



CLINICAL RESEARCH **DESIGN** COURSE

17 - 19 | 20
MAY |
24 - 26 | 24





SCHOOL OF SCIENCE & ENGINEERING

Ferozsons Initiative for Research Excellence (FIRE) aims to re-envision Pakistan's public health landscape by providing cutting edge training in clinical research. The overarching goal of FIRE is to seed and develop a culture of high-quality research in clinical and population health sciences in Pakistan as well as the broader region. Towards achieving this goal, the FIRE team has defined the following objectives:

Vision

Support collaborative research between clinicians and basic scientists to reduce mortality and promote healthy lives.

Mission

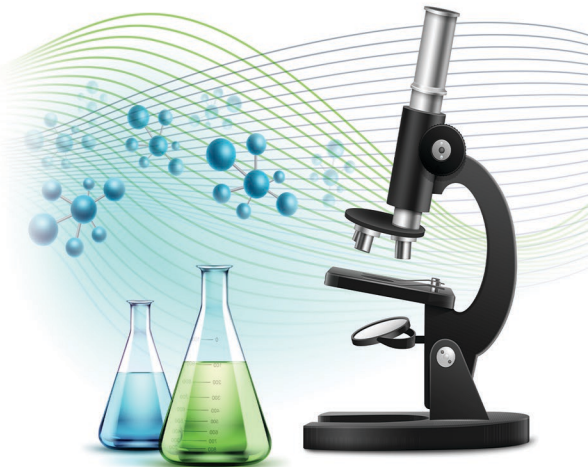
Use cutting-edge scientific methods to generate, and apply new knowledge to developing sustainable solutions to public health problems in Pakistan.



I-Hart - Innovations in Healthcare Advocacy, Research and Training

Prof. Adeel Butt has been pioneering the transformation of the healthcare landscape in Pakistan for over 20 years. I-HART (Innovations in Healthcare Advocacy, Research and Training) was conceived to streamline the variety of on-groundwork being done in Pakistan and other countries. After the success of projects in education, research, healthcare delivery, program development and governance, the vision of creating a national resource for capacity building and clinical research was brought to life. I-HART is proud to partner with Lahore University of Management Sciences (LUMS) and Ferozsons Laboratories Ltd. (FLL) to bring this vision to fruition.

The partners, I-HART, LUMS, and FLL have worked together to identify the gaps in clinical research education and training in Pakistan. The FIRE initiative is the first of many transformative projects that will help create a research-focused pathway for students and clinicians to pursue. The fundamental aim of this initiative is to create and foster a culture of clinical research through building capacity, enhancing skills, and nurturing inquisitiveness of young healthcare professionals in Pakistan.





The nationwide scarcity of science and engineering graduates with cross-disciplinary skills motivated the founders of SBASSE to establish the School of Science and Engineering at LUMS to bring a paradigm shift in science and engineering education in the country. The LUMS Syed Babar Ali School of Science and Engineering (SBASSE), initiated in 2008, is the first private research school for science and engineering in Pakistan with a vision, “to carry out world-class, multidisciplinary education and research”.

Clinicians are the epitome of discoverers, curious scientists, who can engage in the journey of critical inquiry. The Life Sciences educational paradigm being followed at the SBASSE provides a nursery to cultivate curiosity and

critical thinking for probing the unknown in medical research. Knowledge creation in the clinical sector also depends heavily on fundamental science.

Furthermore, the research is a critical component of effective health care management and this initiative will provide health management sector with opportunities to engage in rigorous research, including critical appraisal of scientific literature, application of scientific methods, discovery-oriented approaches to medical research and understanding ethical issues involved in this sector.



At Ferozsons Laboratories Limited, we believe in the transformative power of medical education and research, and their pivotal role in shaping the future of healthcare in Pakistan. To be effective and appropriate, our healthcare system must be founded on policies that are evidence-based and informed by indigenous data and local research.

Through the establishment of the Ferozsons Initiative for Research Excellence (FIRE), we aim to equip healthcare professionals with the knowledge and skills they need to frame appropriate research questions, collect meaningful data, and publish their work in high impact journals, so that their work can positively influence the policy and practice of medicine, and thus help improve patient outcomes.

