

Edition 3

RESEARCH INSIGHTS

• BRIDGING HEALTHCARE AND RESEARCH •

EDITORIAL

Research at the Indus Hospital and Health Network (IHNN) is a commitment to transform lives. Through innovation, rigorous inquiry, and collaboration, our researchers are addressing some of Pakistan's most pressing health challenges while strengthening systems to have an indelible mark. Each study, dataset, and pilot intervention strengthens our capacity while empowering clinicians, scientists, and communities to lead the change from within. As we invest in training, infrastructure, and ethical research practices, we are nurturing a culture where evidence informs action and innovation thrives.

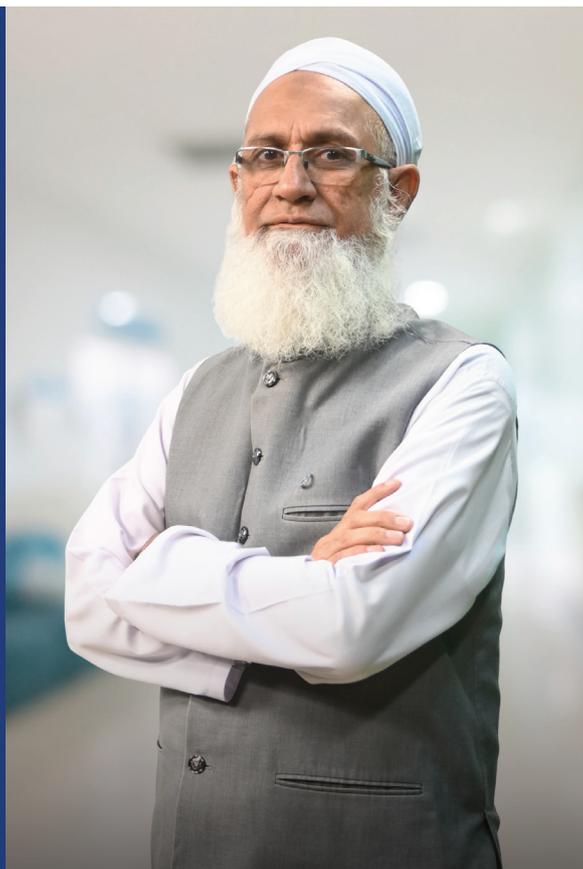
This journey reflects our shared belief that impactful research is not measured solely by publications but by improved healthcare outcomes, instilling hope for a healthier, more equitable future.



Dr. Muhammad Fareeduddin
Head of the Department of Pediatric Medicine

IHNN ON THE GLOBAL STAGE

RECOGNIZED AMONGST THE WORLD'S LEADING SCIENTISTS



Prof. Abdul Basit, Director of the Indus Diabetes and Endocrinology Center at IHNN, has been recognized among the **world's top 2% of scientists** in the prestigious global rankings compiled by Stanford University and Elsevier. This distinction reflects the sustained international impact of his research in medicine and endocrinology, particularly in advancing diabetes prevention, clinical care, and public health policy.

Within Pakistan, Prof. Basit is consistently ranked among the country's foremost medical researchers and has achieved national standing as high as fourth in the field of medicine. His scientific leadership and clinical contributions have been acknowledged through major national honors, including the Pakistan Endocrine Society's Lifetime Achievement Award and the Presidential Award of Excellence.

A former chair of the International Diabetes Federation Middle East and North Africa region, Prof. Basit continues to influence global scientific discourse through research, advocacy, and leadership, reinforcing IHNN's role in shaping evidence-based diabetes care at national and international levels.

RECOGNIZED AMONGST THE WORLD'S LEADING SCIENTISTS

NEWLY ELECTED CHAIR OF AO TRAUMA MENA RESEARCH COMMITTEE



Dr. Ayesha Saeed, Consultant Pediatric Orthopedic Surgeon at IHHN, has been elected Chair of the AO Trauma Middle East and North Africa Research Committee. Her

appointment reflects a sustained commitment to strengthening regional research capacity, advancing evidence-based orthopedic trauma care, and fostering collaborative inquiry. The role also brings international recognition to IHHN as an AO Trauma Fellowship Host Center, underscoring the institution's growing contribution to global trauma research, training, and academic leadership across diverse healthcare settings.

