Dr. Muhammad Ibrahim
Associate Professor, Institute of Biotechnology and Genetic Engineering, The University of Agriculture, Peshawar, Pakistan
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Academic record

PhD (Animal Science and Health) Institute of Biology Leiden (IBL), Leiden University, The Netherlands	June 2017
M.Phil (Animal Biotechnology) Institute of Biotechnology and Genetic Engineering (IBGE), The University of Agriculture, Peshawar, Pakistan	June 2009
Doctor of Veterinary Medicine Gomal College of Veterinary Sciences, Gomal University, Dera Ismail Khan, Pakistan	June 2004

Academic and research experience

Position	Project / Department	Date
Post Doc	Institute of Biology Leiden, Leiden University, Netherlands	Jan 2026 to Dec 2026
Associate Professor (Tenured)	Institute of Biotechnology and Genetic Engineering, The University of Agriculture, Peshawar	Dec 2025 to date
Assistant Professor (TTS)	Institute of Biotechnology and Genetic Engineering, The University of Agriculture, Peshawar	Jan 2018 to Nov 2025
Lecturer	Institute of Biotechnology and Genetic Engineering, The University of Agriculture, Peshawar	Jun 2017 to Dec 2017
PhD research fellow	Transcriptomic profiling of developing blood vessels: A quantum leap towards organ regeneration. IBL, Leiden University, The Netherlands	Sept 2016 to May 2017
PhD project	Development of an *in vitro* vascular network using zebrafish embryonic cells. IBL, Leiden University, The Netherlands	Aug 2012 to Jun 2017
Lecturer	Teaching and research. IBGE, The University of Agriculture, Peshawar	May 2010 to July 2012
M Phil research fellow	Brassica Oilseed Improvement. IBGE, The University of Agriculture, Peshawar	May 2007 to Jun 2009

M Phil project	Morphological and molecular characterization of native sheep populations. IBGE, The University of Agriculture, Peshawar	Jan 2006 to Jun 2009

Teaching experience

Have developed experience in teaching courses Techniques of biotechnology, Biochemistry, Skills and research Methodology, Microbial Genetics, Animal Biotechnology, Pharmaceutical Biotechnology and Food Biotechnology to BSc (Hons) Biotechnology students.

Honors and Awards

Award of Postdoc fellowship under the HEC Postdoc Fellowship Program Phase III at Leiden University, the Netherlands, Jan 2026.
Award of Faculty Development Scholarship under the Strengthening of IBGE project, from The University of Agriculture, Peshawar, Pakistan for PhD studies at Leiden University, the Netherlands. 2012-2017

Research projects

Establishment of Experimental Animal Laboratory using Zebrafish as Model Species, at Institute of Biotechnology and Genetic Engineering, The University of Agriculture Peshawar. (Approval date: April 2018; Approved cost 0.485 million, funded by HEC, Islamabad, grant number: SRGP-1937).

Research diploma

Certified for experiments on laboratory animals, from the Chair of Laboratory Animal Science, Utrecht University, The Netherlands.

Conferences attended (Oral presentation)

Zebrafish: a versatile model for *in vivo* and *in vitro* studies, plenary lecture in 39th Pakistan congress of zoology, Zoological Society of Pakistan, 4-6 March 2019, Islamia College Peshawar, Pakistan.

Towards the growth of blood vessel networks in microfluidic culture, Select Biosciences organ-on-a-chip world congress and 3D culture, 7-8 July 2016, Boston, USA. SELECTBIO - Organ-on-a-Chip and Body-on-a-Chip: In Vitro Systems Mimicking In Vivo Functions Speaker Biography

Conferences attended (poster presentation)

Culturing blood vessels: A step towards organ regeneration, Generade Applied Genomics Symposium, 19 January 2017, University of Applied Sciences Leiden, Leiden, The Netherlands.

Training workshops attended

Resource person at the workshop “Molecular modeling and biological networks”, April 9-10, 2025 at Center of Omic Sciences, Islamia College Peshawar.

