far-Field Appendage from Local Pulmonary Vein Signal in the Left Upper Pulmonary Vein During Atrial Tachycardia. *J Cardiovasc Electrophysiol*. 2009 Dec 15. [Epub ahead of print]
- 5) Schilling RJ, Sporton SC, Earley MS. The NICE guidelines for percutaneous epicardial catheter ablation of ventricular tachycardia: symptomatic of a guideline-obsessed health service? *Heart*. 2010;96(3):229-30.
- 6) Cardioversion of atrial fibrillation: the use of antiarrhythmic drugs. Schilling RJ. *Heart*. 2010;96(5):333-8.
- 7) Kamdar R, Frain E, Warburton F, Richmond L, Mullan V, Berriman T, Thomas G, Tenkorang J, Dhinoja M, Earley M, Sporton S, Schilling R. A prospective comparison of echocardiography and device algorithms for atrioventricular and interventricular interval optimization in cardiac resynchronization therapy. *Europace*. 2010;12(1):84-91.
- 8) Hunter RJ, Diab I, Thomas G, Duncan E, Abrams D, Dhinoja M, Sporton S, Earley MJ, Schilling RJ. Validation of a classification system to grade

- fractionation in atrial fibrillation and correlation with automated detection systems. *Europace*. 2009;11(12):1587-96.
- 9) Finlay M, Sawhney V, Schilling R, Thomas G, Duncan E, Hunter R, Viridi G, Abrams D, Sporton S, Dhinoja M, Earley M. Uninterrupted Warfarin for Periprocedural Anticoagulation in Catheter Ablation of Typical Atrial Flutter: A Safe and Cost-Effective Strategy. *J Cardiovasc Electrophysiol*. 2009 Sep 28. [Epub ahead of print]
 - 10) Hunter RJ, Finlay M, Schilling RJ, Sporton S. A broad complex tachycardia with conflicting information from pacing manoeuvres. *Europace*. 2009;11(10):1392-5.
 - 11) EHRA/HRS Expert Consensus on Catheter Ablation of Ventricular Arrhythmias: developed in a partnership with the European Heart Rhythm Association (EHRA), a Registered Branch of the European Society of Cardiology (ESC), and the Heart Rhythm Society (HRS); in collaboration with the American College of Cardiology (ACC) and the American Heart Association (AHA). Aliot EM, Stevenson WG, Almendral-Garrote JM, Bogun F, Calkins CH, Delacretaz E, Della Bella P, Hindricks G, Jaïs P, Josephson ME, Kautzner J, Kay GN, Kuck KH, Lerman BB, Marchlinski F, Reddy V, Schalij MJ, Schilling R, Soejima K, Wilber D; European Heart Rhythm Association (EHRA); Registered Branch of the European Society of Cardiology (ESC); Heart Rhythm Society (HRS); American College of Cardiology (ACC); American Heart Association (AHA). *Heart Rhythm*. 2009;6:886-933.
 - 12) A randomized-controlled trial comparing conventional with minimal catheter approaches for the mapping and ablation of regular supraventricular tachycardias. Liew R, Baker V, Richmond L, Rajappan K, Gupta D, Finlay M, Thomas G, Earley M, Sporton S, Harris S, Schilling R. *Europace*. 2009;11:1057-64
 - 13) A randomized trial to compare atrial fibrillation ablation using a steerable vs. a non-steerable sheath. Rajappan K, Baker V, Richmond L, Kistler PM, Thomas