VIRTUAL BED MANAGEMENT RESEARCH



Dr. Ghulam Qadir Pathan, Consultant Pediatric Oncologist, and Bashir Ahmed Khan, Pediatric Oncology Nurse Educator at IHHN, presented their abstract titled "Improving Pediatric Oncology

Services through Virtual Bed Management: a FOCUS-PDSA Initiative" at the Pediatric Oncology East and Mediterranean 4th Scientific Meeting, held in Jordan from May 1-3, 2025. The study was also presented at the International Society of Pediatric Oncology meeting in Saudi Arabia, April 13-15, 2025, where it received *third prize* recognition for service improvement research.

57TH ANNUAL CONGRESS OF THE INTERNATIONAL SOCIETY OF PEDIATRIC ONCOLOGY (SIOP), 2025



IHHN's Pediatric Oncology team presented multiple studies at SIOP 2025, held in Amsterdam, Netherlands. Dr. Syed Ahmer Hamid, Consultant Pediatric Oncologist, and Dr. Anushe Mohsin Feroze, Senior Instructor and Research Lead, represented IHHN, highlighting research focused on capacity building, infection control, quality improvement, and patient-centered care in childhood cancer. The presentations reflected IHHN's growing contribution to pediatric oncology research in low- and middle-income settings. Dr. Feroze was also awarded the Global Health Network Scholarship.

LOW-COST SIMULATION INNOVATIONS PRESENTED AT INTERNATIONAL PEDIATRIC SIMULATION SOCIETY (IPSS), 2025



Dr. Adeel Khatri, Program Director, Emergency Medicine, IHHN, presented two low-cost simulation innovations at the IPSS, May 2025, in Germany. He showcased a resource efficient pre-shifting

simulation to identify operational issues and safety threats and a low-cost lumbar puncture training model, drawing strong interest from global experts.

SUSTAINABLE BIOBANKING AT ANNUAL AUSTRALASIAN BIOSPECIMEN NETWORK ASSOCIATION CONFERENCE (ABNA), 2025



Dr. Javeria Aijaz, Section Head of Molecular Pathology and Biorepository, represented IHHN at the 22nd ABNA Conference held in Newcastle, Australia, in October 2025. She

presented IHHN's work on biospecimen utilization and optimization in pediatric acute leukemias and cystic fibrosis and shared insights on sustainable biobanking in low- and middle-income countries.

PRESENTATIONS, WORKSHOPS & CONFERENCES

PAKISTAN'S FIRST NATIONAL ELECTRONIC HEALTH RECORDS CONFERENCE



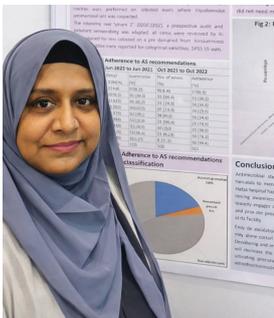
Pakistan's first National EHR Conference was organized by IHHN on September 12–13, 2025, in Lahore. It brought together policymakers, clinicians, technologists, and researchers to advance digital health transformation in Pakistan. Key themes included standardized medical coding, national disease registries, data privacy, health information exchange, and the role of AI in improving care. Consensus emerged on establishing a National Health Information Exchange, unique patient identifiers, and interoperability standards.

ADVANCING RESEARCH ETHICS GLOBALLY

Ms. Nida Ghouri, Manager, Analysis and Research Training Unit, ORIC, represented IHHN at the Global Forum on Bioethics in Research in Accra, contributing to discussions on equity, power, and ethical challenges in the Global South. Her engagement strengthened institutional insights into ethical governance, equitable partnerships, and capacity-building in global research.



MAKING A MARK AT EUROPEAN CONGRESS OF CLINICAL MICROBIOLOGY & INFECTIOUS DISEASES (ECCMID) 2025



Dr. Qurat ul Ain, Consultant Infectious Diseases at The Indus Hospital & Health Network, presented her poster at the ECCMID 2025 in Vienna, outlining “Three-Year Experience of Antimicrobial Stewardship in a Tertiary Care Hospital in Pakistan: Successes and Challenges.” Her work highlighted the development, implementation, and outcomes of a structured stewardship program tailored to a resource-limited setting, demonstrating improvements in antibiotic use practices and clinical care. This research underscores IHHN’s leadership in combating antimicrobial resistance through evidence-based stewardship interventions.

