CURRICULUM VITAE

Name of applicant:		**Dr. Furhan Iqbal**
Current position:		**Professor of Zoology**
Date of birth:		03-07-1978
N.I.C. Number:		37203-1391530-5
Domicile:		Chakwal (Punjab)
Marital Status:		Married with kids
Permanent Address:		House No. 240, Ward No. 1, Chakwal road Talagang, district Chakwal, Pakistan.
Postal address	:	Institute of Zoology, Bahauddin Zakariya University Multan, Pakistan.
Phone #:		Office 0092-61-9210053 0092-61-9210071-74 (Ext. 2524) Mobile.0092-331-5657685
Email		furhan.iqbal@bzu.edu.pk

ACADEMIC RECORD

Certificate / Degree	Year of passing	Division	Subjects	Institute	Board/University
S.S.C	1994	1st	Science	Government High School No. 1 Talagang, district Chakwal	Rawalpindi Board of Intermediate and Secondary Education
F. Sc	1997	1st	Pre-Medical	Government Degree Collage Talagang, district Chakwal	Rawalpindi Board of Intermediate and Secondary Education
B. Sc	1998	2nd	Zoology Botany Chemistry	Government Degree Collage Talagang, district Chakwal	University of Punjab, Lahore
M. Sc	2001	1st	Zoology	Institute of Pure and Applied Biology	Bahauddin Zakariya University Multan
M. Phil	2004	1st	Animal Physiology	Institute of Biological Sciences	Quaid-I-Azam University Islamabad
Ph.D	2009	-	Neuroscience	Center for Inborn Errors of Metabolism and Neonatal Screening.	Medical University Vienna, Austria
Post Doc	2014-15	-	Molecular Cytogenetics	School of Life Sciences Chinese Academy of Science (CAS)	University of Science and Technology Hefei, (USTC) China
Post Doc	2018	-	Neurosciences	Institute of Molecular Biosciences. Department of Neuroscience	Mahidol University Salaya Campus, Nakhon Pathom, Thailand

RESEARCH THESIS

- **M.Sc**. (2000). Body composition of *Channa punctata* in relation to body size and condition factor.

- **M.Phil**. (2004). Effect of water borne nitrates on the histology of selected vital organs of a fresh water fish.
- **Ph.D**. (2009). Neuroprotective role of creatine defined in mouse models of Arginine:Glycine Amidino Transferase (AGAT) and Guanidinoacetate Methyltransferase (GAMT) deficiency.

DISTINCTIONS

- Bronze medal (session 1998-2000) in M.Sc Zoology from Bahauddin Zakariya University Multan.
- Number one in merit list of Punjab Public Service Commission examination for lecturer in Biology held in 2001-2002.
- HEC approved PhD supervisor (2009).

AWARDS

- Won an Indigenous PhD scholarship (Phase II, 2004) from Higher Education Commission of Pakistan (No availed).
- Won an overseas PhD scholarship in Austria from Higher Education Commission of Pakistan (Ph.D in Natural and Basic Sciences in Austria, Batch III-2005).
- Won an overseas PhD scholarship in France (2005) from Higher Education Commission of Pakistan (Not availed).
- Won a travel grant worth 1000$ from Jaxson Laboratories Bar Harbor, Maine (USA) for presentation of a poster and participation in 49th annual short course of Mammalian Genetics (2008).
- Won a scholarship to attend IBRO School on Environment, Epigenetics and Behaviour, 8-15th December 2012, Pwani University College, Kilifi, Kenya
- Won a scholarship to attend IBRO School Injury and regeneration of the nervous system, 26th November-1st December 2013, at Key laboratory of neuroregeneration, Nantong University Nantong, China
- Won a post doctoral fellowship sponsored by Chinese Academy of Sciences (CAS) for postdoctoral scholars from developing countries for 2014-16.
- Won Research Productivity Award (RPA) 2014 for the research papers published in 2012 by Pakistan Council for Science and Technology (PCST), Ministry of Science and Technology (MOST) Pakistan.
- Won Research Productivity Award (RPA) 2017 for the research papers published in 2015 by Pakistan Council for Science and Technology (PCST), Ministry of Science and Technology (MOST) Pakistan.
- Won Research Productivity Award (RPA) 2018 for the research papers published in 2016 by Pakistan Council for Science and Technology (PCST), Ministry of Science and Technology (MOST) Pakistan.
- Won a post doctoral fellowship sponsored by International Brain Research Organization (IBRO) at Mahidol University Salaya, Nakhon Pathom, Thailand for 2018.
- Won 2nd Prof. Dr. Muhammad Ali (TI) Gold Medal in Molecular Biology awarded by Applied Zoological Society of Pakistan during 3rd International Conference on Applied Zoology (ICAZ, 2020) held on 7th and 8th December, 2020.
- Won a travel grant from Human Cell Atlas (HCA) to attend "2024 Human Cell Atlas (HCA) General Meeting." held at UNAHOTELS Expo Fiera Milano in Milan, Italy during 29 - 30 September (Online).
- Won a travel grant from Human Cell Atlas (HCA) to attend Annual Meeting 2025 held at SingHealth Academia Singapore during 9th till 11th June 2025.
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SERVICE RECORD

- Served as a **lecturer in Biology** at Cadet College Kallar Kahar from 12-08-2001 till 20-06-2004. **Duties**: Teaching F.Sc (pre medical) students and incharge Biology Lab.
- Served as a **lecturer in Zoology** at Center for Under Graduate Studies/ Institute of Pure and Applied Biology, Bahauddin Zakariya University, Multan from 21-06- 2004 till 11-12-2010.
- Worked at Department of Pediatrics, Center for inborn metabolic disorders and neonatal screening, Medical University Vienna (Austria) as PhD scholar from 22-11-2005 to 13-09-2009.
- Worked as **Assistant Professor of Zoology** at Institute of Pure and Applied Biology. Bahauddin Zakariya University Multan from 12-12-2010 till 24-10-2015.
- Served as **Associate Professor of Zoology** at Institute of Pure and Applied Biology/Institute of Zoology. Bahauddin Zakariya University Multan from 25-10-2015 till 01-09-2025.

- Working as **Professor of Zoology** at Institute of Zoology. Bahauddin Zakariya University Multan from 02-09-2025 till now.
  Duties: Teaching and research supervision BS (4 Year), ADS, M. Phil and PhD students

ADDITIONAL SKILL AND EXPERIENCE

- Experience in protein extraction and quantification and Western blotting.
- Experience in DNA/RNA extraction, PCR (Multiplex, Gradient, Touchdown, Real time, Reverse transcriptase), Gel electrophoresis, RFLP, Primer designing, DNA mutation analysis.
- Experience of working with rodent models (lab and genetically modified mouse)
- Experience in surgical models of Hypoxia/Ischemia in mouse.
- Experience in behavioral studies in mouse.
- Worked with Spectrophotometer, Amino acid analyzer and Tandem mass spectrometer.
- Experience of computing (solid knowledge of MS-Office, Minitab, Endnote, Adobe Photoshop, Image J, Chromas, Primer designing, Mutation analysis etc).
- National Cadet Corps (N.C.C.) Certificate.

EXTRA CURRICULAR DUTIES

- Served as Superintendent at Abdul Sattar Edhi Hall, B.Z.U. Multan from March 2019 to March 2020.
- Served as Coordinator Zakariyan Association of Zoologists (ZAZ) at B.Z.U. Multan during 2012 to date.
- Served as member board of studies in subject of Zoology at Khawaja Fareed University of Engineering and Information Technology in 2019.
- Served as Controller of examination at Institute of Pure and Applied Biology, Zoology Division. B.Z.U. Multan during 2012-14 and 2015-18.
- Served as Director Student Affairs at Institute of Pure and Applied Biology, Zoology Division. .B.Z.U. Multan during 2012-14 and 2015-17.
- Served as secretary Directorate of Research and External Linkages at B. Z. University Multan during 2012-14.
- Served as member Tenure Track Application evaluation committee at Institute of Pure and Applied Biology, B. Z. University Multan in 2011.
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- Served as Advisor/expert for the recruitment of the posts of lecturer Zoology (Male/Female) in the Punjab Higher Education Department in 2011.
- Served as secretary Admission Committee for Institute of Pure and Applied Biology, Zoology Division. B. Z. University Multan during 2011-13.
- Served as external examiner for M. Sc Zoology research thesis at Kohat University of Science and Technology (KUST), Kohat in 2010.
- Served as Assistant Superintendent at Abu Bakar Hall, B.Z.U. Multan from July 2004 to November 2005.
- Served as member Hostel Administration Committee, B.Z.U. Multan during 2004 – 05.
- Served as member admission committee at Center for Under Graduate Studies (U.G.S.), B.Z.U. Multan during 2004-05.
- Served as Director Student's Affair (Boys) at Center for Under Graduate Studies (U.G.S.), B.Z.U. Multan during 2004-05.
- Served as member Cafeteria Committee, B.Z.U. Multan during 2004-05.
- Served as member Purchase Committee for Center for Under Graduate Studies, B.Z.U. Multan during 2004-05.

MEMBERSHIP

- American Roentgen Ray Society
- International Association of Computer Science and Information Technology, Singapore.
- International Brain Research Organization (IBRO)
- International Parkinson and Movement Disorder Society (MDS)

- American Society of Parasitologists (ASP)
- British Society for Parasitology (BSP)
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GUEST SPEAKER

- Oral presentation (online) entitled "Leading report of molecular prevalence of tick borne *Anaplasma marginale* and *Theileria ovis* in Yaks (*Bos grunniens*) from Pakistan" during 3rd International Conference on the Yak, held at University of Baltistan in Skardu, Gilgit-Baltistan during 20-21 November 2024.
- Oral presentation (online) entitled "*Toxoplasma gondii* infection affects the complete blood count and disturbs the markers of oxidative stress from the vital organs of wild rodents" during VIII Academic Studies Congress (ASC-2024/FALL) held at Andijan State University of Uzbekistan during 18th-20th September 2024.