- G, Redpath C, Sporton SC, Earley MJ, Harris S, Schilling RJ. *Europace*. 2009;11:571-5
- 14) Acute and chronic pulmonary vein reconnection after atrial fibrillation ablation: a prospective characterization of anatomical sites. Rajappan K, Kistler PM, Earley MJ, Thomas G, Izquierdo M, Sporton SC, Schilling RJ. *Pacing Clin Electrophysiol*. 2008;31:1598-605.
 - 15) Impact of image integration on catheter ablation of atrial fibrillation using electroanatomic mapping: a prospective randomized study. Kistler PM, Rajappan K, Harris S, Earley MJ, Richmond L, Sporton SC, Schilling RJ *Eur Heart J*. 2008;29:3029-36.
 - 16) Home use of automated external defibrillators for sudden cardiac arrest. Bardy GH, Lee KL, Mark DB, Poole JE, Toff WD, Tonkin AM, Smith W, Dorian P, Packer DL, White RD, Longstreth WT Jr, Anderson J, Johnson G, Bischoff E, Yallop JJ, McNulty S, Ray LD, Clapp-Channing NE, Rosenberg Y, Schron EB; HAT Investigators. *N Engl J Med*. 2008;358:1793-804
 - 17) Validation of Computed Tomography Image Integration into the EnSite NavX Mapping System to Perform Catheter Ablation of Atrial Fibrillation. Richmond L, Rajappan K, Voth E, Rangavajhala V, Earley MJ, Thomas G, Harris S, Sporton SC, Schilling RJ. *J Cardiovasc Electrophysiol*. 2008;19:821-7.
 - 18) Percutaneous permanent pacemaker implantation via the azygous vein in a patient with superior vena cava occlusion. Kamdar RH, Schilling RJ. *Pacing Clin Electrophysiol*. 2008;3:386-8
 - 19) Electrophysiologic and anatomic characterization of sites resistant to electrical isolation during circumferential pulmonary vein ablation for atrial fibrillation: a prospective study. Kistler PM, Ho SY, Rajappan K, Morper M, Harris S, Abrams D, Sporton SC, Schilling RJ *J Cardiovasc Electrophysiol*. 2007;18:1282-8.
 - 20) Current case mix and results of catheter ablation of regular supraventricular tachycardia: are we giving unrealistic expectations to patients? Showkathali R,

- Earley MJ, Gupta D, Alzetani M, Harris S, Kistler PM, Sporton SC, Schilling RJ. *Europace*. 2007;11:1064-8.
- 21) Image integration for atrial fibrillation ablation-pearls and pitfalls. Kistler PM, Schilling RJ, Rajappan K, Sporton SC. *Heart Rhythm*. 2007;4:1216-1221.
- 22) Non-contact mapping in the treatment of ventricular tachycardia after myocardial infarction. Rajappan K, Schilling RJ. *J Interv Card Electrophysiol*. 2007 Jun;19:9-18
- 23) Percutaneous epicardial ablation reverses ventricular tachycardia mediated cardiomyopathy. Liew R, Rajappan K, Gupta D, Kistler P, Schilling R. *J Interv Card Electrophysiol*. 2007 Apr;18(3):265-267. Epub 2007 May 30
- 24) Intra-coronary guidewire mapping-A novel technique to guide ablation of human ventricular tachycardia. Segal OR, Wong T, Chow AW, Jarman JW, Schilling RJ, Markides V, Peters NS, Wyn Davies D. *J Interv Card Electrophysiol*. 2007;18:143-154.
- 25) Venice Chart international consensus document on atrial fibrillation ablation. Natale A, Raviele A, Arentz T, Calkins H, Chen SA, Haissaguerre M, Hindricks G, Ho Y, Kuck KH, Marchlinski F, Napolitano C, Packer D, Pappone C, Prystowsky EN, Schilling R, Shah D, Themistoclakis S, Verma A. *J Cardiovasc Electrophysiol*. 2007;18:560-80.
- 26) Comparison of noncontact and electroanatomic mapping to identify scar and arrhythmia late after the Fontan procedure. Abrams DJ, Earley MJ, Sporton SC, Kistler PM, Gatzoulis MA, Mullen MJ, Till JA, Cullen S, Walker F, Lowe MD, Deanfield JE, Schilling RJ. *Circulation*. 2007;115:1738-46.
- 27) The interaction of interventricular pacing intervals and left ventricular lead position during temporary biventricular pacing: evaluated by tissue Doppler imaging. Lane RE, Chow AW, Mayet J, Francis DP, Peters NS, Schilling RJ, Davies DW. *Heart*. 2007;93:1426-32.
- 28) Left atrial tachycardia and inferior vena cava thrombotic occlusion complicating atrial fibrillation ablation successfully treated from the right subclavian vein. Rajappan K, Sporton SC, Schilling RJ. *Heart*. 2007;93:28

