

Dr. James Howard MA (Cantab) MB BChir MRCP

jphoward@doctors.org.uk jamesphoward.com

Nationality: British; DOB: 24.03.86

GMC No. 7080262

Education & Training

- 2017 – 2020 **Wellcome Trust PhD Training Fellowship – Imperial College London**
- 2015 – 2018 **MSc – Clinical Trials – London School of Hygiene & Tropical Medicine**
- 2014 – 2017 **NIHR Academic Clinical Fellowship – Cardiology (Imperial College, London)**
- 2012 – 2013 **PG Cert - Medical Education (Distance Learning) – Cardiff University**
- Awarded merit
- 2012 – 2014 **Core Medical Training – London Deanery (North West Thames)**
- 2010 – 2012 **The Foundation Programme – North East Thames Foundation School**
- 2004 – 2010 **Trinity College, The University of Cambridge**
- Master of Arts (ceremonial degree)
 - Clinical Medicine – Bachelor of Medicine, Bachelor of Surgery
Champion Prize for Dermatology
 - Physiology, Development and Neuroscience – Bachelor of Arts (Hons.), Class 2.i
Undertook a 6 month electrophysiology research project:
“Elucidating the effects of dinitrophenol on the Drosophila Transient Receptor Potential-Like channel: investigating the effects of pH and PIP₂”
- 1993 – 2004 **Merchant Taylors' School for Boys**
- A-levels - Biology (A), Chemistry (A), Computing (A), Physics (A), General Studies (A)
 - Harrison’s Scholarship, Computing Prize, Shepherd Eastwood Prize

Employment

- 2017 - 2020 **Wellcome Trust / Imperial College 4i Clinical Research Training Fellow**
- 2014 - 2017 **Imperial College Healthcare NHS Trust – ST3–ST5 ACF Cardiology**
- 2012 - 2014 **North West London Core Medical Training – CT doctor**
- | | | |
|-------------------------|----------------------------|---------------|
| • Cardiorespiratory ITU | Royal Brompton Hospital | (Four months) |
| • Geriatric Medicine | Northwick Park Hospital | (Four months) |
| • Oncology | The Royal Marsden Hospital | (Four months) |
| • Cardiology | Royal Brompton Hospital | (Four months) |
| • Infectious diseases | Northwick Park Hospital | (Four months) |
| • Respiratory medicine | Royal Brompton Hospital | (Four months) |

2011 - 2012	Colchester Hospital University NHS Foundation Trust – FY2 Doctor	
	• General Practice	(Four months)
	• Vascular Surgery	(Four months)
	• Geriatric Medicine	(Four months)
2010 – 2011	Barts and the London NHS Trust – FY1 Doctor	
	• Colorectal surgery	(Four months)
	• Gastroenterology	(Four months)
	• Cardiology/Clinical Pharmacology	(Four months)

Peer Reviewed Publications

Paper	Al-Lamee, Thompson, Dehbi , Sen ... Howard ... Francis “Percutaneous coronary intervention in stable angina (ORBITA): a double-blind, randomised controlled trial” Lancet. 2018 Jan 6;391(10115):31-40
Paper	Sikkel, Francis, Howard, Gordon, Rowlands, Peters, Lyon, Harding, MacLeod “Hierarchical statistical techniques are necessary to draw reliable conclusions from analysis of isolated cardiomyocyte studies” Cardiovascular Research, cvx151, https://doi.org/10.1093/cvr/cvx151
Paper	Shun-Shin, Zheng, Cole, Howard, Whinnett, Francis “Implantable cardioverter defibrillators for primary prevention of death in left ventricular dysfunction with and without ischaemic heart disease: a meta-analysis of 8567 patients in the 11 trials” Eur Heart J. 2017 Jun 7;38(22):1738-1746.
Paper	Howard, Shun-Shin, Hartley, Bhatt, Krum, Francis “Quantifying the three biases that lead to unintentional overestimation of the blood-pressure lowering effect of renal denervation: meta-analysis of 148 trials of 6114 patients and implications for design of future trials” Circ Cardiovasc Qual Outcomes. 2016 Jan;9(1):14-22
Paper	Maznyczka, Howard, Banning, Gershlick “A Propensity Matched Comparison of Return to Work and Quality of Life after Stenting or Coronary Artery Bypass Surgery” Open Heart. 2016 Jan 13;3(1):e000322.
Paper	Patel, Hayward, Vassiliou, Patel, Howard, Di Mario “Renal denervation for the management of resistant hypertension” Integr Blood Press Control. 2015; 8: 57–69.
Paper	Howard, Patel, Shun-Shin, Mourad, Blacher, Mahfoud, Zeller, Weber, Francis “Impact of number of prescribed medications on visit-to-visit variability of blood pressure: implications for design of future trials of renal denervation” J Hypertens. 2015 Nov;33(11):2359-67

