

Fellowship in Radiation Oncology

The Department:

The department of Radiation Oncology in Tata Medical Center is capable of delivering safe and quality care with the use of 3dCRT, IMRT, IGRT, SRT and Brachytherapy techniques. It houses 2 external beam radiotherapy machines: a Novalis Tx (Varian) and a Tomotherapy HiArt system (Tomotherapy Inc. Wisconsin). Treatment planning will be performed using a dedicated planning wide-bore CT scanner and image fusion capability with MRI, PET-CT and SPECT-CT. The Brachytherapy suite is equipped with a high dose rate Iridium machine (Varian: Varisource). The software platform is composed of the ARIA networking system, Eclipse and Tomotherapy planning systems. Respiratory Gating is available with the Varian RPM system. A second phase is being planned to enable further expansion in the treatment capacity of the centre. The department has three full time consultant radiation oncologists, four medical physicists and a team of radiation technologists.

Fellowship Objectives:

The aim of the fellowship training in Radiation Oncology is to enable the trainee to become capable of practice as a consultant in Radiation oncology with comprehensive knowledge in the multidisciplinary management of different malignancies. This fellowship program is designed to impart knowledge and clinical experience in all aspects of the radiation treatment of cancer within a pre-planned and carefully monitored training program. The fellowship is also aimed at providing experience in more than one centre (in India or overseas) to ensure exposure to a balance of various management algorithms used in radiotherapy. Emphasis will be placed on enhancing the research potential of the candidate.

During the fellowship the doctor will gain in depth clinical experience of all types of cancer. This will include both out-patient and in-patient care with out-patient with assessment of both new and review patients. They will be given experience in all aspects of radiotherapy treatment planning and treatment both for inversed planned and forward planned techniques (details given below). The fellow will also learn and gain experience in the clinical care of patients with various cancers including palliative care and counseling.

The Tata Medical Centre is dedicated to provide a super specialty service with consultants keen on site specializing. To enable the highest standards of care site specialization will be an encouraged in the final 6 months of the training. The fellow should gain experience of working within a multi-disciplinary team to develop special interest and expertise in a cancer sub-specialty. The choice of sub-specialty will depend on the fellow's preference and aptitude and on availability. Site specialization will teach the fellow how to develop a specialist interest and to work in a multi-disciplinary team.

No of Fellowship Positions:

Four (4) positions available for Jan 2011.

Fellowship Duration:

Each fellowship is a full-time position for the duration of 2 years.

Eligibility Criteria

Essential	Desirable
<ul style="list-style-type: none">• MD or DNB in Radiotherapy• Valid registration with the Medical Council of India or equivalent State Medical Council.	<ul style="list-style-type: none">• 1 year of clinical experience following post-graduation in an academic setting.• Evidence of participation in clinical research.• Publications in related speciality

Clinical responsibilities:

Fellows will be required to rotate through the practices of the 3 consultant radiation oncologists, every 4 months. During this period they are expected to participate in:

- Assessment of new patients,
- Planning and delivery of treatment under different levels of supervision, as appropriate and agreed between the supervisor and the fellow
- Follow up and assessment of outcome.
- Organize and present cases in multidisciplinary meetings.
- Discuss service development and clinical trials projects
- Record data for the purposes of clinical audit and trials

Academic responsibilities:

The Tata Medical Centre is keen to lead the training and development of undergraduate, postgraduate doctors, nurses and paramedical staff. The fellow is therefore required to develop a keen interest in teaching the junior doctors, nurses and paramedical staff to enable us to provide the best standards of medical education in the region. Seminars and workshops will be actively encouraged by the department and in future a point based CME will be devised to ensure continued professional development.

Active participation in clinical trials, clinical research and audit will be encouraged and publication of innovative and quality literature will be promoted by the department of Radiation Oncology.

Expected Rotations/Work Schema:

Fellows will be expected to work under the clinical supervision of the 3 consultant radiation oncologists in the Department. The expected rotation through specialties is give below:

Phase 1: Months 1-16

Fellow No:	Consultant 1 (Months)	Consultant 2 (Months)	Consultant 3 (Months)	Ward Cover with days of week dedicated to Radiology/ Surgery/ MedOnc/ Laboratory/ treatment machine and planning
1	1-4	5-8	9-12	13-16
2	13-16	1-4	5-8	9-12
3	9-12	13-16	1-4	5-8
4	5-8	9-12	13-16	1-4

Phase 2: Months 17-24 (Focus on site specialisation and out of centre training)

	Fellow 1	Fellow 2	Fellow 3	Fellow 4
Cons 1 (months)	17-20	-	-	21-24
Cons 2 (months)	21-22	17-20	23-24	-
Cons 3 (months)	-	23-24	19-22	17-18
Out of Centre (months)	23-24	21-22	17-18	19-20

Given below are the lead sites for each of the 3 consultants.

	Dr R Achari	Dr I Mallick	Dr S Chatterjee
Site			
Leads	CNS, PED, GYN, HL	UGI, LGI, BST, GU	HN, BR, LU
Co- Interest/Cover	HN, BR, BST, UGI	HN, HL, PED, LU, GYN,	GU, LGI, HL, CNS

The Lead consultant for a particular site will be supervising the candidates during the 4 month specialization phase. One of the consultants will accommodate 2 candidates (4 month blocks) during the 8 month in the second phase. Other consultants will have one candidate for the 4 month specialization and a further candidate for 2 month service development purpose.

Opportunities for career advancement:

The planned and organized fellowship training for 2 years is expected to provide the trainee several advantages in career advancement:

1. Provide comprehensive training in the clinical and technical aspects of modern radiation oncology in an organized and evidence based practice setting.
2. Opportunities for academic learning through regular departmental seminars, journal clubs and teaching series. Attendance in CME, conferences and symposia will be encouraged.
3. One or more research projects for each fellow will provide them an opportunity to gain experience in clinical research and publishing.
4. An out-of-centre training in a reputed cancer centre in India or abroad will enable trainees to learn new clinical approaches and treatment techniques as well as build a relationship for further academic collaboration.

Evaluation:

To ensure that the trainee has had adequate exposure to different treatment sites and planning processes the fellow will be required to maintain an up to date “Fellowship Book”; which will contain records of the experience of the fellow in the different treatment site rotations. This record will have to be successfully presented to the supervising consultant at the end of each block of the rotation and the record book has to be signed by the fellow and the supervising consultant. A successful fellowship certificate will be issued to the fellow who successfully achieves the required training experience and documents the completion of the agreed training in the log book. Based on the progress made by the fellow (as documented in the log book), fellows would be referred for “out of centre” training for 2 months to a centre of excellence, either in India or abroad.

In addition, a 360 degree evaluation program will be in place to facilitate assessment of the trainee, trainers and allied health personnel.