

DEPARTMENT OF BIOLOGICAL AND BIOMEDICAL SCIENCES

Believe

Become

Succeed

Message from the Chair

It's hard to believe that we are on the verge of wrapping up the first quarter of 2021. The challenges to our professional practice have continued unabated, but there is always a silver lining. What was initially seen as a temporary shift to online teaching and learning back in March of last year has become a way of life and brought some advantages in its wake, for example recorded

sessions that can be viewed multiple times at the students' convenience. Nevertheless, we look forward to having all students on campus again.

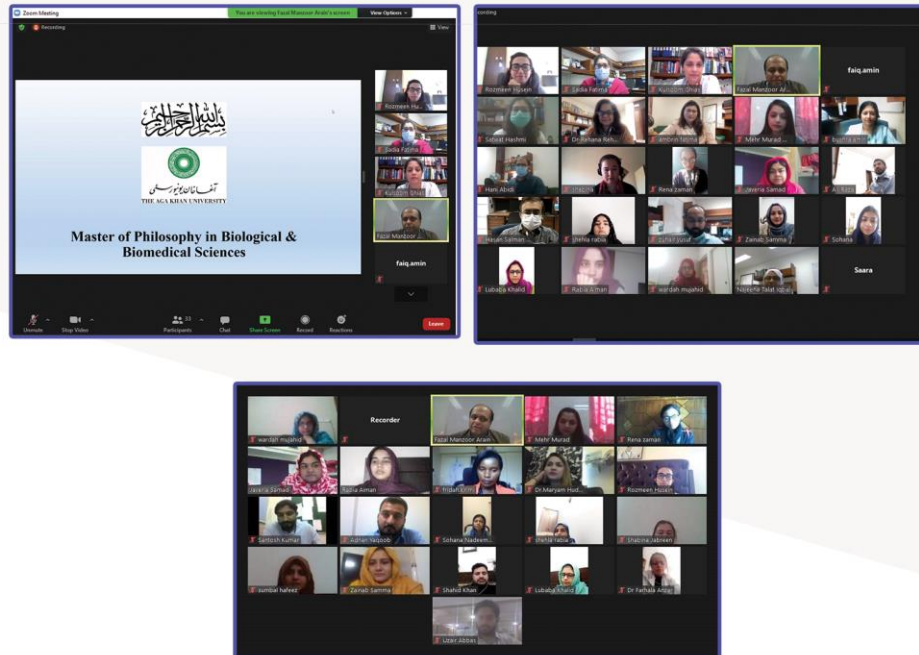
In the meantime, the resilience of the entire AKU family is truly commendable. In BBS, with uncertainty now the norm and ever-approaching deadlines, the faculty and staff have raised the bar. Research and educational activities have continued, and even flourished, under these unique circumstances. I hope you enjoy reading this edition of the BBS newsletter that serves as a reminder of the department's perseverance, hard work, and dedication.

Warm regards,
Kulsoom

April 2021



MPhil SECOND BATCH



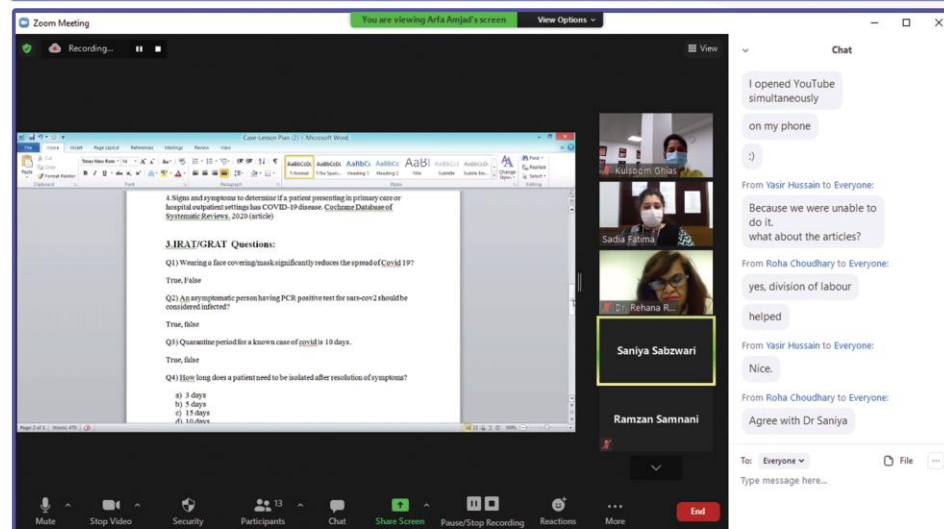
Department of Biological and Biomedical Sciences welcomed the second batch of MPhil students in March 2021. This year, eleven students were admitted into the program that was initially launched in January 2020 with four students.

