THE AGA KHAN UNIVERSITY

A KU Research Talent Hunt
Position Catalogue

1. Research Associate (Lab)

Responsibilities
- perform lab processing of samples
- do samples logging and update of databases
- ordering of lab reagents
- analyses of data and support in manuscript writeup
- maintain logs of sample processing
- maintain inventory of freezers and other reagents
- supervise students and support field staff for coordination of samples

Requirements
- at least a Bachelors in biological science or related field,
- relevant experience in bioinformatics, emphasizing genome sequence analysis and gene annotation,
- experience of programming languages, such as, R, and python,
- experience in a variety of bioinformatics databases, tools, and software,
- the ability to work comfortably in a range of computer environments including Unix/Linux, workflows (nextflow/docker/wdl)

2. Research Associate (Medical)

Responsibilities
- provide quality consultation and clinical care to the patients in the healthcare facility used for research
- supervise the lady health workers at the facility and train the research staff
- enroll patients for on-going research studies and update their schedules of visits
- maintain records of research conducted and prepare periodic progress reports
- design and plan social mobilization strategies for target communities
- provide appropriate guidance to the families of research subjects to have their support.
- review the case history of the identified individuals.
- work on tablets application as per the age group defined by the study
- apply the clinical knowledge in ascertainment of the cause of death of selected individuals as per the study requirements

Requirements
- MBBS with a valid PMDC license
- One year house-job experience
- proficiency in the use of computer applications, particularly MS Office
- good communication skills

- ability to work effectively in teams and establish harmonious working relations at the place of work
- ability to manage time and prioritize tasks effectively
- resilience and ability to cope with work pressure
- willingness to work in the community settings and travel to field sites.

3. Research Associate (Bioinformatics)

Responsibilities
- develop and run sequence analysis pipelines for NGS data as per the need for research projects; human and pathogen sequence data
- curate a list of software, reference datasets, and bioinformatics pipeline that can be beneficial for the end-user
- produce written documentation of algorithms, validations, QC/SOPs and other processes related to pipeline updates and procedures as required
- write manuscripts and involve in the development of research output,train and knowledge exchange
- assist faculty members to conduct, manage and plan research projects by determining theoretical aspects of the problem and suggest appropriate analytical methods,
- present results of bioinformatics software testing internally and externally
- perform literature searches, testing and validation of new data analysis software related to bioinformatics pipelines

Requirements
- MS in Bioinformatics, computational biology, computer science or equivalent in related field
- 1 to 2 years relevant experience
- sensitivity to cultural differences
- ability to manage time and prioritize tasks effectively
- good communication and interpersonal skills
- resilience and ability to cope with work pressure
- excellent communication and organization skills, and ability to efficiently manage time and workflow,including skilfully prioritizing both long-term projects and day-to-day responsibilities.
- the ability for critical thinking and independent learning.
- knowledge and experience using scientific tools, technologies and online resources
- ability to manage time and prioritize tasks effectively
- ability to work effectively in teams and resilience to cope-up with work pressure
- good report writing skills and willingness to work in the community settings and travel to field sites.

4. Research Associate/Coordinator (Field)

Responsibilities
- develop standard operation procedures for project-based activities
- translate study tools/questionnaires and informed consent in to the local language
- supervise and monitor all field activities at all field sites Study sites in Karachi
- coordinate with staff working at field sites for the completion of tasks within the stipulated timelines

- provide training to the project staff
- coordinate with Government and community stakeholders for carrying out the project activities in the field
- sites
- visit field sites for monitoring and auditing purpose to ensure proper field operations as per the guidelines and
- SOPs provided
- ensure the completeness of all the log books/ check lists
- supervise and monitor household visits
- ensure the completeness, proper entry and archiving of the data and questionnaires
- prepare and present weekly, fortnightly and monthly project reports and presentations for the progress of the
- study being carried out at field sites
- create liaison with secondary and tertiary care hospitals to refer sick babies and mothers if any morbidity
- occurs during the visit
- refresher trainings for the staff
- create liaison with stakeholders
- sharing of daily, weekly and monthly reports with the Principal Investigator

Requirements
- a Master's degree in Social Science/ MPH
- 3-5 years of experience in managing community-based projects
- strong communication and interpersonal skills
- ability to work in team setting
- good writing skills
- basic knowledge of surveys and other research designs
- data collection, analysis and interpretation in terms of report writing and biostatics
- strong interpersonal skills and communication
- willingness to work on field sites.

