
DR. AFTAB ALI SHAH

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ACADEMIC CREDENTIALS

- Doctor of Philosophy (PhD)-with distinction (**Awarded Magna cum laude**)
Institute for Human Genetics, Eberhard Karls University, Tuebingen, Germany
- Bachelor of Science, (BS, 4-Year) in Biotechnology
University of Malakand, Khyber Pakhtunkhwa, Pakistan

AWARDS

- Awarded full funded scholarship for PhD studies abroad under "Faculty Development Programme" of the Higher Education Commission (HEC) of Pakistan.
- Winner of the prize for the best short talk and poster presentation at the "6th International Conference on Trefoil Family Factors (18.-20.11.2009)" at Queen Mary, University of London, UK.
- Awarded bilateral German-Croatian (DAAD-MZOŠ) scientific research grant as a team member (2011-2012) titled "Role of TFF proteins in immune response".
- Awarded research grant by the Directorate of Science and Technology (DoST), Government of Khyber Pakhtunkhwa, Pakistan (2014), titled "Investigation of male infertility using semen analysis and hormonal profile"
- Research Productivity Award for the year 2015 by ORIC, University of Malakand.

RESEARCH EXPERIENCE

- Research Associate (HEC funded project, from 11-05-2007 till 18-02-2008) at the Department of Biosciences, COMSATS Institute of Information Technology (CIIT) Islamabad.
Title of the project: "Mapping the genes responsible for autosomal recessive *retinitis pigmentosa*".
- Assistant Professor (contract) (from April, 2012 till July, 2012), Department of Biotechnology, Faculty of Biological Sciences, University of Malakand, Chakdara, Lower Dir, Khyber Pakhtunkhwa, Pakistan
- Assistant Professor (TTS) (from July, 2012 till August, 2019):, Department of Biotechnology, Faculty of Biological Sciences, University of Malakand, Chakdara, Lower Dir, Khyber Pakhtunkhwa, Pakistan
- Associate Professor (Tenured) (from August, 2019 till date), Department of Biotechnology, Faculty of Biological Sciences, University of Malakand, Chakdara, Lower Dir, Khyber Pakhtunkhwa, Pakistan

RESEARCH PROJECTS SUPERVISION

- Several undergraduate and post-graduate students have successfully completed their research theses while some are currently working on their research projects.

ORGANIZATIONAL EXPERIENCE

- Member of the Advanced studies Research Board (ASRB), University of Malakand
- Member of the National Curriculum Revision Committee (NCRC) (Biotechnology) of the Higher Education Commission (HEC) of Pakistan
- Member of the National Curriculum Revision Committee (NCRC) (Bioinformatics) of the Higher Education Commission (HEC) of Pakistan
- Member of the Proctorial Board, University of Malakand
- MPhil/PhD coordinator, Department of Biotechnology, University of Malakand
- Member of the Departmental Purchase Committee, Department of Biotechnology, University of Malakand
- Member of the Board of Studies, Department of Biotechnology, Shaheed Benazir Bhutto University, Sheringal
- Pioneer Organizer of the Scientific Society of Biotechnology (SSB) at the University of Malakand
- Co-organizer of Science Society (2017-2018), University of Malakand
- Organizer of the Health Care Society, University of Malakand
- Member of the Career Counselling Committee, University of Malakand
- Member of the Self-Assessment Program Team (M.Phil Program), Department of Biotechnology, University of Malakand
- Member of the Self-Assessment Team (M.Sc. Program), Department of Zoology, University of Malakand
- Member of the Grievance Redressal Committee (GRC), University of Malakand

ORGANIZED SEMINARS

- Organized one-day seminar on 'Raising Awareness on Zoonotic and Environmentally transmitted diseases' on 7th May 2014 through the Scientific Society of Biotechnology (SSB), University of Malakand and sponsored by Relief International at the convocation hall, University of Malakand, Khyber Pakhtunkhwa, Pakistan.
- Organized one-day seminar on 'International DNA Day Celebrations' on 25th April 2016 through the Scientific Society of Biotechnology (SSB), University of Malakand (UoM) and sponsored by The Office of Research, Innovation, and Commercialization (ORIC), UoM at the convocation hall, UoM, Khyber Pakhtunkhwa, Pakistan.