The program is designed to produce competent, confident and productive scientists who can continue their passion for research and learning onto PhD training or develop a successful career in academia and industry straightaway. Our mission is to educate graduate students using research-based education and enable them to ask innovative questions and during the process, contribute to their fields by unfolding their creative energy.

THE VIRTUAL SHIFT

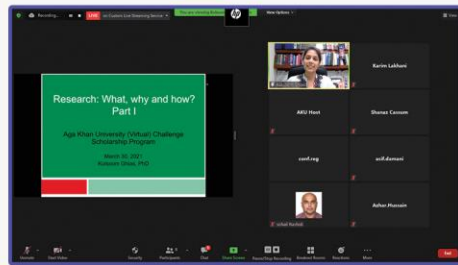
Workshop on How to Conduct Virtual Team-Based Learning February and March 2021

Drs Sadia Fatima, Rehana Rehman, Kulsoom Ghias, Kausar Jabeen and Saniya Sabzwari co-facilitated a pre-conference workshop on Virtual Team-Based Learning at the 23rd National Health Sciences Research Symposium.

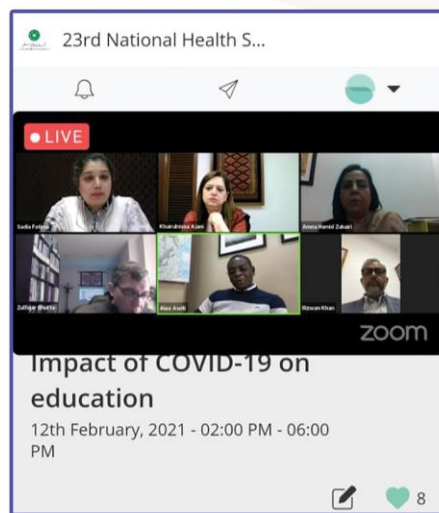


The team was invited to conduct a similar workshop for the Department of Community Health Sciences later in March as a capacity building initiative. These trainings were conducted as part of the Scholarship of Teaching Learning Grant awarded to the team of facilitators.

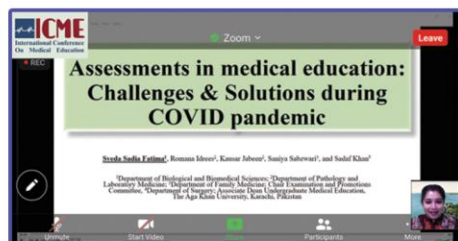
FROM THE HUB



Drs Kulsoom Ghias and Azhar Hussain were invited to speak at the AKU Challenge Program on ‘Research: What, Why and How?’ in March 2021. The program catered to 750+ registered participants who have completed their secondary school and are in the Pakistani, British, American or any other education system.



Dr Sadia Fatima moderated a session on ‘Impact of Covid-19 on Education’ at the 23rd National Health Sciences Research Symposium in February 2021.



Dr Sadia Fatima gave a talk on ‘E-assessments During Covid-19 Pandemic’ at the International Conference of Medical Education (ICME), Indonesia in April 2021.