HONORING EXCELLENCE | MAJOR GRANTS FUELING IHHN'S VISION

Dr. Madiha Siddiqui, Consultant Pulmonologist at IHHN, secured the Pakistan Chest Society Research Grant 2025. Her project examines chronic respiratory disease (CRD) trends and long-term care outcomes through IHHN’s Obstructive Lung Disease Program, an integrated primary care initiative operating across IHHN. This initiative will leverage digital tools to monitor disease progression in underserved communities and strengthen data-driven, high-quality CRD care nationwide. The findings are expected to guide evidence-based interventions, enhance early diagnosis, improve patient follow-up, and contribute to equitable respiratory healthcare planning at national and provincial levels.



RESEARCHER SPOTLIGHT



“In 2010, there were only six trained infectious disease specialists in Pakistan. That had to change!”

BUILDING SYSTEMS, SAVING LIVES

Dr. Naseem Salahuddin is a name synonymous with infectious disease leadership in Pakistan. Former Head of the Department of Infectious Diseases (ID) at IHHN, Professor Emeritus, and Advisor to the Dean at Indus University of Health Sciences, her career spans clinical excellence, public health advocacy, research leadership, and system building, locally and globally.

Trained in the United States, Dr. Salahuddin completed her residency, fellowship in ID, and board certifications before entering private practice and teaching hospital affiliations. Despite professional comfort and stability abroad, she felt a persistent responsibility to return home. Born and raised in Karachi, she chose to come back to Pakistan, where she worked across both resource-limited and high-end healthcare settings, gaining a rare, comprehensive understanding of the country's health inequities.

JOINING INDUS: A MISSION ALIGNED

Dr. Salahuddin joined IHHN in 2007, drawn by its founding philosophy: providing high-quality healthcare free of cost. At a time when critical care often came with devastating financial consequences for patients, IHHN offered a model rooted in equity. Supported by the institution's leadership, she was given the freedom to build programs she believed Pakistan urgently needed.

From the outset, her vision was clear, establishing dedicated services for rabies prevention, tuberculosis and multidrug-resistant TB, HIV care, antimicrobial stewardship, and most importantly, a formal ID training program. In 2010, Pakistan had only six formally trained ID specialists, despite carrying one of the world's highest infectious disease burdens. Through sustained advocacy and collaboration with the College of Physicians and Surgeons, IHHN became among the first institutions to launch an ID fellowship. Today, the specialty has grown into a thriving discipline nationwide.

Alongside clinical services, microbiology capacity expanded, academic activity intensified, and research became embedded in clinical practice. Dr. Salahuddin also played a key role in establishing the Infectious Diseases Society of Pakistan and contributed to launching its academic journal, foundations that continue to shape the field today.

CONFRONTING PAKISTAN'S DISEASE BURDEN

Serving largely underprivileged populations, IHHN reflects Pakistan's true disease landscape: tuberculosis, malaria, dengue, resistant infections, and severe pneumonias. Yet, one disease left a particularly lasting impact on Dr. Salahuddin: Rabies.

Rabies is universally fatal once symptoms appear, yet entirely preventable. Witnessing repeated, avoidable deaths, especially among children bitten by stray dogs, prompted a defining commitment: no patient presented to IHHN with a dog bite would die of rabies. This led to the establishment of a WHO-compliant Rabies Prevention and Training Center.

Today, the center sees up to 150 dog bite patients daily. In 2024 alone, more than 17,000 individuals received life-saving post-exposure prophylaxis. Beyond treatment, the program conducts nationwide training workshops, enabling healthcare workers across Sindh, Punjab, Balochistan, and Khyber Pakhtunkhwa to become master trainers in their own regions.

ONE HEALTH IN ACTION

Recognizing that Rabies control requires addressing its animal reservoir, Dr. Salahuddin pioneered a One Health initiative between 2019 and 2023 in Ibrahim Hyderi, a coastal community of 150,000 residents. With support from WHO and local authorities, over 30,000 stray dogs were vaccinated and more than 12,000 sterilized. While long-term outcomes take time, the project demonstrated the feasibility of integrated human-animal health interventions in urban Pakistan and was later adopted by the city government.

TRANSFORMING TB CARE THROUGH RESEARCH

Dr. Salahuddin's impact also extends to global TB research. IHHN's TB program, launched in 2007 with purpose-built infection control infrastructure, evolved into one of the region's most robust services. In 2018–19, Médecins Sans Frontières invited IHHN to participate in the End-TB trial, a multinational randomized controlled study across seven countries evaluating all-oral regimens for multidrug-resistant TB.