Phenotypic characterization of livestock resources of Pakistan, held on 21-25 June 2021. Organize by National Center of Livestock Breeding, Genetics and Genomics, Arid Agriculture University Rawalpindi.

CRISPR/Cas Genome Editing Technology, held on May 2, 2019 at the Islamia College Peshawar. Organized by Center for Omic Sciences, Islamia College Peshawar.

Biorisk Management (Refresher course), held on Dec 19-20, 2019 at IBGE. Organized by Association for Biorisk Management (ABM) in collaboration with Health Security Partners and the University of Agriculture Peshawar.

Supervision of PhD students

S/No	Student name	Research title	Degree	Completion	Session
3	Gohar Siddique				2025-29
2.	Naila Niaz	Genome wide selective signature analysis of fat-tailed sheep for identifying candidate genes for fat deposition	Animal Biotechnology	Synopsis approved April 2025	2023-27
1.	Rijah Afridi	Assessing microplastic and glyphosate-induced toxicity: impacts on zebrafish growth, development and gut microbiota	Microbiology	Synopsis approved Feb 2025	2023-27

Supervision of M. Phil Students

S/No	Student name	Research title	Degree	Completion	Session
19	Ilyas Ul Haq	Analyzing polymorphism in ovine platelet derived growth factor-d gene among fat and thin tail sheep for the identification of genetic variants associated with tail fat deposition	Biotechnology	Synopsis approved Nov 2025	2024-26
18	Aiman Anwar	Evaluating the effect of non-dairy tea whiteners on gut microbiota composition in zebrafish (danio rerio)	Microbiology	Synopsis approved Oct 2025	2024-26
17	Ayesha Khadeja Iqbal	Evaluation of glyphosate-induced toxicity in zebrafish larvae: altering development and gene expression	Biotechnology	Oct 2025	2024-25
16	Sahar Syed	Analyzing the effect of perfume on development and gene expression in zebrafish	Animal Biotechnology	Oct 2025	2023-24
15	Saba Syed	Analyzing the effect of non-dairy tea whiteners on growth and development in zebrafish	Animal Biotechnology	Oct 2025	2023-24
14	Amna Ahmad	Understanding the effect of monosodium glutamate on growth, obesity and sugar level in zebrafish model	Biotechnology	May 2025	2023-25
13	Hina Afridi	Monosodium glutamate-induced alterations in zebrafish growth and gut microbiota	Microbiology	May 2025	2023-25

12.	Anees Ahmad	Morphological characterization and bioinformatic analysis of genomic architecture and selective signature of Kutta sheep breed	Animal Biotechnology	Feb 2025	2023-24
11.	Saifullah	Investigating the effect of long-term exposure to organophosphate pesticides on culturable gut microbiota profile in zebrafish	Microbiology	Feb 2025	2023-24
10.	Yashfa Iftikhar	Safety assessment of skin care cosmetics using zebrafish model	Biotechnology	Aug 2023	2022-23
9.	Moiz Ahmad	Analysis of calpastatin gene polymorphism and its association with growth traits in buffalo	Biotechnology	Aug 2023	2021-22
8.	Muhammad Siraj	Evaluation of *lipin 1* polymorphisms for genetic markers association with performance traits in Azikheli buffalo	Biotechnology	May 2023	2021-22
7.	Zainab gul	The colorful killer: assessment of food dyes toxicity using zebrafish as model organism	Biotechnology	Oct 2023	2021-22
6.	Zoha Adeel	Association of polymorphism in dopamine receptor β-1 gene with gastrointestinal nematode infestation in sheep	Biotechnology	June 2022	2020-21
5.	Momina Younas	Sequence polymorphism in Boroola fecundity (FecB) gene affecting reproductive performance in sheep	Biotechnology	May 2022	2020-21
4.	Izaz Ali	Association of litter size in Kari sheep with sequence variation in Zona pellucida 3 gene	Biotechnology	Feb 2021	2019-20
3.	Tahira Mir	Novel mutations in exon 2 of *follistatin* (FST) gene associated with wool fiber diameter in sheep	Biotechnology	Jan 2021	2019-20
2.	Ishtiaq U Rehman	Association between the expression of cytokines and health status of indigenous sheep breeds	Biotechnology	Dec 2019	2017-19
1.	Ijaz Ahmad	Screening of Six land Races of sheep from Khyber Pakhtunkhwa for the presence mutation in different region of MTNR1A gene	Biotechnology	July 2019	2017-18