FROM THE HUB

Continuous Faculty Development Programme in Health Professions Education
Virtual Workshop on Principles of Assessment
 on February 3, 2021
 Organized by
 Department for Educational Development
 In collaboration with
 Department of Continuing Professional Education
 Aga Khan University

Drs Satwat Hashmi and Sadia Fatima attended a 2.5 CME credit workshop on ‘Principles of Assessment’ offered by the Department for Education Development in February 2021.

STIR Funds Awarded

Sr.#	Title	Lead Applicant	Department	Amount (PKR)
1	FIGO2: THE SURVIVAL QUESTIONNAIRE FOR UNDERSTANDING URBANNESS: A PEDIATRIC EDUCATIONAL INTERVENTION REGARDING VACCINATION	Wasim Ahmad Butt Faculty Mentor: Dr. Asad Iqbal Malik	Emergency Medicine	145,440
2	Evaluation of nutritional status and Bone mineral density in children with spinae. Correlate Policy in a low middle income population.	Umam Ali Faculty Mentor: Dr. Shabzar Ibrahim	Pediatrics and Child Health	182,020
3	Etiologic signature of the mental health burden of COVID-19 and proposed DSM-5 and its response to SSRi antidepressant therapy	Humza Thobani Faculty Mentor: Sadiya Fatima	Biological and Biomedical Sciences	139,800
4	To determine the expression of DNA repair genes in sporadic CRC diagnosed at a single institution from Pakistan	Humza Belgaumi Faculty Mentor: Kulsoom Ghias	Biological and Biomedical Sciences	150,000
5	FIGO2, FIGO2 and Sporadic Early Onset Colorectal Cancer	Shameen Bhutto Faculty Mentor: Kulsoom Ghias	Biological and Biomedical Sciences	130,000
Total amount in PKR				797,260

Dr Kulsoom Ghias with student trainees Numair Belgaumi, Shameen Bhutto, Iman Farooqui, Anna Jamali, Dr Sameer Belgaumi, and Dr Sadia Fatima with student trainees Humza Thobani, Shameen Bhutto and Namrah Aziz received the STIR awards in March 2021.

MScN Thesis Defense
 School of Nursing and Midwifery | Other | Karachi
 Virtual thesis presentations of the graduating batch of Master of Science in Nursing 2020

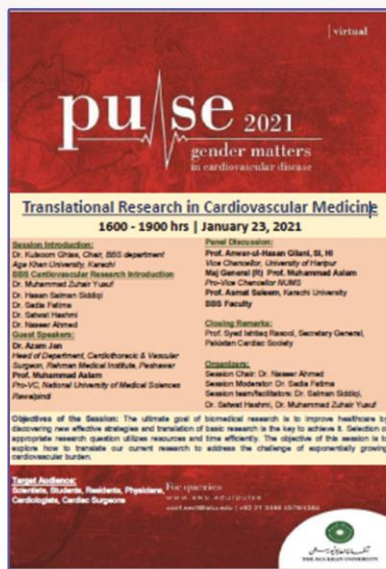


Drs Salman Siddiqi and Sadia Fatima were invited as Neutral Chairs for conducting Masters Thesis Defence at the School of Nursing and Midwifery.

FROM THE HUB

Dr HR Ahmad delivered a plenary lecture on ‘Faculty Institution Relationship’ at the 7th SAAP Conference held from 22–24 March 2021 in Delhi, by the Indian Association of Physiology (SAAP).

Dr Ahmad was also invited to give a talk at Pulse 2021 on ‘Ventilation Perfusion Ratio and Sepsis Critical Care Pathway’



Drs Naseer Ahmed, Salman Siddiqi, Zuhair Yusuf, Satwat Hashmi and Sadia Fatima organized a session ‘Translational Research in Cardiovascular Medicine’ at the Pulse 2021 conference. Prof Bilqees Shabbir and Prof Muhammad Aslam delivered key note speeches. Prof Anwar-ul-Hassan Gilani and Prof Asmat Saleem graced the session as panelists.



