CURRICULUM VITAE.

Name : Raj Kumar Shrimali

Gender : Male

Designation : Consultant Radiation Oncologist

Work Contact Details : Department of Radiation Oncology,

Tata Medical Center, Kolkata.

Educational Qualifications.

1. Undergraduate:

a. MBBS 1997, NRS Medical College, Calcutta. University of Calcutta, West Bengal, India.

2. Post Graduate:

- a. MRCP (UK), November 2003, Royal College of Physicians, London, UK.
- b. FRCR (Clinical Oncology), Autumn 2008, Royal College of Radiologists, London, UK.

3. Speciality:

a. **CCT (UK) in Clinical Oncology**, February 2010, PMETB, UK.

Details of Training and Experience

1. Undergraduate:

Undergraduate medical education at Nilratan Sircar Medical College, Calcutta. One year rotating internship in medicine, surgery, obstetrics & gynecology and community medicine.

2. Post Graduate:

Nearly 5 years of training including general medical rotation, rotation in anaesthesia and intensive care and critical care. Also included a one-year post-MRCP, middle-grade experience in haematology and oncology.

3. Specialty Training:

Clinical Oncology (over 5 years): Jan 2005 - March 2010, Beatson Cancer Centre, Glasgow. This is the largest cancer centre in Scotland, and the second largest in the UK. Received good experience in all the sub-specialities of oncology including disease patterns and different treatment options including radiotherapy, chemotherapy and biological therapy. Understood the importance of multi-disciplinary team approach towards treatment of cancer patients.

Past Clinical Appointments:

Aug 2011- Sept 2013	Consultant Clinical Oncologist & Honorary Senior Lecturer, Aberdeen Royal Infirmary, Aberdeen.
June 2011-Aug 2011	Locum Consultant, Clinical Oncology (2 months) James Cook University Hospital, Middlesbrough.
Mar 2010-May 2011	Post-CCT Research Fellowship (14 months) The Christie NHS Foundation Trust, Manchester.
July 2009- Sept 2009	Visiting Brachytherapy Fellowship (Post-FRCR) Seconded from the Beatson Cancer Centre, Glasgow to work with Prof. Peter Hoskin, Mount Vernon Cancer Centre, London.
Jan 2005 - Mar 2010	Specialist Registrar in Clinical Oncology (over 5 years) Beatson West of Scotland Cancer Centre, Glasgow.
Dec 2003- Jan 2005	Staff Grade Doctor in Oncology and Haematology Wrexham Maelor Hospital, Wrexham, UK.
Dec 2002- Dec 2003	Senior House Officer in Anaesthetics & Intensive Care, Wrexham Maelor Hospital, Wrexham, UK.
Aug 2000-Dec 2002	Senior House Officer in the Medical Rotation Wrexham Maelor Hospital, Wrexham, UK.
Oct 1998-Feb 2000	House-staffship / Senior House Officer in Critical Care Unit Institute of Postgraduate Medical Education and Research (SSKM Hospital), Calcutta, India.
Oct 1997-Sept 1998	Internship / Pre-registration House Officer (Rotating) N.R.S. Medical College Hospital, Calcutta, India.

Administrative Appointments:

Was nominated, in June 2012, as the representative of NHS Grampian at the National Services Division of the Scottish Government, to support Out of Area Access to Specialist Radiotherapy.

Memberships:

UK SABR/ SBRT Consortium.

Research Projects:

Principal Investigator for the SCOPE-1 trial at the Aberdeen Royal Infirmary.

Clinical lead for the development of IMRT for head & neck cancers using RapidArc at Aberdeen.

The projects from my year as Research Fellow are as follows:

- Development of hypo-fractionated SBRT for lung tumours at the Christie Hospital Manchester, using 4D scanning & on-line cone beam verification. Played a key role in setting up and writing the process documents for 4D scanning, outlining on composite scan datasets and SBRT planning and treatment.
- Simultaneous Cone Beam Computed Tomography (CBCT) Acquisition during Arc Radiotherapy (SCART study): Played a key part in setting up this in-house technical radiotherapy study, for lung cancers and prostate cancers. <u>Directly involved in developing</u> the study design, writing the study protocol and obtaining Ethics approval.
- Initiated the review of static IMRT for locally advanced Lung cancer, where we have moved
 a group of patients from high dose palliative radiotherapy to radical treatment. <u>Oral
 presentation at BTOG conference</u> at Dublin, January 2011. <u>Oral presentation of updated
 data at UKRO conference</u>, Manchester, 2011. Subsequent updates have been presented by
 my successors at various national and international meetings.
- Review of the Christie experience of IGRT and cone beam scan based adaptive radiotherapy in lung cancer. <u>Oral presentation at UKRO conference</u>, Manchester, 2011.

