Fellowship in Laboratory Haematology

Conceptualized in the year 2004 as a philanthropic initiative for the Eastern and North-Eastern parts of India and the neighboring countries, the Tata Medical Center (TMC) started operations in Kolkata on May 16, 2011. The hospital is governed by a charitable trust – Tata Medical Centre Trust. It is an integrated Oncology facility with well-trained professional staff and equipped with modern facilities and the most contemporary medical equipment. The hospital was designed by Cannon Design, a renowned architectural firm from North America. It is located on 13 acres of land at New Town in Kolkata, West Bengal.

The Hospital, with a capacity of 437 beds, serves all sections of the society, with 75% of the infrastructure earmarked for subsidized treatment for the underprivileged sections. It provides a wide spectrum of services from diagnosis and therapy to rehabilitation and palliative support. The Institution's objective is to excel in service, education and research.

Tata Medical Center, Kolkata, has strived to be one of the leading cancer care and research institutions in the country and has benefited West Bengal as well as the adjoining states and neighboring countries.

TMC is also running many academic Programmes and has entered into institutional collaborations in education, research, and outreach Programmes in the field of interdisciplinary medical, research and technology.

Laboratory Hematology / Haematopathology at the Tata Medical Center contribute to the diagnosis, management, monitoring and prognostication of various hemato-lymphoid malignancies, non-hematological malignancies and benign haematological disorders.

The state of the art haematology laboratory (NABL accredited) is equipped with 4 Flowcytometers performing nearly 2500 flowcytometric assays annually. The four platforms available are ; one 3 Laser 12 color BD FACS LYRIC, one 3 Laser 13 colour Beckmann Coulter DX FLEX and two 3 Laser 8 color BD FACS CANTO II Flow Cytometers, being used for diagnostic immunophenotyping, MRD analysis (B / T cell ALLs, AMLs, CLLs and Plasma Cell neoplasms), PNH analysis, lymphocyte subset analysis, EMA binding assay for Hereditary Spherocytosis, Body Fluids / CSF analysis and CD34 stem cell enumeration. The laboratory uses the Miltenyi Biotec gentleMACS™ Tissue Dissociator with Heater for performing flowcytometric analysis on solid tissues (lymph nodes, testis etc.) by producing single cell suspensions in the Tissue Dissociator Platform.

For routine blood counts the laboratory has 2 advanced Beckmann Coulter 6 part DxH 900 and one Beckman Coulter DxH 800 cell counters, which are integrated to 2 Beckman Coulter fully automated slide maker & stainers for multi-parametric CBC analysis, Reticulocyte enumeration and PBS interpretation. The DxH 900 has been interfaced with the digital haematology CellaVision DM 1200 platform, making the morphological cell analysis more precise, accurate and reproducible due to the automated digital workflow technology. The entire range of coagulation parameters are performed on the fully automated ACL TOP300 and ACL Elite PRO Coagulometers from Instrumentation Laboratory (IL). Platelet Function Disorders are analysed by the CHRONO-LOG® Model 700 Whole Blood / Optical Lumi-Aggregometer in the laboratory. Rotational Thromboelastometry using the ROTEM Platform performs the Global Haemostatic status in complicated cancer surgeries with massive blood loss / blood component requirements. The laboratory has the BIORAD D10 HPLC Platform for Haemoglobin Variant analysis for diagnosis of

various Hemoglobinopathies. Performing free light chain (FLC) Assay is integral to the diagnosis and monitoring of multiple myeloms and the SPA-PLUS Platform from Binding Site is extensively used in the laboratory.
Bone marrow aspirate and Bone marrow biopsy interpretation with routine & cytochemical stains, IHCs are done in large numbers annually for various malignant / benign haematological entities and solid tumours. Most advanced multi-head Leica Microscopes with attached high fidelity digital camera set-up are utilized for detailed morphological evaluation of bone marrows for diagnosis and teaching.

Cytogenetics and Molecular Haematology Analysis for diagnosis of haematological disorders are extremely essential in current practice and are standard of care in this hospital. Majority of cytogenetic analysis and molecular haematology assays are performed in the Cytogenetics and Molecular Pathology Laboratories, which are ancillary laboratory services in the hospital and have state of the art infrastructure, comparable to some of the best facilities within and outside the country. These two laboratories though independent have been integral to the functioning of Laboratory Haematology in every respect.

