

# Tata Memorial Centre

## Annual Report 2022-23



**Merging Local With Global**

## Message from the desk of TMC Director Academics



Tata Memorial Centre (TMC) is a Grant-in-aid institute under department of Atomic Energy and is a stand-alone post-graduate institute under Homi Bhabha National Institute (HBNI), which is a deemed to be University under Department of Atomic Energy. I feel proud to state that HBNI has been accredited by NAAC as a Category A University and in 2022 has been ranked 11th as a Research Institute; 17th as a University; and overall 33rd among all the Higher Educational Institutes in India.

TMC stands tall on 4 pillars of Service, Education, Research and Public Health. For the last many years now, TMC has been contributing to the development of trained work force in the field of oncology not only for India, but also for Africa as well as other SARC countries, by imparting knowledge through various educational activities. All the educational related activities at TMC are imparted keeping strict adherence to the National Medical Commission (NMC) & University Grants Commission (UGC) guidelines. Our medical courses are NMC recognized. Additionally, we conduct HBNI Certified PG courses and certain one year TMC Certificate courses. We also offer various technical courses which are conducted under the aegis of various State Boards of Technical Education. **Along with the currently approved courses, TMC is always exploring newer courses related to the field of oncology that will impart training in areas that will help doctors, nurses & technicians in taking better care of patients with cancer.**

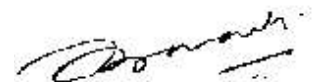
Apart from the full-fledged academic activities taking place at our centers in Mumbai and our Dr. B Borooah Cancer Hospital in Guwahati, academic activities have now also started at our other newly opened peripheral Centres in Sangrur, Varanasi & Vishakhapatnam. Considering the need for development of additional work force in the field of oncology, TMC has proposed a plan to expand the skill development work which will provide MSc, Diploma and certification courses in oncology related subjects at TMH as well as all its peripheral centres across the country. We hope to start a state-of-the-art simulation lab in our ACTREC Campus in the near future.

In the last 10 years, the number of students being trained in TMC at any given time has nearly doubled. In last 6 years, at TMH we have introduced 25 new oncology related courses.

The strength of training at TMC is the availability of plenty of clinical material, excellent medical infrastructure, full time teachers and implementable learning. The students have access to state-of-the-art infrastructure like lasers / endoscopes / robots for Surgery; IGRT / IMRT / Tomotherapy / Proton Therapy in Radiation therapy; and access to molecular labs / targeted therapies / immunotherapies / cellular therapies including SCT & CAR-T Cell Therapies in Medical Oncology.

Our core aspiration at TMC is to provide educational excellence to our students. Providing caring and at the same time challenging environment in which they can grow and achieve their true potential. Students are exposed to the “Tata Culture” which teaches them to treat patients with empathy and a “team spirit” where the treatment decisions are taken in multi-disciplinary clinics in which all specialties are given equal importance and evidence based care is practiced. We want to give the students an experience to cherish for lifetime. New hostels are being constructed. If required additional accommodation is being rented. We have started the in-house Gymnasium for the students and also conducted sports meet involving both students and staff of TMH, which was a great hit. We hope to start literature / movies / music clubs / events from this year, so as to nourish the talent of our students.

I take this opportunity to thank all our students who work really hard and are the lifeline of our hospital & without whose support we would not be able to take care of the thousands of patients who come to TMH and at our peripheral centers in Guwahati, Vizag, Sangrur, Varanasi, Mullanpur, Muzzafarpur. I also take this opportunity to thank Director TMC, Dr. R.A. Badwe & the entire administration of TMC for their constant support. I also take this opportunity to thank the Vice Chancellor, Dean and the entire HBNI Team for all their help and cooperation over the years. I would also personally like to thank Dean Academics (Projects), Dr. Kailash Sharma, for his constant support & guidance; Dr. Siddhartha Laskar my deputy; & the entire staff of Academics Section for all their help and support.



**Dr SD Banavali**



## The Academia

**Director Academics, TMC**  
**Prof. Shripad D. Banavali**

**Dean Academics (Projects)**  
**Prof. Kailash Sharma**

**Dy. Director Academics, TMC**  
**Prof. Siddhartha Laskar**

**In-charge, Students Affairs**  
**Prof. Sarbani Ghosh Laskar**

Tata Memorial Centre (TMC) is a Grant-in-aid institute under Department of Atomic Energy and is a stand-alone post-graduate institute under Homi Bhabha National Institute (HBNI), which is a deemed to be University under Department of Atomic Energy. For the last more than 75 years now, TMC has been contributing in the development of trained work force in the field of oncology for the entire nation by imparting knowledge through various educational activities.

The mandate for the Academic Department is to ensure that all educational activities adhere to the National Medical Commission and University Grants Commission regulations; to verify and update the faculty credentials; to conduct the admissions and exit examinations of students; to develop new courses to improve cancer care nationally, and to improve current courses; and to introduce additional elective courses, skill – value added courses and courses in entrepreneurship. The Academic Department also oversees the Training and Observership program of TMC. It also does MoUs with various National & International Institutions / Organizations concerning training of students and personnel.

