

**Position :**

**Research Assistant in Cancer Cell Biology- Organoid laboratory group**

**Last date of Application: 31/8/2023**

**The Tata Medical Center and the Tata Translational Cancer Research Centre**

The Tata Medical Center (TMC) is a multispecialty institution for tertiary cancer care based in New Town, Kolkata. At TMC, clinical and research activities are integrated to provide state-of-the-art care for patients with cancer. This integration is enabled by the Tata Translational Cancer Research Centre (TTCRC), the research arm of TMC. TTCRC is within a dedicated academic space and spread over 3 floors. At TTCRC, a multidisciplinary team of clinicians, scientists, academics and industry professionals collaborate to develop a systems medicine approach in cancer research. This approach is focussed on developing innovative, indigenous, cost-effective and equitable strategies to improve cancer diagnosis; develop treatments that match disease characteristics and are adapted to treatment response; and, identify prognostic and predictive disease biomarkers. These strategies are multi-dimensional and involve an iterative pathway that include clinical studies, high-throughput laboratory investigations, computational strategies to integrate, analyse and model data, hypothesis-based pre-clinical studies and evidence-based translation of findings to clinical practice. For additional information on work at TTCRC, visit the website: <https://www.ttcrc.org/> or check out these links: <https://tinyurl.com/TTCRC-systems-medicine> and <https://tinyurl.com/TTCRC-childhood-ALL>.

**The Position**

In this position, you will work as part of the SOLI3D (Solid tumour Organoid modelling Laboratory for Investigation into Disease Biology, Drug discovery and Drug response profiling) group at TTCRC. As the name of the group suggests, the group's research interest includes developing patient derived organoid models from different solid tumours. Organoids are primary cell derived self-organised organ-like 3D cultures that closely recapitulate the parent organs histo-pathologically, functionally and at the molecular level. The group intends to utilise the developed tumour organoid models for studying the disease biology, find alternative therapeutic options and develop platform for personalised cancer treatment based on functional screening approach. The group's work is focussed currently on two cancers- gallbladder cancer and breast cancer. The group is supported by a dedicated tissue biorepository, a clinical research unit, genomics, proteomics and informatics units. Access to resources at TTCRC include confocal microscopy, flow cytometry, dedicated tissue culture facility, virus transduction facility, NGS and mass spectroscopy. The candidate's primary responsibility will be to continue, optimise and extend ongoing work on developing, establishing and maintaining organoid cultures from patient tissue samples, microscopic imaging, extractions of biomolecules (DNA, RNA, Protein) and quality checks as well as other cell biology assays as needed. This will involve working closely with the hospital's multidisciplinary clinical service, the tissue biorepository unit and other colleagues from different groups at TTCRC. The candidate will need to plan and perform hands on experiments, analyse and record data, participate and present data/papers in regular group meetings and journal clubs. The post holder will have a designated desk and computer.

**Minimum required qualifications/experience**

- (a) MSc in any stream of Biological Sciences, including Life Sciences, Biotechnology, Cell & Molecular Biology, Biochemistry, Microbiology and Pharmacology
- (b) Minimum 6 months of experience with mammalian cell culture techniques is mandatory
- (c) Familiarity with DNA, RNA and protein extraction techniques, quality check, qRT-PCR and Western Blot
- (d) Familiarity with basic research laboratory protocols, procedures and techniques

**Additional experience preferable but not mandatory in any one or more of the following area**

- (a) Experience with patient samples
- (b) Experience with 3D (spheroid/organoid) culture model
- (c) Experience in drug assay
- (d) Experience in high throughput confocal imaging
- (e) Knowledge of biobanking clinical samples

**Necessary qualities**

- (a) Integrity, motivation, enthusiasm
- (b) Focus and commitment in carrying out tasks and duties
- (c) Flexibility of working hours as needed for research involving patient samples
- (d) Critical analytical and problem-solving skills, capable of independent work
- (e) Ability to work effectively as part of a multidisciplinary team
- (f) Clarity in career and professional development goals

**Appointment and reporting**

Appointment to the position will initially be for 3 (three) years. The first year is probationary Confirmation in the position and progression to years 2 and 3 is subject to satisfactory review of performance through periodic appraisals of performance. Appraisals will also determine salary increments and promotions. The consolidated monthly salary is INR 25,000 – INR 42,000 and the start pay will be based on review of qualifications and experience. The position is funded by a centre grant from the Tata Consultancy Services. The successful applicant will be managed by the Lead Scientist in Cell Biology and will report to the Director.

**Enquiries**

- (a) For further details on TMC and TTCRC, visit [www.tmckolkata.com](http://www.tmckolkata.com)
- (b) Submission of applications by post or by e-mail to:  
Mr Suvasish Mukherjee; Head, Human Resources; Tata Medical Center; 14 Major Arterial Road (East-West); Newtown, Rajarhat; Kolkata 700 160  
e-mail: [suvashish.mukherjee@tmckolkata.com](mailto:suvashish.mukherjee@tmckolkata.com)
- (c) For informal enquiries,  
Satadru Dey, e-mail: [satadru.dey@ttcrc.tmckolkata.com](mailto:satadru.dey@ttcrc.tmckolkata.com)

<b>Knowledge/ Aptitude/Skills,</b>	<b>Requirements</b>	<b>Essential / desirable</b>	<b>Information from</b>
<b>1. Disposition / Attitude</b>	<ul style="list-style-type: none"> <li>a. Integrity</li> <li>b. Flexibility</li> <li>c. Motivated</li> <li>d. Committed</li> <li>e. Willing to learn new skills</li> <li>f. Works as part of a team</li> <li>g. Receptive to new ideas</li> <li>h. Capable of independent work &amp; to an agreed plan</li> <li>i. Good time management</li> <li>j. Organized, able to prioritize responsibilities</li> <li>k. Works to high technical and quality standards</li> </ul>	<ul style="list-style-type: none"> <li>a. Essential</li> <li>b. Essential</li> <li>c. Essential</li> <li>d. Essential</li> <li>e. Essential</li> <li>f. Essential</li> <li>g. Essential</li> <li>h. Essential</li> <li>i. Essential</li> <li>j. Essential</li> </ul>	Application form CV Profile Interview References
<b>2. Education / Qualifications</b>	MSc in any Biological Sciences, (Life Sciences, Biotechnology, Cell & Molecular Biology, Microbiology & Pharmacology)	Essential	Interview Application form CV
<b>3. Experience</b>	<ul style="list-style-type: none"> <li>a. Good laboratory practice</li> <li>b. Mammalian Cell culture technique – minimum 6 months</li> <li>c. Familiarity with DNA, RNA, protein extraction, quality check, qRT-PCR, Western Blot</li> </ul>	<ul style="list-style-type: none"> <li>a. Essential</li> <li>b. Essential</li> <li>c. Preferable</li> </ul>	Application form CV Interview References &
<b>4. Skills and ability</b>	<ul style="list-style-type: none"> <li>a. Critical thinking</li> <li>b. Problem solving skills</li> <li>c. Readiness to evaluate, develop and test new approaches and strategies</li> </ul>	<ul style="list-style-type: none"> <li>a. Essential</li> <li>b. Essential</li> <li>c. Essential</li> </ul>	Application form CV Interview References