In this strategic initiative, we are extremely privileged to be collaborating with LUMS, Pakistan's leading multidisciplinary University, and I-HART, an international leader in medical education and research. Together, we aim to equip emerging leaders in the healthcare profession with the relevant research tools and skills to address the health challenges of Pakistan and contribute meaningfully to the global body of knowledge in the medical field.



Course Overview

This program is designed to cultivate clinical professionals with the requisite preparation for successful career development as independent investigators. The course provides a comprehensive overview and strong foundation of Clinical Research Methodologies, which will guide participants on how to design, conduct and document clinical research. The course will also provide an overview of ethical principles guiding clinical research.

Course will be taught using a multi-disciplinary case-based pedagogical approach that will equip clinicians and basic science researchers interested in patient-oriented research to tackle health challenges currently faced by the country. The clinical research is broadly defined as patient-oriented, translational, epidemiological, comparative effectiveness, behavioral, outcomes, or health services research, or any other health related research where unit of observations

include individuals human beings, or groups of human beings.

The course is also intended to increase the technical proficiency in scientific writing by exposing students to different clinical sciences writing styles viz a viz manuscript writing, grant writing. The ultimate goal of this program is to prepare clinical professionals to be successful in clinical research.

KEY MODULES

- Introduction to Clinical Research
- Evaluating Research Questions
- Research Design and Methodology
- Qualitative and Quantitative research designs/ methods
- Statistical Analysis
- Scientific Writing
- Grant Writing
- Research, Medical and Population Ethics



INSTRUCTORS

Profiles



Dr. Safee Ullah Chaudhary

Chair – Dept. of Life Sciences
SBASSE, LUMS

For over two decades, Dr. Safee Ullah Chaudhary has been at the forefront of advanced biomedical software and data analytics. He has spearheaded the development of groundbreaking cancer informatics platforms, including ELECANS, TISON, and CanSeer. These platforms have played a pivotal role in advancing systems oncology, facilitating in silico cancer modeling, drug target discovery, repositioning, and the development of personalized therapeutics. As a seasoned health data analyst, Dr. Chaudhary has conducted numerous data-integrative investigations into diseases such as Diabetes and Tuberculosis.



His multidisciplinary approach, combining bioinformatics and public health, underscores his unwavering commitment to generating and advancing knowledge for the betterment of healthcare outcomes in Pakistan.



Dr. Furrukh A Khan

Associate Professor
School of Humanities & Social
Sciences, MGSNSS

Dr. Furrukh Khan is an Associate Professor of Postcolonial Studies at Lahore University of Management Sciences (LUMS). He has a B.A. in English and Humanities from Ohio Wesleyan University, USA, M.A. and Ph.D. in Postcolonial Studies from University of Kent at Canterbury, UK. He is currently working on MIGNEX, a European Union funded, five-year collaborative research project, with a focus on ten countries to study the nexus between development and migration. He has worked on projects funded by USAID, UNICEF, World Bank, David and Lucile Packard Foundation, UNESCO,

Swedish International Development Cooperation Agency and European Research Council. He is engaged with several Pakistani government ministries on various assignments. His research interests include the Partition of India, Migration, Postcolonial Literature, Shakespeare, Oral History, Pakistani Cinema and Reproductive Health.

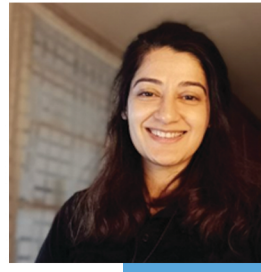




Dr. Tehmina Mustafa

Professor, Centre for International Health University of Bergen

Tehmina Mustafa is a consultant in Respiratory Medicine at the Haukeland University Hospital, Bergen, and Professor in global health at the University of Bergen, Norway. She has extensive teaching and research experience and has supervised several PhDs and Master`s degree candidates. Her research is on different aspects of tuberculosis and respiratory medicine, including clinical and basic laboratory research using immunology and molecular biology. She has developed a new tuberculosis antigen detection test, has acquired grants from the Research Council of Norwegian and various other sources, and has led multicenter international projects.