For academic purposes, the Mumbai units of TMC comprising of Tata Memorial Hospital (TMH), Advanced Centre for Treatment, Research and Education in Cancer (ACTREC), and Centre for Cancer Epidemiology (CCE), are clubbed together. We offer MD, DM and MCh courses, all in oncology related subjects. We also offer post-graduate courses like M.Sc. in oncology nursing, patient navigation (Kevat), clinical research, radio-physics, etc. We offer PhDs in both health-sciences and life sciences. There are 18 Principal Investigator (PI) Labs in the Advanced Centre for Treatment, Research & Education in Cancer (ACTREC) at Kharghar, Navi Mumbai who take in up to 20 to 25 new PhD students each year. In 2022, 444 new students were admitted there were total 1254 students being trained in the TMC Mumbai campuses at any given time. Just 10 years back in 2013, we had 288 new students admitted & 797 total students being trained at any given time; a jump of nearly 60%. Additionally, there were 1030 trainees

## Clinical Research Secretariat & Department of Atomic Energy-Clinical Trials Centre

Clinical Research Secretariat (CRS) along with Department of Atomic Energy Clinical Trials Centre (DAE-CTC) played a key role in facilitating research in field of oncology at Tata Memorial Centre since its inception in 1997. The mandate of CRS included promoting clinical research, training and education of researchers and research staff, ensuring scientific and ethical conduct of clinical trials and propagation of the practice of Evidence-based Medicine across the country. In the year 2022, the following activities were conducted in each of the domains.

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### Promoting Clinical Research

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#### 1. Augmentation of Infrastructure:

- A dedicated Central Biostatistics Cell was created in CRS with 2 in-house statisticians supported by Senior Biostatisticians from ACTREC and CCE
- **Central Research Pharmacy:** This was a controlled access facility for storage of trial drugs at required temperature in accordance with the New Drugs & Clinical Trial (NDCT) Rules 2019 (Investigative Product Management), and the International Conference on Harmonization-Good Clinical Practice (ICH-GCP)-E6. The Pharmacy had a dedicated Research Pharmacist as well as two senior scientific officers who provided oversight and assistance in the research pharmacy's day-to-day operations. The walk-in cooler with automated alarm system for temperature deviations stored all the trial medicines. The Research Pharmacist ensured that Investigational Products (IP) were stored at the proper temperature, kept inventory & temperature logs, assisted with monitoring visits, and maintained equipment calibration. The IP dispensing and inward records were maintained in the CRS Pharmacy software.

The Pharmacy also assisted in the storage of COroNaVIrus Disease (COVID) vaccine vials and the distribution of COVID vaccine vials to the Preventive Oncology Department. All required logs were kept, and, the storage was kept in accordance with Brihanmumbai Municipal Corporation (BMC) norms and rules. Appropriate training to the staff was provided.

\* The number of COVID Vaccination (Government) vials used was 772

\* COVID Vaccination (Private) vials used: 508.

In the year 2022, statistical support to 633 clinical trials/projects was provided for:

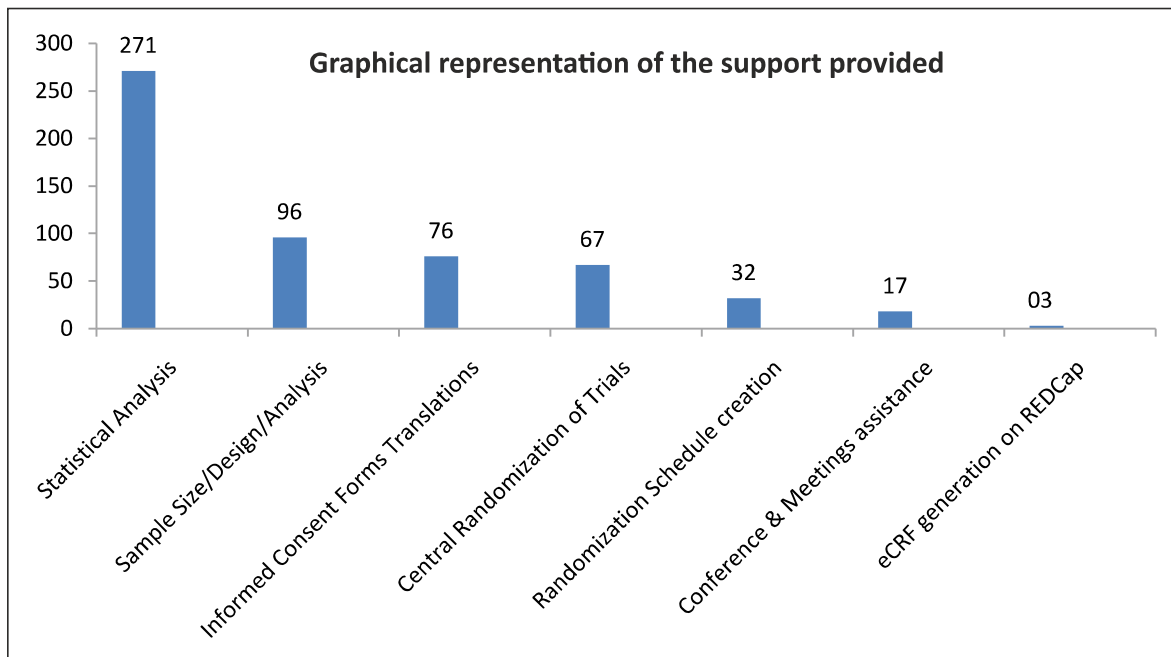
- Statistical Analysis = 271
- Central Randomization of trials=67
- Sample size /Statistical Analysis Plan / Design = 96
- The Electronic Case Report Form (e-CRF) generated on Research Electronic Data Capture (REDCap) = 03.