The department receives large number of samples (PB, BMA, and BMBX) from outside hospitals for morphologic diagnosis, flowcytometric evaluations (Diagnostic, MRD Analysis, CD34 enumeration etc.), cytogenetics and molecular genetic analysis in complex haemato-lymphoid malignancies. The department participates in UKNEQAS, AIIMS EQAS, Coagulation EQAS from CMC,Vellore and BIORAD EQAS for maintaining the stringent quality control protocols.

The departmental faculty participates in large number of extra-mural and intra-mural research projects pertaining to haematological malignancies, solid tumours, clinical trials, which are funded by funding agencies, like DBT, Tata Trusts, and ICMR etc.

In order to fulfill the above objectives, TMC invites applications for **Fellowship in Laboratory Haematology (Haemato-Pathology) :**

Qualification: -
MD Pathology or Equivalent in the relevant specialty

Experience: MD/DNB in Pathology or Equivalent (within 3 years of completion of the course)

Duration: 02 Years (extendable maximum upto 03 years)

Job Description:

Clinical Responsibilities:
The fellow will be Involved in daily slide review and sign out of cases. He will perform real-time review of cases involving peripheral blood smears, bone marrow aspirate smears and bone marrow biopsies. He will be involved in the validation processes of hemocytometry and coagulation lab parameters including internal QC / external QA processes on a daily basis. The fellow will independently review all the hematology cases first with a clinico-lab hematology correlation and make an attempt to offer diagnoses. Final discussion and sign-out with the faculty will follow on a double-head binocular teaching microscope. It is expected that the fellow will acquire gradually increasing responsibilities in signing out of cases on his own, with decreasing levels of supervision by the faculty.

Academic Responsibilities:

He will actively participate in monthly / fortnightly intra & inter-departmental conferences (Clinical Grand Rounds).The fellow will prepare, present, and discuss cases at interdepartmental conferences (MDTs) attended by the faculty and fellows of the Departments of Clinical Hematology and Medical Oncology. He will present Journal Clubs and Lab Meetings as scheduled by the division of laboratory & clinical hematology. He will be encouraged to assist in ongoing research projects and to develop their own research projects. The options for the fellow will include clinical images, clinical case reports, analysis of clinical case series, or basic science research. The candidate will also be encouraged to present papers at national conferences and be involved in haematopathology research in the department. This fellowship usually will involve around 18 months training in hemocytometry, morphologic assessment of PB / BMA / BMBx in various haemato-lymphoid malignancies, flowcytometry, hemostasis & thrombosis and red cell haematology (red cell abnormalities, hemoglobinopathies etc.), 01 month in lymphoid (LN) pathology, 01 month each in cytogenetics and molecular genetics, 02 months in immunohematology / HLA lab / apheresis & stem cell lab, clinical hematology & stem cell transplantation rotations. The candidate will also be sent for 01 month externship (National / International) for a wider exposure in the subject either within the fellowship duration or immediately after the Fellowship. If the fellow decides to stay for the third year (subject to the interest of the candidate and being found suitable by the faculty); the third year can be structured as per the candidate's interest and would include subspeciality training in flowcytometry, cytogenetics and molecular haematology.

Audit and Research:

The candidate would be expected to perform laboratory and clinical audits, as well as participate in various research programs which would involve writing research grant applications, participation in laboratory work for research, presenting papers in scientific conferences and writing articles for publication in peer-reviewed indexed journals.

Management Responsibilities:

The candidate would be expected to help other laboratory staff in writing standard operating procedures, drafting policy documents, carrying out health and safety audits, participate in equipment maintenance and quality control activities.

Prospective Candidates are encouraged to contact the following consultant in case of any query:

Dr. Deepak K Mishra, +91 9831132365 / +91 33 66057754;
Email: deepak.mishra@tmckolkata.com;

***For more details about the job positions, qualifications, eligibility and application forms, please log on to our website: www.tmckolkata.com.**

You may also Email or Post applications by **22nd September 2025** to:
Mr. Suvasish Mukherjee, Head - Human Resources, Tata Medical Center, 14 MAR (EW), New Town, Kolkata – 700160. Email – suvashish.mukherjee@tmckolka