Dr. Wafa Aftab

Takemi Fellow, Harvard T. H. Chan School of Public Health
Research Fellow, University of Bergen, Norway

Dr. Wafa Aftab is a medical doctor with training in internal medicine. She has a master's in public health from the George Washington University, where she was a Fulbright Scholar. Currently, she is pursuing a Ph.D. at the University of Bergen in Norway at the Bergen Center for Ethics and Priority Setting (BCEPS) and is also a Takemi Fellow in International Health at the Harvard T H Chan School of Public Health. She is a part-time faculty member at the Aga Khan University, Karachi. Her research focuses on issues at the intersection of public health ethics and policy.



Dr. Sarosh Saleem

Shalamar Medical and Dental College
Department of Bioethics MBBS

Dr. Sarosh Saleem, an Agha Khan University alumnus MBE 2010, and CMBC Pediatric Ethics Fellow 2016-17, is an Assistant Professor (Bioethics) and founder of the Department of Bioethics at Shalamar Medical & Dental College, Lahore. She heads the Bioethics Unit (Pakistan) of the International Network of Chair in Bioethics/World Medical Association Coordination Center. Dr. Saleem teaches at the Shalamar Institute of Health Sciences and is also the co-director of the postgraduate Diploma in Healthcare Ethics & Professionalism.



Dr. Saleem also Chairs the Hospital Ethics Committee at Shalamar Hospital, Lahore, and received the 2021 Hans Joachim Schwager Award for Clinical Ethics at the International Conference of Clinical Ethics Consultation for her innovative pioneer project of Clinic Ethics in Pakistan. She currently pursues a Doctorate in Health Care Ethics at St. Louis University, MO, USA.



Dr. Abbis Haider Jaffri

PT, MS, PhD

Assistant Professor, Creighton
University, USA

Dr. Jaffri is an assistant professor in the School of Pharmacy and Health Professions at Creighton University, United States. He is interested in evidence-based medicine and improving healthcare through rigorous medical research. Dr. Jaffri has received multiple accolades and awards in his research career, including the prestigious Fulbright Scholarship. He earned his master's degree from Pennsylvania State University and his Ph.D. from the University of Virginia in Orthopedic research. Dr. Jaffri has published over 20 manuscripts in high-impact clinical journals and has presented his work nationally and internationally.



He runs his own lab and consistently secures funding to pursue his line of inquiry, aimed at improving clinical outcomes in patients. He also serves in multiple leadership positions, including as a research chair for the Foot and Ankle Special Interest Group, as well as the Nominating Committee chair for the Imaging Special Interest Group in the American Orthopedic Academy.



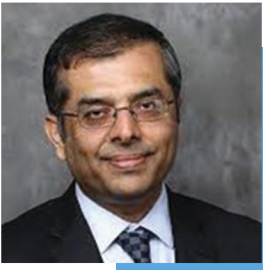
Dr. Shaper Mirza

Associate Professor
SBASSE, LUMS

Dr. Shaper Mirza received her PhD from University of Alabama at Birmingham in Molecular Microbiology. Her first appointment post-PhD was as an Assistant Professor at University of Texas Health Science Center Houston, School of Public Health. Dr Mirza has worked at London School of Tropical Medicine - London and National Institute of Human Health and Hygiene- Netherlands on using insertion elements in Mycobacterium tuberculosis as epidemiological tools to understand transmission of infection. Her current research is focused on understanding mechanisms of pathogenesis of a Gram positive



organism *Streptococcus pneumoniae*. Other topics under investigation in her laboratory include role of hyperglycemia in diabetes in susceptibility to pneumococcal infections, Pneumococcal vaccine immunity and carriage by vaccine serotypes in children in Pakistan.



Dr. Adeel Ajwad Butt

Professor of Medicine and Professor of Population Health Sciences Weill Cornell Medical College, New York, NY, USA, President and CEO Innovations in Healthcare Advocacy, Research and Training (I-HART), Washington DC

Prof. Butt's work, education and training experience spans several countries over five continents. He has been consistently listed among the world's top 2% most influential scientists in the prestigious and peer reviewed "Stanford List". Prof. Butt is also a Fulbright Scholar, Yale-Johnson and Johnson Scholar in International Health, National Talent Pool Scholar, IDSA Training Faculty Scholar, and the recipient of multiple international awards. He has lectured extensively around the world and consulted with governmental and non-governmental organizations, and academic institutions in building research, educational and training capacity.