Publications:

- 1. Malignant Struma Ovarii: the West of Scotland experience and review of literature with focus on postoperative management. (Raj K Shrimali, Ghazia Shaikh, Nick S Reed. **Journal of Medical Imaging and Radiation Oncology**. August 2012; 56(4):478-482.)
- 2. Image-guided vulvovaginal interstitial brachytherapy in the treatment of primary and recurrent gynecological malignancies. (Paul De leso, Vinod Mullaserry, <u>Raj Shrimali</u>, Gerry Lowe, Linda Bryant, Peter J. Hoskin; **Brachytherapy**. July 2012;11(4):306-10.)
- 3. A megavoltage scatter correction technique for cone-beam CT images acquired during VMAT delivery. (Boylan CJ, Marchant TE, Stratford J, Malik J, Choudhury A, Shrimali R, Rodgers J, Rowbottom CG. **Phys Med Biol**. June 2012; 57(12):3727-3739.)
- 4. Dose-dense and dose-intense chemotherapy for small cell ovarian cancer: 2 cases and review of literature. (Shrimali RK, Correa PD, Reed NS; Medical Oncology. September 2011;28(3):766-70.)

- 5. Adjuvant radiotherapy with 50 Gy after limb-sparing surgery for soft-tissue sarcoma--West of Scotland experience. (Shrimali RK, Correa PD, Lee KC, Lai CN, Kakumanu SA, Cowie F. Clinical Oncology Volume 22, Issue 4, May 2010, Pages 322-323.)
- Positron emission tomography with computed tomography (PET-CT) to evaluate the response of bone metastases to non-surgical treatment. (Peter D Correa, <u>Raj K Shrimali</u>, Sai Han, Mohammed Rizwanullah) BMJ Case Reports; <u>doi:10.1136/bcr.11.2009.2457</u> (Published 6-May-2010)
- Trastuzumab induced radiation recall dermatitis first reported case. (<u>RK Shrimali</u>, NJ McPhail, PD Correa, J Fraser, M Rizwanullah. Clinical Oncology Volume 21, Issue 8, October 2009, Pages 634-635.)
- 8. Valuable lessons from treatment of non-small cell lung cancer with erlotinib, an epidermal growth factor receptor (EGFR) tyrosine kinase inhibitor. (Raj K Shrimali, Peter D Correa, Mohammed Rizwanullah) BMJ Case Reports; doi:10.1136/bcr.06.2008.0075 (Published 20-Nov-2008)
- Low-dose palliative splenic irradiation in haematolymphoid malignancy. (<u>RK Shrimali</u>, PD Correa, N O'Rourke; **Journal of Medical Imaging and Radiation Oncology.** June 2008; 52(3):297-302.)
- 10. Sonographically guided core biopsy in the assessment of thyroid nodules. (Harvey JN, Parker D, De P, <u>Shrimali RK</u>, Otter M.; **Journal of Clinical Ultrasound**. February 2005;33(2):57-62.)
- 11. To accept or not to accept? (<u>RK Shrimali</u>; **BMJ Career Focus**; 329:69. Published on 14th August, 2004)
- 12. An unusual endocrine cause of hyponatraemia. (P De, <u>R K Shrimali</u>, S Subramonian, and D F Child. **Postgraduate Medical Journal** July 2002; 78: 433.)
- 13. A simple nurse-based regime for the peri-operative management of patients with diabetes (P De, <u>RK Shrimali</u>, S Chatterjee, S Subramonian, G Ward, DF Child- Wrexham Maelor Hospital, **Diabetes Today**, Vol 4, No. 6, Dec. 2001. Pages: 152-4).

Published Chapter:

Chapter title: Intensity Modulated Radiotherapy (IMRT) in locally advanced Non-small Cell Lung Cancer.

