

Fellowship in Nuclear Medicine

The Department:

The Tata Medical Centre is a philanthropic comprehensive cancer centre which aims to provide patients the best standards of quality assured care. The department of **Nuclear Medicine** would work with other speciality departments as a team to provide a multidisciplinary care of the highest quality for its patients.

The department is capable of delivering safe and quality care and equipped with the most modern imaging devices like **64 slice PET-CT** and **4 slice SPECT-CT**. **Treatment planning for Radiotherapy** will be performed in the PET- CT scanner and **image fusion of SPECT & PET with MRI & CT** will be regularly performed to help the clinician to perform precise treatment delivery. In close collaboration with **Radiology** the Nuclear Medicine department will develop itself as a hub for **Correlative Molecular Imaging in Cancer** .

There will be facilities for **Low & high dose radioisotope therapy** and a dedicated **Radioisotope Therapy Ward**. The department will also have a **Gamma Probe for Sentinel node detection & Radioguided Surgery**.

A second phase is being planned to enable further expansion in the treatment capacity of the centre. PET-MRI , OPTICAL IMAGING , ADVANCED THERAPIES like Radioimmunotherapy will be there in the priority list.

Fellowship Objectives:

The aim of the fellowship training in Nuclear Medicine is to enable the trainee to become capable of practice as a **consultant in Nuclear Medicine with comprehensive knowledge in the multidisciplinary management of different malignancies**. Emphasis will obviously be given to the Nuclear Medicine aspects including Diagnostic and therapeutic applications. This fellowship programme is designed to impart knowledge and clinical experience in all aspects of the Radioisotope application in cancer within a pre-planned and carefully monitored training programme. 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 and imaging protocols in Nuclear Medicine. The fellowship is also intended to enhance the research potential of the candidate.

The fellowship aims at :

- Complete understanding of **Imaging in Cancer**.
- Exploring the potential of **Molecular Imaging** in true sense.
- Understanding the need of **correlative imaging**-----knowledge of other imaging

Modalities like CT, MRI, USG, Mammography etc

- Learning the complete spectrum of routine and advanced **radioisotope therapy**
- Learning the application of Nuclear Imaging in **Radiotherapy Planning**
- To learn guided intervention like **PET-CT GUIDED BIOPSY** etc
- To participate in Advanced therapeutic applications like
Radioembolization , Radioguided Surgery etc
- Learning structured **basic research**

No of Fellowship Positions:

Two

Fellowship Duration:

2 years

Eligibility Criteria

Essential:

MD/DNB degree in Nuclear Medicine

Desirable:

- Work experience in an oncology setting
- Publications in peer reviewed journals
- Participation in Clinical or Basic Sciences Research

Clinical responsibilities:

Fellows are expected to participate in:

- Assessment of new patients,
- Design the investigations ---Planar, SPECT-CT or PET-CT imaging and perform the study as appropriate and agreed between the supervisor and the fellow .
- 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.
- Organise 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:

Teaching:

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.

Audit and Clinical Research:

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 Nuclear Medicine

Expected Rotations/Work Schema:

Background knowledge of the understanding of the pathogenesis, natural history, clinical course of different cancers will be required prior to starting a fellowship programme. It is necessary for the fellow to have good grasp of Nuclear Medicine for its diagnostic & therapeutic applications.

During the fellowship the doctor will gain **in depth clinical experience of all types of cancer**. Basic understanding of practical management of cancer will be required to assess the need of the referring physician. The fellows will have **rotational postings in medical, surgical and radiation oncology** departments also for comprehensive understanding of cancer.

The fellows will work in close correlation with **Radiology department** also. They will collaborate with the department of pathology for **clinicopathological correlation**. They will record the **autopsy** findings also wherever applicable.

They will be actively involved in outpatient and inpatient **radio-isotope therapies**.

Nuclear Medicine fellows will assist the consultants in departmental **clinics**.

The Tata Medical Centre is dedicated to provide a super speciality service with consultants keen on site specialising. To enable the highest standards of care site specialisation will be 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 specialisation will teach the fellow how to develop a specialist interest and to work in a multi-disciplinary team.

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.