Ms Huma Shoukat (AKU class of 2020) gave an oral presentation on ‘Peer Mentorship in Research’ at the Canadian Conference on Medical Education (CCME) in April 2021.

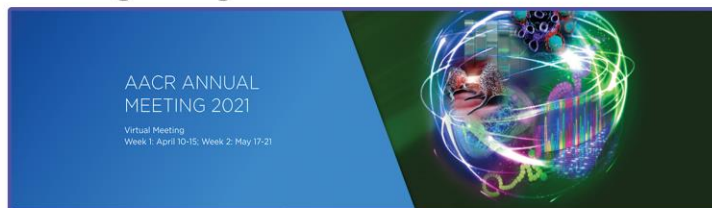
[Faculty mentor Dr Sadia Fatima]

FROM THE HUB

Dr Rehana Rehman gave an invited talk on ‘Connecting Stakeholders: Role of Research and Publication’ in a seminar organized by TAF foundation in line with ‘Decade of Healthy Ageing (2021-2030)’ declared by UN and WHO.



Dr Rehana Rehman gave an oral presentation on ‘Covid-19 and e-learning Experience of Flipped Classroom at Aga Khan University’ at the 1st Virtual Physiology Conference, Sahiwal Medical College in April 2021.



Ms Hina Shakeel, Drs Fareena Bilwani, Kiran Iqbal, Kulsoom Ghias presented an E-poster titled ‘NF- κ B-Mediated Pro-inflammatory Cytokine Release and Neutrophil Recruitment in Head and Neck Squamous Cell Carcinoma Cell Lines’ at the American Association of Cancer Research Virtual Annual Meeting in April 2021.

FROM THE HUB



Drs Nadeem Abbasi, Fazal H Khan, Sadia Fatima and Qamar Riaz, co-directed the first Junior/Middle Cadre Leadership Skills Development Course (April 5-9, 2021). This capacity building initiative was co-facilitated by Drs Robyna Khan, Asad Mian, Arsalan Ahmed, Syed Nazim, Khadija Humayun and Naila Nadeem.

Drs Khalid Ahmed Hameed and Arfa Azhar from BBS were among the 18 participants for this activity. All participants had a chance to interact with and receive valuable tips from Dean Dr Adil Haider and CEO Dr Shahid Shafi during the course. The course was very well received by the participants who gave rave reviews and positive feedback for all sessions.

AWARDS & RECOGNITION



BBS faculty received a token of appreciation from Dean Dr Adil Haider and CEO Dr Shahid Shafi for their notable contributions towards rapid transition to online teaching, learning and assessment during the Covid-19 pandemic. *#AKUHEROES*



BBS administrative staff, laboratory staff and teaching associates were appreciated in the monthly departmental meeting for their unequivocal contributions during the Covid-19 pandemic.

AWARDS & RECOGNITION



Fareena Bilwani
FHEA, MC, PK



Hasan Salman
Siddiqi, FHEA, MC, PK

Drs Hasan Salman Siddiqi and Fareena Bilwani received Fellowship from the Higher Education Academy (UK).



THE AGA KHAN UNIVERSITY

Congratulations to the Inaugural Members of the Teachers' Academy



Dr Eunice Sialty
SONAM, EA



Dr Faisal Ismail
Medical College, PAK



Dr Kauser Jabeen
Medical College, PAK



Ms Khairunissa Ajani
SONAM, PAK



Dr Kulsoom Ghias
Medical College, PAK



Dr Muhammad Irfan
Medical College, PAK



Prof Muhammad Tariq
Medical College, PAK



Dr Munira Amirali
IED, PAK



Dr Sadia Fatima
Medical College, PAK



Dr Sana Saeed
Medical College, PAK



Dr Salima Alibhai
Medical College, PAK



Dr Satwat Hashmi
Medical College, PAK



Ms Shanaz Cassum
SONAM, PAK



Dr Tasneem Anwar
IED, PAK

Drs Kulsoom Ghias, Satwat Hashmi and Sadia Fatima were selected as inaugural members of the prestigious AKU Teachers Academy.