- Delivered a lecture entitled "Effect of variable doses of Nickel oxide nanoparticles on behavior, blood biochemistry and antioxidants from vital organs of albino mice in a sex specific manner: during 9th Annual Neuroscience Conference held at University of Karachi during 12-13 August 2023.
- Delivered a lecture entitled "Creatine supplementation in Creatine deficiency syndrome and Stroke" at Government Post Graduate College Muzaffar Garh (Pakistan) on April 23rd 2019.
- Delivered a lecture entitled entitled "Long term Creatine monohydrate supplementation as a potential therapy for the treatment of neonatal hypoxia ischemia encephalopathy in female albino mice" during 4th Annual Neuroscience Conference held on October 13, 2018 at the Aga Khan University, Karachi
- Delivered a lecture entitled "Short term exposure to Titanium, Aluminum and Vanadium (Ti 6Al 4V) alloy powder drastically affects behavior and antioxidant metabolites in vital organs of male albino mice" at Government College University Faisalabad, Pakistan during first applied Zoology conference held during 10-11 October 2018.
- Delivered a lecture entitled "Creatine supplementation in Creatine deficiency syndrome and Stroke" at Virtual University Multan campus (Pakistan) on July 323rd 2018.
- Delivered a lecture entitled "Creatine supplementation in Creatine deficiency syndrome and Stroke" at Research Center for Neuroscience, Institute of Molecular Biosciences. Mahidol University, Salaya Campus, Nakhon Pathom, Thailand on June 7th, 2018.
- Delivered a lecture entitled "Effect of Zinc Oxide Nanoparticles on the selected aspects of male albino mice behavior and blood chemistry" during 1st national science conference 2017 (Science for the betterment of humanity), May 4-6 2017, held at The Government Sadiq College Women University Bahawalpur, Pakistan.
- Delivered a lecture entitled "Creatine monohydrate supplementation for 10 weeks has a potential to improve learning and memory in female albino mice following neonatal hypoxia ischemia encephalopathy" during 3rd International conference on Neurological disorders and stroke meeting, April 24-25 2017, held at JW Marriott, Dubai, UAE.
- Delivered a lecture entitled "Effect of zinc oxide nanoparticles of male albino mice behavior" during 2nd Annual Neuroscience Meeting, 8th October 2016, held at Agha Khan University Karachi, Pakistan
- Delivered a lecture entitled "Effect of $GABA_B$ receptor antagonists (CGP family) on learning and memory formation in albino mouse following neonatal hypoxia ischemia" at "IBRO-APRC Associate School – Molecular Basis of Behavior", 14th-18th March 2016, National University of Science and Technology (NUST) Islamabad, Pakistan
- Delivered a lecture entitled "Role of Creatine Mono Hydrate Supplementation Following Hypoxic Ischemic Insult in Mouse Models" at IBRO School, From Basic Neuroscience to Advance Applications, 30 Sep-4th October 2013, National University of Science and Technology (NUST) Islamabad, Pakistan
- Delivered a lecture entitled "Effect of age on the exploratory behavior of rats" at IBRO School, On Environment, Epigenetics and Behavior, 8-15th December 2012, Pwani University College, Kilifi, Kenya
- Delivered a lecture entitled "Creatine Monohydrate as a neuroprotective agent for Arginine: Glycine Amidinotransferase (AGAT) deficient mouse following hypoxic-ischemic encephalopathy" on 26-03-2010 at Department of Biotechnology and Microbiology, Kohat University of Science and Technology (KUST), Kohat, Pakistan.
- Delivered a lecture entitled "Creatine Monohydrate as a neuroprotective agent for Arginine: Glycine Amidinotransferase (AGAT) deficient mouse following hypoxic-ischemic encephalopathy" on 25-03-2010 at Department of Zoology, Kohat University of Science and Technology (KUST), Kohat, Pakistan

CONFERENCES/CONGRESSES ATTENDED

- Human Cell Atlas (HCA) Annual Meeting 2025 held at SingHealth Academia Singapore during 9th till 11th June 2025.
- "HCA Asia 2024 Meeting" held at Hong Kong, Science Park, Science Park West Avenue, 12W大樓, Hong Kong during 3rd-4th December 2024 (Online).
- 3rd International Conference on the Yak, held at University of Baltistan in Skardu, Gilgit-Baltistan during 20-21 November 2024 (Online).
- "2024 Human Cell Atlas (HCA) General Meeting." held at UNAHOTELS Expo Fiera Milano in Milan, Italy during 29 - 30 September 2024 (Online).
- VIII Academic Studies Congress (ASC-2024/FALL) held at Andijan State University of Uzbekistan during 18th-20th September 2024 (Online).
- 9th Annual Neuroscience Conference held at University of Karachi during 12-13 August 2023.

- First International Conference on Applied Zoology held at Government College University Faisalabad, Pakistan during 10-11th October 2018.
- 4th Annual Neuroscience Conference held on October 13, 2018 at the Aga Khan University, Karachi
- 3rd SKLRB symposium on Reproductive Biology held on 26-30 October 2014 organized by State Key Laboratory of Reproductive Biology. Institute of Zoology, Chinese Academy of Science (CAS), Beijing, China.
- Application of molecular biology in medicine and agriculture held on 20-22 August 2013 at National Center of Physics, Quaid-i-Azam University Islamabad, Pakistan.
- 30th Pakistan Congress of Zoology (International). March 2nd-4th, 2010 held at University of Agriculture Faisalabad, Pakistan. Presented a paper entitled "Guanidinoacetate N-Methyltransferase deficient mouse as a model for neuroprotective role of Creatine following neonatal hypoxic-ischemic encephalopathy|"
- 21st European Congress of Radiologists. March 6th – 10th, 2009 held at Austrian Center Vienna, Austria.
- 20th European Congress of Radiologists. March 7th – 11th, 2008 held at Austrian Center Vienna, Austria.
- 19th European Congress of Radiologists. March 9th – 13th, 2007 held at Austrian Center Vienna, Austria.
- 18th European Congress of Radiologists. March 3rd – 7th, 2006 held at Austrian Center Vienna, Austria.
- 24th Pakistan Congress of Zoology (International Congress). March 30th to 1st April, 2004 held at Allama Iqbal Open University Islamabad, Pakistan.
- 22nd Pakistan Congress of Zoology (International Congress). April 16th-18th, 2002 held at University of Azad Jammu and Kashmir Muzaffarabad, Pakistan. Presented a paper entitled "Seasonal variations of hysic-chemical characteristics of River Soan water at Dhoak Pathan Bridge (Chakwal), Pakistan."
- 21st Pakistan Congress of Zoology (International Congress). March 15th-17th, 2001 held at University of Agriculture Faislabad, Pakistan. Presented a paper entitled "Body composition of *Channa punctata* in relationship to body size and condition factor from Multan."

WORKSHOPS ATTENDED

- IBRO-APRC Associate School – Molecular Basis of Behavior, 14th-18th March 2016, National University of Science and Technology (NUST) Islamabad, Pakistan
- IBRO School, Injury and regeneration of the nervous system, 26th November-1st December 2013, at Key laboratory of neuroregeneration, Nantong University Nantong, China
- IBRO School, From Basic Neuroscience to Advance Applications, 30 Sep-4th October 2013, National University of Science and Technology (NUST) Islamabad, Pakistan
- IBRO School On Environment, Epigenetics and Behaviour, 8-15th December 2012, Pwani University College, Kilifi, Kenya
- Project Formulation Workshop by Pakistan Science Foundation (PSF). June 20-21, 2012. Department of Business Administration, Bahauddin Zakariya University Multan, Pakistan.

- Citation Management by Using Bibliographical Software 'Endnote'. March 21st, 2011. Department of Computer Sciences, Bahauddin Zakariya University Multan, Pakistan.
- 49th annual short course of Mammalian Genetics. 20th July-1st August 2008. Jaxson Laboratory, Bar Harbor, Maine (U.S.A).
- 1st International workshop on Cell Communication in Health and Disease. 20-21 Feb. 2008. Medical University Vienna (AKH), Vienna, Austria.
- Laboratory diagnosis of plant damages. 14-16th February, 2006 at Institute of Plant Protection, University of Natural Resources and Applied Sciences (BOKU), Vienna, Austria.
- International workshop on genetics and molecular biology of aquatic organisms. 26-30 September 2005 at Artemia and Aquatic Organisms Research Center, University of Urmia Iran.

SYMPOSIUM ATTENDED

- 5th PhD symposium. 28-29 June, 2009 at AKH/Medical University Vienna, Austria.
- 4th PhD symposium. 28-29 June, 2008 at AKH/Medical University Vienna, Austria.
- 3rd PhD symposium. 21-22 June, 2007 at AKH/Medical University Vienna, Austria.
- 2nd PhD symposium. 22-23 June, 2006 at AKH/Medical University Vienna, Austria.
- International Opening Symposium Cluster for Tissue Regeneration. 19th April 2007 at AUVA Lorenz Böhler Trauma Center, Donaueschingenstraße 13, 1200 Vienna, Austria. International Cancer Vaccine Symposium. 12-14 April, 2007 at Austrian Academy of Sciences. Dr. Ignaz Seipel Platz 2, 1010 Vienna, Austria.
- Genetic testing in malignancy and neoplastic diseases. 6th June 2015 at Multan Medical and Dental College (MMDC) Multan, Pakistan.

POSTER PRESENTATION

- Microemulsion-based synthesis of strontium hexaferrite cobalt iron oxide nanoparticles and their biocompatibility in albino mice agriculture held on 23-25th November 2018 at Nishter Medical University and Hospital Multan, Pakistan.
- Association of XRCC1 (194, 280 and 399) and XPD (751) Polymorphisms with Acute Coronary Artery Syndrome presented at conference on application of molecular biology in medicine and agriculture held on 20-22 August 2013 at National Center of Physics, Quaid-i-Azam University Islamabad, Pakistan.
- A study on the determination of risk factors associated with babesiosis and prevalence of *Babesia* sp., by PCR amplification in small ruminants from Southern Punjab (Pakistan) presented at conference on application of molecular biology in medicine and agriculture held on 20-22 August 2013 at National Center of Physics, Quaid-i-Azam University Islamabad, Pakistan.
- A study on the prevalence of a tick-transmitted pathogen, *Theileria annulata,* and hematological profile of cattle from Southern Punjab (Pakistan) presented at conference on application of molecular biology in medicine and agriculture held on 20-22 August 2013 at National Center of Physics, Quaid-i-Azam University Islamabad, Pakistan.
- A Denaturing High Performance Liquid Chromatography (DHPLC) method for the molecular analysis of Biotinidase deficiency. Presented at 49th annual short course of Mammalian Genetics at Bar Harbor, Maine (U.S.A.)
- A Denaturing High Performance Liquid Chromatography (DHPLC) method for the molecular analysis of Biotinidase deficiency. Presented at 4th PhD symposium. 28-29 June, 2008 at AKH/Medical University Vienna, Austria.
- Neuroprotective role of creatine defined in mouse model for Guanidinoacetate N-Methyltransferase (GAMT) deficiency following perinatal asphyxia. Presented at 3rd PhD symposium. 20-21 June, 2007 at AKH/Medical University Vienna, Austria.

GENBANK SUBMISSIONS (Accession Numbers)

- ***Acinetobacter baumannii.*** PQ562428, PQ562429
- ***Anaplasma capra***: PQ559825-27

- ***Anaplasma centrale**:* MN653235
  - ***Anaplasma marginale*** OR886354-56. OQ571895-96, OQ116926-28, MW759701-04, MZ666879-81, MW303431-34, MT603500-02, MN867482-83, MN931647-49, MN922934-26, MK792343-46, MK032842-43, , PQ562436-39.
  - ***Anaplasma ovis***: OR947204.1-OR947207.1, OR714541-43, OP620757-59, OP978206-10, OP225957-59, PQ553182, PQ553183.
- ***Babesia gibsoni*** KU168833
  Babesia microti: PP732639-45, KY709689-90, MF401440-41, PQ474400, PQ474401, PQ538588-91.
- ***Brucella melitensis***: PP484551-53
- ***Babesia ovis***: OR855990-91.
- ***Bartonella* sp**. OR689862
- ***Hepatozoon canis:*** KT955848, ku535868-71, PQ012559-62, PQ569153-58.
- ***Hepatozoon ophisauri***: OR976039-41.
- ***Hepatozoon* sp**: OR921620-23, OR818015-16, OR717488
- **Human *CFAP57* mRNA**: NM_001378189.1
- **Human *FANCM* mRNA** NM_020937.4, NM_001308133.1, NM_001308134.1
- **Human *GDAP1* mRNA**: NM_001040875.4, NM_001362929.2- NM_001362932.2.
- **Human *MATN3* mRNA**. NM_002381.5
- **Human *MFN2* mRNA** NM_014874.4, NM_001127660.2.
- **Human *MYO7A* mRNA:** NM_000260, NM_001127180, NM_001369365.
- **Human *POU3F4* mRNA**: NM_000307.5
- **Human *TECTA* mRNA:** NM_005422.4
- **Isospora sp**. OR743624.1, PQ312710
- ***Lankesterella* sp**. PP544154.1, PP541577.1, OR933561.1- OR933562.1, OR818017-19,
- **Moniezia expansa** PQ009197- PQ009203
- ***Mus musculus** Cfap57* mRNA, NM_026789.5.
- ***Mus musculus Fancm* mRNA** NM_178912.4, NM_001364447.1
- ***Mus musculus Npat* mRNA:** NM_001081152.1
- ***Mycoplasma haemofelis***: KY709688.1
- ***Penicillium* sp**. OR898808
- ***Plasmodium relictum:*** OR725031.1
- ***Pseudomonas* sp**.: OR898807
- ***Theileria annulata:*** OQ469840-42, MW412253-55, MZ062434-37, MW354912-15, MK792347-48,
- ***Theileria lestoquardi***: PP710440-42, MZ541893-94, MK032844-46,

Theileria ovis: OR875857-59, OQ268246-47, OK094460-62, MZ648443-45, MT498782-84, MN922939-40, PQ836082-84, PQ836114-16.

