

IBRAR KHAN

Director (COBAM), Professor (Tenured)

@ ibrarkhan1984@uop.edu.pk +92-331-5818733
✉ Centre of Biotechnology and Microbiology (COBAM), University of Peshawar
📍 25120 Peshawar, PAKISTAN Date of Birth: March 1984
🌐 <https://www.linkedin.com/in/ibrar-khan-8008aa17a/>
📺 <https://www.youtube.com/channel/UCC6pRypnE2YrUHD8CC5V3YA>
🎓 <https://scholar.google.com/citations?user=fOjb74oAAAAJ&hl=en&oi=ao>
🌐 <http://www.uop.edu.pk/departments/Teaching-Faculty/?r=180&q=Dr-Ibrar-Khan>



EXPERIENCE

Director

COBAM, University of Peshawar

📅 Dec 2024 – To date 📍 Peshawar

- Director (Full Term)

Professor

University of Peshawar

📅 Apr 2023 – To date 📍 Peshawar

- Teaching and Research

Director

COBAM, University of Peshawar

📅 Sep 2022 – Dec 2022 📍 Peshawar

- Director (Look-after)

Associate Professor

University of Peshawar

📅 Apr 2019 – Apr 2023 📍 Peshawar

- Teaching and Research

Assistant Professor

University of Peshawar

📅 Sep 2012 – Apr 2019 📍 Peshawar

- Teaching and Research

Lecturer

University of Peshawar

📅 Feb 2010 – Sep 2012 📍 Peshawar

- Teaching and Research

CERTIFICATIONS

- Professional Certification (IFBA PC) in Biorisk Management International Federation of Biosafety Associations (IFBA), April 2025

RESEARCH FIELDS

- Molecular Characterization, Mutational Analysis of Antibiotic-Resistant Genes and in silico studies
- Finding New Bacteriophages, endolysins, and engineered endolysins against drug resistant bacterial pathogens
- Assessment of Herbal Medicine and Natural Products for their Antimicrobial Activities Against Pathogenic Bacteria
- Identification of polyethylene-degrading bacteria from various sources

AWARDS AND HONORS



BBT (Hons) Scholarship 2003 – 2006

Scholarship awarded for BBT (Hons) by the University of Peshawar



HEC Indigenous Scholarship 2007 – 2011

HEC Indigenous Scholarship for M. Phil leading to Ph.D. studies



Remote Research Fellow 2024–2026

Remote Research Fellow at Metharath University Thailand

RESEARCH EXPERTIES

Antibiotic-Resistant Genes

PROJECTS

DoST PKR Rs. 0.465m (Completed)

Directorate of Science and Technology (DoST)

📅 2014-2015 📍 Peshawar

- Bioassay screening and standardization of *Jussiaea adhatoda*

HEC-NRPU PKR Rs. 2.55m (Completed)

Higher Education Commission (HEC)

📅 2015-2017 📍 Islamabad

- Bioassay screening and standardization of *Pinus wallichiana*

HEC-NRPU PKR Rs. 5.5m (Completed)

Higher Education Commission (HEC)

📅 2019-2021 📍 Islamabad

- Molecular characterization and epidemiology of Extended-Spectrum β -Lactamase (ESBL) and carbapenemase producing *Escherichia coli* and *Klebsiella pneumoniae* from chicken meat in central districts of Khyber Pakhtunkhwa

HEC-NRPU PKR Rs. 3.035m (Completed)

Higher Education Commission (HEC)

📅 2015-2017 📍 Islamabad

- Bioassay screening, standardization & phytochemical investigations of *D. Phodocarpum*

HEC-NRPU PKR Rs. 7.5m (Completed)

Higher Education Commission (HEC)

📅 2017-2020 📍 Islamabad

- Study on biodegradation of polyethylene by microbial strains: a cost-effective remedial approach with commercial prospects

UNICEF Pakistan (Completed)