- Abstract **Maznyczka, Howard, Banning, Gerschlick**
“A Propensity Matched Study of Return to Work Outcomes after Percutaneous Coronary Intervention and Coronary Artery Bypass Graft Surgery”
[Heart 2015;101:A64-A65 doi:10.1136/heartjnl-2015-308066.112](#)
- Paper **Howard, Francis**
“Overcoming the 3 biases obscuring the science of renal denervation in humans: big day bias, check-once-more bias and I'll-take-it-now bias.”
[Trends CV Med. 2014. doi:10.1016/j.tcm.2014.10.011](#)
- Book chapter **Howard, Shun-Shin, Francis**
“Great Myths of Blood Pressure Effect Size in Renal Denervation”
[Renal Denervation, 2015, 175-180](#)
- Paper **Howard, Antoniou, Jones, Wragg**
“Recent advances in antithrombotic treatment for acute coronary syndromes.”
[Expert Rev Clin Pharmacol. 2014 May 31;1-15.](#)
- Paper **Howard, Jones, Gallagher, Rathod, Antoniou, Wright, Knight, Mathur, Weerackody, Wragg**
“Glycoprotein IIb/IIIa inhibitors use and outcome after Percutaneous Coronary Intervention for Non-ST-elevation myocardial infarction”
[BioMed Research International 2014. doi: 10.1155/2014/643981](#)
- Paper **Nowbar, Mielewczik, Karavassilis, Dehbi, Shun-Shin, Jones, Howard, Cole, Francis**
“Discrepancies in autologous bone marrow stem cell trials and enhancement of ejection fraction (DAMASCENE): weighted regression and meta-analysis”
[BMJ. 2014 Apr 28;348:g2688. doi: 10.1136/bmj.g2688.](#)
- Paper **Jones, Howard, Rathod, Gallagher, Knight, Jain, Mathur, Mohiddin, Timmis, Mills, Archbold, Wragg**
“The impact of socioeconomic status on all-cause mortality after percutaneous coronary intervention: an observational cohort study of 13,770 patients”
[EuroIntervention. 2015 Feb 22;10\(11\):e1-8.](#)
- Paper **Nowbar, Howard, Finegold, Asaria, Francis**
“2014 Global geographic analysis of mortality from ischaemic heart disease by country, age and income: Statistics from World Health Organisation and United Nations”
[Int J Cardio 2014; doi: 10.1016/j.ijcard.2014.04.096](#)
- Paper **Shun-shin, Howard, Francis**
“Removing the hype from hypertension”
[BMJ. 2014 Mar 6;348:g1937. doi: 10.1136/bmj.g1937.](#)