- ***Toxoplasma gondii:*** PP033150, PP033151-54, OR797081-84, OR791657, OR761965-66, OR727855-59, OL461228-29, MW885249-51, MW374089-90, MW374093-94, PQ587289-91, PQ640578-92, PQ640590-92,

RESEARCH GRANTS

No	Project Title	Funding Authority	Amount of Grant
1	A study on the prevalence of a tick transmitted pathogen, *Theileria* sp., in cattle from Southern Punjab in Pakistan by Polymerase Chain Reaction amplification. (Prinicpal Investigator)	Bahauddin Zakariya University Multan, Pakistan (2009-10)	Rs. 97,000/-
2	Determination of prevalence and risk factors of infection with Babesia in small rumminants from Southern Punjab in Pakistan by Polymerase Chain Reaction amplification (Co-Prinicpal Investigator)	Bahauddin Zakariya University Multan, Pakistan (2009-2010)	Rs. 97,000/-

3	A comparative study regarding the detection of hemoparasite, *Anaplasma sp*. Through Polymerase Chain Reacction (PCR) in buffalloes from two provinces Punjab and Khyber Pakhtoon Khwa (KPK) and its association with the risk factor associated with the spread of Anaplasmosis (Prinicpal Investigator)	Bahauddin Zakariya University Multan, Pakistan (2011-12)	Rs. 80,000/-
4	Molecular basis and mechanisms underlying human spermatocyte developmental arrest (Prinicpal Investigator)	The Fundamental Research Funds for the Central Universities, China Grant Number WK2070000053 (2015-16)	RMB 1, 20, 000/- (RS. 18,89,937/-) 1RMB = 15.75 RS
5	Molecular basis and mechanisms underlying human spermatocyte developmental arrest (Prinicpal Investigator)	National Natural Science Foundation China. Grant Number 31571555 (2015-18)	RMB 7, 20, 000/- (RS. 113,39,574/-) 1RMB = 15.75 RS
6	Molecular Detection of *Anaplasma* spp. in cat (*Felis catus)* blood samples from Punjab. (Prinicpal Investigator)	Bahauddin Zakariya University Multan, Pakistan (2015-16)	Rs. 1,46,330/-
7	Genetic and Molecular Basis of Dwarfism in Families Collected from Southern Punjab (Prinicpal Investigator)	Bahauddin Zakariya University Multan, Pakistan (2017-18)	Rs. 1,50,000/-
8	A study on molecular detection of *Anaplasma marginale* and *Anaplasma centrale* in blood samples of Cattle collected on seasonal basis from District Layyah in Punjab (Pakistan)	Bahauddin Zakariya University Multan, Pakistan (2018-19)	Rs. 1,50,000/-

PH D SCHOLARS SUPERVISED (N = 27)
(Name of scholar, Ph D defense date, Title of the thesis)

Ph D in Zoology
FROM INSTITUTE OF ZOOLOGY, B. Z. UNIVERSITY MULTAN (N = 20)

1. **Dr. Shahid Iqbal**. 20-02-2015- Effect of creatine supplementation on learning, memory formation and brain histology in male albino mouse following right common carotid ligation and hypoxic insult. (HEC Indigenous Ph D Scholarship)
2. **Dr. Shazia Qadir**. 17-08-2015. Effect of imidacloprid exposure on the histology of selected vital organs, hematology and serum biochemistry profile of *Labeo rohita*. (HEC Indigenous Ph D Scholarship)
3. **Dr. Razia Allahyar**. 17-08-2015. Creatine monohydrate as a neuroprotective agent in female albino mouse following neonatal hypoxia ischemia encephalopathy. (HEC Indigenous Ph D Scholarship)
4. **Dr. Qurat Ul Ane Gillani**. 21-08-2015. Effect of $GABA_B$ receptor antagonists (CGP family) on learning and memory formation in albino mouse following neonatal hypoxia ischemia. (HEC Indigenous Ph D Scholarship)
5. **Dr**. **Muhammad Latif**. 15-02-2016. Biology and body composition of *channa marulius* (soul) from two natural habitats of Pakistan**.** (HEC Indigenous Ph D Scholarship)
6. **Dr. Sajjad Hussain**. 28-09-2016. Assessment and conservation of aquatic biodiversity of Suleman mountain range, Dera Ghazi Khan (Pakistan) with special emphasis on Ichthyofauna.
7. **Dr. Asmat Ullah**. 20-10-2017. Do variable doses of *Bauhinia variegata* affect the blood biochemistry and behavior of adult albino mice?

8. **Dr. Muhammad Riaz Ul Haq Ramay**. 21-06-2019. Effect of Diafenthiuron exposure on the histology of selected vital organs, hematology and serum biochemical profile of a non target organism, *Labeo rohita*
9. **Dr. Muhammad Nazar Aftab**. 24-06-2020. Effect of variable doses of Lanthanum Zirconate (nano particles) on selected behavioral and hematobiochemical parameters of adult albino mice.
10. **Dr. Saima Mustafa**. 11-03-2021. Molecular and genetic insights of human dwarfism in affected families collected from Pakistan.
11. **Dr. Irum Naz Akram**. 05-04-2021. Effect of Lanthanum Titanate (nanoparticles) for variable duration on behavior and physiology of albino mice in a gender specific manner.
12. **Dr. Tafheem Khosa.** 12-08-2022. Effect of Variable dose of Neodymium Zirconate Zinc sulfide ($Nd_2Zr_2O_7$) nanoparticle on behavioral tests, selected parameters of blood and antioxidants from liver and brain of albino mice in a gender specific manner.
13. **Malik Fiaz Hussain**. 01-06-2023. Effect of variable doses of Nickel oxide nano particles on behavior, blood biochemistry and antioxidants from vital organs of albino mice in a gender specific manner.
14. **Sehrish Ashraf.** 08-06-2023. A study on molecular detection, seasonal prevalence and phylogenetic evaluation of *Anaplasma marginale* and *Anaplasma centrale* in blood samples of Cattle collected on seasonal basis from District Layyah in Punjab (Pakistan)
15. **Asia Parveen.** 08-06-2023. Molecular detection and genetic diversity of *Theileria annulata* in blood samples of cattle collected from three Districts in Punjab (Pakistan).
16. **Ghafoor Ahmad**. 01-08-2025. Molecular detection and prevalence of *Toxoplasma gondii* and *Plasmodium* sp. in wild and farmed common quail (*Coturnix coturnix*) collected from different locations in Punjab, Pakistan.
17. **Maryam Ijaz.** 07-08-2025**.** The prevalence of *Hepatozoon* spp. and *Toxoplasma gondii* in members of family Muridae and the phylogenetic analysis of parasite species.
18. **Asia Taqddus.** 07-08-2025. Prevalence of tick borne pathogens, *Anaplasma ovis* and *Babesia ovis*, in goat blood samples collected from four districts in Punjab (Pakistan).
19. **Mubashra Salim.** 12-08-2025. The prevalence and phylogenetic analysis of *Hepatozoon spp.* and *Toxoplasma gondii* found in Family Ranidae and Bufonidae along with life mode of parasites.
20. **Madiha Rasool**. 16-10-2026. Genetic diversity of vector borne parasites in blood sample of dogs collected from various geo-climatic areas in Pakistan.

FROM ZOOLOGY DEPARTMENT, ISLAMIA UNIVERSITY BAHAWALPUR (N = 3)

1. **Muhammad Ali**. 09-01-2025. Molecular detection and prevalence of *Babesia microti* and *Ehrlichia canis* in the blood samples of dogs collected from various areas in Pakistan.
2. **Babar Ali**. 21-10-2025. Molecular detection, phylogeny and seasonal prevalence of *Babesia bovis* and Brucella spp., in the cattle blood samples collected from Multan District in Punjab (Pakistan).
3. **Ardas Masood**. 13-11-2025. Molecular detection and prevalence of *Neospora caninum* and *Hepatozoon* spp. in wild and farmed common quail (*Coturnix coturnix*) captured from Punjab, Pakistan

PH D IN BIOTECHNOLOGY, B. Z. UNIVERSITY MULTAN (N = 3)

1. **Dr. Mureed Hussain**. 09-05-2016. A molecular and serological approach for the detection of *Trypanosoma* sp. in blood samples of equines and camel from Southern Punjab (Pakistan). (HEC Indigenous Ph D Scholarship)
2. **Dr. Zaka Saeed.** 09-05-2016. A Comparative Study to Determine the Prevalence of *Theileria annulata* in Blood Samples of Cattle from Southern Punjab and their Correlation with Haematobiochemical Profile. (HEC Indigenous Ph D Scholarship)
3. **Dr. Muhammad Irfan**. 01-08-2025. Molecular characterization of *Theileria spp.* in goat blood samples collected from Punjab, Pakistan.

PH D IN CHEMISTRY, B. Z. UNIVERSITY MULTAN (N = 1)

1. **Dr. Jawaria Zahra.** 14-06-2021. Synthesis Characterization of Zinc Oxide, Silver and Platinum nanoparticles and studies on their biocompatibility in albino mice.

PhD SCHOLARS UNDER SUPERVISION

(Name of scholar, Department, Title of the thesis)

- **Qandeel Fatima**. Molecular detection and Phylogenetic Insights of piroplasms in equine blood samples collected from Punjab and Khyber Pakhtunkhwa Provinces of Pakistan
- **Khuzaima Dawood**. *Borrelia* spp. in domestic animals and sommon quail: Molecular evidence from diverse Pakistani landscapes
- **Farkhanda Zaib**. WUM. Diversity and pathogen carriage of hard ticks infesting livestock in Punjab and Khyber Pakhtunkhwa
- **Javeria Hanif.** IUB. Molecular epidemiology and genetic diversity of bacterial pathogens infecting wild rodents in Punjab, Pakistan.