The institution contributed nearly 20 percent of the total patient cohort. The trial eliminated painful injectable drugs and demonstrated safer, more effective treatment options. Results from 750 patients were published in *The New England Journal of Medicine*, with parallel findings in *The Lancet*, influencing global TB treatment guidelines.

Over sixteen years, IHHN has treated more than 35,000 TB patients, supported by a comprehensive electronic medical record system that now enables retrospective analyses, prospective studies, and future intervention trials.

STEWARDSHIP, RESEARCH, AND THE FUTURE

A longtime advocate for antimicrobial stewardship, Dr. Salahuddin helped institutionalize rational antibiotic use at IHHN well before it became mainstream. Today, multidisciplinary stewardship teams guide prescribing practices using clinical and microbiological data, contributing to improved outcomes and reduced resistance.

In her current role as Advisor to the Dean at the Indus University of Health Sciences, Dr. Salahuddin is focused on nurturing a research-driven culture. She encourages students and trainees to harness IHHN's rich clinical data, starting with retrospective studies and progressing toward interventional research with national public health relevance.

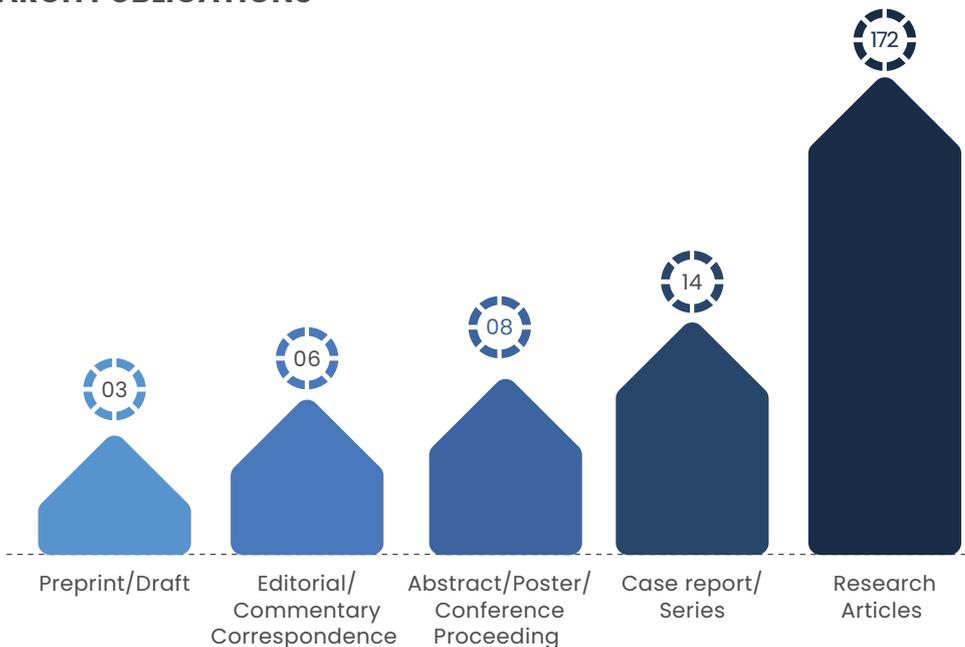
Serving as Professor Emerita her legacy continues through systems built, professionals trained, and lives saved. Her career stands as a powerful reminder that sustained impact in healthcare comes not only from individual excellence but also from building institutions that endure.

DISTINGUISHED PUBLICATIONS

JANUARY 1ST, 2025 – DEC 31ST, 2025.

1. Jabeen, S., Baig, M. A., Kazi, A. N., Ahmed, M., & Herekar, F. F. (2025). Severe refractory hypercalcemia unmasking pulmonary tuberculosis: a case report. *Internal and Emergency Medicine*, 1-3.
2. Khursheed, N., Adnan, F., Khan, M. A., & Hatif, R. (2025). Regional insights on the prevalence and antimicrobial susceptibility pattern of carbapenem and colistin-resistant gram-negative bacteria: an observational cross-sectional study from Karachi, Pakistan. *BMC Infectious Diseases*, 25(1), 186.
3. Muhammad, F., Noor, M., Hussain, I., Akram, S., Hussain, M. I., Javaid, I., ... & Ilyas, M. H. (2025). Sentinel Lymph Node Biopsy in Clinically Node-Negative Breast Cancer: A Blue Dye-Only Approach in Resource-Limited Settings. *International Journal of Medical Sciences*, 11(11).
4. Ahmad, Z. (2025). Integration of Wearable Digital Urinary Sensors and Patient-reported Outcomes to Monitor Post-prostatectomy Incontinence: A Prospective Pilot Study. *Urology*, 206, 25-30.
5. Kanani, F., Kumar, V., Mushtaq, M., Sameer, D., & Ali, R. (2025). Metrics from a Congenital Hypothyroidism Screening Program—A Tale of Unmet Challenges. *Journal of Maternal and Child Health*, 10(1), 11-18.