He has published over 280 papers in high impact medical journals, including key publications in the *New England Journal of Medicine*, *JAMA*, *JAMA Int Med*, *Nature Medicine*, *Annals of Internal Medicine*, *Journal of Clinical Investigation* and *Clinical Infectious Diseases*.





Dr. Aryn A. Malik

MBBS, MPH, PhD
Assistant Professor (Epidemiology)
O'Donnell School of Public Health,
UT Southwestern Medical Center in
Dallas, Texas



Dr. Aryn A. Malik, MBBS, MPH, PhD is an Assistant Professor (Epidemiology) at O'Donnell School of Public Health, UT Southwestern Medical Center in Dallas, Texas and an infectious disease epidemiologist. His research portfolio and interests include work on COVID-19, Child Health, Drug Susceptible and Drug Resistant TB, Pediatric TB, contact tracing, and provision of TB preventive treatment. He has published extensively and has over 90 peer-reviewed journal publications. Dr. Malik has been part of implementing several global health research and delivery

programs including grants from the National Institutes of Health, Bill and Melinda Gates Foundation, The Global Fund to Fight AIDS, Tuberculosis and Malaria, and the Stop TB Partnership. Dr. Malik received his medical degree (MBBS) from the Aga Khan University in Pakistan, a Master of Public Health from Johns Hopkins Bloomberg School of Public Health, a doctoral degree in Epidemiology from Emory University and postdoctoral training from Yale Institute for Global Health.



Dr. Jessica Albrent

Assistant Professor
School of Education,
LUMS

Dr. Jessica Albrent is an assistant professor at the Syed Ahsan Ali and Syed Maratib Ali School of Education at Lahore University of Management Sciences where her research agenda examines how assessments and data use can improve opportunities to learn for all students. She earned her PhD from Johns Hopkins University in 2021. Before moving into higher education, Dr. Albrent enjoyed a 15-year career in international schools across Asia and Africa as a teacher and school leader, particularly in IB and American schools.





Dr. Ayesha Masood

Assistant Professor
Suleman Dawood School of Business,
LUMS



Ayesha Masood is an Assistant Professor of Organizational Behavior at the Suleman Dawood School of Business. Dr. Masood obtained her PhD in Anthropology from Arizona State University, USA in 2017. Her dissertation research project on women doctors' representation in health workforce was funded by Wenner-Gren Foundation and American Institute of Pakistan Studies. Her prior education includes an MA in Political Science from the University of the Punjab, and an MBBS degree from King Edward Medical College, Lahore. Prior to joining LUMS, Dr. Masood has taught in Information Technology University and served as a doctor in Mayo Hospital Lahore.

Her research, broadly situated in feminist and critical methodologies, focuses on issues related to gender in organizations, evidence-based health policy, managing human resources in health and policy implementation. Her work has been published in top-ranked journals of the world including Gender Work & Organization, Organization, Sex Roles and Gender, Place and Culture.

Dr. Masood is currently working on developing a book on the work of women health providers in Pakistan. Her current research interests include cultural influences on network formation, front-line bureaucracy, and evidence-based health policy formulation.



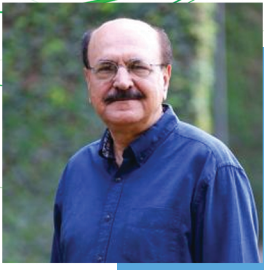
Dr. Muhammad Shoaib

Associate Professor
Syed Babar Ali School of Science
& Engineering, LUMS

Dr. Shoaib received his BDS from de'Montmorency College of Dentistry, Lahore in 2003. After completing the house job, he moved towards fundamental research and earned his M.Sc. in Molecular Oncology in 2006 and Ph.D. in Molecular Biology in 2011, both from the Gustave Roussy Cancer-Campus, University of Paris-Sud, France. Later, he joined the Centre for Research in Molecular Medicine (CRIMM) at The University of Lahore as Assistant Professor. In 2013, he received a postdoctoral fellowship from Villum Foundation, Denmark, and worked at the Biotech Research and Innovation Center (BRIC), University of Copenhagen, a global hub for research in genome stability and

DNA repair. In 2018, Dr. Shoaib's project received a large grant from Novo Nordisk Foundation and he was promoted to Assistant Professor at the University of Copenhagen, Denmark, where he worked until March 2021.