- Paper **Howard, Cole, Sievert, Bhatt, Papademetriou, Kandzari, Davies, Francis**
“Unintentional overestimation of an expected antihypertensive effect in drug and device trials: Mechanisms and solutions”
[Int J Cardiol 2014; doi: 10.1016/j.ijcard.2013.12.183](#)
- Abstract **Howard, Nowbar Francis**
“What blood pressure reduction should we expect from renal denervation? Insights from office versus ambulatory pressure reductions in uncontrolled and blinded placebo-controlled drug trials of 4,121 patients”
[J Am Coll Cardiol. 2013;62\(18 S1\):B149-B149. doi:10.1016/j.jacc.2013.08.1230](#)
- Abstract **Howard, Jones, Rathod, Jain, Knight, Mathur, Wragg**
“The effect of glycoprotein IIb/IIIa inhibitors on mortality and MACE following PCI for NSTEMI/UA”
[J Am Coll Cardiol. 2013;62\(18 S1\):B44-B45. doi:10.1016/j.jacc.2013.08.872](#)
- Paper **Howard, Nowbar, Francis**
“Size of blood pressure reduction from renal denervation: insights from meta-analysis of antihypertensive drug trials of 4,121 patients with focus on trial design - the CONVERGE report”
[Heart. 2013 Nov;99\(21\):1579-87. doi: 10.1136/heartjnl-2013-304238](#)
- Abstract **Howard, Jones, Rathod, Jain, Knight, Mathur, Wragg**
“The effect of glycoprotein IIb/IIIa inhibitors on mortality and MACE following PCI for NSTEMI/UA”
[Heart 2013;99:A29-A30 doi:10.1136/heartjnl-2013-304019.40](#)
- Paper **Jones, Rathod, Howard, Gallagher, Antoniou, De Palma, Guttmann, Cliffe, Colley, Butler, Ferguson, Mohiddin, Kapur, Knight, Jain, Rothman, Mathur, Timmis, Smith, Wragg**
“Safety and Feasibility of Hospital Discharge 2 days following Primary Percutaneous Intervention for ST Segment Elevation Myocardial Infarction”
[Heart 2012;98:1722-1727 doi:10.1136/heartjnl-2012-302414](#)
- Paper **Howard, Jones, Mills, Marley, Wragg**
“Recurrent ascites due to constrictive pericarditis”
[Frontline Gastroenterol 2012;3:233-237 doi:10.1136/flgastro-2012-100173](#)
- Abstract **Howard, Jones, Gallagher, Rathod, Jain, Mohiddin, Knight, Mathur, Smith, Wragg**
“Is it safe to discharge patients 24 hours after uncomplicated successful primary percutaneous coronary intervention?”
[Heart 2012;98:Suppl 1 A29-A30 doi:10.1136/heartjnl-2012-301877b.48](#)
- Paper **Howard, Ahmed, Guarino, Wijeyekoon**
“Abdominal pain in an intensive care patient”

[Surgical Practice, 16: 114–115. doi: 10.1111/j.1744-1633.2012.00600.x](#)

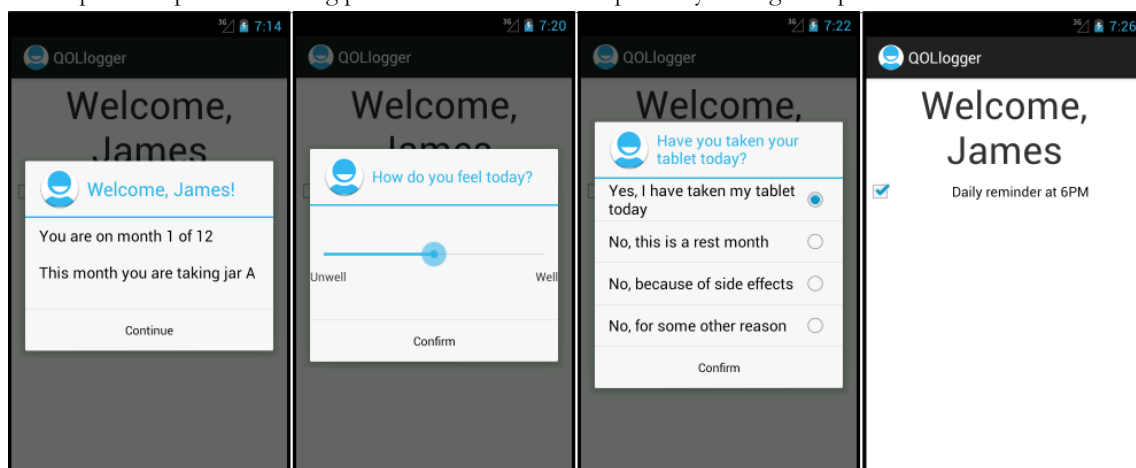
- Paper **Guarino, Astini, Howard, Colombelli**
“Large mediastinal nodular ganglioneuroblastoma in a child from Africa”
[Ann Ital Chir. 2012 Nov-Dec;83\(6\):543-6.](#)
- Abstract **Howard, Buckhoree, Jones, Gallagher, Rathod, Jain, Knight, Mathor, Wragg**
“No Difference in Long-term Major Adverse Cardiac Event Rates Between Paclitaxel-eluting and Sirolimus-eluting Stents”
[J Am Coll Cardiol, 2011; 58:54. doi:10.1016/j.jacc.2011.10.207](#)

