



Last date of application :31/5/2023

Position in Bioinformatics

Exciting opportunities for bioinformatician at the Tata Translational Cancer Research Centre in Kolkata

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.

The opportunities at TTCRC

We are looking for informaticians able to work closely with the clinical proteomics and/or genomics units.

In clinical proteomics you will work as part of the proteomics team at TTCRC. Currently the facility is equipped with Sciex TripleTOF 6600 Mass spectrometer with Eksigent 425 Nano Liquid Chromatography system. The proteomics group focuses mainly on two aspects, first, developing plasma/serum proteomics and biomarker discovery platform. Second we provide proteomics solutions to other in-house clinical research teams. Your primary responsibility will be to analyse high throughput proteomics data generated and as well as developing new robust pipelines for analysis and data visualization. This involves working closely with the hospital's multidisciplinary in-house clinical team and researchers as well as collaborators. Your duty also includes to ensure secure data storage and manage data transfer between the stakeholders.

The clinical genomics unit is focussed currently on two cancers, acute lymphoblastic leukaemia and gallbladder cancer. Studies include using high throughput genomic data such as mRNA sequencing, targeted exome sequencing and whole exome sequencing of both primary and derived materials. TTCRC has a dedicated genomics laboratory facility equipped with Illumina (NextSeq 550 and MiSeq) and Oxford Nanopore Technology (MinION) sequencers. Your primary responsibility is to analyse high throughput data generated from the equipment as well as developing new pipelines for analysis. This involves working closely with the hospital's multidisciplinary in-house clinical team and researchers as well as collaborators. The post holder will also ensure secure data storage and manage data transfer between the stakeholders.

We are looking for highly motivated candidates preferably with a strong background in the proteomics/genomics, bioinformatics, and computational biology. An excellent command of English is preferred. As part of our team, you will lead the development and application of pipelines for data analysis and data visualization. Successful candidates can start in the group as soon as possible. The post holder will have a designated desk and workstation.

Minimum required qualifications/experience

- (a) MSc/M.Tech with few years of experience or PhD in Bioinformatics/Computational Biology/Computer science
- (b) Must have knowledge of coding in Python/R and shell scripting to at least intermediate level.
- (c) Prior experience in handling Proteome data, RNA-seq analysis, Genome analysis is preferred
- (d) Knowledge of molecular biology and protein biology.
- (e) Prior experience in multi-omics data analysis is an advantage.

Desired experience

- (a) Knowledge of Programming languages like Java, Python, R along with Shell scripting.
- (b) Knowledge in machine learning and application development.
- (c) High throughput computing.
- (d) Independent project management.
- (e) Team player
- (f) Familiarity with a wide variety of public domain omics related databases
- (g) Good interpersonal skills and capability to work well with a diverse multi-disciplinary team
- (h) Research bent and keen enthusiasm to learn new domains and technologies
- (i) Prior experience with cancer proteomics/genomics is an advantage

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. The successful applicant will be managed by the lead scientist in the group.

Enquiries

- (a) For further details on TMC and TTCRC, visit www.tmckolkata.com
- (b) Submission of applications by e-mail to:
asama.mukherjee@ttcrc.tmckolkata.org
- (c) For informal enquiries E-mail to
trina.dutta@ttcrc.tmckolkata.org; debduutta.ganguli@ttcrc.tmckolkata.org
post your CV to :
- (d) suvashish.mukherjee@tmckolkata.com