### **Lectures and Webinars – conducted by Statisticians at CRS**

- Lectures and practical on SPSS and statistics for Occupational Therapy students
- Lectures and practical on SPSS and statistics for MSc. Nursing Students
- Lectures and practical on Advance statistics in cancer clinical trials and Advance statistical software for Post Graduate Diploma in Biostatistics students
- Training postgraduate Biostatistics student on performing Statistical data analysis, Designing clinical trials/studies, sample size estimation, creating randomization schedule, providing statistical consultations to clinical researchers, research in biostatistics
- Participation in a workshop conference "Let's shine the dashboard" by Indian Association for Statistics in Clinical Trial
- Participation in a 4-days webinar on Sample Size Determination in Medical Research, conducted by Biostatistics Consortium India
- Participated in conducting biostatisticians training program for BIRAC-CTN biostatistics module
- Conducted lecture on estimation of sample size for Multi Arm Multi Stage (MAMS) Clinical trial for BIRAC- Clinical Trial Network (CTN) biostatistics module
- Conducted lecture on developing and sample size estimation of cross sectional designs for BIRAC- CTN biostatistics module
- Training CRC in creating SPSS data, generating eCRF on REDCap as per requests.

### **3. Financial support for the clinical trials:**

A total of 16 Intramural trials (ongoing and new) were supported through the DAE-CTC and a total of INR 133, 21, 270/- was provided as financial grant. Over the years, many of the DAE CTC supported studies led to significant publications in major journals and also resulted in practice-changes.



## 7. Standard Operating Procedure:

The CRS was involved in facilitating the conduct of numerous trials including Investigator initiated, pharma sponsored, collaborative multicenter studies (International and National) and the thesis of postgraduate students.

A detailed Standard Operating Procedure (SOP) was designed for conducting research at TMC. The SOP's were designed to have uniform standard, quality assurance, and quality control for conducting clinical Studies/research at TMC.

The key element of the SOP were: Assessing Protocol Feasibility, clinical trial agreement with sponsors or Contract Research Organization (CRO), interaction with IEC, study/research team responsibilities, communication with a sponsor or CRO, site initiation, activation, conduct and closeout, reviewing and obtaining Informed consent form, recruiting study subjects, source documentation, managing investigational product, archival of essential documents, safety reporting, Clinical Research Pharmacy Management, managing biological samples, reimbursement policies, study team training, and, the study handover and the transfer of patients between TMH and ACTREC.

The SOP's were designed to assure execution of research in accordance with Institutional guidelines, updated applicable national guidelines and regulations (e.g. NDCT Rules 2019, Indian GCP, ICMR guidelines, ICH GCP).

All SOPs were updated in 2022 to reflect the current change in clinical trial rules and regulations and to refine the current practices. SOP training and education was given to the

research team of TMC. It was mandatory that every research staff should be trained and must be aware of the TMC SOP before conducting research.

The CRS was also developing SOPs for statistical support. This would help streamline the statistical services at TMC.

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## Training and Education of Researchers

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1. **Good Clinical Practice workshop** was organized to train TMC Staff on ICH-GCP principles on 23rd and 30th April, 2022. The Advanced GCP course module was attended by 277 participants and the Basic GCP course was attended by 215 delegates. This course was conducted annually.
2. **Clinical Research Methodology workshop** was organized over last 4 consecutive Saturdays in the month of October-November 2022, in a virtual format to train researchers on various aspects of trial design and analysis. A total of 436 delegates (local and national) attended the conference. This course was also conducted annually.
3. **MSc. Clinical Research:**

The CRS was actively involved in M. Sc Clinical Research course. At present there were total 40 students. Twenty (20) students in first year of their courses and 40 students were doing Internship training in various Disease Management Groups after successfully completing their MSc. Two CRC clinical trial coordinators were dedicated to assist the students of this course.

CRS provided the following support for this program:

- Coordinating entrance exam and interviews
- Coordinating lectures and study material
- Managing lectures, invigilating exams
- Managing honorarium payments to invited faculties for conducting lectures
- Managing mini library and arranging for the study books
- Rotations through various external postings for comprehensive training
- Maintaining leave records and attendance.





Training in state-of-the-art RT: Proton Therapy



Training in state-of-the-art: Surgery



Ms. Samruddhi Deolekar,  
National Powerlifting Champion

