

Brief CV

DR. TANVEER HUSSAIN

Assistant Professor,
Head, Department of Molecular Biology & Biotechnology,
Virtual University of Pakistan, Lahore.
E-mail: tanveer.hussain@vu.edu.pk, Cell: +92-333-4955348



EDUCATION

2008 -2013	Ph.D. (Molecular Biology & Biotechnology) Institute of Biochemistry and Biotechnology, University of Veterinary and Animal Sciences, Lahore, Pakistan.
2006 – 08	M.Phil. (Animal Breeding & Genetics), University of Veterinary and Animal Sciences, Lahore, Pakistan.
2001 – 06	Doctor of Veterinary Medicine , University of Veterinary and Animal Sciences, Lahore, Pakistan.

RESEARCH OUTPUT SUMMARY

Citations	519
h-index	12
i-10 index	17
Total Impact Factor	≈ 105.92
Research Publications	161
Papers as First author	25
Review papers	11
Books/ Chapters/ Proceedings as author/ co-author/ co-editor	16
Publications in conference proceedings	08
Invites speaker talks	12
Paper presentations/talks	26
Best Presentation Awards	02
Travel grants won	08
Abstracts	117
Research Projects	
As PI	05
As Co-PI	07
As team member	04
Total	16
Student's research supervision	
As supervisor	29
As co-supervisor/member	73
Total	102
International fellowships	03

FELLOWSHIPS (International)

01-06-2017	Guest Scientist, Institute of Wildlife Ecology, Savoyenstrasse 1, Vetmeduni,
30-06-2017	Vienna, Austria
Nov.1, 2013	Research Fellow, Animal Production and Health Laboratory, Joint FAO/ IAEA,
Dec.31, 2013	Division of Nuclear Technology in Food and Agriculture, Department of Nuclear Science and Applications at Siebersdorf, Vienna, Austria.
Jun. 16, 2012	Research Associate, Department of Animal Science, Cornell University, NY, USA.

Oct. 15, 2012

TECHNICAL TRAININGS (selected)

1. Molecular Biology and Biotechnology Workshop applied to camelids, Sudan University of Science and Technology, Khartoum, Sudan. 14-21 November, 2017 (invited as instructor)
2. 41st International Nathiagali Summer College on Physics and Contemporary Needs: 6th Scientific Activity on Computational Biology. Islamabad. Pakistan. July, 25-30, 2016.
3. Camel Genomics. The 4th ISOCARD Conference Silk Road Conference, Almaty, Kazakhstan. June 7, 2015
4. Next Generation Sequencing (NGS) Data Analysis. COMSATS, Institute of Information Technology, Office of Research Innovation & Commercialization. Islamabad. Oct. 28, 2014.
5. Genotyping-by-Sequencing (GBS). Cornell's Institute for Genomic Diversity and Computational Biology Service Unit. Sep. 13-14. 2012
6. Advances in the Knowledge of Parasite Resistance of Ruminant Hosts and Parasites. Sao Carlos, SP, Brazil. Sep. 26-Oct.7, 2011.
7. Illumina BeadXpress Microarray System, training. Singapore. Jan 1-7.2010

WORKSHOPS/ CONFERENCES (selected out of 95)

1. 11th World Congress on Genetics Applied to Livestock Production (WCGALP), Auckland, New Zealand. February, 11-16, 2018. (**Young Scientist Award, FAO**)
2. 12th Malaysia International Genetics Congress. September 24-27, 2017. Malaysia (**Invited Speaker**)
3. Bioinformatics Workshop on "Analysis and Annotation of Variants in NGS Data". Virtual University of Pakistan, Lahore. January 03-04, 2017.
4. International Conference on "Latest Trends in Domestic and Wild Animal Genomics and Biotechnology" at Virtual University of Pakistan, Lahore. November 21-22, 2016. (**Principal Organizer**).
5. 2nd International Conference on "Biotechnology for Sustainable Development" at Government Collage University, Lahore. November, 26-28, 2014.
6. "1st International Conference on Zoonoses". Bahauddin Zakariya University, Multan-Pakistan. October 16-17, 2014 (**as invited speaker**).
7. The 4th international conference on Sustainable Animal Agriculture for Developing Countries (SAADC 2013). July 27-31.2013. Lanzhou, China.
8. ADSA-AMPA-ASAS-CSAS-WSASAS Joint Annual Meeting. July 15-19.2012. Phoenix, Arizona, USA.