Grants

-
- Fellowship **Wellcome Trust PhD Training Fellowship for Clinicians**
£300,000 *Wellcome Trust / Imperial 4i programme*
- Project grant **Statin side effect or not? A patient-empowering within-subject randomized controlled trial and development of a practical technology to support 21st century primary prevention decisions.**
Co-applicant *British Heart Foundation PG/15/7/31235*
£289,669

Other key projects

-
- Mobile app **Quality of Life Logger (in development)**
Following my previous experience with FMCalc (below) I was asked to create a Google Android application to monitor trial participants' quality of life. This application is fully functional and is to be implemented in a trial starting in 2013. It comprises a daily pop-up reminder with a visual analogue scale to allow users to record how they feel that day. Scores synchronise via the mobile network or WiFi with a web-server to allow real-time monitoring of data. Non-responders can be flagged up early and contacted to improve compliance. It also prevents patients altering previous scores and retrospectively adding data points.



Online database

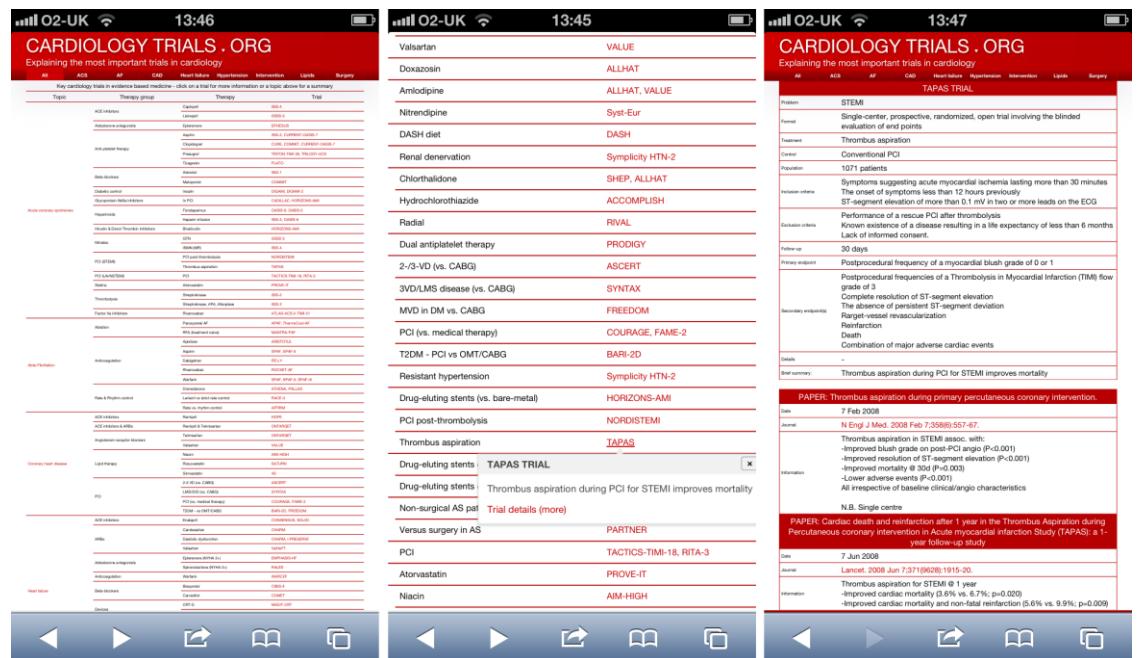
The Cardiology Trials Database – cardiologytrials.org

During my FY1 rotation in cardiology I became aware of the importance of a good understanding of the evidence base. For example, I learned how the treatment of heart failure had been revolutionised by showing prognostic benefits from drugs acting via the renin-angiotensin-aldosterone system and beta-blockers, whilst digoxin had shown symptomatic yet no prognostic benefits. I tried to further my understanding online, yet found no easily accessible source of consolidated information. Some covered only sub-specialties, others compiled data into PowerPoint files that were impractical to quickly reference and often required registration.

I set out to construct a free database with the key trials trainees needed to be aware of and formatted in a fashion where it can be easily viewed 'on the run', e.g. on a smartphone.

See cardiologytrials.org

The site currently receives over 6000 visits per month and has received a third of a million page views since its inception.