Supervision of BSc (H) internship students

S/No	Student name	Research title	Degree	Completion	Session
28	Samra Malik	Toxicity assessment of scent / musk using zebrafish as a model organism	Biotechnology	June 2025	2021-25
27.	Mahnoor	Effect of perfume on development and gene expression of zebrafish	Biotechnology	June 2025	2021-25
26.	Muhammad	Evaluation of body mist toxicity on	Biotechnology	June 2025	2021-25

	Farhan Akbar	zebrafish embryonic development and gene expression			
25.	Muhammad Tayyab	Dietary exposure to Qudrat tea whitener modulates gut microbiota diversity and abundance in zebrafish (Danio rerio)	Microbiology	June 2025	2021-25
24.	Zarmina Gul Walwala	Is gut microbiota sensitive to food products: evaluating the effect of Millac tea whitener on zebrafish gut bacteria	Microbiology	June 2025	2021-25
23.	Manahil Ali	From tea cups to test tanks: investigating the effect of 'Chaika' tea whitener on gut microbiota of zebrafish	Microbiology	June 2025	2021-25
22.	Momina Sajjad	Impact of daily consumption of tea whitener on zebrafish (Danio rerio) growth and gut microbial community	Microbiology	June 2025	2021-25
21.	Muhammad Zain Ul Abid Din	Effect of All Max tea whitener on gut microbiota of zebrafish	Microbiology	June 2025	2021-25
20.	Muhammad Sohaib	Evaluating the effect of animal and plant-based diets on zebrafish growth	Fisheries and Aquaculture	Dec 2024	2021-24
19.	Saba Yousafzai	Analyzing the effect of fish meal on zebrafish gut microbiota	Microbiology	Dec 2024	2021-24
18.	Hammad Hussain	Analyzing the effect of moringa leaves meal on zebrafish gut microbiota	Microbiology	Dec 2024	2021-24
17.	Maryam Sultan	Elucidating the sub lethal effects of chlorpyrifos on danio rerio: a systematic toxicological investigation	Biotechnology	June 2024	2020-24
16.	Ahlam Murad	Trichlorfon-Induced Toxicity in Zebrafish: Evaluation of Lethal dose, Teratogenic Effects and Gene Expression Changes	Biotechnology	June 2024	2020-24
15.	Muhammad Qasim	Evaluation of dimethoate toxicity on zebrafish embryonic development and gene expression	Biotechnology	June 2024	2020-24
14.	Aiman Orakzai	Comparing two skin care cosmetics brand along with their common ingredient using zebrafish model	Biotechnology	June 2023	2019-23
13.	Kainat Umer	Evaluation of food dyes toxicity using zebrafish as a model organism	Biotechnology	June 2023	2019-23
12.	Zain Ullah Bacha	Analysis of *BMP-15* gene and association with litter size in sheep breeds of Khyber Pakhtunkhwa	Biotechnology	June 2022	2018-22
11.	Anees Ur Rehman	Zona pellucida-3 gene correlation with twinning in Kari sheep	Biotechnology	June 2022	2018-22
10.	Ayesha Dad	Genetic polymorphism of *FST* gene associated with wool quality traits in sheep	Biotechnology	June 2022	2018-22
9.	Samiah Afsar	Sequence variation in growth hormone	Biotechnology	June 2021	2017-21

