



# PAEDIATRIC PAGES

Vol 4 Issue 2 | Newsletter from the Department of Paediatrics & Child Health

Dear Colleagues,

As we come to the end of another year, I want to take a moment to reflect on our achievements. This quarter has seen us make significant progress towards our tripartite mission of education, service and research, with the successful move into our new WCH clinics being a standout accomplishment. I am incredibly proud of the hard work and dedication shown by our clinicians, researchers and teachers in raising the bar on education innovation, international collaborations, trials and new projects.



The latest edition of our newsletter cannot do justice to the breadth and depth of our collective efforts, but I hope it provides a glimpse of our unwavering commitment to prioritizing children's survival, health and development. Let us continue to push the boundaries of what is possible and make a positive impact on the lives of those we serve.

***Cheers to a new year, 2024!***

Best regards  
Fyezah Jehan  
Chair

# Service & Quality Initiatives



The **Women & Child Health building** has recently opened new Paediatrics clinics, designed with a child-centric approach to care. The floor features a tall mangrove tree, representing resilience, and a tree house for young adventurers to explore the fish, fauna, and games. The Dawood Foundation's MagnifiScience Centre team has done an excellent job, making it a must-visit spot. Prof. Shahnaz Ibrahim's first patient Aisha has already cut the ribbon, so come and experience it for yourself!

[Beautiful new clinics open at WCH](#)



A support group for families managing children with diabetes was created by **Professor Khadija N. Humayun** and her team. [The group gathered nearly forty families to share their experiences of managing children with Type 1 diabetes.](#) Parents shared tips and discussed challenges of monitoring glucose levels.

[More information and resources](#)

Given the war in Gaza we discussed the merits of 'celebrating' **World Childrens Day**. But then we went ahead to use it as an opportunity to talk about child rights beyond the basics of family, education, and sanitation. They also mean the right to a secure environment, nurturing care, and good health. [The celebrations spanned over four days, with one day marked by our teams in Hyderabad and Karimabad, respectively.](#) We spent one day with the sick children in the wards and clinics, featuring a magic show, a symbolic walk, and an art competition.



Our healthcare facility has introduced a new Needleless Intravascular Administration Set called Bifuse, which reduces the risk of infection when administering multiple medications through one set. This device has a minimal priming volume of only 0.35ml and is expected to reduce the rates of infections. We have also introduced other closed medication delivery systems that have been proven to reduce HAI in neonatal intensive care units.

## Academia & Training



### *Around campus*

The Residency Program has successfully implemented the Multiple Mini Interviews (MMI) method to induct its 2024 cycle candidates. A total of 56 candidates were assessed at 14 stations to evaluate seven critical competencies. Unlike traditional one-to-one interviews, MMI offers better validity, as it allows the applicant to demonstrate their abilities more effectively to a range of assessors.

**Dr. Naveed-ur-Rehman Siddiqui and his PCCM colleagues** coordinated the 1st international End of Year a Critical Care Medicine Virtual TOACs Exam along with BCQs exam 2023 at CIME AKU for 24 PCCM fellows, enrolled CPSP fellows, with a panel of 22 national and international examiners from the US, UK, Oman, Qatar, Saudi Arabia, and Pakistan.



## ***1<sup>st</sup> Pediatric Critical Care Medicine Research Colloquium***

**Dr. Qalab e Abbas** and the AKU team, in collaboration with the Sindh Institute of Child Health and Neonatology held the inaugural first PCCM colloquium as a hybrid event which was attended by participants from across Pakistan.



The **National Paediatric Critical Care Medicine Case Based Discussion & Updates**, a sequence of virtual sessions on a national scale, was organised by **Dr Naveed ur Rehman Siddiqui** and attended by our national colleagues and those from SARabia, UK, US, esp. members from APPNA critical care group.

The **12th Paediatric Fundamental Critical Care Course** to manage critically ill paediatric patients and pre- & post-congenital heart disease surgical patients was attended by 60 people at AKU.