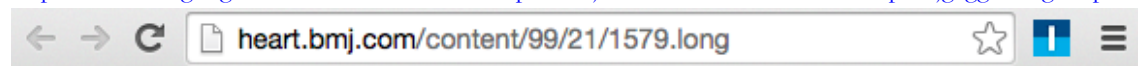


Chrome Extension

Imperial eJournals for Chrome

This small Chrome Extension allows easy access, via Imperial College Library, to journal articles, which would otherwise be behind a premium pay-wall. This small button to the right of the address bar will try to use the Imperial proxy to allow members of Imperial College to access premium content such as journals. It does this by simply altering the page URL.

<https://chrome.google.com/webstore/detail/imperial-ejournals-for-ch/infolkafickpdmjgcccgmhklgkbbpid>



Mobile app

FMCalc – The Free Medical Calculator

On acquiring a Windows Phone 7-based smartphone, I noticed there were no free medical calculators for the operating system, with only two highly priced options. I therefore worked to create a free alternative, FMCalc. The application is now on the official Windows Phone 7 marketplace and has been downloaded by over four thousand unique users in fifteen different countries. It includes over 40 medical criteria and calculators, including anion gap, CHADS2 score, Child-Pugh score, Duke criteria, Rockall score and more. Feedback has been very positive, and I've continued adding scores such as the CHIP prediction rule

following requests from users.
See jamesphoward.com/fmcalc.htm

National prizes

- 2015 **UK research paper of the year**
Our meta-analysis on the discrepancies in trials of autologous bone marrow stem cell trials (*DAMASCENE*) won the award for the best UK research paper at the annual BMJ awards. The judges described the study as “a new approach to assessing the quality of research” that “blows the whistle on therapeutic claims, signalled by errors in reporting.”
- 2013 **British Hypertension Society Young Investigator Award Finalist**
For my work on meta-analysis of renal denervation and antihypertensive drugs (Howard *et al.* Heart (2013)).
- 2012 **British Cardiovascular Society Annual Conference**
Awarded a £150 grant, supported by the British Heart Foundation, for submitting an abstract in the top 12% at the Society’s annual conference.
- 2010 **British Association of Dermatologists’ Undergraduate Essay Prize**
£250 prize for designing an undergraduate dermatology course to be taught at UK medical schools.

Posters & oral presentations

- 2015 (Poster) **Maznyczka, Howard, Banning, Gerschlick**
British Hypertension Society (BHS) Annual Scientific Meeting 2015
“A Propensity Matched Study of Return to Work Outcomes after Percutaneous Coronary Intervention and Coronary Artery Bypass Graft Surgery”
- 2013 (Oral) **Howard, Nowbar, Francis**
British Hypertension Society (BHS) Annual Scientific Meeting 2013 – Shortlisted for Young Investigators Award
“What blood pressure reduction should we expect from renal denervation? Insights from office versus ambulatory pressure reductions in uncontrolled and blinded placebo-controlled drug trials of 4,121 patients”
- 2013 (Poster) **Howard, Jones, Rathod, Bromage, Ding, Gallagher, Jain, Knight, Mathur, Wragg**
Transcatheter Cardiovascular Therapeutics (TCT) 2013 – San Francisco
“The effect of glycoprotein IIb/IIIa inhibitors on mortality and MACE following PCI for NSTEMI/UA”
- 2013 (Poster) **Howard, Nowbar, Francis**
Transcatheter Cardiovascular Therapeutics (TCT) 2013 – San Francisco
“What blood pressure reduction should we expect from renal denervation? Insights from office versus ambulatory pressure reductions in uncontrolled and blinded placebo-controlled drug trials

of 4,121 patients”