M.PHIL STUDENTS SUPERVISED (N = 158)
(Name of scholar, Session, Title of thesis)

FROM ZOOLOGY DEPARTMENT, B. Z. UNIVERSITY MULTAN (N = 102)

1. **Sadia Shahnawaz.** 2008-10. A study on the prevalence of a tick transmitted pathogen, *Theileria* sp., in cattle from Southern Punjab in Pakistan by Polymerase Chain Reaction amplification
2. **Samreen Zulfiqar.** 2008-10. Determination of prevalence and risk factors of infection with *Babesia* in cattle from Southern Punjab in Pakistan by Polymerase Chain Reaction amplification
3. **Mamoona Faryal.** 2009-11. A Study on the Association of Single Nucleotide Polymorphisms in DNA Repair genes, XRCC1 and XPD, with Risk of Acute Coronary Artery Syndrome
4. **Hafsa Hameed.** 2009-11. Association of XRCC1 (DNA Repair Gene) Polymorphisms (XRCC1 280 and 399) with Acute Coronary Artery Disease
5. **Rabia Bukhari.** 2009-11. Effect of long and short term exposure of Imidacloprid on the body composition parameters of *Labeo rohita*
6. **Asia Taqddus.** 2009-11. Association of Endothelial Nitric Oxide Synthase (*NOS*) gene polymorphism with Coronary artery disease in Multan (Pakistan)
7. **Qurat ul Ain Ashraf**. 2010-12. A comparative study regarding the detection of blood parasite, Anaplasma sp. through Polymerase Chain Reacction (PCR) in buffalloes from two provinces Punjab and Khyber Pakhtoon Khwa (KPK) and association of various risk factor with the spread of anaplasmosis
8. **Nabia Nazir**. 2010-12. Effect of hypoxia-ischemia stress and GABA receptor antagonist supplementation on the hematological and serum biochemical profile in albino mice.
9. **Nasreen Khadim**. 2010-12. Effect of creatine monohydrate supplementation on various blood parameters in male albino mice following hypoxia ischemia insult.
10. **Sumaira Anjum**. 2010-12. Effect of heavy metal on the hematological and serum biochemical profile of Grass Carp (*Ctenopharyngodon idella*)
11. **Sehrish Ashraf**. 2011-13. Can GABAB receptor antagonist (CGP 55845) supplementation improves the learning in adult male albino mice?
12. **Asia Parveen**. 2011-13. Effect of CGP 55845, GABAB receptor antagonist, supplementation on learning, exploratory behavior and neuromuscular coordination in female albino mice?
13. **Samina**. 2011-13. Effect of GABAB receptor antagonist (CGP 55845) on the hematological and serum biochemical profile of adult female albino mice.
14. **Rabia Qureshi**. 2011-13. Effect of GABAB receptor antagonist (CGP 55845) on the hematological and serum biochemical profile of adult male albino mice.
15. **Faiza Iftekhar**. 2011-13. PCR-RFLP based detection of *Anaplasma* sp. in equine samples from Southern Punjab.
16. **Nukhba Arooj.** 2012-14. Association of *XRCC1* (DNA Repair Gene) Polymorphisms (280 and 399) with cataract in Southern Punjab Population.
17. **Tafheem Khosa.** 2012-14. A Study on the Association of Single Nucleotide Polymorphisms in DNA Repair genes, *XRCC1* and *XPD*, with cataract, a common eye disease in Southern Punjab.
18. **Sadia Fatima.** 2012-14. Effect of variable doses of *Ocimum basilicum* leaf extract on neurological output in male albino mice suffering from $AlCl_3$ induced Aizheimer disease.
19. **Saima Mustafa.** 2012-14. Association of single nucleotide polymorphisms in CD 40 gene with Grave's disease.
20. **Parsa Riaz. 2014-16.** A PCR-RFLP based detection of *Anaplasma* spp. and its seasonal prevalence in blood samples of horses from southern Punjab

21. **Irum Naz Akram. 2014-16.** Molecular detection of *Babesia microti* in blood samples of dogs collected from three cities in Punjab.
22. **Karam Sher. 2014-16.** Detection of *Anaplasma sp*. and its effect on blood chemistry of camels from Southern Punjab.
23. **Fizaa Ibrahim Bajwa. 2014-16.** Genetic basis of Alopecia in three consanguineous families from Southern Punjab.
24. **Muhammad Bilal. 2014-16.** A report on the PCR based detection of *Anaplasma phagocytophilum* in camel blood samples collected from Dera Ghazi Khan district in Southern Punjab.
25. **Amjad Nadeem. 2014-16.** Effect of Holmium Zirconate Zinc Sulphide nano particles on selected aspect of male albino mice behavior.
26. Aqsa Abrar. 2014-16. Molecular detection of *Anaplasma phagocytophilum and Ehrlichia canis* in blood samples of cats collected from Lahore.
27. **Tahira Parveen. 2014-16.** Molecular detection of *Babesia microti* in cat blood samples collected from Lahore, Punjab.
28. **Hifza Irum. 2014-16.** PCR based amplification of *msp2* gene for the detection of *Anaplasma phagocytophilum* in blood samples of donkeys collected from Dera Ghazi Khan district in Southern Punjab.
29. Aneela Kanwal. 2014-16. Molecular detection of *Anaplasma phagocytophilum* in blood samples of dogs collected from three cities in Punjab and effect of parasite on hematological profile of infected dogs.
30. Asher Azeem. 2015-17. Effect of variable doses of Diafenthiuron on the hematological profile of a non target organism; Grass carp (*Ctenopharyngodon idella*).
31. Ahmad Hassan. 2015-17. Effect of Hexaferrite Strontium Cobalt Iron Oxide (Nano material) on selected aspect of male albino mice behavior.
32. Sehrish Saba. 2015-17. Effect of 50 mg/ Kg body weight of Hexaferrite Strontium Cobalt Iron Oxide (Nano material) on hematological profile of female albino mice behavior.
33. Hafsa Noureen. 2015-17. Effect of intraperitoneal Holmium Zirconate Zinc Sulphide (Nano particles) injection on selected aspect of female albino mice behavior.
34. Sauma Rahman. 2015-17. Do 50 mg/Kg body weight of Hexaferrite strontium Cobalt Iron Oxide (Nano material) influence the behavior of female albino mice.
35. Sana Akhtar. 2015-17. Effect of 50 mg/ Kg body weight of Hexaferrite Strontium Cobalt Iron Oxide (Nano material) on hematological profile of male albino mice.
36. Asma Hassan. 2016-18. Molecular detection of various vector borne blood parasites in African lion *(Panthera leo)*: A pioneer study in Pakistan.
37. Zahida Sardar. 2016-18. Effect of oral supplementation of Lanthnum Titanate nanoparticles on the antioxidant metabolites from vital organs of male albino mice.
38. Aasia Noreen. 2016-18. Effect of 50mg/ml of solvent/Kg of body weight Lanthnum Titanate nanoparticles on the antioxidant metabolites from vital organs of female albino mice.
39. Iram Bashir. 2016-18. Exposure to variable doses of Lanthnum Zirconate nanoparticles affects the antioxidant metabolites from vital organs of male albino mice.
40. Omaira Ibrahim. 2016-18. Molecular detection of *Candidatus Mycoplasma haemominutum* and Anaplasma spp. in blood samples of cats collected from Lahore.
41. Syeda Qandeel Zahra. 2016-18. Effect to variable doses of Lanthnum Zirconate nanoparticles on the antioxidant metabolites from heart, liver, kidney and lungs of male albino mice.
42. Maryam Nasir Khan. 2017-19. Effect of intraperitoneal injection of Selenium nano particles on complete blood count and selected serum parameters of female albino mice.
43. **Mubashra Salim. 2017-19.** Effect of 50mg/ml of solvent/Kg body weight of intraperitoneally injected Selenium nano particles on selected aspects of behavior in male albino mice.
44. Gul Muhammad. 2017-19. Effect of 50mg/ml of solvent/Kg of body weight of Selenium nano particles on the antioxidant metabolites from vital organs of female albino mice.
45. Maria Shahzeen. 2017-19. Effect of Selenium nano particles exposure on complete blood count and selected serum parameters of male albino mice under sub acute experimental conditions.
46. Rimsha Tariq. 2017-19. Effect of Selenium nano particles on selected aspects of behavior in female albino mice following sub acute intraperitoneal exposure.
47. Ghulam Shabber. 2017-19. Effect intraperitoneal injection of Selenium nano particles on the antioxidant metabolites from heart, liver, kidney and lungs of male albino mice.
48. Syeda Zahra Batool Naqvi. 2018-20. Molecular detection of *Anaplasma central* in the blood samples of cattle collected from Dunyapur and surroundings in District Lodhran.

49. Sadia Mumtaz. 2018-20. Association of single nucleotide polymorphisms in *GSTP1* and *MUTYH* with the incidence colorectal cancer in subjects enrolled from Multan.

50. Naheed Akhtar. 2018-20. Amplification of Cytochrome b gene for the molecular detection of *Theileria annulata* in blood samples of cattle collected from Lodhran District in Southern Punjab.

51. Maryam Ijaz. 2018-20. A study on the association of rs 3813865 in CYP2E1 and rs 1799883 in FABP2 single nucleotide polymorphisms with the incidence colorectal cancer in subjects enrolled from MINAR Multan.

52. Muhammad Amjad. 2018-20. Amplification of 30-kDa gene for the molecular detection of *Babesia bovis* in blood samples of cattle collected from Lodhran District in Southern Punjab.

53. Shahzadi Noor Ul Ain Zafar. 2018-20. Polymerase chain reaction based amplification of Major surface protein–1b encoding gene for the molecular detection of *Anaplasma marginale* in blood samples of cattle collected from Lodhran District.

54. **Rehmat Ullah. 2020-22**. Association of single nucleotide polymorphism (rs1695) in *GSTP1* with the incidence of acne vulgaris in subjects enrolled from Southern Punjab: A case-control study.

55. **Muhammad Sheraz. 2020-22.** Association of single nucleotide polymorphism in heat stress protein 70 (*HSP70*) of sheep enrolled from Rajanpur District with their susceptibility to haemoparasitic infection.

56. **Sania Jamil. Regular 2021-23.** Amplification of *Tams-1* gene for the molecular detection of *Theileria annulata* infecting cattle in Bajaur District of Khyber Pakhtonkhwa Province.

57. **Bisma Shafeeq. Regular 2021-23**. PCR based detection of *Anaplasma marginale* by targeting their *MSP5* gene in the blood samples of camels collected from district Muzaffargarh and Layyah.

58. **Muhammad Sajid. Regular 2021-23**. First report regarding the molecular detection of *Trypanosoma* spp. in the blood samples of sheep collected from Dera Ghazi Khan District in Punjab (Pakistan).

59. **Muhammad Saad Un Nabi. Regular 2021-23**. Molecular detection of *Theileria annulata* in blood samples of buffaloes collected from Punjab.

60. **Sana. Weekend 2021-23.** Molecular detection of *Anaplasma marginale* in blood samples of buffaloes collected from four districts in Punjab.

61. **Hafsa. Weekend 2021-23**. Molecular detection and prevalence of *Trypanosoma* spp. infecting cattle in Bajaur District of Khyber Pakhtonkhwa Province.

62. **Qandeel Fatima**. **Weekend 2021-23**. Amplification of *msp5* gene for the molecular detection of *Anaplasma marginale* infecting cattle in Bajaur District of Khyber Pakhtonkhwa Province.

63. **Ghulam Murtaza**. **Weekend 2021-23**. PCR based detection of *Trypanosoma* spp. in the blood samples of camels collected from district Muzaffargarh and Layyah.

64. **Umme Habiba (Regular 2022-24)** PCR based detection of *Leucocytozoon* spp. in the blood samples of Aseel chicken collected from various cities in Punjab.

65. **Muqaddas Nawaz (Regular 2022-24)** Molecular detection of blood borne parasites in the yaks enrolled from Gilgit−Baltistan region in Pakistan.

66. **Abdul Ghafar (Regular 2022-24).** Amplification of *msp4* gene for the molecular detection of *Anaplasma ovis* in wild rodents.

67. **Maira Faiz (Weekend 2022-24)** Molecular detection of *Haemoproteus* in blood samples of wild rodents collected from Saudi Arabia.

68. **Mustansar Khalid (Weekend 2022-24)** Molecular detection of *Haemoproteus* spp. in the blood samples of wild lizards collected from Khyber Pakhtunkhwa Province.