		gene in relation to birth weight in Ghalji and Hashtnagri sheep breeds			
8.	Gul Meena Khan	Polymorphisms of myostatin gene (MSTN) in relation to lamb weight in Balkhi and Kari sheep breeds	Biotechnology	June 2021	2017-21
7.	Yashfa Iftikhar	Sequence polymorphism in bone morphogenetic protein 15 gene and its association with litter size among Balkhi and Hashtnagri sheep breeds	Biotechnology	June 2021	2017-21
6.	Shahbaz Ali Khattak	ZP3 gene correlation with twinning in Kari sheep	Biotechnology	Dec 2020	2017-20
5.	Hifsa	Comparison between wool quality of Kari and Balkhi sheep breeds and associating it with SNPs in FST gene	Biotechnology	Dec 2020	2017-20
4.	Zainab gull	Infestation of Michni sheep breed with *Heamonchus contortus* and its correlation with SNPs in the *SOCS2* gene	Biotechnology	Dec 2020	2017-20
3.	Shanzeba	Analysis of DNA damage using comet assay in Mazai and Waziri sheep breeds	Biotechnology	Dec 2019	2016-19
2.	Tahira Naz	Assessment of DNA damage in Kari and Madakhlasht sheep breed using comet assay	Biotechnology	Dec 2019	2016-19
1.	Rimsha Mehmood	Assessment of DNA damage in Hashtnagri and Michni sheep breeds using comet assay	Biotechnology	Dec 2019	2016-19

Research publications (*****corresponding author)

A Ahmad, M Ibrahim*, M Yaqoob, M Fahim, S H Khan, I U Din, M Khan and S Ahmad. Genome sequencing reveals genes under selection for olfactory transduction in highland sheep. Molecular Genetics and Genomics, Springer Nature **2026**. doi: 10.1007/s00438-026-02477-1. IF 2.1

R Afridi, M Ibrahim*, M Yaqoob and W Ahmad. Synergistic Effect of Glyphosate and Polyethylene Microplastics on Culturable Gut Microbiota Alterations in Zebrafish. Environmental Toxicology. Elsevier **2026** Apr 1. doi: 10.1002/tox.70091. IF 3.1

M. Ibrahim*, M. Yaqoob, M. A. Khan, I. U. Wazir, M. M. Alwazae and S. Ahmad. Genetic basis of breed variation: Genome wide selection signature of neighboring sheep breeds. Small Ruminant Research, Elsevier **2026**; 258: 107747. https://doi.org/10.1016/j.smallrumres.2026.107747, IF 1.6 (W)

S. J. Shah, S. Bibi, S. Attacha, S. T. Shah, N. Asim, W. Ahmad, M. S. Khan, I, Naz, **M. Ibrahim** and A. Jamal. Isolation and molecular characterization of plant growth-promoting rhizobacteria for biocontrol of Fusarium head blight in wheat. *Cereal Research Communications* **2025**. https://doi.org/10.1007/s42976-025-00735-3, IF 1.9 (W)

H. Al-Khalaifah, M. Kiran, S. H. Khan, I. Ulhaq, **M. Ibrahim,** S. Ahmad, H. Bilal, Z. Shenming, S. Naz, R. U. Khan, I. A. Alhidary. Detection of Genetic Polymorphism in Growth Hormone Receptor Gene and Its Influence on Growth Traits in Kari and Balkhi Sheep. *Veterinary Medicine and Science*, Wiley **2025**;11(6):e70633. IF 1.7, doi: https://doi.org/10.1002/vms3.70633 (W)

S. Khan, H. Ali, A. M. Khan, S. H. Khan, **M. Ibrahim,** I. Ul Haq, I., & N. Iqbal. Genome wide association studies of growth differentiation factor 9 (GDF9) gene in indigenous sheep in Khyber Pakhtunkhwa, Pakistan. *Archives of Ecotoxicology*, SciCell **2025**, 7(2), 32–36. https://doi.org/10.36547/ae.2025.7.2.32-36

M. Tahir, **M. Ibrahim***, M. Yaqoob, S. J. Shah, S. Ahmad. Association of sequence variation in SOCS2 gene with susceptibility to Heamonchus contortus infection in sheep. *Journal of Helminthology*, Cambridge University Press **2025**; 99, e64. IF 1.6 doi:10.1017/S0022149X25100308 (W)