Dr. Shoaib aims to characterize chromatin-centered molecular pathways that govern key cellular processes including DNA replication, transcription, and DNA damage response. His work employs a combination of conventional molecular & cellular biology techniques, high-throughput genomics & proteomics technologies such as ChIPseq, RNAseq, ATAC-seq, and Mass Spec, etc., and bioinformatics analysis to decode the complex underpinnings of the aforementioned cellular processes.



Dr. Abid Aman Burki

Professor Emeritus
Mushtaq Ahmad Gurmani School of
Humanities and Social Sciences, LUMS

Abid Aman Burki is Professor Emeritus of Economics in the CNM Department of Economics at Lahore University of Management Sciences (LUMS). He joined LUMS in August 2002 and served as Professor of Economics from 2005 to 2021. During his tenure, he also held key administrative roles, including Founding Graduate Program Director of Economics (2002–2020) and Director of the Centre for Management and Economic Research (2003–2010). Prior to LUMS, he was a professor (1999–2002) and Head of the Economics Department (2000–2002) at Quaid-i-Azam University (QAU), where he began his academic career in 1985.

Dr. Burki has also held teaching positions at Kansas State University and BZ University.

His teaching interests span applied micro econometrics, the economics of poverty and income distribution, agricultural and food policy, development economics, and microeconomic theory. His teaching philosophy emphasizes practical, laboratory-style learning in applied research and policymaking.

He has secured numerous research grants and served as a consultant for various prestigious organizations, including the Government of Pakistan, the World Bank, UNICEF, UNESCO, the World Health Organization, the International Food Policy Research Institute, Benazir Income Support Program, Water Aid in Pakistan, the Japan International Cooperation Agency, Nestle Pakistan, Tetra Pak Pakistan, Indus Motor Company, the German Corporation for International Cooperation (GIZ), Oxfam, and the International Growth Centre, among others.

Who should Apply

Interested applicants must have completed their FCPS-I and are currently FCPS – II candidates or above with an interest to conduct local clinical and population-based research.

- **LUMS Certificate will be provided upon completion to participants**

Course Fee:

PKR 90,000 /-

Application Process:

Interested applicants may submit their CVs at the following email ID

 shaper.mirza@lums.edu.pk or

Register using QR Code



Course Schedule:

Course Delivery Method: **In person**

Duration: **6 Days**



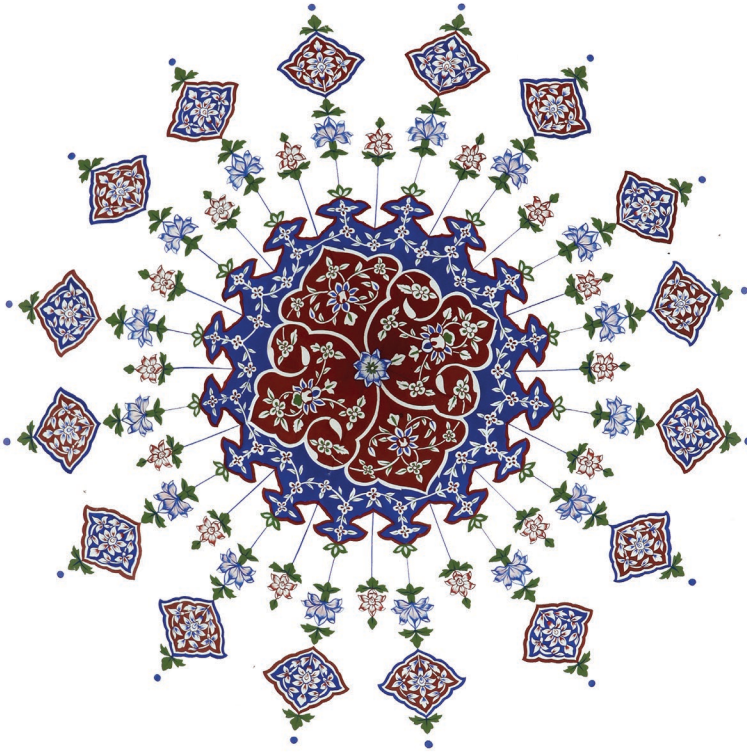
**May 17 - 19 & 24 - 26
2024**

Timings

Friday - Sunday

9:00 am - 5:00 pm





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