5. Research Associate (Manuscript)

Responsibilities
- Preparation and compilation of study progress report.
- Prepare monthly project reports in collaboration with the Principal Investigator, Manager Research and Data Management Unit
- Present the study results as per the requirement of the study
- Develop high quality research proposals for funding agency; conduct research and contribute in publications.
- Prepare write-up of the results, manuscripts of paper, presentation and research proposals.
- Carry out literature search, data searching and retrieval while utilizing a variety of technologies.
- Contribute directly to the development of a research strategy for on-going research projects.

Requirements

- Bachelor's Degree in relevant field from an HEC recognized university or Master's degree incumbent will be preferred or equivalent
- Fresh/candidate having one year of work experience will be preferred
- excellent problem-solving and Analytical skill
- effective communication skills
- excellent communication and presentation skills; experience presenting insights to technical and non-technical colleagues
- able to understand and follow instruction
- ability to speak and understand job related English and Urdu

6. Associate (Admin)

Responsibilities

- coordinate with administrative and fleet management team for the management of the logistical and administrative affairs
- provide support in the planning, organizing and executing all events, workshops and lectures in coordination with other departmental stake holders (Travel, Accommodation, Venues,
- Food arrangement, and other logistics)
- ensure that all logistics of events are executed as per the plan and to the satisfaction of the organizing team and faculty members
- ability to work effectively with people at all levels in the organization
- ability to cope with multiple tasks with minimum guidance
- having understanding of current processes and provide automation and digitization
- communicate (verbally and through written letters/emails) with national and international stakeholders in terms of checking availabilities, extending invitations, confirming participations, and facilitation at the events.
- ensure that all applications for Ethical Review Committee (ERC) are timely submitted; coordinate with faculty members and take rigorous follow-ups from both ends during this process.

Requirements

- Bachelor's Degree in relevant field from an HEC recognized university or Master's degree incumbent will be preferred or equivalent
- candidate having one year of work experience will be preferred
- excellent problem-solving and Analytical skill
- effective communication skills
- excellent communication and presentation skills; experience presenting insights to technical and non-technical colleagues
- able to understand and follow instruction
- ability to speak and understand job related English and Urdu.

7. <u>Associate (Grant Administration)</u>

Requirements
- to provide admin support in management of Grants Checklist for External Funding, preparation and follow-ups with relevant departments (Legal, Finance, Security Control, Housing & Estates, Clinical Research Unit and Human Resource);
- to assist Leadership in the grants acquisition for the Department which includes; correspondence with the granting agencies and ensuring conformity to regulatory compliance of the agencies;
- to provide admin support in management of Ethical Clearances database of Research Projects; preparation and follow-ups of Ethical Review Committee (ERC), applications and maintenance of records of department;
- to provide support in getting approval from National Bioethics Committee (NBC)
- to organize and maintain regulatory files of all Research Projects of the department
- to assist Researchers in the Department towards development of Research Proposals, finalizing contents and procedural formalities (non-technical)
- carry out the budget realignment, cost and no-cost extension, sub-recipient monitoring of grants along with supervision of department research fund (IDRL & NRL)
- ensure timely submission of financial reports
- to prepare, submit and maintain documents pertaining to compliance and audits as per the Unviersity policy and granting agency's policies
- to monitor grants variance report (GVR), discuss with PI about corrective and preventive measures with respect to utilization of grants
- any other responsibility assigned by the Supervisor

Responsibilities
- a Bachelors Degree
- Relevant experience of 2 to 4 years preferably with a Research and Grants Management background in an academic institution
- Strong interpersonal and communication skills;
- Proficiency in computers especially MS Office;
- Willing to travel and work in the communities / rural field sites
- Excellent report writing skills;
- Excellent Organization Skills and Analytical Skills
- Good speaking and written English is a must;
- May require some extra working hours;