- 29) Can atrial fibrillation with a coarse electrocardiographic appearance be treated with catheter ablation of the tricuspid valve-inferior vena cava isthmus? Results of a multicentre randomised controlled trial. Gupta D, Earley MJ, Haywood GA, Richmond L, Fitzgerald M, Kojodjojo P, Sporton SC, Peters NS, Broadhurst P, Schilling RJ. *Heart*. 2006;93:688-93.
- 30) Cryoablation compared with radiofrequency ablation for atrioventricular nodal re-entrant tachycardia: analysis of factors contributing to acute and follow-up outcome. Gupta D, Al-Lamee RK, Earley MJ, Kistler P, Harris SJ, Nathan AW, Sporton SC, Schilling RJ. *Europace*. 2006;8:1022-6.
- 31) Successful ablation of atrioventricular nodal reentry tachycardia following the atriopulmonary Fontan procedure. Abrams DJ, Earley MJ, Sporton SC, Schilling RJ. *Europace*. 2006;8:907-10
- 32) Validation of the noncontact mapping system in the left atrium during permanent atrial fibrillation and sinus rhythm. Earley MJ, Abrams DJ, Sporton SC, Schilling RJ. *J Am Coll Cardiol*. 2006;48:485-91
- 33) The impact of CT image integration into an electroanatomic mapping system on clinical outcomes of catheter ablation of atrial fibrillation. Kistler PM, Rajappan K, Jahingir M, Earley MJ, Harris S, Abrams D, Gupta D, Liew R, Ellis S, Sporton SC, Schilling RJ. *J Cardiovasc Electrophysiol*. 2006;17:1093-101.
- 34) Validation of Three-Dimensional Cardiac Image Integration: Use of Integrated CT Image into Electroanatomic Mapping System to Perform Catheter Ablation of Atrial Fibrillation. Kistler PM, Earley MJ, Harris S, Abrams D, Ellis S, Sporton SC, Schilling RJ. *J Cardiovasc Electrophysiol*. 2006;17:341-8.
- 35) Radiofrequency ablation of arrhythmias guided by non-fluoroscopic catheter location: a prospective randomized trial. Earley MJ, Showkathali R, Alzetani M, Kistler PM, Gupta D, Abrams DJ, Horrocks JA, Harris SJ, Sporton SC, Schilling RJ. *Eur Heart J*. 2006;27:1223-9

- 36) Catheter ablation of permanent atrial fibrillation: medium term results. Earley MJ, Abrams DJ, Staniforth AD, Sporton SC, Schilling RJ. *Heart*. 2006;92:233-8
- 37) Non-pharmacological treatment of arrhythmias. Kistler PM, Schilling RJ. *Br J Hosp Med*. 2005;66:692-5
- 38) Catheter and surgical ablation of atrial fibrillation. Earley MJ, Schilling RJ. *Heart*. 2006;92:266-74.
- 39) Mechanism and mapping of atrial arrhythmia in the modified Fontan circulation. Abrams D, Schilling R. *Heart Rhythm*. 2005;2:1138-44.
- 40) Long-term results after ablation of infarct-related ventricular tachycardia. Segal OR, Chow AW, Markides V, Schilling RJ, Peters NS, Davies DW. *Heart Rhythm*. 2005;2:474-82.
- 41) Ventricular arrhythmia, Cheyne-Stokes respiration and death: observations from patients with defibrillators. Staniforth AD, Sporton SC, Early MJ, Wedzicha JA, Nathan AW, Schilling RJ. *Heart*. 2005;91:1418-22.
- 42) Radial artery access for coronary angiography and percutaneous coronary intervention. Archbold RA, Robinson NM, Schilling RJ. *BMJ* 2004;329:443-6
- 43) Electroanatomic vs. fluoroscopic mapping for catheter ablation procedures: a prospective randomised study. Sporton SC, Earley MJ, Nathan AW, Schilling RJ. *J Cardiovasc Electrophysiol*. 2004;15:310-5.
- 44) Non-contact mapping of the left ventricle and new insights into the mechanisms for success of biventricular pacing. Schilling RJ. *Heart*. 2004;90:3-4.
- 45) Is there a sex bias in implantable cardioverter-defibrillator referral and prescription? Staniforth AD, Sporton SC, Robinson NM, Cooper J, Earley MJ, Nathan AW, Schilling RJ. *Heart*. 2004;90:937-8.
- 46) Catheter inversion: a technique to complete isthmus ablation and cure atrial flutter. Sporton SC, Davies DW, Earley MJ, Markides V, Nathan AW, Schilling RJ. *Pacing Clin Electrophysiol*. 2004;27:775-8.