A. Rauf, S. Ahmad, S. Altaf, S. Khattak, B. Sabiha and **M. Ibrahim***. Single nucleotide polymorphism in osteopontin gene and its association with milk traits in Azikheli buffalo. *Acta Scientiarum – Animal Sciences*, The State University of Maringá **2025**, 47, e70103. IF 0.251 https://doi.org/10.4025/actascianimsci.v47i1.70103 (Y)

L. Shah, M. Saeed, **M. Ibrahim**, W. Ahmad, A. R. Umar, A. Sohail and H. Si. Over-expression analysis of TaDWF4-4B in mutant wheat lines identifies a candidate regulator of heat stress tolerance. *Plant Stress*, Elsevier **2025**, 16, 100822. IF 6.8, https://doi.org/10.1016/j.stress.2025.100822 (X)

I. Ali, **M. Ibrahim***, S. Ahmad, S. H. Khan, I. U. Haq, I. A. Alhidary, R. U. Khan, N. K. Momand and M. Ragni. Genetic variation in zona pellucida-3 (ZP3) gene and its association with litter size variation in Kari sheep. *Animal Biotechnology*, Taylor & Francis **2025**, 36(1), 2450364. IF 1.9, https://doi.org/10.1080/10495398.2025.2450364 (W)

T. Mir, **M. Ibrahim***, M. Siraj, S. A. K. Bangash, S. H. Khan, M. Khan, M. Tayyab and S. Ahmad. Novel mutations in exon 2 of follistatin (FST) gene associated with wool fiber diameter in sheep. *Small Ruminant Research*, Elsevier **2025**, 243, 107426. IF 1.6, https://doi.org/10.1016/j.smallrumres.2024.107426 (W)

M. Ali, A. Bari, **M. Ibrahim**, I. Ahmed, U. Ahmed, R. Zafar, W. Ahmad, M. Saeed and M. Khalid. Impact of irrigation schedule and integrated nutrient management on wheat yield and nutrients uptake under semi- arid regions. *Irrigation Science*, Springer **2024**, . IF 3.1 https://doi.org/10.1007/s00271-024-00986-8 (W)

M. Siraj, **M. Ibrahim***, B. Sabiha and S. Ahmad. Evaluation of Lipin 1 polymorphisms for genetic markers in association with performance traits in Azikheli buffalo. *Reproduction and Breeding*, ScienceDirect **2024**, 4(2), 61-72. IF 1.6, https://doi.org/10.1016/j.repbre.2024.01.003 (Y)

M. Ibrahim*, S. Ahmad, S. A. K. Bangash, I. Alam, A. Sultana, M. Abbas, M. N. Khan, Israil, S. Sultana. Sheep breeds raised under a subtropical environment revealed differential disease patterns and DNA damage. *Journal of Xi'an Shiyou University, Natural Science Edition*, Xi'an Shiyou Daxue Xuebao (Ziran Kexue Ban) **2023**, 19(03), 460-466. IF 0.38 (X)

O. Tahir, S.A.K. Bangash, **M. Ibrahim**, S. Shahab, S.H. Khattak, I. Ud Din, M. Khan, A. Hafeez, S. Wahab, B. Ali, R. Makki, S. Harakeh. Evaluation of Agronomic Performance and Genetic Diversity Analysis Using Simple Sequence Repeats Markers in Selected Wheat Lines. *Sustainability*, MDPI **2023**, 15(1), 293. IF 3.3 https://doi.org/10.3390/su15010293 (W)

M. Ibrahim, S. Ahmad, I. Ud Din, W. Ahmad, I. Ahmad, S.H. Khan, I. Ul Haq, J. Zeb, O.A. Sparagano. Microsatellite Analysis Revealed Potential DNA Markers for Gestation Length and Sub–Population Diversity in Kari Sheep. *Animals*, MDPI **2022**, Vol 12(23): 3292. IF 3.231 https://doi.org/10.3390/ani12233292 (W)

M. Saeed, **M. Ibrahim**, W. Ahmad, M. Tayyab, S. Attacha, M.N. Khan, S.A. Jadoon, S.J. Shah, S. Zeb, L. Shah, F. Munsif, A. Zubair, J. Lu, H. Si, C. Ma. Molecular Characterization of Diverse Wheat Genetic Resources for Resistance to Yellow Rust Pathogen (Puccinia striiformis). *Agronomy*, MDPI **2022**, Vol 12, 2951. IF 3.949 https://doi.org/10.3390/agronomy12122951 (W)