69. **Muhammad Naeem (Weekend 2022-24)** Amplification of 18S rDNA gene for the molecular detection of *Hepatozoon* spp. in *Amblyomma gervaisi* ticks infecting Monitor lizards from Khyber Pakhtunkhwa Province.

70. **Anees ur Rehman (Weekend 2022-24)** PCR based detection of *Toxoplasma gondii* in the blood samples of Asil chicken collected from various areas in Punjab.

71. **Areej Fatima** (**Regular 2023-25**) PCR based amplification of *msp4* gene of *Anaplasma ovis* among the dogs enrolled from various districts in Punjab.

72. **Arfa Bibi** (**Regular 2023-25**). Molecular detection of *Mycoplasma* and *Bartonella* species among the DNA of ticks infesting dogs in Punjab and Khyber Pakhtunkhwa provinces.

73. **Iqra Murtaza** (**Regular 2023-25**) PCR based amplification of cytochrome b gene of *Theileria annulata* in donkeys enrolled from nine districts in Punjab.

74. **Sumaira** (**Regular 2023-25**) PCR based detection of *Anaplasma capra* in goats enrolled from three districts in Southern Punjab.

75. **Amir Hussain** (**Regular 2023-25**) PCR based amplification of 18S rRNA gene for the detection of *Hepatozoon* spp. in donkey blood samples collected from nine districts in Punjab.

76. **Asma Adrees** (**Regular 2023-25**) Association of single nucleotide polymorphisms, rs1695, in *GSTP1*gene with the incidence of chronic obstructive pulmonary disease in subjects enrolled from Multan.

77. **Aliya Muqaddas** (**Regular 2023-25**) Molecular detection of *Acinetobacter baumannii* and *Bartonella* spp. in the DNA of head lices collected from human subjects in Punjab and Khyber Pakhtunkhwa provinces.

78. **Arooj Ijaz** (**Weekend 2023-25**) Molecular prevalence of *Anaplasma capra* in the sheep blood samples collected from various regions in Punjab.

79. **Hafiza Misbah Munir** (**Weekend 2023-25**) Molecular detection and risk factors associated with *Babesia microti* in wild rodents from Pakistan.

80. **Abuzar Gulzar** (**Weekend 2023-25**) Molecular detection of *Rickettsia* spp. in the blood samples of dogs collect from Punjab Province.

81. **Fatima Mushtaq** (**Weekend 2023-25**) PCR based amplification of *ITS-1* gene for the detection of *Toxoplasma gondii* in the blood samples of birds enrolled from Sargodha and Chakwal districts in Punjab.

82. **Muhammad Ammar Ameen** (**Weekend 2023-25**) Molecular detection of *Toxoplasma gondii* in the DNA of *Amblyomma gervaisi* ticks infecting Monitor lizards from Khyber Pakhtunkhwa Province.

83. **Habib Ur Rehman** (**Weekend 2023-25**) PCR based amplification of *msp1b* gene of *Anaplasma marginale* in donkeys enrolled from various districts in Punjab.

84. **Hafiza Amna Bilal** (**Weekend 2023-25**) PCR based prevalence of *Hepatozoon canis* in the DNA of ticks collected from dogs in Punjab and Khyber Pakhtunkhwa provinces.

85. **Saba Shakoor** (**Regular 2024-26**) Association of single nucleotide polymorphism, rs8099917 in *IL28B* gene with the incidence of ischemic stroke in subjects enrolled from Multan: a case control study.

86. **Wajiha Shahzadi** (**Regular 2024-26**). Molecular detection of *Theileria ovis* in sheep blood samples that were collected from six districts in Punjab.

87. **Muhammad Ali** (**Regular 2024-26**) PCR based amplification of *18S rRNA* gene of *Theileria ovis* in the blood samples of dogs collected from Charsadda district in Khyber Pakhtunkhwa.

88. **Laiba Sahar** (**Regular 2024-26**) PCR based detection of *Mycoplasma haemofelis* in dog blood samples collected from Charsadda district in Khyber Pakhtunkhwa.

89. **Tahia Yasmeen** (**Regular 2024-26**). PCR based amplification of *18S rRNA* gene of *Theilerria ovis* in the blood samples of dogs collected from five districts in Punjab.

90. **Nimra Nawaz** (**Regular 2024-26**) PCR based amplification of 30KDa merozoite surface antigen protein gene for the molecular detection of *Theileria annulata* in buffalo blood samples collected from Bahawalnagar district in Punjab.

91. **Muneer Rehman** (**Regular 2024-26**) PCR based amplification of *msp4* gene for the molecular detection of *Anaplasma ovis* in goat blood samples that were collected from three districts in Punjab.

92. **Maryam Sehar Khan** (**Regular 2024-26**) Association of single nucleotide polymorphism, rs1800472 in *TGFB1* gene with the incidence of chronic obstructive pulmonary disease in subjects enrolled from Multan: a case control study.

93. **Nimra Ashraf (Regular 2024-26).** PCR based amplification of *cytochrome b* gene of *Theileria annulata* in sheep blood samples enrolled from six districts in Punjab.

94. **Fakiha Tur Rehman** (**Weekend 2024-26**) Molecular prevalence of *Anaplasma ovis* in cat blood samples collected from Lower Dir and Buner districts in Khyber Pakhtunkhwa.

95. **Memoona Ahmad** (**Weekend 2024-26**) Molecular detection of *Toxoplasma gondii* in dog blood samples collected from Charsadda district in Khyber Pakhtunkhwa.

96. **Maryam Sheikh** (**Weekend 2024-26**) PCR based amplification of *ITS-1* gene for the molecular detection of *Toxoplasma gondii* in horse blood samples collected from Upper Dir, Lower Dir and Swat districts in Khyber Pakhtunkhwa.

97. **Mehvish Rashid** (**Weekend 2024-26**) Molecular detection of *Trypanosoma* spp. in dog blood samples collected from Charsadda district in Khyber Pakhtunkhwa Province.

98. **Kaynat Akber** (**Weekend 2024-26**) PCR based amplification of 30KDa merozoite surface antigen protein gene for the molecular detection of *Theileria annulata* in dog blood samples collected from Charsadda district in Khyber Pakhtunkhwa Province.

99. **Maria Laila** (**Weekend 2024-26**) Molecular detection and risk factors associated with *Theileria equi* infection in donkeys enrolled from upper and lower Dir districts in in Khyber Pakhtunkhwa.

100. **Maria Noor** (**Weekend 2024-26**) PCR based amplification of *msp1b* gene for the molecular detection of *Anaplasma marginale* in buffalo blood samples collected from Haroonabad in district Bahawalnagar.

101. **Moona Rubab.** (**Weekend 2024-26**). PCR based amplification of *18S rRNA* gene of *Hepatozoon* sp. in mule blood samples collected from upper and lower Dir districts in Khyber Pakhtunkhwa

102. **Arooba Hussain.** (**Weekend 2024-26**) Molecular prevalence of *Anaplasma marginale* and *Theileria annulata* in blood samples of donkeys collected from two districts in Khyber Pakhtunkhwa.

FROM IMBB, B. Z. UNIVERSITY MULTAN (N = 2)

1. Sobia Durrani. 2012-14. Role of EZRIN Polymorphisms in age related cataract: A case control study in Southern Punjab, Pakistan.
2. Madiha Fatima. 2012-14. Relationship of PCSK9 and MTRR variants with myocardial infarction in Southern Punjab population of Pakistan

FROM ZOOLOGY DEPARTMENT, GOMAL UNIVERSITY D. I. KHAN (N = 1)

1. Mushtaq Zahid. 2012-14. Effect of *Pongamia pinnata* and *Eucalyptus camaldulensis* leaf extract supplementation on various serological parameters in male albino mice.

FROM ZOOLOGY DEPARTMENT, HAZARA UNIVERSITY MANSEHRA (N = 3)

1. Muhammad Jahangir. 2013-15. Effects of *Bauhinia variegata* leaf extract on selected behavioral aspects of adult female albino mice.
2. Ahmad Sadiq. 2013-15. Evaluation of hormonal factors responsible for male fertility in the selected families.
3. Usman Khattak. 2014-16.

FROM BIOCHEMISTRY DEPARTMENT, B. Z. UNIVERSITY MULTAN (N = 4)

1. Aqsa Muneer. 2014-16. Behavioral and antioxidant effects of *Musa sapientum* L following noise stress in mice.
2. Misbah Javed. 2015-17. Effect of variable doses of *Diafenthiuron* on lipid and antioxidant profile of juvenile Grass Carp (*Ctenopharyngodon idella*).
3. Sana Shafiq. 2015-17. Effect of Holmium Zicronate Zinc Sulphide on hematological, lipid and antioxidant profile of male Albino mice.
4. Samia Yousuf. 2015-17. Effect of Holmium Zicronate Zinc Sulphide on hematological, lipid and antioxidant profile of female Albino mice.

FROM ZOOLOGY DEPARTMENT, GHAZI UNIVERSITY D. G. KHAN (N = 23)
1. **Qurat Ul Ain. 2019-21**. Molecular detection and prevalence of *Theileria lestoquardi* in blood samples of sheep collected from Rajanpur district in Punjab, Pakistan
2. **Muhammad Tanveer**. **2019-21**. Molecular detection of *Anaplasma marginale* in the blood samples of sheep collected from Rajanpur district in Rajanpur , Pakistan
3. Muhammad Amjad. 2019-21. Molecular detection and prevalence of *Theileria ovis* in blood samples of sheep collected from district Rajanpur in Punjab, Pakistan.
4. Muhammad Kashif. 2019-21. Prevalence of tick borne pathogens in the blood samples of sheep collected from Rajanpur district in Punjab, Pakistan.
5. **Farwa Batool. 2020-22.** Association of single nucleotide polymorphisms (rs1695) in *GSTP1* gene with the incidence of Rheumatoid Arthritis in subjects enrolled from Southern Punjab: A case-control study.
6. **Saba Jan. 2020-22.** Associations of single nucleotide polymorphisms *rs*700519 in *CYP19A1* gene with Acne Vulgaris in subjects enrolled from Dera Ghazi Khan District.
7. **Fakhur ud Din. 2020-22.** Genotype and allelic frequency at single nucleotide polymorphism at 7390 T > G in heat stress protein 90 (*HSP90*) of sheep enrolled from Rajanpur District and their susceptibility to haemoparasitic infection.
8. **Sher Afgan**. **2020-22.** Comparison of markers of oxidative stress from the vital organs of wild male and female mice (*Mus musculus*) trapped from various locations in Jampur city.
9. **Muhammad Naeem**. **2020-22.** Comparison of markers of oxidative stress from the liver and complete blood count parameters between the wild male and female mice (*Mus musculus*) trapped from various locations in Jampur city.

10. **Suleman Saeed (GU. 2021-23).** Molecular detection and prevalence of *Anaplasma ovis* in blood samples of small ruminants collected from district Dera Ghazi Khan in Punjab, Pakistan

11. **Muhammad Arif (GU. 2021-23)** A PCR based detection of *Theileria ovis* in the blood samples of sheep and goat collected from a hill station (Fort Manru) in Southern Punjab.

12. **Ahsan Bashir (GU. 2021-23)** Detection of *Anaplasma marginale* in the blood samples of sheep and goat by targeting the major surface protein–1b encoding gene of bacterium through PCR

13. **Kainat Arshad (GU. 2021-23)** Association of presence or absence of *GSTTI* and *GSTM1* with the chronic periodontal disease in the subjects enrolled from Dera Ghazi Khan district

14. **Muhammad Umair (GU. 2021-23)** Sex specific effects on complete blood count parameters and comparison of oxidative stress (markers) in kidney and stomach of wild rats (*Rattus rattus*)

15. **Sonia Mumtaz (GU. 2021-23)** Sex Specific Morphometric Characters and Comparison of Oxidative Stress Markers in Liver of wild rats (*Rattus rattus*) from Dera Ghazi Khan

16. **Javaid Iqbal (GU. 2021-23)** Molecular detection and prevalence of *Theileria lestoquardi* in blood samples of sheep & goat from Fort Munro, District Dg Khan, Pakistan.