**Dr. Khairunnisa Mukhtiar** and her colleagues from Neurology organised the second "Multi-Institutional Virtual TOACS Examination" in which 11 fellows from three leading paediatric neurology training institutions in Pakistan took part. Seven major hospitals provided the examiners.

# Interacting with the research world



## Faculty footprint

A map of the places where our faculty went to present or attend conferences and meetings  
Roughly from October to mid-December



**Dr Imran Nisar** attended The Future of Omics Research: Dubai 2023 on Population Genomics and Metagenomics and the Million Microbiome of Humans Project was discussed. It was held by MGI which makes DNA sequencers of which Paediatrics has two.



**Dr. Qalab e Abbas** attended the Paediatric Acute Lung Injury and Sepsis Investigators Network fall meeting in Boston. The network is dedicated to improving the care of critically ill children.





**Dr Shabina Ariff** presented at the RESPIRE Annual Scientific Meeting in Jakarta and Bandung, Indonesia, "Evaluating Oxygen Preparedness and Security," and investigations into local schools health systems and a poster on "Bovine lactoferrin for the prevention of late-onset sepsis in low-birth-weight infants" at the 2023 Annual Meeting of the American Society of Tropical Medicine and Hygiene in Chicago.

**Dr. Maryam Haider**, Fellow in Endocrinology & Diabetes, attended the ASPED-ISPAD Diabetes Academy in Abu Dhabi.



**Dr. Mehreen Arshad** delivered a talk on "Application for Molecular Testing of Antimicrobial Resistance" at the World Society of Paediatric ID symposium in Durban, SA. and **Dr. Kishwar Enam** addressed 'Advocating for Children in Limited Resources & Political Instability.'



**Dr. Imran Nisar, Dr Ambreen Nizar and Dr Sidra Kaleem** went to Istanbul for the Global Scales for Early Development (GSED) meeting, hosted by Dr Tarun Dua from the WHO to review progress and discuss the next steps.

**Dr. Farah Qamar** was in Rwanda to show data on Vi IgG responses and [Typhoid cases](#) following vaccination in a cohort in Pakistan. Her work will be critical to monitor durability of protection.



