REFLECTIVE CPD ACTIVITY FORM

THE SOCIETY FOR VASCULAR TECHNOLOGY OF GREAT BRITAIN AND IRELAND

Name: Dr Steven Rogers

Job Role: Director of Research

Description: *(i.e. SVT AGM 2017, presented at local meeting)*	**Completing a PhD entitled "Evaluation of Tomographic 3D ultrasound in vascular disease"**
Date(s):	01 /04 /2015 to 28 / 04 /2019
Type of activity: 01/04/2015 April 2015 to September 2015 October 2015 to May 2017	□ Educational □ Professional □ Work-based □ Self Directed □ Other _____ **Interview, Registration and Thesis Plan:** I had an interview with Dr Jaqueline Ohanian, Post-graduate dean for research to ensure I was the right calibre and capable of completing a part time PhD. Once Dr Ohanion was satisfied, I registered for a PhD. This process resulted in the writing of a formal Thesis plan which needed to be approved by Head of School. (Note this document is confidential and cannot be shared) **Literature Review:** Based around the thesis plan a formal literature review was performed on 3D ultrasound and vascular disease relevant too our practice. This involved many hours of structured searches as well as critical review of published research while writing a formal literature review. This was submitted to my PhD supervisors and University of Manchester tutor and was successfully approved. **Designing and seeking approvals for research studies:** Based on gaps within the literature informed by my literature review I designed 7 research studies to address unmet research questions mentioned in my thesis plan. This required protocol and study document writing, seeking sponsorship and governance approval, submitting and seeking ethical and HRA approval as well as hospital capacity and capability approval. All necessary study documents were written and approved by University of Manchester, Manchester University FT, REC and HRA. **Securing grant funding:** Grant funding was required to fund the necessary research projects. I co-wrote and submitted multiple grant applications to various charities and government organisations. €2.1 million in

	funding was successfully awarded from the European Commission.
May 2017	**Continuation VIVA:** I wrote a year 1 continuation report and then was examined in a VIVA by two University of Manchester senior academics. I had to defend my thesis plan and prove I could complete it within my timeframe. I was successfully granted approval to continue to full PhD.
June 2017 to January 2019	**Recruiting, Consent, Data Collection, Statistical Analysis:** I recruited NHS patients one 7 individual research studies that addressed my research questions. I consented my patients and with the research team performed the 3D ultrasound scans and precise study measurements. I ensured blinding of the study team and secure data collection. I then cleaned the data and performed detailed statistical analysis to identify statistical significance. **Presenting at National and International Conferences:** Based on my study data I submitted abstracts and presented interim study results at the UK vascular societies, Charing Cross International Symposium, European Society of Vascular Surgery and the Brazil Congress of Vascular Ultrasound. In subsequent years I was invited back to these conferences to present further data. **Appointed as Examiner to the ESVS:** Because of the reputation I was developing in the international community because of my research I was invited to act as examiner for the ESVS certificate of US competence. This ultimately led to validation of examination techniques in an additional research study. **Invited by NICE to act as an Expert Advisor:** Again, based on my reputation I was invited by NICE to act on their behalf as an expert advisor for a MedTech Innovation Briefing on Tomographic 3D ultrasound of AAA and EVAR. I reviewed NICE's document for factual errors and gave advice on the technique, it's merits and limitations while ensuring NICE cited the relevant publications.
January 2019 to April 2019	**PhD Thesis write up and Submission:** Now that I had the correct statistical tests and significant results I wrote my PhD thesis and submitted this too the University of Manchester on 28/04/2019.
July 2019	**Mock PhD VIVA:** With a Professor of Vascular Surgery and Senior Lecturer in Statistics I attended a Mock PhD VIVA where I had to briefly introduce my PhD, explain the reasons for performing my studies, including my methodology, and then defend my results. I fielded many questions and learnt how to deal with difficult Professors. **PhD VIVA:** I attended a PhD Viva with a Professor of Cardiology from the

August 2019	University of Manchester and a Professor of Vascular Surgery from the University of Leeds. I had to briefly introduce my PhD, explain the reasons for performing my studies, including my methodology, and then defend my results. I fielded many questions and successfully passed my PhD VIVA on the provision minor corrections were made to the Thesis. **Corrected PhD Thesis:** Based on feedback from the PhD VIVA corrections were made too the thesis and a corrected version was accepted by the University of Manchester. **Award Letter and Graduation:** Based on acceptance of the Thesis the University of Manchester senet awarded me the title Doctor of Philosophy.
Benefits to your practice:	• Research approvals and regulations. • Study design • Literature review • Scientific writing • Statistical analysis • PhD defence • Invitation to international vascular conferences. • Presentation skills. • Teaching skills. • Examining for new ESVS certificate in Vascular Ultrasound • Ensuring knowledge on latest techniques for imaging Raynaurds • Ensuring up to date with the latest guidelines around the world
Benefits to service user:	• Participation in cutting edge trials • Developing new 3D technology to patient benefit • New service provision with reduced reliance on MRA and CTA for certain pathology Personalised surveillance. • Examining for new ESVS certificate in Vascular Ultrasound • Ability to offer first class services to patients • Ensuring the highest quality research is published
Supporting evidence: *(can include program certificate, notes, presentation, signed training sheet)*	1. PhD award letter **2.** PhD Thesis
Additional notes:	

Please complete reflection form for each activity submitted