17. **Muhammad Abrar (GU. 2021-23)** Comparison of the Markers of Oxidative Stress between male and female wild rats (*Rattus rattus*) captured from various localities in Dera Ghazi Khan,

18. **Sidra Ghafar**. 2022-24. Molecular detection and prevalence of *Toxoplasma gondii* in wild lizard species of Khyber Pakhtunkhwa province in Pakistan.

19. **Shazia Bibi** 2022-24. Molecular prevalence of *Mycoplasma haemofelis* in the dog blood samples collected from district Dera Ghazi Khan.

20. **Afsheen Zahra** 2022-24. Association of the presence or absence of GSTs with the end stage renal disorder in the subjected enrolled from Dera Ghazi Khan District.

21. **Sumaira Batool** 2022-24. Association of single nucleotide polymorphism (rs1695) in *GSTP1* gene with the age related cataract in the subjected enrolled from Dera Ghazi Khan District.

22. **Saba Razaq** 2022-24**.** Association of rs1695 in *GSTP1* gene with end stage renal disorder in the subjected enrolled from Dera Ghazi Khan District.

23. **Anam Rauf**. 2022-24 Association of the presence or absence of GSTT1 and GSTM1 with the age related cataract in the subjected enrolled from Dera Ghazi Khan District.

FROM ZOOLOGY DEPARTMENT, EDUCATION UNIVERSITY (N = 8)

1. **Muhammad Aslam**. **2020-22.** Molecular detection of tick borne parasites in blood samples of Yaks collected from Gilgit Baltistan region in Pakistan.

2. **Faiza Khalil 2021-23**. Molecular detection of Theileria Annulata in camel from Layyah district of Punjab, Pakistan.

3. **Arwah Hussain 2021-23**. Prevalence and Molecular Detection of Trypanosoma in buffaloes in Bahawalnagar District of Punjab, Pakistan

4. **Alina. 2022-24.** A report on the prevalence of Toxoplasma gondii in common Myna with a note on the effect of parasite on the complete blood count of the host.

5. **Aamna Abbas**. Molecular prevalence of *Trypanosoma* spp. in the blood samples of buffaloes collected from Bahawalnagar district in Punjab.

6. **Anum Riaz**. Molecular detection of *Anaplasma ovis* in buffalo blood samples collected from Haroonabad in Punjab

7. **Ayesha Nasir**. MTHFR Gene Polymorphism (rs1801133) and its Association with Ischemic Stroke in the Context of Traditional Risk Factors: A Population-Based Study in Multan, Pakistan

8. **Mehnaz Akhtar**. Association of Genotype at Single Nucleotide Polymorphism rs1695 in Gene GSTP1 with Incidence of Ischemic Stroke from Nishter Hospital Multan, Pakistan.

WOMEN UNIVERSITY MULTAN (N = 8)

1. **Samrah Nazir**. **2021-23**. Molecular detection of *Hepatozoon* spp. in the blood samples of common Myna with a note on the effect of parasite on the complete blood count of the host.

2. **Aiman Amir. 2022-24.** Comparison of the markers of oxidative stress from the liver, stomach and intestine of wild male and female rats (*Rattus rattus*) trapped from various locations in Sheringal, Khyber Pakhtunkhwa.

3. **Anam Aslam 2022-24.** Sex specific differences in the markers of oxidative stress from the vital organs of male and female frog (*Rana tigrina*) captured from various locations in Bhera city.

4. **Shanza. 2022-24.** Comparison of the markers of oxidative stress from the lungs, liver, intestine and stomach of wild male and female *Rattus norvegicus* trapped from Sheringal in Khyber Pakhtunkhwa.

5. **Masooma Iqbal. 2022-24.** Comparison of markers of oxidative stress from the heart, intestine and liver of male and female rats (*Rana tigrina*) captured from various locations in Layyah city.

6. **Naveera Tul Hareem. 2022-24.** Sex specific differences in the markers of oxidative stress from the vital organs of mice (*Mus musculus*) and rat *Ratus ratus* trapped from wild.

7. **Bisma Khan. 2022-24.** Molecular detection of *Toxoplasma gondii* in *Argas persicus* ticks collected from the domestic hen (*Gallus gallus domesticus*) in district Kurram, Khyber Pakhtunkhwa.

8. **Ayesha Bukhari. 2022-24.** PCR based detection of *Borrelia miyamotoi* and *Borrelia burgdorferi* in *Argas persicus* ticks collected from the domestic henin district Kurram, Khyber Pakhtunkhwa.

9. **Asma Noor**. 2023-25. Association of single nucleotide polymorphism rs 946252 in AMELX gene with the incidence of Chronic Periodontitis in subjects enrolled from Multan, Punjab

10. **Aneela Bibi**. 2023-25. Association of single nucleotide polymorphisms rs8099917 in interleukin 28B gene with the incidence of chronic periodontitis in subjects enrolled form Multan, Punjab

11. **Misbah Rasheed**. 2023-25. Association of single nucleotide polymorphisms rs1800470 in Transforming Growth Factor Beta-1 (TGF-β1) gene with the incidence of Chronic Periodontitis in subjects enrolled from Multan, Punjab

12. **Mehreen Zahea**. 2023-25. Association of single nucleotide polymorphisms rs1800472 in TGF-b1 gene with the incidence of chronic periodontitis in subjects enrolled form Multan, Punjab.

EMERSON UNIVERSITY MULTAN (N = 5)

1. **Irum Fatima**. 2023-25. Association of the rs1042522 in *TP53* gene with the end stage renal disorder in Southern Punjab population: a case-control study.
2. **Iqra Qayyum**. 2023-25. Association of the single nucleotide polymorphism (rs1042522) in *TP53* gene with the age related cataract in subjects enrolled from Multan and Dera Ghazi Khan districts in Punjab.
3. **Aroosa Banu**. 2023-25. PCR based detection of Rickettsia spp in blood samples of wild lizards collected from various areas in Khyber Pakhtunkhwa.
4. **Sawera Ayyaz**. 2023-25. PCR based prevalence of Sarcocystis Spp. in blood samples of Aseel hens collected from Punjab.
5. **Mariya Bilal**. 2023-25. Molecular detection of Ricketssia spp. in the blood samples of Aseel hen collected from various regions of Punjab.

ISLAMIA UNIVERSITY BAHAWALPUR (N = 1)

- **Maryam Islam. 2022-24**. Sex specific effect on complete blood count parameters and markers of oxidative stress from the vital organ of common myna captured from Khanewal district.

MUHAMAMD NAWAZ SHAREEF UNIVERSITY OF AGRICULTURE MULTAN (N = 1)

- **Syed M. Zukhruf Qousain (MNSUA). 2022-24.** Molecular detection of Bartonella henselae in the rodent blood samples collected from Saudi Arabia.

M. PHIL STUDENTS UNDER SUPERVISION

(Name of scholar, Session, Title of thesis)

BZU

M. Phil Session 2026-28

Education University

M. Sc ZOOLOGY STUDENTS SUPERVISED (N = 29)

(Name of scholar, Session, Title of thesis)

1. Mehvish Andleeb. 2008-10. Determination of prevalence and risk factors of infection with *Theileria* sp. in small rumminants from Southern Punjab in Pakistan by Polymerase Chain Reaction amplification.

2. Sobia Durrani. 2009-11. A comparison of the presence of *Theileria ovis* by PCR amplification of their ssu rRNA gene in small ruminants from two provinces of Pakistan.

3. Adeela Awan. 2009-11. A study on chemical composition and detection of chemical adulterants in tetra pack milk samples commercially available in local market.

4. Nadia Khalid. 2012-12. A pioneer study regarding the molecular detection of *Anaplasma* sp. In small ruminant blood samples from Kohat and Peshawar districts in Khyber Pukhtoon Khwa, Pakistan.

5. Fariha Jahangir. 2012-12. First report regarding the detection of *Anaplasma* sp. In blood samples from sheep and goats from three districts in Southern Punjab by PCR amplification.

6. Sara Afzal. 2012-12. Effect of different sub lethal concentrations of Ferric Sulphate on serum biochemical profile of Grass carp (*Ctenopharyngodon idella*).

7. Hafiza Rehana. 2012-14. Do 100 mg/ml solvent/ Kg body weight of *Ficus carica* affects the complete blood count in male albino mice.

8. Sonia Abbas. 2012-14. Effect of *Ficus carica* leaf extract on selected biochemical parameters in female albino mice

9. Shaheen Mushtaq. 2012-14. Effect of 100mg/ml solvent/ Kg body weight of *Ficus carica* leaf extract on selected biochemical parameters of adult male albino mice.

10. Samia Javed. 2012-14. Effect of *Ficus carica* supplementation on complete blood count in female albino mice.

11. Zulha Javed. 2012-14. Effect of *Pongamia pinnata* and *Euclyptus* leaf extract on complete blood count of adult male albino mice,

12. Sidra Afroz. 2014-16. Molecular detection of Y chromosome micro deletions in azoospermia patients from Southern Punjab (Pakistan).

13. Ardas Masood. 2014-16. Drastic effects on complete blood count of *Labeo rohita* following four day exposure to 0.05 mgL^{-1} of Diafenthiuron.

14. Mishal Saleem. 2014-16. Exposure of 0.038 mgL^{-1} of Diafenthiuron did affected the complete blood count in *Labeo rohita* following short term exposure.

15. Muhammad Faisal Ameer. 2014-16. Effect of Diafenthiuron on the complete blood count of *Labeo rohita.*

16. Muhammad Javed. 2014-16. Effect of 0.1 mg/L Diafenthiuron on complete blood count of *Labeo rohita* following 96 hour exposure.

17. Khansa Maryum. 2019-21. Molecular detection of *Toxoplasma gondii* in blood samples of buffaloes from Rajanpur District in Punjab.

18. **Shokat Hussain. 2019-21.** Molecular detection of *Toxoplasma gondii* in blood samples of buffaloes collected from Bahawalnagar district.

19. **Shaista Bibi. 2019-21.** Amplification of ITS_1 gene by PCR for molecular detection of Toxoplasma gondii in blood samples of sheep collected from District Layyah in Punjab.

20. **Iqra Yaqoob. 2020-22.** Association of presence or absence of *GSTM1* gene with the incidence of Rheumatoid Arthritis in subjects enrolled from Southern Punjab: A case-control study.

21. **Kainat Akram. 2020-22.** Association of presence or absence of *GSTT1* gene with the incidence of Rheumatoid Arthritis in subjects enrolled from Multan and Dera Ghazi Khan Districts.

22. **Amber Rafiq. 2020-22.** Application of Tetra Primer-Amplification Refractory Mutation System based Polymerase Chain Reaction (T-ARMS PCR) for the precise and rapid genotyping of complex vertebral malformation (CVM) in cattle enrolled from Southern Punjab.