- 47) Atrial pacing for the prevention of atrial fibrillation after coronary artery bypass graft surgery: a review of the literature. Archbold RA, Schilling RJ. *Heart*. 2004;90:129-33.
- 48) Reuse of Occluded Veins During Permanent Pacemaker Lead Extraction: A New Indication for Femoral Lead Extraction. Staniforth AD, Schilling RJ. *Indian Pacing Electrophysiol. J.* 2002;2:97
- 49) Atrial fibrillation: classification, pathophysiology, mechanisms and drug treatment. Markides V, Schilling RJ. *Heart*. 2003;89:939-43.
- 50) Developments in clinical electrophysiology. Sporton S, Schilling R. *Hosp Med*. 2003;64:70-1
- 51) Characterization of left atrial activation in the intact human heart. Markides V, Schilling RJ, Ho SY, Chow AWC, Davies DW, Peters NS. *Circulation*. 2003;107:733-9.
- 52) Characteristics of wave front propagation in reentrant circuits causing human ventricular tachycardia. Chow AWC, Schilling RJ, Davies DW, Peters NS. *Circulation*. 2002;105:2172-8.
- 53) Lesson of the issue: Transection, migration and recovery of a peel-away introducer sheath during permanent pacemaker implantation. Dalby MC, Schilling RJ. *Europace*. 2002;4:159-60.
- 54) Atrial fibrillation: strategies to control, combat, and cure. Peters NS, Schilling RJ, Kanagaratnam P, Markides V. *Lancet* 2002;35:593-603
- 55) Which patient should be referred to an electrophysiologist : supraventricular tachycardia. Schilling RJ. *Heart* 2002;87:299-304.
- 56) Replacement of extracted permanent pacemaker or defibrillator leads by cannulation of veins using the femoral “drag-through” technique. Schilling R. *Heart* 2002;87:276-278.
- 57) Can catheter ablation cure postinfarction ventricular tachycardia? Schilling R. *Eur Heart J* 2002;23:352-354.

- 58) Catheter ablation of ventricular tachycardia related to coronary artery disease: the role of non-contact mapping. Chow AC, Schilling RJ, Peters NS, Davies DW. *Curr Cardiol Reports* 2000;2:529-536.
- 59) An introduction to catheter ablation of arrhythmias. Schilling RJ, Peters NS. *Br J Cardiol* 2000;7:594-599.
- 60) Characterization of the anatomy and conduction velocities of the human right atrial flutter circuit determined by noncontact mapping. Schilling RJ, Peters NS, Goldberger J, Kadish AH, Davies DW. *JACC* 2001;38:385-393.
- 61) Implantable cardiac defibrillators. Kanagaratnam P, Peters N, Schilling RJ. *Br J Cardiol* 2000;7:145-148.
- 62) Endocardial mapping of atrial fibrillation in the human right atrium using a non-contact catheter. Schilling RJ, Kadish AH, Peters NS, Goldberger J, Davies DW. *Eur Heart J* 2000;21:550-564.
- 63) Human atrial activation mapping: the role of structure and ultrastructure. Kanagaratnam P, Markides V, Lamb DW, Schilling RJ, Davies DW, Chow AWC, Patel P, Peters NS. *G Ital Cardiol* 1999;29:333-337.
- 64) Non-contact mapping. How does this affect our ability to ablate difficult arrhythmias. Chow AC, Schilling RJ, Peters NS, Davies DW. *G Ital Cardiol* 1999;29:337-340.
- 65) Non-Contact mapping of cardiac arrhythmias. Schilling RJ, Peters NS, Davies DW. *Journal of Electrocardiology* 1999;32:13-15.
- 66) Who's for a pacemaker? Lamb D, Schilling R. *Br J Cardiol* 1999;6: 580-582
- 67) Insertion of permanent pacemakers. Schilling R, Peters N. *Br J Cardiol* 1999;6: 550-6
- 68) Clinical developments in cardiac activation mapping. Schilling RJ, Davies DW, Peters NS. *Eur Heart J* 2000;21:801-807.
- 69) Pacing lead entanglement in the tricuspid valve apparatus during implantation. Schilling RJ. *Europace* 1999;1:201.

