

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

POST-VISIT REPORT

Date for Return: This report must be completed and emailed to the RCR within 2 months of the end of your visit

Please complete all sections of this form.

1. Name of Visiting Fellow	Dr David Thomson	
2. Name of joint Visiting Fellow (if applicable)		
3. Institution(s) of Visiting Fellow(s)	The Christie NHS Foundation Trust, Manchester, UK	
4. Name of Host(s)	Dr Jason Efstathiou	
5. Institution(s) of host(s)	Massachusetts General Hospital, Boston, US	
6. Expenses claimed	£2000	
7. Visit Dates (ACTUAL)	a. 20/4/13	b. 4/5/13
8. 2nd visit dates (if applicable)	a. Start date	b. End Date
9. Aims of the visit		
<p>1. Gain clinical experience in the use of proton beam therapy with emphasis on head and neck and urological cancers at Massachusetts General Hospital, Boston, US.</p> <p>2. Appreciate clinical indications and patient selection for treatment with proton beam.</p> <p>3. Understand the principles of proton treatment planning, dosimetry and verification and relate this to 3D-conformal and intensity modulated radiotherapy.</p> <p>4. Observe patient follow up after treatment with proton beam, assessment of toxicity and late effects.</p>		
10. Activities undertaken		
<p>1. Observed multidisciplinary clinics in urological and head and neck cancers, with assessment and selection of new patients for proton beam therapy, including discussion of a phase III trial in prostate cancer comparing proton beam and IMRT.</p> <p>2. Attended 'on treatment' and follow-up clinics in urological, head and neck, base of skull and paediatric cancers.</p> <p>3. Reviewed proton treatment plans (prostate, head and neck, CNS, paediatrics, sarcoma) both formally in meetings ('chart rounds' and case conferences) and with Attending Physicians in the radiotherapy department.</p> <p>4. Received tutorials in proton planning by the head of dosimetry and treatment radiographers; and proton beam scanning by a physicist with expertise in the field.</p> <p>5. Observed treatment of patients with proton beam using diffuse scatter (3D) and scanning beam (intensity modulated proton therapy) techniques and on treatment verification.</p> <p>6. Participated in educational meetings with daily resident teaching and weekly Grand Round lectures. Formal presentations included treatment of a clival chordoma with a combination of proton beam and IMRT, use of proton beam therapy in prostate cancer and history of proton beam therapy.</p>		
11. Benefits of the visit (short term)		

1. Increased awareness of the clinical utility, physical dosimetric advantages and technical challenges in proton beam therapy, to be shared with colleagues by oral presentation.
2. Improved understanding of 3D conformal and intensity modulated proton therapy, which will be invaluable in my undertaking a comparative treatment planning study of proton beam and IMRT in head and neck cancer.

12. Envisaged benefits of the visit (longer term)

1. Insight into clinically relevant issues in development of a proton beam service including treatment delivery systems and verification; response assessment using PET; technical challenges in proton beam scanning (e.g., reducing spot size and treatment time); and resource constraints, requiring patients selection and prioritisation.
2. Potential for future research collaboration and best practice sharing in proton beam therapy with Massachusetts General Hospital.

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

Nil

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

2013

15. Any additional comments

This fellowship represented an excellent educational opportunity.

Signed: David Thomson

Date: 7 May 2013

Report approved by:

Date

Please return this form to Mrs Nan Parkinson, Professional Standards Administrator at:
nan_parkinson@rcr.ac.uk