8. <u>Research Associate (Data Management Unit)</u>

Responsibilities
- assist in the development of data collection & monitoring tools
- liaise with the programmers to develop the data collection eCRFs and dash boards
- develop data quality monitoring programs using statistical packages or SQL
- conduct site visits to assess the adherence to data management standards and quality assurance of data
- participate in project meetings and propose recommendations for procedure modifications and development related to data management

- prepare and disseminate periodical reports for progress of assigned projects and identify & remove bottlenecks to ensure smooth data entry
- respond to data related inquiries received from project personnel regarding relevant project issues and procedures
- monitor / Supervise Data entry of collected forms from various sources such as paper documents, electronic entry systems, and hand held devices
- perform all other duties assigned by the Supervisor.

Requirements
- Bachelors degree (preferably Masters) in Statistics / Computer Science / MIS or equivalent
- Certifications in Database management is preferred
- knowledge of REDCap / ODK / CSPro will be an added advantage
- at least 3 years of related work experience preferably with a Research institute / Data Management Organization
- good interpersonal and communication skills
- excellent Computers and Time Management skills
- strong Analytical, Qualitative and written skills
- able to use statistical software like STATA/SPSS/R
- willing to travel to field sites outside Karachi.

9. Programmer Analyst (Data Management Unit)

Responsibilities
- rectifying/modifying, resolving errors by making appropriate changes, and then rechecking the program to ensure that the desired results are produced
- creating and maintaining software applications and gaining knowledge of the existing applications, both the technical and business aspects
- participating in all phases of application development, i.e., study, analysis, design, development, and implementation
- enhancing program codes if some new addition is required, and designing and coding Forms and Reports as per the database design prepared by the DB programmer
- preparing detailed workflow charts and diagrams that describe input, output, and logical operation
- troubleshooting, testing, and maintaining the core product software along with the databases to ensure strong functionality.

Requirements
- A Bachelors degree in computer science or computer Engineering
- minimum 2 - 3 years of experience
- excellent problem-solving and Analytical skill
- effective communication skills
- excellent communication and presentation skills; Experience presenting insights to technical and non-technical colleagues
- ability to understand and follow instruction
- ability to speak and understand job-related English and Urdu
- skills in data collection, management, analysis, and interpretation

10. <u>Senior Research Assistant (Lab)</u>

Responsibilities
- carrying out Analysis of multi-OMICS data (Genomics, Transcriptomics, Proteomics, Metabolomics and Metagenomics)
- Omics data mining from ENA and NCBI
- writing wrapper scripts for the Nextflow pipelines
- working with Conda Environment and writing Conda snippet
- maintaining and writing GitHub snippet
- working with computational/bioinformatics infrastructure effectively
- preparing and presenting weekly project-related activity reports/presentations
- ability to build need-based new pipelines/algorithms supporting NGS-related projects

Requirements
- a graduation or Masters degree
- at least one to two years of relevant experience
- proficiency in computers especially MS office, software skills, preferably with fluency in Conda scripting, Python and R
- the ability to manage time and prioritize tasks effectively
- the ability to be an excellent team player
- a good communication and interpersonal skills
- resilience and ability to cope with work pressure
- willingness to work in the communities

11. Senior Research Assistant (Field)

Responsibilities
- independently conduct interviews and write up detailed notes on interviews and observation visits
- managing field work process to ensure effective use of time
- facilitating meetings among the research team and junior research staff
- training new junior staff (Lady Health Workers - LHWs / Community Health Workers - CHWs) in research / interviewing skills and proper data collection
- visiting different households in the communities to ensure the successful completion of the data collection in their areas including Q/C
- liaising with admin regarding logistics for field work
- developing and conducting regular trainings of LHWs and CHWs
- following and ensuring field implementation of project related SOPs / guidelines as defined in the research project

Requirements
- a graduation or Masters degree
- at least one to two years of relevant experience
- sensitivity to cultural differences
- the ability to manage time and prioritize tasks effectively
- the ability to be an excellent team player

- a good communication and interpersonal skills
- resilience and ability to cope with work pressure
- willingness to work in the communities