Book title: Lung Cancer 2012. Chapter 22; Pages 236-247.

Published by the academic wing of the Association of Physicians of India.

Published Abstracts:

- Intensity modulated radiotherapy (IMRT) in locally advanced non small cell lung cancer (NSCLC) and small cell lung cancer (SCLC): Analysis of survival and toxicity outcomes. McCloskey PM, Robinson H, <u>Shrimali R</u>, et al. <u>Lung Cancer</u>, Volume 79, Supplement 1, January 2013, Pages S55-S56.
- 2. Radical concurrent chemoradiotherapy for non-small cell lung cancer (NSCLC). Claire H Stilwell, <u>Raj K Shrimali</u>, et al. **Lung Cancer**, Volume 79, Supplement 1, January 2013, Pages S62-S63.
- A case for development of Stereotactic Ablative Body Radiotherapy (SABR) for lung cancer at Aberdeen. CH Stilwell, ES Steven, RN Sharma, JD Bissett, <u>RK Shrimali</u>. Lung Cancer, Volume 79, Supplement 1, January 2013, Pages S58-S59.
- 4. One year on: early report of intensity modulated radiotherapy (IMRT) for locally advanced lung cancer at the Christie. H. Robinson, <u>R. Shrimali</u>, et al. **Lung Cancer**, Volume 75, Supplement 1, January 2012, Page S48.
- 5. Clinical characteristics and radiotherapy planning parameters as predictors of radiation-induced oesophageal toxicity following radical radiotherapy (rRT) for small cell (SCLC) and non-small cell lung cancer (NSCLC). J. Helbrow, P. Koh, <u>R. Shrimali</u>, et al. **Lung Cancer**, Volume 75, Supplement 1, January 2012, Page S54.
- 6. Clinical characteristics and radiotherapy planning parameters as predictors of radiation-induced pulmonary toxicity following radical radiotherapy (rRT) for small cell (SCLC) and non-small cell lung cancer (NSCLC). J. Helbrow, P. Koh, <u>R. Shrimali</u>, et al. **Lung Cancer**, Volume 75, Supplement 1, January 2012, Page S54.
- 7. Intensity modulated Radiotherapy (IMRT) enables radical treatment in locally advanced lung cancer patients who would have been treated with palliative intent with 3D conformal radiotherapy (3D CRT). Raj K Shrimali, et al. **Journal of Thoracic Oncology**, Volume 6, Issue 6, Supplement 2, June 2011, Pages S811-S812.
- 8. Vulvovaginal interstitial HDR brachytherapy in primary and recurrent gynaecological malignancies. P. de Ieso, V.M. Mullassery, <u>R. Shrimali</u>, G. Lowe, P. Hoskin. **Radiotherapy and Oncology**, Volume 99, Supplement 1, May 2011, Page S269.
- 9. Reactive Plan Adaptation for Lung Radiotherapy Based on Cone Beam CT —The Christie Experience. R.K. Shrimali, G.J. Webster, L.W. Lee, N. Bayman, H.Y. Sheikh, J. Stratford, S. Chauhan, M. Bewley, C. Faivre-Finn. **Clinical Oncology**, Volume 23, Issue 3, April 2011, Page S17.

