



**Clinical  
Oncology**

The Royal College of Radiologists

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

**POST-VISIT REPORT**

<b>1. Name of Visiting Fellow</b>	<b>Dr.Shanmugasundaram Ramkumar</b>	
<b>2. Name of joint Visiting Fellow (if applicable)</b>		
<b>3. Institution(s) of Visiting Fellow(s)</b>	<b>University Hospital Southampton NHS Foundation Trust</b>	
<b>4. Name of Host(s)</b>	<b>Dr.Robert Malyapa</b>	
<b>5. Institution(s) of host(s)</b>	<b>University of Florida Proton Therapy Institute (UFPTI)</b>	
<b>6. Expenses claimed</b>	<b>£ 2000</b>	
<b>7. Visit Dates (ACTUAL)</b>	<b>a. Start Date: 22/07/13</b>	<b>b. End Date: 2/08/13</b>
<b>8. 2<sup>nd</sup> visit dates (if applicable)</b>	<b>a. Start date</b>	<b>b. End Date</b>
<b>9. Aims of the visit</b>	<p>1. Better understanding of characteristics &amp; clinical application of Proton therapy in treating Skull base tumours and Head and Neck tumours. 2. Gain a first hand working knowledge of Proton therapy treatment and compare effectiveness of Proton therapy with IMRT 3. Enhancement of appropriate selection for patient groups for consideration of Proton treatment 4. Management of cancer patients during proton therapy and the immediate post treatment period</p>	
<b>10. Activities undertaken</b>	<p>Clinical Observer at UFPTI under supervision of Dr.Robert Malyapa and attended:</p> <ol style="list-style-type: none"><li>1. Fundamental working of Proton Cyclotron &amp; principles of Proton therapy with IBA engineers &amp; Technicians.</li><li>2. New patient Consultations with Dr.Malyapa</li><li>3. Tumour Board meetings with multidisciplinary team.</li><li>4. Weekly Lunch time Patient-Carer Clinical interactive sessions</li><li>5. Review of on-treatment patients receiving proton therapy</li><li>6. Weekly Audit meetings to review patients for proton therapy, and treatment plan evaluation</li></ol>	

7. Physics planning sessions of proton therapy for a variety of cancers -Skull base tumours, Head & Neck cancers, Ocular melanomas and craniospinal tumours.
8. Overview of QA process with Dr.Dave Devaraju, Head of QA, UFPTI.
9. Onset verification of proton therapy fields on day 1 of treatment and weekly verifications of treatment
10. Experienced the whole patient pathway (consult, immobilisation, planning, verification, on-treat review), as I was able to have one of my own patient referred for proton therapy at UFPTI during my visit!

**11. Benefits of the visit (short term)**

1. Practical knowledge of principles of proton therapy and Hands on experience of the benefits of protons, advantages over conventional RT & IMRT and limitations.
2. Dosimetric challenges of protons- Patch & through field techniques, combined proton-photon plans. Field matching, etc
3. Better understanding of the referral indications for proton therapy
4. Management of cancer patients during proton therapy, immediate post treatment period and experience in monitoring late effects of Proton therapy treatment.
5. Exposure in the wider clinical applications of proton therapy particularly for re-irradiation.
6. Personal experience of a patient pathway.

**12. Envisaged benefits of the visit (longer term)**

1. Well informed Consultant led Proton therapy service with appropriate patient selection and prompt referral to the National Proton Referral panel.
2. Allow for a better discussion with patients and carers the benefits & limitations of proton therapy and guide patients.
3. Disseminate knowledge gained to colleagues and trainees in Wessex region through educational sessions and create awareness of proton therapy.

**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?**

In 2 months time (after my patient has returned to UK for follow-up and I might be able to incorporate a patient's perspective in addition to mine)

**15. Any additional comments**

This Fellowship has motivated me to gain more experience with Spot scanning & Carbon ion therapy. I have now joined the Particle Therapy Co-Operative Group (PTCOG)

**Signed:**

**Date: 25.08.13**

**Report approved by:**

**Clinical Oncology Professional Support and Standards Board**

**Date**

**26 September 2013**