12. Assistant Manager (Lab)

Responsible
- developing, training, and leading lab staff toward productivity and completion of high quality, time-critical projects, as well as prioritization and delegation of tasks ensuring all projects lab analyses are done on time
- supervising employees in their responsibilities and the function of the laboratory
- checking and transferring Project data to Data Management Unit (DMU) as necessary and taking steps to correct possibly inaccurate data prior to continued processing
- making personnel shifts when necessary to accommodate fluctuating workload
- providing expert supervision and direction to ensure smooth operations Research Laboratory for testing of microbiological and Molecular analysis of samples in conjunction with the Manager Research Labs
- preparing specifications and justifications, and participating in the procurement of laboratory Consumables and Equipment
- troubleshooting Analytical laboratory instrumentation and methodologies, and interacting with Engineers from the Company Manufacturer regarding application and technical assistance
- overseeing the shipping of project samples to outside Countries for further testing as per the Granting agencies' requirement
- monitoring specimen processing, instrument maintenance, and maintaining External Quality Control and Quality Assurance (QA/QC) with the Reference laboratories outside the country
- ensuring that QA/QC Records of all Lab Assays are maintained properly
- maintaining the Equipment Inventory sheet for all equipment placed on campus and off-campus Labs
- monthly work plan and feedback report to the Manager of Research Labs
- preparing Monthly Duty Roaster for Lab Employees
- preparing Monthly Lab Invoices to be submitted to Finance for charging to respective grants
- preparing Monthly Lab Consumable Inventory order sheet for on-campus and Off-campus Labs
- enforcing occupational health and safety procedures and ensuring that such procedures are followed by all the lab staff and consulting with the Lab Manager about these issues
- training regarding Laboratory protocols for the on-site laboratory staff in coordination with Project Supervisors
- responsible for the developing, optimizing, and implementing of laboratory protocols to meet the requirement of Granting Agencies.

Requirements

- at least BS (16 years of education) in Biological Sciences with 05 years of experience preferably working in a research/group
- additional training and certification are preferred
- at least 7 -8 years of experience in a Research Laboratory setting

- have excellent laboratory research experience and proficiency in the installation and configuration of lab equipment software and troubleshooting
- experience in both independent and team laboratory research with application in a variety of fields, sound knowledge of biological specimen collection, Biosafety protocols, processing and shipping of Biological specimens as per IATA guidelines. Can easily interpret the lab in-house and external QC/QA
- excellent Communication and Supervisory skills
- good language skills in Urdu and English (both written and verbal)
- resilience and ability to cope with work pressure
- proficiency in MS Office (Word, Excel, PowerPoint).

13. <u>Research Specialist</u>

Responsible
- ensure proper risks, action items, and decisions, using appropriate tools.
- proven mixed methods research skills
- formulating and conducting scientific experiments, performing data collection, and analyzing and evaluating test and research result
- overall supervision of field office to ensure proper compliance of policies and smooth operations to facilitate commencement of project activities
- supervise and monitor timely visits of participants' for follow ups
- responding to research questions, troubleshooting problems, developing and writing advanced experimental protocols, and monitoring ongoing projects, and proposing and implementing changes.
- provide training to the study staff as per the protocols and guidelines of study;
- ensure the completeness, proper filings, and archiving of the CRFs;
- develop and implement QA QC plan with documentation and reporting
- contributing to and writing research findings for publications, papers, presentations, grants, and other documents
- preparation and compilation of study progress report;
- in collaboration with the Data Manager, prepare monthly project reports
- present the study results as per the requirement familiar with a variety of the fields concepts, practices, and procedures

Requirements
- a Master's degree in Science/ Nutrition/public Health / Epidemiology or equivalent
- at least 05 years of experience, preferably in managing research projects/clinical trials, data analysis and report writing
- knowledge of research principles, concepts, practices, and methods
- computer literacy and strong mathematical, analytical, and research skills
- excellent interpersonal and written and verbal communication skills
- willing to travel and work in the communities/ rural field sites
- integrity and strong research ethics
- excellent written and verbal communication skills in English and Urdu
- strong computer skills.