U. Fazal, I. Ud Din, A.M. Khan, F.U. Khan, M.N. Khan, N. Iqbal, **M. Ibrahim** and S.A.K. Bangash. Evaluation of agro-morphological traits, seed characterization and genetic diversity of local rice (*Oryza sativa* L.) varieties of Pakistan. *Genetic Resources and Crop Evolution*, Springer **2022**; Vol 70: 935-949. IF 1.876 https://doi.org/10.1007/s10722-022-01478-4 (W)

M. Saeed, W. Ahmad, **M. Ibrahim**, M. Khan, F. Ullah, A. Bari, S. Ali, L. Shah, M. Ali, F. Munsif, A. Zubair, S.M.A. Shah, J. Lu, H. Si, C. Ma. Differential Responses to Yellow-Rust Stress Assist in the Identification of Candidate Wheat (Triticum aestivum L.) Genotypes for Resistance Breeding. *Agronomy*, MDPI **2022**; Vol 12(9): Pages 2038. IF 3.949 https://doi.org/10.3390/agronomy12092038 (W)

I. Ahmad, H. Hao, P. Sanders, Z. Iqbal, S. Ahmed, F. A. Khan, Z. Shah, **M. Ibrahim** and L. Huang. New HPLC Method for Determination of Cefquinome in Cattle Plasma and its Application for Pharmacokinetic Study. *Pakistan Journal of Zoology*, Zoological Society of Pakistan **2022**; pages 1-8. IF 0.687 https://dx.doi.org/10.17582/journal.pjz/20200312100316 (X)

M. Saeed, F. Ullah, L. Shah, W. Ahmad, M. Ali, F. Munsif, A. Zubair, **M. Ibrahim**, S. M. A. Shah, H. Uddin, C. Can, H. Si and C. Ma. Identification of Three Novel QTLs Associated with Yellow Rust Resistance in Wheat (Triticum aestivum L.) Anong-179/Khaista-17 F_2 Population. *Sustainability*, MDPI **2022**; Vol 14(2): Pages 7454. IF 3.3 https://doi.org/10.3390/su14127454 (W)

H. Ali, S. Hayat, S. Ahmad, **M. Ibrahim**, S.A. Haider, S. Ullah, S.. Ahmad, H. Khan and I. Ul Haq. Anti-Apoptotic Role of p21 and p27 Genes during Different Stages of Corpus Luteum Progression in Bovine. *Iranian Journal of Applied Animal Science*, Islamic Azad University **2021**; Vol 11(2): Pages 297-303. (Y)

A. Ullah, S. Ahmad and **M. Ibrahim***. Microsatellite based genetic characterization and bottleneck analysis of Kari and Madakhlasht sheep breeds from Chitral district of Khyber Pakhtunkhwa, Pakistan. *Asian-Australasian Journal of Animal Sciences* **2020**; 10.5713/ajas.19.0418. IF 1.227 (W)

M. Ibrahim, B. Xie and M. K. Ricahrdson. The growth of endothelial-like cells in zebrafish embryoid body culture. *Experimental Cell Research*, Elsevier **2020**; Vol 392(2): Pages 112032. IF 3.329 https://doi.org/10.1016/j.yexcr.2020.112032 (W)

S. S. Khan, H. Ali, S. Hayat, S. Ahmad, **M. Ibrahim**, S. A. Haider, I. Ahmad, I. U. Haq. Expression of ISG15 and conjugating enzyme during peri-implantation period in sheep. *Biotechnology in Animal Husbandry*, Institute of Animal Husbandry, Belgarde-Zemun **2020**; Vol 36(2): Pages 215-223.