23. **Tehreem Arif. 2021-23.** A study on the microscopic investigation of *Anaplasma marginale and Anaplasma centrale* in the blood samples of cattle collected from Multan district in Punjab (Pakistan).
24. **Nashra Bibi. 2021-23**. Microscopic investigation of *Theileria* spp. in the blood samples of cattle collected from Multan district in Punjab (Pakistan).
25. **Umme Habiba. 2021-23.** Microscopic Investigation of *Babesia* spp. in the blood samples of cattle collected from Multan district in Punjab.
26. **Summaya Anjum. 2021-23.** First report regarding the molecular detection of *Brucella* spp. in cattle blood samples collecting from Khyber Pakhtonkhwa Province.
27. **Saba Mushtaq. 2021-23**. Molecular detection of *Toxoplasma gondii* in the blood samples of common Myna with a note on the effect of parasite on the complete blood count of the host.
28. **Alia Ashraf**. **2022-24**.Association of the *GSTT1* genotypes with the age related cataract in the subjects enrolled from Multan District.
29. **Misbah Nadeem**. **2022-24.** Association of the presence or absence of *GSTM1* gene with the age related cataract in the subjects enrolled from Multan District: A case-control study.

<u>BS ZOOLOGY STUDENTS SUPERVISED</u> (N = 38)
(Name of scholar, Session, Title of thesis)
1. Tamkeen Bashir. 2002-06. Studies on seasonal variations in physico chemical parameters of Kallar Kahar lake at district Chakwal.
2. Sabahat Ghazal Naqvi. 2002-06. A monitoring report regarding the seasonal variations of inorganic metals in two important rivers, Ravi and Chenab, and their union site in Pakistan.
3. **Maida Zia. 2002-06.** Comparision of body composition parameters of different fish species of Pirmehal fish farm and river Chenab.
4. Maria Riaz. 2002-06. Comparison of body composition parameters of different fish species of river Indus and river Ravi.
5. Maryium Fatima. 2006-10. Determination of prevalence and risk factors of infection with *Babesia* sp. in small rumminants from Southern Punjab in Pakistan by Polymerase Chain Reaction (P.C.R.) amplification.
6. Shumaila Kiran. 2007-11. A study on the hematological and serum biochemical profile of small ruminants from district Rahim Yar Khan.
7. Madiha Fatima. 2008-12. A study on molecular detection of *Theileria lestoquardi* by PCR amplification in small ruminants from Southern Punjab.
8. Sadaf Saeed. 2008-12. Molecular detection of *Theileria lestoquardi* by PCR amplification in the blood of apparently healthy sheep and goats from two districts of Khyber Pukhtoon Khwa.
9. Fatima Arfa. 2008-12. Effect of GABA B receptor antagonist (CGP35348) on the learning and memory formation of male albino mice.
10. Saba Khakwani. 2008-12. Do intra peritoneal GABA B receptor antagonist (CGP35348) injection affects the spatial learning of female albino mice.
11. Jawaria Peerzada. 2009-13. A comparative study of three innate reflexes between male and female albino mouse pups.
12. Azka Anwar. 2009-13. Exposure of sublethal concentrations of Ferric Sulphate [$Fe^2(SO_4)$] moderately affects the complete blood count of Grass carp (*Ctenopharyngoden idella*).
13. Rimsha Rabi. 2009-13. Effect of sub lethal doses of Imidacloprid on the selected parameters of serum biochemical profile of silver carp (*Hypophthalmchthys molitrix*).
14. Rabia Tabassum. 2009-13. Effect of sub lethal doses of Imidacloprid on the complete blood profile of silver carp (*Hypophthalmchthys molitrix*).
15. Rubab Khan. 2010-14. Effect of 50mg/ml solvent/Kg body weight of *Thuja orientalis* on selective female albino mice.
16. Bushra Riaz. 2010-14. Oral supplementation of *Thuja orientalis* moderately affects the behavior in adult male albino mice.
17. Naheed Akhtar. 2010-14. Oral supplementation of *Ficus religiosa* affects the locomotory and exploratory behavior in male adult albino mice.
18. Muhammad Faisal Shahzad. 2010-14. 50 mg / ml solvent / Kg body weight of *Ficus religiosa* has no apparent effect on selected behavioral parameters of female albino mice.
19. Kiran Zahra. 2010-14. Oral supplementation of *Ocimum basilicum* enhances the locomotory, exploratory and learning behavior of adult male albino mice.

20. **Saba Rafiq. 2010-14.** *Ocimum basilicum* supplementation enhances the neuromuscular coordination, exploratory and learning behavior in female albino mice.

21. Maryam Ishfaq. 2010-14. Effect of oral supplementation of *Ficus carica* on neuromuscular co-ordination, exploratory and learning in adult male albino mice.

22. Sameen Fatima. 2010-14. Effect of *Ficus carica* leaf extract supplementation on the selective parameters of female albino mouse behavior.

23. Muhammad Tariq. 2012-16. A report on high frequency of Y chromosome micro deletions in infertile men from Southern Punjab having severe oligospermia.

24. Qazal Yasin. 2012-16. Exposure of 0.01 mgL^{-1} of Diafenthiuron for four days significantly affects the white blood cell count of *Labeo rohita*.

25. Muhammad Asif. 2013-17. Exposure of 0.5 mg Diafenthiuron/ Liter of solvent drastically affects the complete blood count of Grass Carp.

26. Gul Muhammad. 2013-17. Effect of 1 mg / L of solvent Diafenthiuron on complete blood count of *Ctenopharyngodon idella*.

27. Mubashra Saleem. 2013-17. First report regarding the prevalence of Mycoplasma haemofelis in Cats blood samples collected from Lahore (Pakistan).

28. Maria Shahzeen. 2013-17. Molecular detection and prevalence of Babesia species in blood samples of cats (*Felis domestica*) collected from Pet clinics from Lahore.

29. Shabana Kalsoom. 2013-17. Molecular detection and prevalence of Babesia species in blood samples of cats (*Felis domestica*) collected from Pet clinics from Lahore.

30. Ayesha Sattar. 2017-21. Molecular detection of *Theileria annulata* in blood samples of buffaloes enrolled from district Bahawalnagar.

31. Maryam Arshad. 2017-21. Amplification of MSP1b gene for the molecular detection of *Anaplasma marginale* in the blood samples of buffaloes collected from District Bahawalnagar.

32. Muhammad Naeem. **2018-22.** Molecular detection of *Anaplasma ovis* in the blood samples of sheep collected from Dera Ghazi Khan District in Punjab (Pakistan).

33. Aliza Tariq. 2019-23. Amplification of *Babesia bovis* infecting cattle in Bajaur District of Khyber Pakhtonkhwa Province.

34. Humana Azhar. 2020-24. Molecular detection of *Schellackia* spp. in the blood samples of wild lizards collected from Khyber Pakhtunkhwa.

35. Shabana Mukhtar. 2020-24. Molecular detection of *Schellackia* spp. in the blood samples of wild rodents collected from Saudi Arabia.

36. **Sadia Ali. 2021-25 Morning**. PCR based prevalence of *Babesia bovis* in cattle blood samples collected from various regions in Khyber Pakhtunkhwa.

37. **Aliza Kanwal**. **2021-25 Morning**. Molecular detection of *Brucella* spp. among the cattle enrolled from Khyber Pakhtunkhwa province.

38. **Tehmina Sarfraz**. **2021-25 Evening**. Molecular prevalence of *Anaplasma capra* in cattle blood samples collected from three districts in Khyber Pakhtunkhwa.

ADS ZOOLOGY STUDENTS SUPERVISED (N = 1)

1. **Momal Rani**. 2023-25. PCR based prevalence of *Babesia bovis* in cattle blood samples collected from Khanewal district in Punjab.

COUNTRIES VISITED

- **Austria**. Stayed from 26-11-2005 to 04-09-2009 for completion of PhD in Neuroscience from Medical University Vienna.
- **America**. 20th July-1st August 2008. To attend a workshop, 49th annual short course of Mammalian Genetics, at Jaxson Laboratory, Bar Harbor, Maine (U.S.A).
- **Belgium.** Brussels.
- **Czech Republic.** Prague and Burn.
- **France.** Paris.
- **Germany.** Hamburg, Nuremberg, Dusseldorf, Berlin and Munch.
- **Hungary.** Gyor
- **Iran**. 23rd -30th September 2005. To attend workshop on genetics and molecular biology of aquatic organisms at Urmia University, Iran.

- **Italy.** Visited Verona, Bologna, Florins, Pisa and Milan.
- **Norway.** Oslo
- **Slovakia.** Bratislava.
- **Spain.** Barcelona.
- **Switzerland.** Zurich.
- **Sweden.** Stockholm.
- **Kenya.** Nairobi, Mombasa, Kilifi, Malindi. To attend IBRO School on Environment, Epigenetics and Behaviour, 8-15th December 2012, Pwani University College, Kilifi, Kenya
- **China.** Nantong to attend IBRO School, Injury and regeneration of the nervous system, 26-31st October 2013, at Key laboratory of neuroregeneration, Nantong University Nantong, China.
- **UAE**. Dubai to attend 3rd International conference on Neurological disorders and stroke. April 24-25 2017, held at JW Marriott, Dubai, UAE
- **Thailand.** Nakhon Pathom for post doctoral training at Institute of Molecular Biosciences, Mahidol University, Salaya Campus during 2018.
- **Singapore.** To attend Human Cell Atlas (HCA) Annual Meeting 2025 held at SingHealth Academia Singapore during 9th till 11th June 2025.
- **Qatar.** For tourism.
- **Saudi Arabia.** For Umrah.

REVIEWED PAPERS FOR

- PLOS One
- Kuwait Journal of Biology
- Genes
- Current Pharmaceutical Design
- Advances in Pharmacological Sciences
- American Journal of Perinatology
- Acta Tropica
- Ecological Indicators
- Asian Pacific Journal of Tropical Biomedicine
- Cellular Physiology and Biochemistry
- Journal of Dietary Supplementation
- Pakistan Journal of Pharmaceutical Sciences
- Parasite (France)
- Parasites and Vector
- Tick and Tick Borne Diseases
- Tropical Biomedicine (Malaysia)
- Biotechnic & Histochemistry
- International Ophthalmology
- Tropical Animal Health and Production
- Pathogens
- Small Ruminant Research
- Journal of Animal and Plant Sciences.

EXTERNAL EXAMINER FOR M. Sc, M. Phil AND PH D SCHOLARS AT;

- Department of Zoology, Abdul Wali Khan University Mardan (KPK), Pakistan
- Department of Zoology, Hazara University Mansehra (KPK), Pakistan
- Department of Zoology, Kohat University of Science and Technology (KUST), Kohat, Pakistan
- Atta ur Rehman School of Biological Sciences, National University of Science and Technology (NUST) Islamabad, Pakistan.
- Department of Zoology, Islamia University Bahawalpur.
- Department of Zoology, Government College University Faisalabad.
- Department of Biosciences. Comsat University Islamabad.
- Department of Zoology, Government Sadiq Women University Bahawalpur.