TYPE OF RESEARCH PUBLICATIONS



PUBLICATION PLATFORM



SPOTLIGHT ON RESEARCH SUCCESS

INDUS UNIVERSITY OF HEALTH SCIENCES (IUHS) RESEARCH & INNOVATION DAY DEBUTS



IUHS hosted its first Research and Innovation Day, uniting students and faculty to celebrate innovation and academic excellence. Organized by the Department of Health Professions Education with SRC IHHN, the event featured innovation, posters, and oral presentations, highlighting academic excellence and cross-disciplinary collaboration across the university. The event provided a dynamic platform for scholarly exchange, mentorship, and showcasing impactful research, fostering a strong culture of inquiry and innovation among students and faculty.

EXPLORING TYPE 5 DIABETES MELLITUS COLLABORATION

Prof. Peter Schwarz, President of the International Diabetes Federation, visited IHHN to advance collaborative research on emerging Type 5 diabetes. Discussions emphasized IHHN's robust electronic medical records as a platform to study disease patterns, outcomes, and risk factors relevant to low- and middle-income countries. The visit also highlighted opportunities for joint research initiatives, capacity building, and data-driven insights to strengthen evidence-based diabetes care and inform global health strategies in resource-limited settings.



STRATEGIC RESEARCH PLANNING WORKSHOPS



The Office of Research, Innovation and Commercialization and the Strategic Research Committee at IHHN organized workshops on developing a Strategic Research Plan on June 19 and July 17, 2025. Facilitated by Mr. Muhammad Babar, Consultant IHHN, and Director Strategic Development & Implementation, Dow University of Health Sciences, the sessions brought together leadership and departmental representatives to align research roadmaps with institutional goals through SWOT and TOWS analyses, ensuring coherence with IHHN's mission and the 2024–2027 Strategic Research Plan.

INDUS INSIGHT 2025 SYMPOSIUM

The Indus Insight 2025 Symposium marked a key step toward Pakistan's first collaborative Center of Excellence in neuroscience, oncology, and genomics. Convened by IHHN and Insight Hospital & Medical Centre, Chicago, the meeting outlined a roadmap for integrated care, research, training, and equitable access to advanced medicine. The symposium brought together national and international experts to encourage collaboration, innovation, and sustained partnerships for advancing specialized healthcare services in Pakistan.



SPOTLIGHT ON RESEARCH SUCCESS

INTEGRATING MENTAL HEALTH INTO NON-COMMUNICABLE DISEASE (NCD) CARE



IHHN advanced collaboration with the University of York to integrate mental health into diabetes care. Building on the DiaDeM project, discussions focused on behavioral activation, a culturally adapted intervention addressing depression in diabetes, strengthening interdisciplinary research, and patient-centered care in low-resource settings. The collaboration also emphasizes training clinicians, promoting community awareness, enhancing early detection, and integrating innovative, sustainable strategies for improved patient outcomes.

ARTIFICIAL INTELLIGENCE IN EDUCATION

Dr. Madiha Ata, Medical Educationist & Manager Quality Assurance for Health Professions Education, IUHS, presented a poster titled “Awareness and Perceptions Regarding Artificial Intelligence Among Teaching Faculty at Indus Hospital and Health Network” at the National Conference on Artificial Intelligence in Medical Sciences held at Wah Medical College in April 2025. The presentation highlighted emerging trends, faculty readiness, ethical considerations, and the growing role of artificial intelligence in medical education, teaching practices, and healthcare delivery.