- 70) Feasibility of a non-contact catheter for endocardial mapping of human ventricular tachycardia. Schilling RJ, Peters NS, Davies DW. *Circulation* 1999;99:2543-2552.
- 71) Mapping and ablation of ventricular tachycardia with the aid of a non-contact mapping system. Schilling RJ, Peters NS, Davies DW. *Heart* 1999;81:570-576.
- 72) Simultaneous endocardial mapping in the human left ventricle using a noncontact catheter: comparison of contact and reconstructed electrograms during sinus rhythm. Schilling RJ, Peters NS, Davies DW. *Circulation* 1998;98:887-898.
- 73) Characteristics of Sinus Rhythm Electrograms at Sites of Ablation of Ventricular Tachycardia Relative to All Other Sites: a Non-Contact Mapping Study of the Entire Left Ventricle. Schilling RJ, Davies DW, Peters NS. *J Cardiovasc Electrophysiol* 1998;9:921-933.
- 74) Human Left Ventricular Endocardial Activation Mapping using a Novel Non-Contact Catheter. Peters NS, Jackman W, Schilling RJ, Beatty G, Davies DW. *Circulation* 1997;95:1658-1660.
- 75) Intracardiac Electrophysiology, Ablation and Implantable Cardiac Defibrillators. Schilling RJ, Davies DW. *Medicine* 1998;26(1):164-170.
- 76) Cardiac syncope due to transient coronary artery occlusion: the role of percutaneous angioplasty. Burn S, Schilling RJ, Kaye GC. *Post Grad Med J* 1998;74:361-362.
- 77) Epidemiology and management of Sudden Cardiac Death. Schilling RJ, Kaye GC. *Hospital Medicine* 1998;59:116-120.
- 78) Atrial Flutter associated with a large paraoesophageal hernia. Schilling RJ, Kaye GC. *PACE* 1998;21:1303-1306.
- 79) Coronary artery disease in identical twins. Schilling RJ, Norell MS. *European Heart Journal* 1995;16: 134-135.
- 80) Inoue balloon rupture during dilation of calcified mitral valves. Schilling RJ, Francis CM, Shaw TRD, Norell MS. *British Heart Journal* 1995;73(4):390.

- 81) Treatment of acute asthma after discharge from hospital: A hospital audit.
Schilling RJ, Hurding S, Maddocks JL. *Journal Of Asthma* 1995;32(2):161-163.
- 82) Clinical evaluation of a dual sensor, Rate responsive Pacemaker. Sinha S,
Schilling RJ, Kaye GC, Caplin JL. *PACE* 1994;17(II):1950-1954.
- 83) Resuscitation of patients and the presence of relatives. Schilling RJ. *BMJ*
1994;309:406 (Letter).

Book Chapters

Non-Contact Endocardial Activation Mapping. Peters NS, Schilling RJ, Davies DW. In *Cardiac Electrophysiology: From Cell to Bedside*. Saunders: Philadelphia Pennsylvania, Editors Zipes DP, Jalife J. Pp839-844.

Lead Problems, device infections and lead extraction Schilling RJ and Sporton S. In *Implantable cardiac pacemakers and defibrillators: all you wanted to know*. Blackwell: Massachusetts, Editors Chow AC and Buxton AE. Pp 151-171.

Non-contact endocardial mapping. Schilling RJ. In *Cardiac Mapping: second edition*. Eds Shenasa M, Borggreffe M, Bredihart G. Elmsford NY: Blackwell Publishing Inc. 2003. pp 59-102.

Academic administration:

Deputy chair of clinical cardiology research board

Lead of cardiac arrhythmia research group

Teaching and training

Higher degrees

Prior to arriving at Barts I supervised 2 successful MD candidates. Since arriving at Barts I have supervised 2 successful MD candidates and am currently supervising a PhD student and developing a project grant for another.

Chair of Heart Rhythm UK meeting

I was scientific chair for the HRUK scientific symposium last year which had 1500

attendees

Director and originator of City Basic EP course

This is a course I have been running at St Bartholomew's Hospital for the last 4 years aimed at teaching the principles of cardiac electrophysiology. This is aimed at newer trainees and has an average of 50 delegates from around the UK

Course director and originator of City ICD course

I have been running this course at St Bartholomew's Hospital for the last 3 years and teaches the principles of mechanism and management of implantable cardiac defibrillators. This has a faculty from around the UK and attracts an average of 60 delegates a year.

I run a biweekly cardiac electrophysiology teaching meeting for junior staff at St Bartholomew's Hospital.

I teach PRHO's twice a year in the simulator at Prescott St on the subject of cardiac emergencies and carry out weekly teaching ward rounds at the Royal London and Whipps Cross hospital.

I am regularly invited as faculty to the Heart Rhythm Society, European Cardiac Arrhythmia Society, European Cardiac Society, American Heart Association, and British Cardiac Society.