- 2013 (Poster) **Howard, Jones, Rathod, Bromage, Ding, Gallagher, Jain, Knight, Mathur, Wragg**
British Cardiovascular Society (BCS) Annual Conference 2013
“The effect of glycoprotein IIb/IIIa inhibitors on mortality and MACE following PCI for NSTEMI/UA”
- 2012 (Poster) **Howard, Jones, Gallagher, Rathod, Jain, Mohiddin, Knight, Mathur, Smith, Wragg**
British Cardiovascular Society (BCS) Annual Conference 2012
“Is it safe to discharge patients 24 hours after uncomplicated successful primary percutaneous coronary intervention?”
- 2011 (Poster) **Howard, Buckhoree, Jones, Gallagher, Rathod, Jain, Knight, Mathor, Wragg**
Transcatheter Cardiovascular Therapeutics (TCT) 2011 – San Francisco
“No Difference in Long-term Major Adverse Cardiac Event Rates Between Paclitaxel-eluting and Sirolimus-eluting Stents”
- 2010 (Poster) **Howard, McNamara, Rayment, Best, Rushton**
Research in clinical practise – Oxford University Clinical Academic Graduate School
“Micro-CT analysis of impacted bone graft - how impaction may affect revascularisation”
- 2010 (Poster) **McNamara, Oyen, Rayment, Brooks, Howard, Schalks, Best, Rushton**
56th Annual Meeting of the Orthopaedic Research Society
“The Alteration in Mechanical Properties of Bone Graft After the Addition of Hydroxyapatite Bone Graft Substitutes”

Audit & management

Service improvement	Assessment of cardiology workload – the case for a dedicated cardiology ward The Royal London Hospital (RLH) is part of a trust of three hospitals, along with the London Chest Hospital and Saint Bartholomew’s, both of which have tertiary cardiology services. For this reason, it was felt that the cardiology team’s workload at RLH was largely ‘general medicine’. The decision was made that no dedicated cardiology ward would be needed in the new hospital. My consultant had concerns, however – RLH was the only one of the three hospitals with an emergency department, with frequent admissions for NSTEMIs, cardiac failure and arrhythmias. To demonstrate the case for such a ward I plotted the patient journeys for over 1300 patients and demonstrated that there was an average of 17.9 cardiology patients under our care at any one time, versus only 8.6 general medical patients. This was presented at a management meeting, and the decision changed, creating a dedicated cardiology ward in Europe’s largest new hospital.
Personnel management	NETFS ‘Swap Shop’ Database In 2011 the North East Thames Foundation school allowed foundation doctors to swap their F2 jobs in a ‘swap shop’ for the first time. This took the format of a large excel document listing the jobs and contact details of over 100 foundation doctors who had expressed interest in the scheme. The plan was then for doctors to email each other and co-ordinate swaps. Unsurprisingly, this resulted in a <i>huge</i> number of emails being sent to the list, with each candidate needing to email everyone whose jobs they were interested in, usually just to be told ‘sorry, I’m

not interested?.

I realised the need for a more efficient system and created a simple PHP-powered database over the several days. Doctors were able to find their name in the database on the website, sign-in, and tick which jobs they were interested in swapping to. The system then highlighted to each doctor who was interested in swapping with them.

I received incredibly positive feedback about the project, with over half the candidates using the system to co-ordinate job swaps.

See jamesphoward.com/swapshop

Audit/service improvement

The 18 week referral pathway at The Royal London Hospital

During my FY1 attachment the surgical team were concerned about a lack of theatre slots for non-urgent operations. According to national guidelines all patients referred under the non-urgent '18 week wait' pathway should receive definitive treatment within this time. I conducted an audit assessing the progress of all patients referred non-urgently to the colorectal surgical team over a one month period. Prior to the audit, staff had assumed endoscopy waits had been leading to breaches, but this audit, presented to the entire department, highlighted minor surgical procedures as the major cause of breaches, with no patients breaching due to a delay in endoscopy. These findings lead to the Service Transformation Team at the hospital completely changing their strategy for reducing waiting times and an extra half-day theatre slot was opened for the colorectal team. I have repeated the audit one year on and demonstrated that only 20% of minor surgical procedures breached the target, as opposed to almost 50% previously.

Teaching experience

2011 - 2012	Junior Clinical Teaching Fellow – Colchester Hospital University NHS Foundation Trust During my F2 attachment I was interviewed by the hospital's associate dean and granted the position of Junior Clinical Teaching Fellow, one of several over-subscribed teaching posts. My responsibility was to give regular teaching sessions over the academic year to third year medical students, with each week broadly based on the PBL topic set by the University. However, the associate dean emphasised that the sessions should be tailored to the students' needs, and from discussions with the previous year's students I identified a common theme of concern about the lack of observed clinical examinations. My approach was integration of academic discussion and clinical examination, and I have received very positive feedback.
2011	“Cardiology for Finals” Lectured around 150 medical students on the topic of the cardiovascular system for medical finals. I placed emphasis on the difficult aspects of the examination, presentation skills, and tackling the station in a systematic way so that one can narrow down to a differential early on.
2010 - 2011	PBL Facilitator - Barts and The London School of Medicine As the only FY1 PBL facilitator in the University, my role was to facilitate groups of medical students to explore their own learning objectives in case-based scenarios, guiding them where required.
2010	Practice OSCE examiner – The Royal London Hospital Helped organise and run a practise OSCE session for final year medical students.
2009	Associate clinical supervisor – Cambridge University Medical School Tutored new medical students through six two-hour sessions, covering clinical examination and

history-taking.