ACADEMIC ACHIEVEMENTS / AWARDS

- Scholarship from developing countries by FAO for WCGALP 2018
- Research Productivity Award 2014
- Best Researcher Award 2019_Virtual University of Pakistan
- Nestle Academic Medal and Cash Prize in Masters 2008
- Star Award 2007
- Merit Scholarship awardee in entire educational career
- Silver Medal. Society of Physiology 2001-06

PUBLICATIONS (Selected out of 151) IF: > 102

1. **Hussain, T.,** M.M. Musthafa, M.E. Babar, F.M.M.T. Marikar, F. Hussain, S. A. Khan, S. Sherzada and A. Ali. 2017. Genetic Analysis and Comparison of Pakistani Camels (*Camelus dromedarius*) by Prion Gene. *Acta Scientiae Veterinariae*. 45: 1-8. (**IF: 0.198**)
2. Babar M.E., **Hussain T.** (2017) Rearing and Breeding Damani Goats in Pakistan. In: Simões J., Gutiérrez C. (eds) Sustainable Goat Production in Adverse Environments: Volume II. Springer, Cham. (Book Chapter)

3. **Hussain, T.**, R. Pichler, W. Xu, A. Aftab, M.E. Babar, A.K. Thiruvankadan and K. Periasamy. 2017. Short tandem repeat (STR) based genetic diversity and relationship of domestic sheep breeds with primitive wild Punjab Urial sheep (*Ovis vignei punjabiensis*). *Small Ruminant Research*. 148: 11-21. **(IF: 1.038)**
4. De Donato, M., S.O. Peters, **T. Hussain**, Ruldolfo, B.N. Thomas, M.E. Babar and I.G. Imumorin. 2017. Molecular evolution of type II MAGE genes from ancestral MAGED2 gene and their phylogenetic resolution of basal mammalian clades. *Mammalian Genome*. 1-12 **(IF: 2.078)**
5. **Hussain, T.**, M.E. Babar, A. Ali, A. Nadeem, Z. Ur Rehman, M.M. Musthafa, F.M.M.T. Marikar. 2017. Microsatellite based genetic variation among the buffalo breed populations in Pakistan. *Journal of Veterinary Research, Pulawy*, 61 **(IF: 0.462)**
6. **Hussain, T.**, M.E. Babar and M.T. Pervez. 2016. Sequence Diversity of BoLA-DRB3 Gene in Pakistani Dromedary Camel. *Journal of Animal and Plant Sciences*. 26(1): 301-303. **(IF: 0.448)**
7. **Hussain, T.**, Babar, M. E., A. Wajid, A. Nawaz, A. Nadeem, S. A. Shah, M. A. Shahid, N. Ahmad, K. Javed, M. Abdullah. 2015. Mitochondrial Cytochrome-b and D-loop Sequence based Genetic Diversity in Mareecha and Bareela Camel Breeds of Pakistan. *Journal of Animal and Plant Sciences*. 25(2):591-594. **(IF: 0.638)**
8. Tariq, A., **T. Hussain**, M. M. Ali, M. E. Babar. 2104. Camels Adaptation to Desert Biome. *Global Veterinaria*. 12 (3): 307-313. **(IF:0.329)**
9. Qureshi Z.I, A.H Farid, M.E. Babar and **T. Hussain**. 2015. Leptin gene polymorphism in Lohi, Kajli and Spili breeds of sheep. *Pakistan Veterinary Journal*. 35(3): 321-324. **(IF: 1.392)**
10. **Hussain, T.**, R. Pichler, M. E. Babar, A. Nadeem, A. Diallo and K. Periasamy. 2014. Sympatric species distribution, genetic diversity and population structure of Haemonchus isolates from domestic ruminants in Pakistan. 2014. *Veterinary Parasitology*. 206 (3-4): 188-199. **(IF: 2.545)**
11. Pervez, M. Pervez, M.T., M.E. Babar, A. Nadeem, M. Aslam, S. Ahmad, S. Muhammad, N. Aslam, S. Qadri, **T. Hussain** and M. Javed. 2014. IVIS-TMSA: Interactive Visual Tools for Multiple Sequence Alignments. *Evolutionary Bioinformatics*. **(IF: 1.169)**
12. Ali, M. M., M. E. Babar, **T. Hussain**, F. Awan, A. Nadeem. 2014. Contribution of Donkeys to Human Health. *Equine Veterinary Journal*. 46(6): 766-767. **(IF: 2.369)**
13. M. De Donato, S.O. Peters, S.E. Mitchell, **T. Hussain** and I. G. Imumorin. 2013. Genotyping-by-sequencing (GBS): A novel, Efficient and Cost-Effective Genotyping Method for Cattle Using Next-Generation Sequencing. *Public Library of Science One. PLoS ONE*. 8(5): e62137. doi:10.1371/journal.pone.0062137. **(IF: 4.41)**
14. S.O. Peters, K. Kizilkaya, D.J. Garrick, R.L. Fernando, E.J. Pollak, M. De Donato, **T. Hussain**, and I.G. Imumorin. 2013. An application of multivariate heavy-tailed distributions to estimation of genetic parameters of growth traits in beef cattle. *Journal of Animal Science*. 91(4):1552-1561. **(IF: 2.58)**
15. **T. Hussain**, M. E. Babar, H. Sadia, M. Shaheen, A. Nadeem, A. Ali, A. Wajid and S. A. Shah. 2013. Microsatellite markers based Genetic Diversity Analysis in Damani and Nachi Goat Breeds of Pakistan. *Pakistan Veterinary Journal*. 33(4): 520-522. **(IF: 1.365)**
16. **T. Hussain**, M. M. Manzoor, A. Wajid, A. Nadeem, A. Ali, S. A. Shah, K. Abbas, M. De Donato and M. E. Babar. 2013. High conservation of SRY gene in Buffalo compared to other Bovids. *Buffalo Bulletin*. 32 (Sp. Issue 2): 666-670. **(IF: 0.048)**
17. **T. Hussain**, M. E. Babar, A. Nadeem, R. Jabeen and A. Ali. 2009. Phylogenetic Analysis of Kundi Buffalo Breed of Pakistan through Mitochondrial D-Loop Region. *Pakistan Journal of Zoology*. Suppl.9: 341-346. **(IF: 0.338)**