- Department of Zoology, Education University Lahore (Multan Campus)
- Department of Zoology, Women University Multan
- Center of Excellence in Molecular Biology, University of the Punjab Lahore

ZOOLOGY SUBJECT SPECIALIST IN;

- Selection board of Government College University Faisalabad, Pakistan **(**For Assistant Professor Zoology and Biotechnology**)** during 2015
- Selection board of Punjab Public Service Commission, Lahore (Multan Center) **(**For Lecturer Zoology**)** during 2012

MEMBER BOARD OF STUDIES

- Department of Zoology, The Women University Multan.
- Department of Zoology, Emerson University Multan.
- Department of Zoology, Education University Multan

BOOK CHAPTERS

- Muqaddas H, Mehmood N, Rasool M, Yousaf F, **Iqbal F**. 2025. Tick-Borne Diseases. In: Kumar S, Cossio-Bayúgar R, Miranda-Miranda E, Sharma AK, Chaubey AK (eds) Acaricides Resistance in Ticks. Springer, Singapore. https://doi.org/10.1007/978-981-97-7411-1_7
- Mehmood N, Muqaddas H, Shahid N, Kousar S, **Iqbal F**. 2025. Using Entomopathogenic Fungi for Tick Control. In: Kumar S, Cossio-Bayúgar R, Miranda-Miranda E, Sharma AK, Chaubey AK (eds) Acaricides Resistance in Ticks. Springer, Singapore. https://doi.org/10.1007/978-981-97-7411-1_12.
- Naeem M, Amaro-Estrada I, Taqadus A, Swelum AA, Alqhtani AH, Asif M, Sajid M, Khan AU, Tariq A, Anjum S, Khan A and Iqbal F. 2024. Molecular prevalence and associated risk factors of *Anaplasma ovis* in Pakistani sheep. In: Rising stars in comparative and clinical medicine 2022 (Editors. Rahman M, Ozaydin I, Li K**).** Lausanne: Frontiers Media SA. doi: 10.3389/978-2-8325-4026-8.
- Khan A, Ali I, Rahman ZU, **Iqbal F**, Nasreen N, Niaz S. 2021. Epidemiology of Tick-Borne Diseases. In: The Entomological Guide to Rhipicephalus (Editors. Kumar S, Bayugar RC, Sharma AK, Miranda EM, Chaubey AK**).** Nova Science Publishers New York, USA, pp. 49-80.
- Parveen A, Ashraf S, Khan A, Asif M, **Iqbal F**. 2021. Ticks and Tick-Borne Diseases in Pakistan. In: The Entomological Guide to Rhipicephalus (Editors. Kumar S, Bayugar RC, Sharma AK, Miranda EM, Chaubey AK**).** Nova Science Publishers, New York, USA, pp. 45-80.

- Iqbal F. 2017. Milk Adulteration; a growing health hazard in Pakistan. In: Nutrients in Dairy and Their Implications on Health and Disease (Editors, Ronald Watson, Robert J. Collier, and Victor R. Preedy). Elsevier Publishing. 2015-222. https://doi.org/10.1016/B978-0-12-809762-5.00017-6.
- Iqbal F and Gillani QAU. 2016. GABAB Receptor Antagonists as Cognition Enhancers. In: GABAB Receptors (Editor, Giancarlo Colombo). Springer International Publishing, AG, Cham. 29: https://doi.org/10.1007/978-3-319-46044-4_19

JOURNAL EDITOR

- Associate Editor of Frontiers in Endocrinology: Section: Clinical Diabetes. Research Topic: Research Advances in Gestational, Neonatal Diabetes Mellitus and Metabolic Disorders (Volume 1, 2021-22).
- Associate Editor of Frontiers in Endocrinology: Section: Clinical Diabetes. Research Topic: Research Advances in Gestational, Neonatal Diabetes Mellitus and Metabolic Disorders (Volume 2, 2021-22).
- Topic Editor of Frontiers in Endocrinology: Chronology of Gastrointestinal Cancer and Gastrointestinal Microbiota (2022).
- Guest Editor of Genes: Special issue: Oxidative stress: The genetics and epigenetic toxicology (Volume 1, 2022-23).

EDITORIAL

1. Bukhari I, **Iqbal F,** Thorne RF**.** Research Advances in Gestational, Neonatal Diabetes Mellitus and Metabolic Disorders. Frontiers in Endocrinology. 2022. https://doi.org/10.3389/fendo.2022.969952 (IF 5.7, Q1).
2. Bukhari I, Iqbal F and Thorne RF (2022) Editorial: Relationship between gestational and neonatal diabetes mellitus. Frontiers in Endocrinology. 2022. https://doi.org/10.3389/fendo.2022.1060147 (IF 5.7, Q1)
3. Mi Y, **Iqbal F**, Mahmood N, Bukhari I, Zheng P. 2023.Editorial: Chronology of Gastrointestinal Cancer and Gastrointestinal Microbiota. Frontiers in Endocrinology. 2023. (IF 5.7, Q1).

RESEARCH PUBLICATIONS HAVING IMPACT FACTOR

1. Noor M, Nawaz N, Ashraf N, Rehman M, Riaz A, Kanwal P, Abbas M, Ullah S, Muqaddas H, Alqahtani FA, Said MA, Dauelbait M, Iqbal F. Molecular prevalence, co-infection, and phylogenetic characterization of *Anaplasma marginale*, *Anaplasma ovis*, and *Theileria annulata* in Nili-Ravi buffaloes. Scientific Reports. 2026. https://doi.org/10.1038/s41598-026-69578-0 (IF 4.9, Q1).
2. Mehmood R, Chiang PC, Rasool M, Asif M, Ghafar A, Khalid M, Razaq S, Alam MK, Fatima I, Jabeen I, Ashraf S, Chen CC, **Iqbal F**. Impact of GST and *TP53* Gene Polymorphisms on Susceptibility to End Stage Renal Disease: A Case-Control Analysis. PLOS ONE. 2026. Accepted (IF 2.8, Q2)
3. Munir HM, Naeem M, Ijaz M, Ullah S, Usman M, Nasir ZUR, Khan A, Almaary KS, Bouallegue A, Mengistie AA, , **Iqbal F**. Molecular detection, epidemiology, and genetic diversity of *Babesia microti* infecting wild rodents. Veterinary Medicine and Science. 2026. e70125 https://doi.org/10.1002/jez.701 (IF 2.1, Q2).
4. Abrar M, Mumtaz S, Ijaz M, Umair M, Farooq M, Atiq I, Ashraf S, **Iqbal F**. Baseline hematological and biochemical reference values for wild *Mus musculus* and *Rattus rattus* from southern Punjab, Pakistan. Journal of Experimental Zoology Part A: Ecological and Integrative Physiology. 2026. 345: 952–958 345:952–958 (IF 1.6, Q2)
5. Rasool M, Latif M, Giantsis IA, Ali M, Muqaddas H, Naeem M, Haq SU, Elossaily GM, Alyami EM, Alsolami M, Mahamat OB, Ullah I, Khan AU, Khan A, **Iqbal F.** Molecular Epidemiology of *Hepatozoon canis* with a note on effect of parasite on the complete blood count profile of canine hosts. Ecology and Evolution. 2026. 16:e74039 https://doi.org/10.1002/ece3.74039 (IF 2.6, Q2)
6. Ashraf N, Shahzadi W, Zubair A, Rehman ZU, Ullah I, Dilshad S, Ullah S, Ashraf S, Hussain T, Iqbal F. Molecular detection and associated risk factors of *Anaplasma marginale*, *Brucella abortus* and *Theileria annulata* infections in camels across Sindh, Pakistan. Tropical Animal Health and Production. 2026. Accepted (IF 2, Q2).
7. Rehman FT, Ahmad U, Sardar R, Rahman M, Muqaddas H, Alyami EM, Alghamdi OA, Elossaily GM, UllahS, Khan AU, **Iqbal F**. Molecular Epidemiology and Genetic Profiling of *Anaplasma ovis*, *Bartonella* sp., and *Toxoplasma gondii* in domestic cats. Comparative Immunology, Microbiology and Infectious Diseases**.** 2026. *128*, 102488. https://doi.org/10.1016/j.cimid.2026.102488 (IF 2.5, Q1).
8. Iqbal A, Tariq M, Zubair A, Aamir M, Ghulam R, Hasaan A, Jameel A, Mehmood R, Almaary KS, Elossaily GM, Khalil MA, Ullah S, **Iqbal F**. Molecular Epidemiology of Tick-Borne (Anaplasma, Babesia, Theileria) and Non-Tick-Borne (*Toxoplasma gondii*) Pathogens in Goats from Southern Punjab, Pakistan. Acta Tropica. 2026. 279: 108143. https://doi.org/10.1016/j.actatropica.2026.108143 (IF 2.6, Q2)
9. Rasool M, Fatima M, Mulazim S, Bibi A, Maryem A, Hani U, Iqbal A, Ijaz M, Almaary KS, Elossaily GM, Muqaddas H, **Iqbal F**. Prevalence and Genetic Characterization of *Theileria annulata* and *Theileria orientalis* in Post-Abortion Cattle. Tropical Animal Health and Production. 2026. 58: 494. https://doi.org/10.1007/s11250-026-05100-y (IF 2, Q2).
10. Naeem M, Ameen MA, Munir HM, Fatima H, Ullah S, Muqaddas H, Abass KS, Khan A, Iqbal F. Molecular detection of *Toxoplasma gondii* in *Amblyomma gervaisi* ticks infesting Monitor lizards (*Varanus bengalensis*). Experimental and Applied Acarology. 2026. 96:49. https://doi.org/10.1007/s10493-026-01139-6 (IF 2,2, Q1).
11. Fatima A, Umer M, Rasool M, Yasmeen T, Muqaddas H, Nisa TU, Danish MF, Khalil MA, Alyami EM, Alghamdi OA, Elossaily GM, Tesemma M, Shahzadi W, Ullah S, **Iqbal F**. Molecular Investigation of Tick-borne and Zoonotic Pathogen Dissemination and Host-Pathogen Interactions in Canines. Scientific Reports. 2026. 16: 20887. https://doi.org/10.1038/s41598-026-44033-2 (IF = 4.9, Q1)
12. Nisa TU, Mushtaq F, Gondal HZA, Amjad N, Usman M, Ali M, Latif M, Muqaddas H, **Iqbal F**. Molecular prevalence, genetic diversity and effect of *Toxoplasma gondii* infection on the hematological parameters of various bird species. Biologia. 2026. 82: https://doi.org/10.1007/s11756-026-02164-x (IF 1.7, Q3).

13. Ijaz M, Alghamdi SQ, Alanazi AD, Salim M, Naeem M, Ali M, Mukhtiar S, Abass KS, Muqaddas H, Khan A, **Iqbal F**. Unveiling Hidden Threats: Molecular Detection and Genetic Diversity of *Hepatozoon* spp. and *Toxoplasma gondii* in Wild Rodents of Saudi Arabia and Their Ectoparasites. Acta Parasitologica. 2026. 71: 15 https://doi.org/10.1007/s11686-025-01200-1 (IF 1.5, Q2)

14. Zareen G, Akbar S, Asif M, Nasreen N, Jamil S, Naeem M, Niazi AK, Fatima A, Mehmood N, **Iqbal F**. Application of T-ARMS PCR to report the association of single nucleotide polymorphisms, rs109075046 and rs136500299 in ITGB6 receptor gene with the susceptibility of cattle breed for foot and mouth disease. Pakistan Journal of Zoology 2026. 58(30: 1095-1102. https://dx.doi.org/10.17582/journal.pjz/20221225041249 (IF 0).
15. Shakoor S, Latif M, Kam KH, Nasir A, Mehmood R, Akhtar M, Akhlaq M, Batool B, Ali M, Abass KS, Pasha B, Khan A, Chen CC, **Iqbal F**. Association of genotypes at single-nucleotide polymorphisms in *IL-28B*, *TGF-β1*, *TP53*, *MTHFR* and *GSTP1* gene and their combinations with ischemic stroke: a case-control study. IBRO Neuroscience Reports. 2025. 19: 919-930 https://doi.org/10.1016/j.ibneur.2025.11.005 (IF 2.9, Q3)

16. Atif FA, Tahir A, Kashif M, Rehman AU, Alqhtani AH, Ismael AB, Giantsis IA, Khan A, Iqbal F, Imran M, Swelum AA. Molecular epidemiology and phylogenetics of camel anaplasmosis in Punjab, Pakistan. PLOS ONE. 2025. 20(9): e0331833. https://doi.org/10.1371/journal.pone.0331833 (IF 2.8, Q2)
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