PROFESSIONAL SOCIETIES MEMBERSHIP

- Member of the International Society on Thrombosis and Haemostasis

INTERNATIONAL CONFERENCES ATTENDED

- Symposium of the German Academy of Sciences Leopoldina (18.-20.05.2008): "Molecular medicine of sensory systems" Eberhard Karls University, Tuebingen, Germany.
- Poster presentation (24.-27.03.2009): Novel interacting partners of the TFF3 (intestinal trefoil factor) connect it with apoptosis in the inner ear (Europ. J. Cell Biol.88:45-46) at the "1st Joint Congress of the Swiss and German Societies of Cell Biology", University of Konstanz, Germany.
- Oral and poster presentation (18.-20.11.2009): Challenging of immune compromised *Tff2* knock-out mice with *Yersinia enterocolitica* infection at the "6th International Conference on the Trefoil Factor Family" at the Octagon, Queen Mary, University of London, UK.
- Poster presentation (13.-16.10.2010): The intestinal factor Tff3 and a miRNA network regulate murine caloric metabolism at the symposium "The Non-Coding Genome" at EMBL (European Molecular

- Biology Laboratory) Advanced Training Center, Heidelberg, Germany.
- Poster presentation (30.03.-02.04.2011): Differential miRNA expression pattern in *Tff2*-impaired mice is connected with neoplastic development, carbohydrate metabolism and adipocytokine pathway at the “34th Annual Meeting of the German Society of Cell Research (DGZ)” Bonn, Germany.
 - Poster presentations (24-26.07.2011):
Altered expression of securin (Pttg1) and serpin3n in the auditory system of hearing-impaired *Tff3*-deficient mice.
Regulatory miRNAs target genes for cytoprotective peptides of the digestive tract at the Leopoldina Symposium “Regenerative Medicine”, Tuebingen, Germany.
 - 27th National and 15th International chemistry conferences’ (22-25.08.2016) at the University of Malakand, Pakistan.
 - International conference on ‘Research and Enterprise on Food Safety in Developing World’ (05-08.12.16) organized by the Department of Biosciences, COMSATS Islamabad.
 - 4th International Conference on Biological and Computer Sciences (C-BICS 2016) (December; 17th, 2016) at the Capital University Science and Technology (CUST), Islamabad.
 - International Symposium on ‘Human Population and Disease Genomics’ (April; 10-12, 2017) at COMSTECH Secretariat, Islamabad.
 - 1st International Conference on “Strategies for Therapeutics, Control and Prevention of Dengue and Other Emerging Viral Infection in Pakistan” (March 1-2, 2018) at the University of Swabi, Pakistan.
 - 6th International Conference on Biological and Computational Sciences (C-BICS 2018) (December 13th, 2018) at the Capital University of Science & Technology, Islamabad, Pakistan.
 - 1st International Conference on “Recent Updates in Biotechnology (ICRUB-2019) Islamabad” (October 16-18, 2019), Organized by Department of Biotechnology, Abdul Wali Khan University Mardan, Pakistan

NATIONAL CONFERENCES ATTENDED

- DoST Biotechnology EXPO2015 and presented Research Project (poster) (March 10, 2015) held at Directorate of Archives, Peshawar, organized by the Directorate of Science and Technology (DoST), Government of Khyber Pakhtunkhwa, Pakistan.
- Invention to Innovation summit (November 16-17, 2016) organized by University of Engineering and Technology, Peshawar, Pakistan
- National Conference on Computational Biology and Genomics (September 27-29, 2017) at Hazara University Mansehra, Pakistan and presented the poster.
- “5th Conference on Biological and Computational Sciences (C-BICS)” (December; 14th, 2017) at the Capital University Science and Technology (CUST), Islamabad.
- 1st National Conference on Phytomedicines: Current & Future Perspectives (October 9 – 11, 2018) at Shaheed Benazir Bhutto University Sheringal, Dir Upper, Khyber Pakhtunkhwa, Pakistan.