PUBLICATIONS

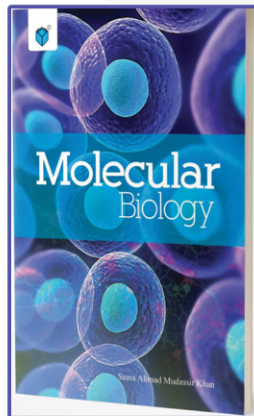


Non Communicable Diseases = 10

Medical Education = 2



Books = 1



1. Dr Saara Mudassir published a book on 'Molecular Biology' by the Paramount book publishers.

2. Iqbal MP. Effect of climate change on health in Pakistan: proceedings of the Pakistan academy of sciences: B. life and environmental sciences, 2021;57(3), 1–12.

3. Rehman R, Fatima SS. An innovation in flipped classroom: a teaching model to facilitate synchronous and asynchronous learning during a pandemic. Pak J Med Sci. 2021;37(1):131-136. <https://doi.org/10.12669/pjms.37.1.3096>

PUBLICATIONS

4. Martins RS, Ukrani RD, Raza Raja MH, Khan M, Iftikhar H, Fatima SS, Fatimi SH. Peer-taught virtual research workshops for surgical residents: Protocol for a novel and sustainable solution to improving surgical research in Pakistan. *J Pak Med Assoc.* 2021;71(Suppl 1)(1):S130-S135.
5. Alam F, Rehman R, Fatima SS, Ashraf M, Khan TA. Suggested role of Silent Information Regulator 1 (SIRT1) gene in female infertility: a cross sectional study in Pakistan. *Int J Clin Pract.* 2021;18:e14132. <https://doi/10.1111/ijcp.14132>
6. Fatima SS, Rehman R, Muhammad JS, Martins R, Mohammed N, Khan U. Association of chemerin gene promoter methylation in maternal blood and breast milk during gestational diabetes. *J Dev Orig Health Dis.* 2021;30:1-7. <https://doi.org/10.1017/S2040174421000118>
7. Khan AH, Nasir N, Nasir N, Maha Q, Rehman R. Vitamin D and Covid-19. Is there a role? *J Diab Metabol Dis* 2021 <https://doi: 10.1007/s40200-021-00775-6>.
8. Rehman R, Fatima K, Hussain M, Sarim M, Gazzaz ZJ, Baig M. Association between depression and health risk behaviors among university students, Karachi, Pakistan, *Cogent Psychology* 2021; 8:1. <https://doi.org/10.1080/23311908.2021.1886626>

PUBLICATIONS

9. Amjad S, Mushtaq S, Rehman R, Munir A, Zahid N, Siddique PQR. Protamine 1/Protamine 2 mRNA ratio in non-obstructive azoospermic patients. 2021;53(3): e13936. <https://doi/10.1111/and.13936>
10. Azhar A, Haider G, Naseem Z, Farooqui N, Farooqui MU, Rehman R. Morphological changes in the experimental model of polycystic ovary syndrome and effects of vitamin D treatment. J Obstet Gynecol Res. <https://doi.org/10.1111/jog.14671>
11. Alam F, Farooqui N, Rehman R. Metformin, oxidative stress and male infertility: way forward 2021; 71, (2-B) <https://doi.org/10.47391/JPMA.11-1318>
12. Shahid M, Hashmi AS, Rehman R. Oxidative stress, vitamin D deficiency and male infertility: an under-looked aspect. Pak J Med Assoc 2021; <https://doi.org/10.47391/JPMA.73>
13. Tariq S, Tariq S, Tariq S, Rehman R. Relationship of BMI with junk food, sleep pattern, exam performance and awareness about its ill health effects in healthy teenagers. J Pak Med Assoc. 2021 Jan;71(1(A)):59-63. <https://doi.org/10.47391/JPMA.507>

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