PRESENT APPOINTMENT

Jan 2001 Reader (appointed 2006), Queen Mary University of London and
Consultant cardiologist, St Bartholomew's and Royal London
Hospital

PREVIOUS APPOINTMENTS

October 1998 SpR and Honorary Senior Registrar St. Mary's Hospital and Imperial College School of Medicine
Dr D.W Davies, Dr R.A Foale, Dr J. Mayet, Professor N.S. Peters, Professor D. Sheridan

Jan 1996 – Honorary Senior Registrar and British Heart Foundation Junior
Sept 1998 Research Fellow Waller Department of Cardiology, St. Mary's Hospital and Imperial College School of Medicine
Dr D.W.Davies, Professor N.S. Peters

Cardiology Registrar Rotation

Nov 1994 – Registrar in Cardiology and General Medicine Castle Hill Hospital,
Nov 1995 Hull. Dr. G.C. Kaye

Feb 1994 – Registrar in Cardiology and General Medicine Grimsby District
Oct 1994 Hospital, Grimsby. Dr R Bain

Aug 1992 – Registrar in Cardiology Hull Royal Infirmary, Hull.
Jan 1994 Dr M S Norell, Dr J L Caplin, Dr G C Kaye

Feb 1992 – Royal Hallamshire Hospital, Sheffield. Senior S.H.O. General
July 1992 Medicine Dr J L Maddocks, Dr Anderson.

Aug 1990 – Medical S.H.O. Rotation. Rotating through Cardiology, Intensive
Jan 1992 Care, Gastroenterology, Rheumatology, Haematology, Geriatrics, Hull Royal Infirmary, Hull.

Feb 1990 – H.S. General Surgery, Royal Cornwall Hospital, Treliske, Truro.
July 1990 Mr C Rickford

Aug 1989 – H.P. Renal and General Medicine, St. Thomas' Hospital, London.
Jan 1990 Dr. N Jones

CLINICAL EXPERIENCE

Current Post

I currently work as a consultant cardiologist at St Bartholomew's and the Royal London Hospital within the National Health Service. I have an unpaid position as reader at the Queen Mary University of London. I also see patients and perform procedures at the London Bridge Hospital.

Current practice

Pacing and intracardiac defibrillator implantation: I have been implanting both dual and single chamber pacemakers since 1992 and biventricular devices since 2001. My training in implantation of defibrillators began in 1994 and had the privilege of being trained when abdominal implantation of the defibrillator generator was commonplace and have been involved in defibrillator implantation during the evolution to sub-pectoral and then subcutaneous implantation. I routinely perform abdominal box changes. My practice currently involves personally implanting or supervising the implantation and follow up of 250 defibrillators and 330 pacemakers a year.

Electrophysiology/Ablation: My clinical post involves 4 NHS electrophysiology and ablation sessions a week. I am fully trained in all aspects of electrophysiology and catheter ablation and regularly perform transeptal puncture, atrial fibrillation and ventricular tachycardia ablation. I supervise and teach junior SpRs techniques for electrophysiology and ablation. I have an interest in the treatment of arrhythmia grown up congenital heart disease and perform electrophysiological procedures on patients referred from the Middlesex, the Royal Brompton and Great Ormond street hospitals. I have also helped to establish a programme of surgical AF ablation procedures St Bart's. I regularly perform lead extractions and have presented papers at the British cardiac society and American college of cardiology scientific sessions, and published in Heart on the subject.

General cardiology: I perform 1 cardiology clinic a week and carry out regular ward rounds at both St Barts and the Royal London Hospitals. I am trained in transoesophageal echo.

Other Duties

I am a member of the UK government's expert advisory board for the new national service framework chapter on arrhythmia which was published in March 2005

I am a founding member of the arrhythmia alliance a patient and physician collaboration aimed at improving the lives of patients with arrhythmia.

I am a founder and council member of the UK interventional electrophysiology society (Heart Rhythm UK – intervention).

AUDIT AND PROTOCOLS

I am regularly involved in audit particularly of electrophysiology, ablation and pacing procedures and have developed electronic audit systems allowing complete collection of results and outcomes data on all pacing and electrophysiology procedures at St Barts.

Other interests

Injury and family commitments have forced my retirement from rugby and skydiving but I manage to keep fit by running and cycling to work on most days. I am keen on the outdoors and regularly hike and climb. I am regularly reminded that I failed to climb Mont Blanc recently by my colleague Mark Earley (who succeeded).