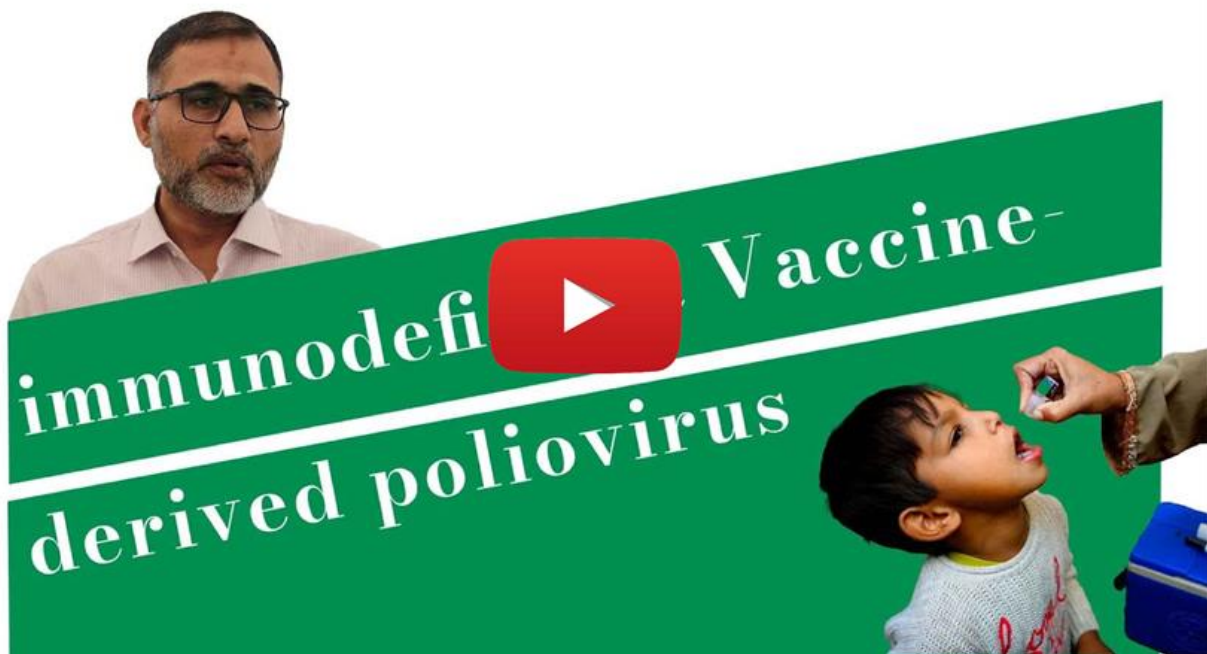


**Dr. Fyezah Jehan** attended the 8<sup>th</sup> meeting of the Strategic and Technical Advisory Group of Experts on Maternal, Newborn, Child, and Adolescent Health and Nutrition in Geneva. She along with **Drs. Imran Nisar, Zahra Hoodbhoy & Waqasuddin Khan**, was invited to the 19<sup>th</sup> **Grand Challenges** Annual Meeting in Dakar, Senegal.

**Dr Zahra Hoodbhoy** represented AKU's site at the PRISMA consortium meeting at George Washington University. They discussed harmonising important maternal and infant morbidity indicators to be measured across Asia and Africa to help with burden estimation, generating evidence regarding understudied issues like STIs and eventual interventions



*National impact | Policy shifts, health systems, working with government*



## ***Polio updates***

The AKU team led by **Dr Ali Faisal** handed over the Poliovirus Surveillance Program for Immunodeficient Children to the government, making Pakistan the first country to integrate its polio tracking systems. A network of doctors will track 650 PID children as part of national polio surveillance. [AKU helps Pakistan become first country to integrate polio tracking system](#)



**Prof. Shahnaz Ibrahim** gave an update on Pakistan's polio status at the 37th EM Regional Commission for Certification of Polio Eradication in Geneva Nov 20-22. She presented the 2022 annual progress report. Pakistan had 20 cases (plus one probable case) last year, all from South Khyber Pakhtunkhwa.

## ***Influenza vaccine adoption across Pakistan***

**Dr. Imran Nisar** has been going across Pakistan disseminating findings from the Influenza KAP Survey. The study targets pregnant women and healthcare workers in Karachi, Islamabad, Quetta, and Peshawar, addressing critical issues in influenza vaccine adoption in Pakistan.

AKU's neonatologists, led by **Dr. Muhammad Sohail Salat** from Sindh, contributed to Pakistan's [National Guidelines for Small and Sick Newborn Care](#).

**Dr. Shabina Ariff** has been training healthcare workers in **Kangaroo Mother Care** and **newborn critical care**. In **Gilgit Baltistan** she

trained healthcare providers for five days in Level 1 Newborn Care as part of the Foundations





for Health and Empowerment project. She led a scientific session at the 14th One Day Paediatric Symposium on Kangaroo Mother Care's role in reducing Neonatal Necrotizing Sepsis in preterm babies, organised by the Paediatric Department at LUMHS.

**Dr. Kishwar Enam** attended the 8<sup>th</sup> Annual Pakistan Paediatric Association Symposium in 2023 Lahore. She spoke on 'Impact of screen time on child development' and 'Child Domestic labor is child slavery'



**Dr. Kamran Sadiq** delivered a workshop on inflammatory bowel disease at Chandka Medical College in Larkana.

**Dr. Salman Kirmani** was invited as a chief guest for the Goethe-Institut, Karachi's Genomics Youth Camp with The Dawood Foundation and The University of Edinburgh for Pakistani high school students.

**Dr. Fyezah Jehan** was the Co-Chair for a session at the Umeed-e-Nau Dissemination seminar.

**Dr. Awais Abbas** alongside the AKUH PICU team, led the workshop on Pediatric emergencies: initial management at Civil Hospital Hyderabad.

### *Our own learning continues...*

Members of Paediatrics graduated from the "Developing Healthcare Leaders for Tomorrow **DHLT**" training program.