SECURING POSTER PRIZE AT UROCON 2025



Dr. Zehra Kazmi, Consultant Pediatric Urology at IHHN, presented a poster titled “The Impact of Psychosocial Services” at UROCON, Lahore, in November 2025, where she won the *first prize*. The poster showcased the importance of psychosocial support in pediatric urology care, highlighting improved patient outcomes, enhanced family engagement, and better treatment adherence. Her work emphasized a multidisciplinary, patient-centered approach and was widely appreciated by experts for its innovation, relevance, and practical clinical impact.

MULTIDRUG-RESISTANT ORGANISM (MDRO) MANAGEMENT IN RESOURCE-LIMITED SETTINGS

Dr. Samreen Sarfaraz, Chair of Infection Control Services at IHHN, presented her research titled “Navigating Limited Resources: Strategies for Managing Gram-Negative MDROs in Developing Countries” at the Annual Conference of the Medical Microbiology & Infectious Diseases Society of Pakistan, Karachi, February 2025. The study emphasized cost-effective infection control measures, antimicrobial stewardship approaches, and practical recommendations for improving patient outcomes in resource-limited healthcare environments.



SUPPLEMENTAL BLOOD DONOR TESTING PRESENTED AT PAKISTAN SOCIETY OF HEMATOLOGY (PSH) 2025

Dr. Shabneez Hussain, Head of the Department of Blood Transfusion Services, IHHN, presented a three-year review titled 'Data-Driven Confidence: The Case for Supplemental Testing of Blood Donors in Pakistan' at the 2025 Annual Meeting of the Pakistan Society of Hematology, Karachi, showcasing significant findings on donor screening accuracy, innovative testing methodologies, quality assurance measures, and evidence-based strategies to strengthen blood safety and transfusion practices across the country.



NOMINATED ASSOCIATE EDITOR OF THE INFECTIOUS DISEASES JOURNAL OF PAKISTAN (IDJP)



Dr. Amir Sikander Kazi, Consultant Infectious Diseases, IHHN, has been nominated as Associate Editor for the Infectious Diseases Journal of Pakistan (IDJP) in March 2025. IDJP, an official journal of the Medical Microbiology and Infectious Diseases Society of Pakistan (MMIDSP), recognized by HEC, CPSP, and PMDC, publishes high-quality research, reviews, and case studies, promoting advancements in infectious disease management, encouraging collaboration among clinicians and researchers, and supporting evidence-based medical practices nationwide.

DR. SAIMA ALI EARNS PHD IN HEALTH PROFESSIONS EDUCATION LEADERSHIP

Dr. Saima Ali, Head of Emergency Medicine at IHHN, has successfully completed her PhD in Health Professions Education Leadership. Her research, "Bridging Differences, Building Connections," examines patient-centered communication between emergency physicians and nurses in Pakistan, identifying strategies to strengthen teamwork, bridge cultural differences, enhance interprofessional collaboration, and improve safe, equitable, and effective emergency care delivery across diverse clinical settings.



PARTNERSHIP WITH HIVEWORX TO STRENGTHEN RESEARCH DATA SYSTEMS

A formal Memorandum of Agreement was signed between IHHN and HIVEWORX Private Ltd. on February 26, 2025, to establish a Master Data Management Platform for the Data Center, Research Informatics, and data management systems, marking the beginning of a collaboration aimed at strengthening data utilization and addressing critical knowledge gaps. The initiative will improve data quality, enhance analytical capabilities, support informed decision-making, and foster innovation across research, clinical, and operational domains.





8th Biennial Conference

RESILIENT CARE SUSTAINABLE FUTURE

Bridging Climate Action
and Patient-centered Healthcare

April 10 - 18, 2026

Karachi | Muzaffargarh | Lahore



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Launched by IHHN in 2012, ICON has become one of Pakistan's leading healthcare conferences. In 2026, it returns as a grand event across Karachi, Lahore, and Muzaffargarh, bringing together voices from across the country to explore how climate resilience can be woven into the fabric of healthcare delivery. ICON 2026 invites healthcare professionals, researchers, policymakers, and innovators to lead the charge in reimagining healthcare that is both sustainable and centered around patient needs.

Join us in shaping the future of healthcare, one that can endure environmental challenges while putting patients first.

<https://icon.indushospital.org.pk/>



Newsletter Team Front row (L-R): Prof. Faridah Amir Ali, Dr. Sama Mukhtar, Dr. Muhammad Fareeduddin.
Back row (L-R): Mr. Haisum Raza, Ms. Afifa Batool, Dr. Zehra Kazmi, Ms. Sayyeda Reza, Dr. Madiha Ata.