

The Aga Khan University - Pakistan Initiative for Non-Communicable Diseases (AKUPI-NCDs) Research Training Program

Funded by National Institute of Health, USA

Primary Investigator:

Professor Zainab Samad, Department of Medicine, Aga Khan University

Co-Primary Investigators:

Professor Ayeesha Kamal, Department of Medicine, Aga Khan University

Dr. Aysha Almas, Department of Medicine, Aga Khan University

Dr. Gerald Samuel Bloomfield, Duke University, Durham, USA

Project Summary:

Non-communicable diseases (NCDs) represent an extraordinary global crisis. Over three quarters of all NCD related deaths and 82% of premature NCD-related deaths occur in low-middle income countries (LMIC). Locally relevant, high-quality data regarding NCDs are scarce and most low-middle income countries (LMICs) like Pakistan, are not equipped to manage this epidemic. A critical gap in the response of LMICs to the NCD epidemic is a dearth of trained researchers who can contribute to the understanding of prevalence, risk factors, and development and testing of safe, effective, and low-cost solutions.

With the aim to address this dearth and directly increase Pakistan's research capacity, the AKUPI-NCDs Research Training Program is a collaboration of the Department of Medicine, Institute for Global Health at the Aga Khan University and Duke University, USA.

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The Early Career Research Accelerator –B (ECRA-B) in NCD

The ECRA-B in NCD is one of the long-term career path included in the AKUPI-NCDs research training program. Its goal is to launch independent NCDs research career of candidates who have shown commitment towards research. **Four candidates will be funded to do Masters in Data Science (MSDS) from Institute of Business Administration (IBA), Karachi, specifically with IBA's School of Mathematics and Computer Science (SMCS), over a period of 5 years.**

Selected candidates will join the Department of Medicine as Instructors and will have 100% time protected for research for 2 years. They will also develop individualized career development plans, receive close mentoring from faculty at AKU, Duke and Program director, and compete for funding research project independently. The research projects will be based on surveillance or implementation studies in CVD, leveraging data science/ E-health. Table 1 summarizes the requirements of ECRA-B

Table 1. The Early Career Research Accelerator –B-Masters in Data Science	
Number of trainees	1 / year (2021-2025), Total 4
Training Objective	<p>The objective of this program is to:</p> <ul style="list-style-type: none"> • Develop health data scientists who are experts in analyzing big data and are proficient in using the most updated tools for data analysis • Suggest solutions to problems based on the technical expertise and critical thinking and communicate these findings to the relevant audience.
Training Institution	IBA and AKU
Eligibility	<ul style="list-style-type: none"> • Graduates of Computers Sciences (Bachelors or Masters) or applicant with a minimum of 16 years of education in science subjects with commitment to practice data science in the NCD health domain • Non-Computer science (CS) candidates can only be inducted in the Fall semester and CS/IT candidates can only be inducted in the Spring semester. Therefore, potential candidates should strictly comply with this requirement when they appear for the admission test.
Selection Process	<p>Interested candidates will be assessed for their commitment to research and learning in NCDs. The assessment will include:</p> <ul style="list-style-type: none"> • Personal statement • One-page research objective on the NCD area they wish to work on • Interview <p>Candidates will have to go through the standard admission process of IBA for the Master's in Data Science. Please visit: https://cs.iba.edu.pk/msds/aboutmsds.php https://admissions.iba.edu.pk/graduate_fall_2022.php</p>
Didactic Training	MSDS course work Departmental Journal Clubs, Research Seminar Series Career Development Program.
Mentoring Structure	Mentoring committee: 1 primary mentor from AKU, 1 primary mentor from Duke and a MSDS supervisor from IBA
Duration	2 years
Research Practicum	Develop and execute a surveillance or implementation research project focusing on cardiovascular disease, stroke or their risk factors leverage data science methods
Research Grant	\$5000/candidate subject to project approval by Training management committee. This grant will cover project funding.
Program Funds	Every selected candidate's instructor level monthly stipend and tuition fees for MSDS is covered by this program
Deliverable	1 original manuscript, 1 national presentation, and 1 local/international grant submission
Program Director	Committee: Dr. Zainab Samad, Dr. Aysha Almas, Dr. Tariq Mahmood

To Apply	<p>HR portal will be activated after the announcement of IBA's aptitude test results that is on July 30, 2022. Interested candidates who have passed the aptitude test will be requested to apply for this opportunity via HR portal.</p> <p>For application queries email safia.awan@aku.edu</p>
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