



Employment Opportunity

Background

The Infectious Diseases Institute (IDI) is a Ugandan not-for-profit organization whose mission is to strengthen health systems in Africa, with strong emphasis on infectious diseases, through research and capacity development. IDI has six operational areas through which it works to achieve its mission: Prevention, Care and Treatment; Training, Research, Laboratory services (including the CAP-certified IDI Core Lab & Translational Lab), Global Health Security and Health System Strengthening.

In order to contribute to achievement of the above objectives, IDI wishes to recruit a motivated and competent individual for the position as indicated below:-

Job Title : **Bioinformatics Scientist**
Vacancy Code : **BS-X001**
Classification : **Full-time**
Duty Station : **Kampala**

General Summary:

With the help of International and local partners, the Infectious Diseases Institute (IDI) established the African Centre of Excellence (ACE) in Bioinformatics and Data Intensive Sciences – Uganda at its McKinnell Knowledge Centre on the main campus of Makerere University. The ACE is a specialized unit providing advanced computing infrastructure and software to enable storage, retrieval and analysis of data from high-throughput sequencing, microarrays, proteomics, imaging, clinical, epidemiological and any other data intensive studies. In addition, the ACE hosts state of the art collaborative learning technologies including a tele-learning centre, and a Virtual Reality (VR) visualization lab.



IDI seeks to hire a Bioinformatics Scientist (BS) for the centre. The BS will be a fulltime staff who is familiar with the application of computational and biotechnology capabilities to biomedical and public health problems like genetics, clinical and medical research, as well as other data intensive analyses. By coordinating all center technical tasks and providing broad administrative oversight, s/he will have the primary responsibility of achieving the objectives and targets, and institutionalizing the policies and procedures set by the ACE management Committee on which s/he will serve as Secretary. They will also ultimately be responsible for applying policies from the ACE global council.

Key Responsibilities:

- Engage with researchers within IDI and the Makerere research community at large, to generate interest in leveraging facilities at the ACE e.g. including bioinformatics-supported research questions in their projects.
- Seek for opportunities for research grants and coordinate grant application efforts
- Participate and take lead in analysis of genomic data generated at the institute and its collaborators in collaboration with researchers and principal investigators.
- Process analytical service requests through the management committee
- Guide users and center staff in the use of bioinformatics tools, databases and methods
- Guide users and center staff in the use of Big Data analysis tools and methods
- Propagate bioinformatics adoption within IDI and the Makerere University scientific community through demonstration of its utility in modern science
- Generate demand for, and design strategies for meeting a wide variety of current and emerging needs for centre services
- Synthesize and compile technical and analytical needs of incoming job requests
- Supervise and mentor junior staff, students and visiting scientists and provide bioinformatics technical support to staff and scientists at IDI and the wider University community
- Participate as an organizer and/or instructor of the center's training activities; short term (workshops) and long term (degree courses) in bioinformatics or data intensive sciences



- Organise internship placements for data science and bioinformatics students at IDI in a bid to generate research outputs e.g. scientific manuscripts from analysis of readily available datasets.
- Develop a dynamic reference list for data and sample repositories in IDI and the wider College of Health Sciences, which can be “mined” for bioinformatics work and facilitate access to such resources
- Introduce standards to maximize re-usability of tools and data sets to increase efficiency and productivity while monitoring the environment for new needs and new trends.
- Guide centre staff in the management of ACE financial and technical resources, in facilitating ethical compliance, and in setting up appropriate programmatic reporting frameworks
- Participate in scientific writing and presentation of research findings
- Play a key role in writing grants, generating fees for services, creating partnerships and supporting other resource mobilization for the centre; manage and report on centre’s financial status
- Manage, maintain and maximize utilization and sustainability of all resources housed by the ACE including equipment and fittings in the Virtual Reality Room, the tele learning room , and the server room
- Consult with the Director to resolve emerging day-to-day problems

Required Qualifications skills and attributes:

- A minimum of PhD level training in Bioinformatics and/or Computational sciences OR a Masters in Bioinformatics with at least 5 years’ high-level experience in lieu (equivalent to a senior scientist level).
- Expertise in genomics, population genetics, data science, computational biology (hands-on experience with the Unix platform, bioinformatics tools/softwares, bioinformatics primary and secondary databases, scripting languages such as Python, R and a strong grounding in biological sciences).
- Familiarity with commonly used bioinformatics tools (samtools, IGV, ANNOVAR, GATK) and file formats (BED, VCR, FASTQ, BAM)
- Familiarity with commonly used and publicly available bioinformatics databases, (e.g. GenBank, Ensemble, DDBJ, GEO, SRA, ExAC, ESP, ClinVar , KEGG, HGMD, OMIM, PubMed, UCSC)



- An understanding of genome sequencing technologies and strategies
- A grounding in epidemiology
- Experience in grant writing and supporting multi-national grant applications
- Have a familiarity with Big Data analysis including Artificial Intelligence and Machine Learning
- Skills in design of appropriate statistical analysis of experimental data,
- Experience with mathematical modeling and computational biology
- Experience working with unstructured data sources
- Technical/scientific writing skills
- Strong project management, communication and interpersonal skills
- Membership of relevant professional networks such as the H3A, ASBCB, EASCB, ISCB and ISMB

Candidates that meet the above criteria and have what it takes to excel in these positions should send their CVs, including details of email address, present position, current remuneration, Certificate/testimonials and address of three (3) Referees plus telephone contact to the stipulated email address not later than **7th December 2021**. **Please follow this link <https://idi.mak.ac.ug/hrms> to apply for this position.**

Key Notes:

1. IDI is an equal opportunity employer and does not charge a recruitment fee or any other fees at any stage of the recruitment process
2. Internal candidates who meet the required specifications and have worked with IDI for a period of at least one year will be given priority.
3. Make sure that your application letter, CV and certificates are attached as one document
4. Indicate the Vacancy Code as the subject for your email
5. Only shortlisted candidates will be contacted
6. Any form of canvassing will lead to automatic disqualification.



MAKERERE UNIVERSITY

Infectious Diseases Institute
College of Health Sciences
Makerere University



The Senior Human Resource Manager
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