UNICEF Pakistan

📅 2021-2024 📍 Islamabad

Mutational Analysis of Antibiotic-Resistant Genes

Finding New Bacteriophages, endolysins

Engineering of endolysins

Antimicrobial Susceptibility Pattern

MIC Testing

Isolation of Pathogenic Bacteria

Analytical Profile Indexing

Microscopy

Polymerase Chain Reaction (PCR)

Medicinal Plants

Antimicrobial Activities

Camtasia

LANGUAGES

English



Urdu



Pashto



EDUCATION

PhD in Biotechnology

University of Peshawar

📅 2007 - 2011 📍 Pakistan

Thesis title: Phytochemical Evaluation, Bioassay Screening and standardization of *Zizyphus Jujuba* and *Acacia Modesta*

Coursework CGPA: 4/4

Supervisor: Prof. Dr. Bashir Ahmad

BBT (Bachelor of Biotechnology)

University of Peshawar

📅 2002 - 2006 📍 Peshawar

Marks: 2901/4225

FSc in Pre-Medical

- AI/IoT/Computer vision based kit and app development for fast detection of *E. coli* in drinking water

Lacuna Fund (In Progress)

Dataset for Fast Detection of Bacteria and Geo-Location Mapping

📅 Approved in 2025 💰 Funding: \$290,000 USD

- Development of AI-based dataset for bacterial detection and geo-tagging applications

HEREF (In Progress)

Molecular Characterization and Mutational Analysis of Antibiotic Resistant Genes of *Acinetobacter baumannii*

📅 Approved in 2025 💰 Funding: PKR 2.44 million

- Genetic analysis and mutational profiling of antibiotic-resistant *A. baumannii*

RESEARCH SUPERVISION

✳️ HEC and IRTC Approved Supervisor

✳️ PhD: Completed=07, In Progress=03

1. Khadija Shams: Molecular and In-silico Characterisation of the Antibiotic Resistant Genes of *Escherichia coli* from Water Sources (2025)

2. Sana Farooq: Prevalence of Bacterial Pathogens Causing Nosocomial Infections: With Reference to Identification of Resistant Genes and Drug Designing (2019)

3. Nazish Khan: Green Synthesis of Silver Nanoparticles Using *Pinus Wallichiana*, *Daphne Oleoides* and *Bidens Chinensis*; Evaluation of Their Therapeutics Activities and Impact on DNA (2019)

4. Lalina Maroof: Molecular Characterization of Low-Density Polyethylene Degrading Bacteria from Different Soil Samples (2020)

5. Zainab Liaqat: Characterization of Extended Spectrum Beta Lactamases and Carbapenemase

Islamia College Peshawar

📅 2000 – 2002 📍 Peshawar

Marks: 823/1100

SSc in Science

Islamia College Peshawar

📅 1998 – 2000 📍 Peshawar

Marks: 700/850

ADMINISTRATION

- Director, Centre of Biotechnology and Microbiology, University of Peshawar
- Incharge Examination Semester System
- Incharge University Diagnostic Lab, University of Peshawar.
- Coordinator BS Biotechnology Program.
- Member, Board of Studies, Centre of Biotechnology and Microbiology, University of Peshawar
- Member, Board of Faculty, Centre of Biotechnology and Microbiology, University of Peshawar
- Member, Advance Studies and Research Board, Faculty of Life and Environmental Sciences, University of Peshawar
- Member, Departmental Technical Review Panel, Centre of Biotechnology and Microbiology, University of Peshawar
- Member, Departmental Technical Review Panel, Department of Botany, University of Peshawar
- Member, Board of Studies, Department of Microbiology, Kohat University of Science and Technology, University of Peshawar
- Member of Board of Studies, Department of Microbiology, University of Swabi
- Member, Graduate Studies Committee, Department of Microbiology, Abasyn University, Peshawar
- Referee, Pakistan Journal of Pharmaceutical Sciences, University of Karachi, Pakistan
- Life Time Member of Pakistan Biological Safety Association, Pakistan

in *Escherichia coli* and *Klebsiella pneumoniae* from Chicken (2021)