WORKSHOPS ATTENDED

- Symposium des Tübinger Hörforschungszentrums auf Burg Liebenzell (21.-23.09. 2008) organized by Tübingen Hearing Research Center, Germany.
- Symposium des Hörforschungszentrums Tübingen (25.-27.09.2010) “Zukunftsperspektiven in der HNO-Heilkunde” organized by Tübingen Hearing Research Center, Germany.
- International Workshop (08.10.2010): “High-Resolution Optical Imaging of the Living Brain” organized by the Institute of Physiology II, Eberhard Karls University, Tuebingen, Germany.
- Indigenous On-Campus Training Workshop on ‘Administrative & IT Skills’ (September 15-16, 2015 held at Digital Library, University of Malakand, organized by Quality Enhancement Cell, and sponsored by

Higher Education Commission, Pakistan.

- A Joint Pakistan-U.S. Workshop on 'Strengthening and Sustaining a Network of Public and Animal Health Clinical Laboratories in Pakistan' (September 27-29, 2016) organized by Pakistan Academy of Sciences Islamabad, Pakistan.
- Workshop on "Intellectual property Rights" (April, 26th, 2019) organized by The Office of Research, Innovation, and Commercialization (ORIC), University of Malakand Pakistan.

PUBLICATIONS

- Lubka M, **Shah AA**, Blin N, Baus-Loncar M (2009). Intestinal trefoil factor (Tff3), also expressed in the inner ear, interacts with peptides contributing to apoptosis. **J. Appl. Genet.**, 50: 167-171.
- Žak M, **Shah AA**, Blin N (2009). The trefoil peptide family: small but versatile—from anti-apoptosis to neoplasia in the digestive tract. **Pol. J. Sur.**, 81: 486–490.
- Azam M, Collin RW, Shah ST, **Shah AA**, Khan MI, Hussain A, Sadeque A, Strom TM, Thiadens AAHJ, Roosing S, den Hollander AI, Cremers FP, Qamar R (2010). Novel *CNGA3* and *CNGB3* mutations in two Pakistani families with achromatopsia. **Mol. Vis.**, 16:774-781.
- **Shah AA**, Leidinger P, Blin N, Meese E (2010). miRNA: Small molecules as potential novel biomarkers in cancer. **Curr. Med. Chem.**, 17:4427-4432.
- **Shah AA**, Meese E, Blin N (2010). Profiling regulatory microRNA transcriptomes in animal kingdom. **J. Appl. Genet.**, 51:501-507.
- **Shah AA**, Blin N (2010). Target sequences for microRNAs within the Tff gene cluster. **BioChip J.**, 4:279-284.
- **Shah AA**, Leidinger P, Keller A, Wendschlag A, Backes C, Baus-Loncar M, Meese E, Blin N (2011). The intestinal factor Tff3 and a miRNA network regulate murine caloric metabolism. **RNA Biol.**, 8:77-81.
- Azam M, Collin RW, Malik A, Khan MI, Shah ST, **Shah AA**, Hussain A, Sadeque A, Arimadyo K, Ajmal M, Azam A, Qureshi N, Bokhari H, Strom TM, Cremers FP, Qamar R, den Hollander AI (2011). Identification of novel mutations in pakistani families with autosomal recessive retinitis pigmentosa. **Arch. Ophthalmol.**, 129:1377-1378.
- Lubka-Pathak M, **Shah AA**, Gallozzi M, Müller M, Zimmermann U, Löwenheim H, Pfister M, Knipper M, Blin N, Schimmang T (2011). Altered expression of two regulatory proteins, securin (Pttg1) and *serpina3n*, in the auditory system of hearing-impaired mice caused by genetic loss of the protective peptide Tff3. **Cell. Mol. Life Sci.**, 86:2739-2749.
- **Shah AA**, Leidinger P, Keller A, Wendschlag A, Meese E, Blin N (2012). Altered miRNA expression patterns in Tff2 knock-out mice correlate with cellular pathways of neoplastic development and caloric metabolism. **Int. J. Mol. Med.**, 29: 637-643.
- **Shah AA**, Mihalj M, Ratkay I, Lubka-Pathak M, Balogh P, Klingel K, Bohn E, Blin N, Baus-Loncar M (2012). Increased Susceptibility to *Yersinia enterocolitica* Infection of Tff2 Deficient Mice. **Cell. Physiol. Biochem.**, 30:853-862.