Oral Presentations: (selected out of 31)

1. Heat Shock Protein 40/DNAJA1 Gene Sequence Analysis in Mareecha Camel Breed of Pakistan. 11th World Congress on Genetics Applied to Livestock Production (WCGALP). Auckland, New Zealand. February, 11-16, 2018. (Young Scientist Award by FAO)
2. Camel Genomics Research in Pakistan: Status and Prospects. 3rd international Scientific Conference of Camel Research and Production. Sudan University of Science and Technology, Khartoum, Sudan. November, 21-23, 2017. (Invited Speaker)
3. Global Climate Change Scenario Demanding for the Genomic Identification of Heat Tolerant animals in Pakistan. 1st National Science Conference. The Govt. Sadiq College Women University, Bahawalpur. May 4-6, 2017.

4. Genomic Sequence Analysis of Prion Protein Gene in Dromedary Camel breeds of Pakistan. 1st International Conference on Zoonoses-2014. Bahauddin Zakariya University, Multan-Pakistan. October 16-17, 2014. (Invited Speaker).
5. Molecular Diversity in ATP6 and ATP8 genes in Dromedaries Camel breeds of Pakistan. The 4th international conference on Sustainable Anima Agriculture for Developing Countries (SAADC 2013). 27-31 July, 2013, Lanzhou, China.
6. High conservation of SRY gene in Buffalo compared to other Bovids. The 10th World Buffalo Congress / The 7th Asian Buffalo Congress. May 6-8, 2013. Phuket, Thailand.
7. Characterization of sequence diversity of IFNAA and INFB1 in Pakistani breeds of cattle. ADSA-AMPA-ASAS-CSASWSASAS Joint Annual Meeting. Phoenix, Arizona, USA. July 15-19, 2012.

SEQUENCES SUBMITTED IN GENBANK (NCBI)

DNA sequences of different genes of *Bos indicus*/ *Bos taurus*, *Bubalus bubalis*, *Ovis aries*, *Capra hircus*, ***Camelus dromedaries***, *Bos grunniens*, *Homo sapiens*, *Mycoplasma mycoidese*, *Haemonchus* vaiants submitted to GenBank USA > **909**

RESEARCH PROJECTS EXPERIENCE (selected)

S.N	Title	Agency	Amount.	Status
As Principle Investigator (PI)				
1.	Genotyping By Sequencing (GBS) Based Genome Exploration Of Pakistani Camel To Determine Their Genetic Potentials As The Animal Of Future.	HEC, Pakistan	7.1 million	<u>Ongoing</u> (June 2018-2021)
2.	Responding to Climate Change: Gene Expression Profiling of Heat Tolerance in Pakistani Cattle Breeds	HEC-Pakistan	3.7 million	<u>Ongoing</u> (2016-2018)
3.	Genomic Study for Genetic Diversity, Phylogeny and Conservation of Urial	WWF-Pakistan	0.600 million	<u>Completed</u> (2013-2015)
4	Genetic Characterization and Molecular Epidemiology of <i>Haemonchus contortus</i> in ruminants in Pakistan	AAAS, USA	7000 US\$	<u>Completed</u> (Oct-Dec, 2013)
As Co-Principle Investigator (Co-PI/ team member)				
5	Genetic Diversity of Pakistani Sheep and Goat Breeds by Analysis of Mitochondrial D- Loop. (20-872).	HEC-Pakistan	4.82 million	<u>Completed</u> (2007-2011)
6	Molecular Characterization and DNA Profiling of Milk Production Genes in Famous Camel Breeds of Pakistan for Marker Assisted Selection. (20-2345).	HEC-Pakistan	5.590 million.	<u>Completed</u> (Dec. 2012 to Dec. 2014)
7	Development of Dependable Microsatellites Makers Panel for Species, Breed and Parentage analysis in Cattle Breeds of Pakistan and its substantiation through Mitochondrial D-loop and Cytochrome b gene Analyses. (20-1703).	HEC-Pakistan	3.729 million	<u>Completed</u> (Apr. 2012 to Apr. 2014)
8	Identification of Molecular Markers for Internal Nematode Resistance in Sheep and Goat Breeds of Pakistan. (as secondary Chief Scientific Investigator)	IAEA, Vienna, Austria	24000 Euros	<u>Completed</u> (2011-2014)
9	Enhancement of Cost Effective Mutton Production through Genetically Enhanced Prolificacy Management. (Project No. 258) (as team member)	PARB, Pakistan	12.988 million	<u>Completed</u> (2011-2015)