**Dr. Muzna Arif and Dr. Fozia Memon** completed a five-day course on Leadership Skill Development for early and mid-career faculty, organised by the Office of Faculty Development and Academic Affairs.



# Research | Ongoing work, dissemination, publications, funding

## Breakthrough pharmacokinetics of oral amoxicillin in neonates study

The humble amoxicillin, whether given by mouth or vein, is an important weapon against gram positive pathogens in newborns with possible serious bacterial infections in easily manageable twice daily dosing. says this pooled population pharmacokinetic analysis done by researchers from the Netherlands and **Dr Fatima Mir** who contributed her MSc thesis data from the SATT Pakistan study. based on her MSc thesis and SATT Pakistan research.

## Insights into Rotavirus vaccine efficacy

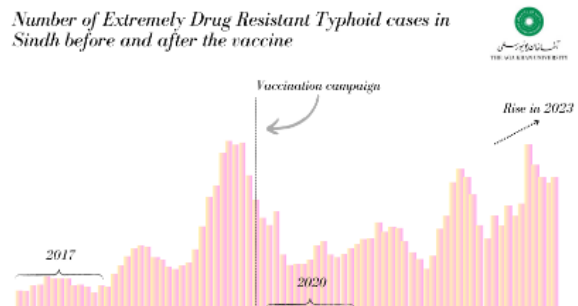
A study on the impact of a Rotavirus vaccine booster in Pakistani infants was initiated. Building on **Dr. Anita Zaidi's** prior work, the research aims to enhance infant health outcomes in low- and middle-income countries. **Dr. Syed Asad** and EPI Pakistan's Director-General met with the AKU team in Islamabad to review progress.



## Typhoid & Shigella



Number of Extremely Drug Resistant Typhoid cases in Sindh before and after the vaccine



**Prof. Farah Qamar** and her team hosted a dissemination session on [Typhoid](#) and [Shigella](#) in collaboration with the Pakistan Paediatrics Association. Representatives from Pakistan's vaccine authority and the WHO attended.

### AKU's contribution to SARS-CoV-2 surveillance

Dr Imran Nisar and team's SARS-CoV-2 Environmental Surveillance Study, published in [The Lancet Regional Health-Southeast Asia](#).

### Hepatitis E Vaccine Trial

A team from the International Vaccine Institute came to kick off a trial on evaluating the Safety and Immunogenicity of the Hepatitis E vaccine in Healthy Pregnant Women. Dr. Katerina Rok Song, Ms. Somyoung Cho, Ms. Afida Riskiana, Ms. Lei Yang, Ms. Jiyoung Lee, and Ms. Sujin Hwang met Dr. Imran Nisar, Dr. Fyezah Jehan, and Dr. Sidrah Nausheen to visit the clinical trials unit, data management unit, Infectious disease research laboratory, and the grants administration team.



### Standardising ELISA for Biomarkers

Aneeta Hotwani and the Infectious Diseases Research Lab visited Zambia to train and standardize ELISA for biomarkers, supported by the BMGF.

## Grants



1	Establishing Care Priorities for the Development of a Pediatric Palliative and End-Of-Life Care Strategic Plan Based on Bereaved Parents' Experiences at a Tertiary Care Hospital in Pakistan	Shahzadi Resham	AKU University Research Council (URC)	PKR 414,441
2	Maternal Microbiome EMP - Pakistan Analysis	Fyezah Jehan	Bill & Melinda Gates Foundation (BMGF)	USD 2,061,766
3	KAP Dissemination Study	Imran Nisar	World Health Organization	USD 50,091