M. Ibrahim*, S. Ahmad, I. S. Durrani, A. Iqbal, I. Munir and Z. A. Swati. Genetic polymorphism and bottleneck analysis of Balkhi, Hashtnagri and Michni sheep populations using microsatellite markers. *Animal Biotechnology*, Taylor & Francis **2018**, Vol 29(3): Pages 216-226. IF 1.9 https://doi.org/10.1080/10495398.2017.1366340 (W)

M. Ibrahim and M. K. Richardson. Beyond organoids: *in vitro* vasculogenesis and angiogenesis using cells from mammals and zebrafish. *Reproductive Toxicology*, Elsevier **2017**, Vol 73: Pages 292-311. IF 3.3, https://doi.org/10.1016/j.reprotox.2017.07.002 (W)

M. Ibrahim and M. K. Richardson. *In vitro* development of zebrafish vascular networks. *Reproductive Toxicology*, Elsevier **2017**, Vol 70: Pages 102-115. IF 3.3, https://doi.org/10.1016/j.reprotox.2017.02.008 (W)

M. Ibrahim and M. K. Richardson. Microfluidic devices for cell, tissue and embryo culture. *Recent Patents on Regenerative Medicine (Discontinued)*, Bentham Science **2013**, Vol 3(3): Pages 249-263. https://dx.doi.org/10.2174/22102965113039990019

S. A. A. Musavi, S. Ahmad and **M. Ibrahim***. Documentation and morphology of Hazaragie sheep native to central Afghanistan. *Indian Journal of Animal Sciences* **2013**, Vol 83(9): Pages 934-941. IF 0.240 (X)

S. A. A. Musavi, S. Ahmad and **M. Ibrahim***. Molecular characterization of Hazaragie sheep native to

central Afghanistan. *Indian Journal of Animal Sciences* **2011**, Vol 81(7): Pages 711-717. IF 0.240 (X)

M. Ibrahim*, S. Ahmad, Z. A. Swati and G. Ullah. Fat tailed Sheep Production Systems in the Khyber Pakhtunkhwa Province of Pakistan. *Tropical Animal Health and Production*, Springer **2011**, Vol 43: Pages 1395-1403. IF 1.7, https://doi.org/10.1007/s11250-011-9867-4 (W)

M. Ibrahim*, S. Ahmad, Z. A. Swati and M. S. Khan. Genetic diversity in Balkhi, Hashtnagri and Michni sheep populations using SSR markers. *African Journal of Biotechnology*, Academic Journals **2010**, Vol 9(45): Pages 7617-7628.

Book chapter

K. Hayat, M. N. Khan, S. Shah, S. A. K. Bangash, **M. Ibrahim**, A. Kaplan, Chapter 14 - Biochar application and plant tolerance to waterlogging, Editor(s): Arafat Abdel Hamed Abdel Latef, Biochar in Mitigating Abiotic Stress in Plants, *Academic Press* **2025**, Pages 247-270, ISBN 9780443241376, https://doi.org/10.1016/B978-0-443-24137-6.00014-8.

Research activity at Division, lab, fields

Activities at Animal Biotechnology lab and Division, IBGE
Ensuring proper use and maintenance of lab equipment
Establishment and maintenance of Zebrafish aquaria at IBGE (health and husbandry management)
Ensuring and training students for proper use and handling of animals during experiments

Other services to the university

Reviewer of articles submitted to Sarhad Journal of Agriculture

VC nominee for PhD oral comprehensive examination of Mr. Aurangzeb at Department of Horticulture (30 April 2021).

March 2019: Member of technical committee for the purchase of lab equipment under national project titled "National Center of Livestock Breeding, Genomics and Genetics (NCLBG&G)"

April 2019: Member of the technical committee for the purchase of equipment/items under the University project titled "Provision of Academic & Research Facilities in Fish Aquaculture at the University of Agriculture, Peshawar"

Weblinks:

ResearchGate: https://www.researchgate.net/profile/Muhammad-Ibrahim/research

Google Scholar: https://scholar.google.com/citations?user=HIvqsLcAAAAJ&hl=en

AUP link: https://aup.edu.pk/staff/dr-muhammad-ibrahim

Leiden Univ: https://scholarlypublications.universiteitleiden.nl/handle/1887/50874

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