- **Shah AA**, Leidinger P, Keller A, Backes C, Karpinski P, Sasiadek MM, Blin N, Meese E (2013). A set of specific miRNAs is connected with murine and human gastric cancer. **Genes Chrom, Cancer.**, 52:237-249.
- De Giorgio MR, Yoshioka M, Riedl I, Moreault O, Cherizol RG, **Shah AA**, Blin N, Richard D, St-Amand J (2013). Trefoil factor family member 2 (Tff2) KO mice are protected from high-fat diet induced obesity. **Obesity.**, 21:1389-1395.
- Hassan MA, **Shah AA**, Szmida E, Smigiel R, Sasiadek MM, Pfister M, Blin N, Bress A (2015). A TMC1 (transmembrane channel-like1) Mutation (p.S320R) in a Polish Family with Hearing Impairment. **J. App. Genet.**, 56: 311-316.
- Nisar M, Khan A, Wadood SF, **Shah AA**, Hanci F (2017). Molecular characterization of edible pea through EST-SSR markers. **Turkish J. Bot.**, 41: 338-346.
- Imran M, Khan N, **Shah AA**, Ahmad I (2018), Overweight and Obesity Prevalence Pattern and Associated Risk Factors Among the People of Malakand Division, Khyber Pakhtunkhwa Pakistan. **Arab J. Sci. Eng., In Press.**
- **Shah AA**, Haq TU, Ahmed M (2018). Deciphering Conserved Identical Sequences of Mature miRNAs Among Six Members of Great Apes. **Zoosyst. Evol.**, 94, 401-408.
- Ahmad M, **Shah AA** (2019). Functional polymorphism within miR-23a~27a~24-2 cluster confers clinical outcome of breast cancer in Pakistani cohort. **Per. Med.**, 16,107-114.
- Ahmad M, **Shah AA** (2019). *In-Silico* Target Prediction for hsa-mir-27a and Identification of Genes Involved in Breast Cancer. **Int. J. Hum. Genet.**, 19,12-21.
- Ahmad M, Ahmad S, Rahman B, Haq TU, Jalil F, **Shah AA** (2019). Association of MIR146A rs2910164 variation with a predisposition to sporadic breast cancer in a Pakistani cohort. **Ann. Hum. Genet.**, 83: 325-330.
- Ahmad M, Jalil F, Haq M, **Shah AA** (2019). Effect of variation in miRNA-Binding Site (rs8176318) of *BRCA1* Gene in Breast Cancer Patients. **Turk. J. Med. Sci.**, 49,1433-1438.
- Akhtar M, Jamal T, Din J, **Shah AA**, et al. (2019). An *in-silico* approach to characterize nonsynonymous SNPs and regulatory SNPs in human *TOX3* gene. **J. Genet.**, 98:104.
- Khan A, Khan S, Aman A, Ali Y, Jamal M, Rahman B, Ahmad M, Aasim M, Jalil F, **Shah AA** (2019). Association of *VDR* gene variant (rs1544410) with type 2 diabetes in a pakistani cohort. **BJMG.**, 22, 59-64.
- Ahmad M, Shah, AA (2020) Predictive role of single nucleotide polymorphism (rs11614913) in the development of breast cancer in Pakistani population. **Per. Med., In Press.**