



The Royal College of Radiologists

**The Royal College of Radiologists
RCR-Cyclotron Trust Visiting Fellowships 2012/13 (Clinical Oncology)**

POST-VISIT REPORT

1. Name of Visiting Fellow	Claire Arthur	
2. Name of joint Visiting Fellow (if applicable)		
3. Institution(s) of Visiting Fellow(s)	Roberts Proton Center, Philadelphia	
4. Name of Host(s)	Professor S Hahn	
5. Institution(s) of host(s)	Roberts Proton Center	
6. Expenses claimed	£ 1870	
7. Visit Dates (ACTUAL)	a. 19/08/2013	b. 30/08/2013
8. 2nd visit dates (if applicable)	N/A	
9. Aims of the visit	<p>To offer an introduction to the role and delivery of proton therapy, with particular emphasis on –</p> <ul style="list-style-type: none"> • The clinical indications for proton therapy • The treatment planning process • The differences between proton and photon dosimetry • Proton treatment related toxicity 	
10. Activities undertaken		

My two week timetable was typically 08:30 – 17:00 (daily), acting as an observer to staff involved in the following key activities:

- New/return outpatient clinics:
- clinics included: Lung, GU but the majority of the clinics were GI (as this is an area of personal interest) – in particular: oesophageus, liver, pancreas, rectum and anus
- Pre-treatment (simulation):
- several imaging modalities including CT, MRI and PET fusion
- Planning and dosimetry:
- comparing proton and IMRT plans (some patients had both modalities planned)
- reviewing plans in relation to PTV coverage and organs at risk
- comparing pencil beam and double scattering proton treatments: indications, advantages and disadvantages of each
- Treatment delivery:
- time spent observing both pencil beam and double scattering proton treatments
- appreciation of the practicalities of delivering proton therapy: compensators, use of bolus and breath holding techniques, on-treatment imaging review, combined proton and photon treatment plans
- On-treatment reviews:
- assessment of toxicity and how this related to the patients' treatment plans
- Multi-Disciplinary Meeting attendance:
- GI Tumor Board (weekly) – review of interesting cases
- Chart Rounds (weekly) – review of radiotherapy treatments planned at satellite centres (affiliated with UPenn)

11. Benefits of the visit (short term)

- The opportunity to witness the delivery of cancer care in a different healthcare system was fascinating
- A greater understanding of proton dosimetry – compared against IMRT and 3D CRT – and the associated benefits, challenges and limitations
- Appreciation of the different proton modalities available – pencil beam vs double scattering
- Returning to my centre of training (The Christie), confident that I can engage in discussion about proton therapy and relay my own experience of witnessing proton therapy in Philadelphia

12. Envisaged benefits of the visit (longer term)

- Relevant experience in preparation for proton therapy delivery in the UK
- Maintaining links with an overseas cancer centre – there have been previous visits between The Christie and the Roberts Proton Center and I hope my visit will further strengthen this working relationship.
- A broader perspective of cancer treatment approaches (not simply relating to protons – this fellowship allowed a unique insight into a different approach to both systemic and radiotherapy treatments)
- Fresh ideas that I may consider incorporating into my own practice - e.g. work environment, co-ordination of care - and may suggest to my department

13. Please outline any problems you encountered before, during or after your visit

There were no issues. Communication with Professor Hahn (supervisor) and Kamala Thompson (administrative support) was excellent. It included a telephone call to confirm my Fellowship objectives and ensure a suitable timetable was arranged. A timetable was emailed in advance, although there was flexibility to adapt this during my two week visit. Healthcare staff were very welcoming, willing to involve me in activities and provided excellent teaching. A wide breadth of clinical opportunities were available throughout the fortnight.

14. When do you intend to submit an article for the RCR Newsletter?

I am able to submit an article any time from Autumn 2013 onwards

15. Any additional comments

I feel privileged to have been awarded the Fellowship, which undoubtedly enhanced my training and occurred at a particularly relevant time in view of the UK's plans to develop two proton centres. Not only did I gain a better understanding of proton therapy (from clinical, planning, delivery and toxicity perspectives), but the experience of witnessing oncological care in a different healthcare system was fascinating. I was able to appreciate different treatment approaches and working environments and hope I can transfer some of the positive aspects into my own practice in the UK. I would strongly encourage my colleagues to apply for the RCR-Cyclotron Fellowship - thank-you for selecting me.

Signed: Claire Arthur

Date: 01/09/2013

Report approved by: Clinical Oncology Professional Support and Standards Board

Date: 26 September 2013