4	Enabling Platforms for Maternal Immunization: PAKISTAN	Imran Nisar	Bill & Melinda Gates Foundation (BMGF)	USD 550,000
5	Investigating early peripheral miRNA biomarkers for intrauterine growth restriction (IUGR) due to fetal hypoxia in a cohort of pregnant women admitted to the Aga Khan University Hospital, Karachi, Pakistan	Waqasuddin Khan	AKU University Research Council (URC)	PKR 3,057,927
6	Studying the factors associated with adverse health outcomes for mothers and young children through the AMANHI cohort	Fyezah Jehan	World Health Organization	USD 42,107
7	Computational Interrogation of Early Signatures of Environmental Enteropathy	Imran Nisar	University of Virginia	USD 106,508
8	Pre-intervention survey of infant feeding practices at BRANCH study (Breastfeeding counseling and management of growth in early infancy in Pakistan	Fyezah Jehan	World Health Organization (WHO)	USD 45,000
9	Point-of-care tests to identify bacterial diarrhea episodes	Tahir Yousafzai	Emory University	USD 106,000
10	A phase 3 Randomized, double blind, placebo - controlled study to evaluate the effect of Bi-26 (strain of bifidobacterium longum B infants) supplementation versus placebo on weight gain in underweight infants	Sonia Qureshi	IQVIA RDS EAST ASIA PTE. LTD	USD 294,539
11	To implement specific Work Packages (WPs) of Global Scales for Early Development (GSED) 2.0 with specific focus on activities WP1, WP2 and WP4 in Karachi, Pakistan	Imran Nisar	World Health Organization (WHO)	USD 281,906
12	ORGND Organoid fit for purpose pilot evaluation	Junaid Iqbal	The Rector & Visitors of the University of Virginia	USD 56,664
13	Fetal Age and Machine Learning Initiative (FAMLI): Prospective Obstetric Ultrasound Study Protocol	Zahra Hoodbhoy	University of North Carolina	USD 598,996

### ***MBBS Class of 1988 Student and Trainee Initiated Research (STIR)***

1	Establishing a Diagnostic Pathway for Biotinidase Deficiency	Khairunnisa Mukhtiar		PKR 998,418
2	Cultivating Compassion in Care: A Sequential Study Assessing Compassion Measures, Evaluating the Impact of a Targeted Training Intervention, and Uncovering Challenges to Compassionate Patient Care	Sana Saeed		PKR 968,800

The Grants Administration team underwent strategic restructuring and has undertaken these initiatives:

- Salary Process Alignment: to ensure accuracy, transparency, and compliance and reduced turnaround time.
- Data Retention Process & Policymaking: to safeguard critical information, ensuring regulatory compliance and data integrity.
- Revisiting Advances/Petty Cash Management: Revamping advances and petty cash management protocols and processes to minimise financial risks, delays, and dependencies while enhancing usability and transparency.
- PURE Implementation: The team migrated over 60 active grants on to the PURE system introduced by the Research Office.

## Promotions and Appointments



**Dr. Arshalooz Jamila Rahman**  
Promoted to Clinical Associate  
Professor



**Dr. Zahra Hoodbhoy**  
Promoted to Associate Professor



**Dr. Nadia Ansari**

**Dr. Hina Mumtaz Hashmi**  
Promoted to Senior Instructor

promoted to Senior Manager,  
Research



**Dr. Benazir Baloch**  
promoted to Senior Manager Research

## Awards and Achievements



**Dr Naveed ur Rehman Siddiqui** was selected as a member of Critical Care Research Academy mentor mentee program globally; he joined the Paediatric Critical Care in Resource Limited Settings group led by Yale University; and has been appointed a member of the MCKAP Committee, Paediatrics, 2024 to 2027.

Resident **Dr Rozina Iqbal** led the team to Runner-Up victory in the Dean's Quiz Competition.

**Dr Najeeha Iqbal** received the Pakistan Academy of Sciences Gold Medal 2023 in Biological Sciences for outstanding research and academic contributions in Botany, Zoology, Microbiology, and Biochemistry, a nationwide recognition.

**Dr Arshalooz Jamila Rahman** was named Chairperson of the Paediatric Nephrology Group Pakistan Paediatric Association 2024.

**Dr Sonia Qureshi** passed her FCPS in Paediatric Infectious Diseases. She is the second among our trainees to have given and passed the exam.



**Ms. Farah Khalid** completed her MSc in Health Data Science *with distinction* & received excellent performance *Award* from the Lancaster University UK.