- Early Report of Intensity Modulated Radiotherapy (IMRT) for Locally Advanced Lung Cancer at the Christie. R.K. Shrimali, G.J. Webster, L.W. Lee, N. Bayman, H. Sheikh, M. Bewley, P.A. Burt, L. Pemberton, M.A. Harris, A. Chittalia, C. Faivre-Finn. Clinical Oncology, Volume 23, Issue 3, April 2011, Pages S21-S22
- 11. The Importance of Adjuvant Radiotherapy in Treatment of Localised Salivary Duct Carcinoma. F. McGrane, R.K. Shrimali, A.G. Robertson, C. Paterson, P.D. Correa. Clinical Oncology, Volume 23, Issue 3, April 2011, Pages S45-S46
- 12. Cone beam computed tomography (CBCT) based adaptive radiotherapy for lung cancer—The Christie experience. R.K. Shrimali, G.J. Webster, L.W. Lee, N. Bayman, H.Y. Sheikh, J. Stratford, S. Chauhan, C. Faivre-Finn. Lung Cancer, Volume 71, Supplement 1, January 2011, Page S39.
- 13. A paradigm shift IMRT enables radical treatment in locally advanced lung cancer patients who would have been treated with palliative intent with 3D conformal radiotherapy (3D CRT). R.K. Shrimali, G.J. Webster, L.W. Lee, N. Bayman, H.Y. Sheikh, M. Bewley, P.A. Burt, C. Faivre-Finn. Lung Cancer, Volume 71, Supplement 1, January 2011, Page S34.
- 14. EGFR mutation analysis in Welsh population. F.T. Rimi, N. Ghosal, <u>R.K. Shrimali</u>, et al. **Lung Cancer**, Volume 71, Supplement 1, January 2011, Page S9.
- 15. Impact of intestinal cavity (IC) irradiation on acute gastro-intestinal (GI) toxicity in high-risk prostate cancer. (PD Correa, <u>R Shrimali</u>, N Rehman, E Stewart, S Harden, P Totten, S Burnside, Y Flanagan, J Paul, M Glegg and R Mehmood. **Radiotherapy and Oncology**, Volume 96, Supplement 1, September 2010, Page- S 600.)
- 16. Chemoradiation for Inoperable Oesophageal Cancer. (PD Correa, A Shaukat, <u>RK Shrimali</u>, E Cowan, S Barry, TRJ Evans and AC McDonald. **Clinical Oncology**, Vol. 21, Number 3, April 2009, Page-264.)
- 17. Can a single 0900 a.m. Cortisol measurement predict Adrenal gland hypofunction? (P De, RK Shrimali, P Hudson, JN Harvey, DF Child. **European journal of Internal Medicine**, Vol.12, Issue 3, May, 2001, Page-191.)
- 18. Thromboembolic disease associated with Factor V Leiden mutation and Heparin induced thrombocytopaenia (H.I.T.) in a patient with pancreatic cancer. (P De, S Siebert, <u>RK Shrimali</u>, HJ Lloyd. European journal of Internal Medicine, Vol.12, Issue 3, May, 2001, Page-289.)
- 19. An endocrine cause of reversible dilated cardiomyopathy. (P De, <u>RK Shrimali</u>, R Nazir, DF Child. **European journal of Internal Medicine**, Vol.12, Issue 3, May, 2001, Page-196.)

Oral Presentations:

- Early report of intensity modulated radiotherapy (IMRT) for Locally Advanced Lung Cancer at the Christie. <u>RK Shrimali</u>, et al. The Christie NHS Foundation Trust, Manchester. The UKRO Conference, Manchester, April 2011.
- Reactive Plan Adaptation for Lung Radiotherapy Based On Cone Beam CT-The Christie Experience. <u>RK Shrimali</u>, et al. The Christie NHS Foundation Trust, Manchester. The UKRO Conference, Manchester, April 2011.
- 3. A paradigm shift- IMRT enables radical treatment in locally advanced lung cancer patients who would have been treated with palliative intent with 3D conformal radiotherapy (3D CRT). R.K. Shrimali, G.J. Webster, L.W. Lee, N. Bayman, H.Y. Sheikh, M. Bewley, P.A. Burt, C. Faivre-Finn. The BTOG Conference, Dublin, January 2011.

Involvement in Medical Education and Training:

- Aberdeen Symposium by RCP Edinburgh: Current interface series 13/03/2013.
 Involved with organising the meeting and chairing the second session (the oncology session).
- Programmed Lecture on "Clinical Radiotherapy" to MSc Medical Physics students at the University of Aberdeen, 08/02/2013.
- Was the examiner for medical students at the **University of Aberdeen Medical School** Examiner for Phase-III OSCE, 13/12/2011.
- Was the **Educational supervisor** for **GPST trainee doctors** rotating through oncology services, at the Aberdeen Royal Infirmary.
- Was the **Clinical supervisor and trainer** for **Specialist Registrars** in **Clinical Oncology** rotating through lung and head & neck oncology, at the Aberdeen Royal Infirmary.
- Programmed Lecture on "Oncological Management of Cervical Cancer" to Nurses taking up BSc in Oncology, University of the West of Scotland, Paisley, April, 2009.
- Assisted and supervised Medical Students from the University of Glasgow on oncology special study module (SSM) projects (2008).