Courses, meetings & conferences

August 2015	Statistics in Medicine – Stanford University
May 2014	British Cardiovascular Society Annual Conference
Jan 2014	Introduction to Cardiac MRI – St Bartholomew’s Hospital
Sept 2013	British Hypertension Society Annual Scientific Meeting
Mar 2013	British Cardiovascular Society Annual Conference Transthoracic echocardiography simulator session
Mar 2013	TRENDS 2013 - Renal denervation & treatment of hypertension (Frankfurt)
Early 2013	Northwest Thames Leadership Training Programme
2012 - 2013	Northwest Thames CMT Training Days Cardiology Central lines & chest drains Communication skills Gastroenterology & Hepatology Neurology Respiratory
Nov 2012	IMPACT course – Royal Surrey County Hospital
Nov 2012	Research Methods for Clinical Trials – University of Birmingham
Aug 2012	FEEL – Focused Echocardiography in Emergency Life Support (UK)
May 2012	British Cardiovascular Society Annual Conference
April 2012	Advanced Life Support
Jan 2012	Electrophysiology day: ICD implantation and programming tracings
Nov 2011	Transcatheter Cardiovascular Therapeutics 2011 – San Francisco
Nov 2011	Cardiology General Day: Pulmonary Hypertension
Oct 2011	Cardiac imaging day: British Heart Valve Society annual meeting
May 2011	Teaching skills for doctors - The Royal Society of Medicine

Mar 2011	Inflammatory bowel disease for trainees - The Royal Society of Medicine
Nov 2010	Epilepsy: an update - The Royal Society of Medicine
Nov 2010	FY1 Simulation Training Day – Barts and The London Simulation Centre
Oct 2010	Hepatology for trainees - The Royal Society of Medicine
Oct 2010	Radiology for foundation doctors – The Royal Society of Medicine
Oct 2010	Introduction to Problem-Based Learning/Being a PBL Facilitator - QMUL
Mar 2010	High fidelity simulator training session – Addenbrooke’s hospital

Other positions of responsibility and awards

2012 - 2014	<p>Core Medical Training Committee - Trainee Representative</p> <p>As one of four CMT doctors on the training committee, my role is to ensure that the lead provider’s approach to our training is shaped by the experiences of the trainees. We highlight trainees’ concerns, analyse feedback from training days and relay our experiences of the current curriculum.</p>
2008 – 2010	<p>Cambridge University Peer Supporter</p> <ul style="list-style-type: none"> • Qualified counsellor - Counselling graduate students within the University, having completed a thirty hour counselling course
2006 – 2008	<p>Entertainments Officer for Cambridge University Wakeboarding</p> <ul style="list-style-type: none"> • Organised several events, including a large party for an interuniversity competition
2004 – 2005	<p>Volunteer at St. Joseph’s Hospice</p> <ul style="list-style-type: none"> • Organised and took part in fund-raising and administrative duties • Received a ‘Millennium Volunteers’ award for 100 hours of voluntary service
2004	<p>RAF Gliding Scholarship</p>

Other skills and qualifications

Medical	<ul style="list-style-type: none"> • MRCP Part 1 (September 2011) • MRCP Part 2 Written (November 2011) • MRCP PACES (April 2013) • Advanced life support
IT	<ul style="list-style-type: none"> • Programming experience in Python and PHP (<i>NETFS ‘Swap Shop’ Database; cardiologytrials.org</i>) • Mobile phone application development experience on Android and Windows Phone 7 platform using Java, Eclipse, C# and Microsoft Visual Studio (see <i>FMCcalc – The Free Medical Calculator, Quality of Life Logger</i>)

- Proficient SPSS, Microsoft Office and EndNote user
- Other
- Good understanding of medical statistics, including multivariate analysis
 - Valid UK driving license