The Department of Paediatrics celebrated its **Annual Appreciation Evening 2023**, an event dedicated to recognizing the academic contributions of faculty members and celebrating the outstanding achievements of medical students and residents. The presence of Dean Adil Haider added to the vibrant celebration. The undergraduate awards High Honors for the fourth year medical students were given to Muhammad Mustafa Habib and Shahnour Ahmed. The event was attended by students, fellows, residents, faculty, managers, and the administration. Dr. Fyezah Jehan welcomed attendees, and awards were announced by Program Director Dr. Danish Abdul Aziz and Vice Chair Education Dr. Sana Saeed.



## Events and Visits



Neurologist **Dr Pauline Samia**, Chair of Paediatrics from AKU Nairobi, visited us in Karachi and talked about collaborations. One idea was a hybrid support system for residents and fellows on projects.

### ***Sinovac team reviews progress of ongoing polio vaccine trial***

Ms. Qianqian Xin and Mr. Wen Wei from Sinovac/Innovax, China, visited AKU to oversee the ongoing Sabin strain inactivated injectable polio vaccine trial. Led by principal investigator Dr. Ali Faisal Saleem.

**Dr Shershah Syed** and **Mr Akbar Rajani** visited Paediatrics to reinforce their collaboration on improving maternal and newborn health in Karachi.

Paediatrics for Life hosted 'Khushiyon Ka Bazaar' for Childhood Cancer Awareness Month.

### ***Talent Hunt 2023: Recruiting Medical Professionals for Health Advancement***

**Dr Fyezah Jehan** spoke at the AKU recruitment drive to inspire people to apply to roles ranging from community health positions to research associates.

## ***We went all out for World Children's Week***

Given the war in Gaza we discussed the merits of 'celebrating' this calendar event. But then we went ahead to use it as an opportunity to talk about child rights beyond the basics of family, education, and sanitation. They also mean the right to a secure environment, nurturing care, and good health. The day was marked by our teams in Hyderabad and Karimabad. We spent one day with the sick children in the wards and clinics, had a magic show, symbolic walk and art competition.



Students from AKU and two Karachi schools (Roshan Academy and SMB Fatima Jinnah) wrapped up a child protection learning initiative with an art exhibition. The event, part of AKU's Off The Beaten Track elective course, involved presentations and sessions with students aged 4 to 8. The chief guest was celebrity Syra Yousuf.

**Dr. Kishwar Enam** and Shelina Bhamani's ***A Rightful World*** book in English and Urdu was [launched](#) around World Children's Week.

Our hackathon on "Monetizing Knowledge: Innovations in Revenue Generation through Education and Training" generated insights into optional and need-based academic and training happening alongside structured programs. A follow-up meeting was scheduled to discuss priorities.

We celebrated the promotions of **Dr. Farah Qamar** and **Dr. Khadija Nuzhat**, to professor with a dinner. This event marked the beginning of a tradition the department hopes to follow to celebrate the accomplishment of faculty.

The department hosted a breakfast for Residents on Oct 17.





# Paediatrics featured in the media



*Children, Allergies and Winter*, **Dr. Asma Sherazi's** article was published in [Dawn](#).

[Facebook Live Session](#) | Children's Health Needs from Birth to Adolescence with Dr Fatima Mir, Dr Khalil Ahmed, Dr Danish Aziz and Naureen Amin.

[YouTube Live Session](#) | Diabetes In Adults and Children with Dr Muzna Arif and Dr Fozia Memon.

**Dr. Zahra Hoodbhoy** was featured in a [Gates Foundation explainer video](#) highlighting AI ultrasound technology. The Foetal Age Machine Learning Initiative (FAMLI) works with a widely deployable ultrasound device.

**Dr. Qamaruddin Nizami's** book, "Me and My Child," addressing common problems that parents encounter with their children and home management, was [published](#) in September.

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Newsletter editorial team: **Dr Sana Saeed, Akber Madhwani, Bismah Saleem**  
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For quick updates head over to our X (Twitter) account [twitter/AKU Paediatrics](#)

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