6. Mohammad Riaz Khan: Molecular Characterization and Epidemiology of Antibiotic Resistance Genes of β -Lactamase Producing Bacterial Pathogens Causing Septicemia from Tertiary Care Hospitals of District Peshawar (2023)

7. Muhammad Saqib Khalil: Enhancement of silymarin water dispersibility and bioavailability using core-shell protein-polysaccharide nanoparticles (2024)

MPhil: Completed= 28, In Progress= 03

1. Bibi Zainub: Molecular association of fluoroquinolones resistant genes in methicillin resistant staphylococcus aureus (2024)
2. Huma Nawab: Molecular characterization of colistin- resistant genes in pseudomonas aeruginosa (2024)
3. Noor Ullah: Genotypic and phenotypic characterization of macrolide inducible clindamycin resistance in clinical isolates of staphylococcus aureus (2024)
4. Amber Siddique: Evaluation of target site modifying genes associated with fluoroquinolone resistance in *Escherichia Coli* isolated from hospital wastewater and drinking water (2024)
5. Huma Jalil: Evaluation of aminoglycoside-modifying genes and the synergistic effect of vitamins (D, E, K) with Aminoglycosides in *Pseudomonas Aeruginosa* (2024)
6. Syed Sohail Shah: Prevalence of rotavirus and determination of blood parameters of rotavirus infected children (2024)
7. Abida Akbar: Mutational analysis of efflux pumps in clinical isolates of *Acinetobacter Baumannii* (2024)
8. Aqsa Zafar: Mutational Analysis of Efflux Pumps Genes in Clinical Isolates of *Staphylococcus aureus* (2022)
9. Sonia Qudus: Antibiotic Susceptibility Pattern and Identification of Efflux Pump Responsible for Antibiotic Resistance in *Pseudomonas aeruginosa* from Clinical Samples (2022)

DIDACTICS

- Human Genetics
- General Genetics
- Cellular Signaling
- Bacterial Genetics
- Medical Biotechnology
- Techniques in Biotechnology

UDEMY COURSES

- Fundamentals of Transmission Genetics/ Classical Genetics (158 Students)
 www.udemy.com/course/general-genetics/
- Cell signaling; Communication at the Molecular Level (183 Students)
 www.udemy.com/course/cell-signaling-how-our-body-cells-coordinates/
- Medical Biotechnology: Unlocking the Future of Health (248 Students)
 www.udemy.com/course/human-genetics/

INVITED LECTURES

Writing a compelling grant to fund your research

Sarhad University of Science and Information Technology

 November 20, 2020  Peshawar

Diagnostic and Research Lab

Shaheed Benazir Bhutto Women University

 December 19, 2020  Peshawar

Sickle Cell Anemia; Non-treatable but Preventive disease

Dosti Welfare Organization, Peshawar

 October 1, 2021  Peshawar

10. Shakir Ullah: Mutation Analysis of Efflux Pump Genes in Clinical Isolates of *Citrobacter freundii* (2022)
11. Qurat Ul Ain Ali: Standardization of Elwendia Persica for the treatment of Bacterial Upper Respiratory Tract Infections (2021)
12. Khadija Shams: Antibiotic Susceptibility Pattern and Identification of Genes Responsible for Antibiotic Resistance in *Kluyvera ascorbata* from Chicken Meat (2021)
13. Hamid Ullah: Assessment of Mutation in Gyrase A and B Genes of *Pseudomonas aeruginosa* Isolated from Post-Operative Wound Samples of Tertiary Care Hospitals, Peshawar (2020)
14. Salman Rasheed: Molecular Characterization of Extended Spectrum Beta Lactamases and Carbapenamase Producing *Escherichia coli* from Chicken Meat (2020)
15. Saman Ijaz: Multidrug, Extensively Drug and Pan-Drug Resistant Bacteria in Chronic Suppurative Otitis Media (2020)
16. Iqra Zeb: Evaluation and Mutational Analysis of *Pad14* Gene in Rheumatoid Arthritis Patients (2020)
17. Abid Khan: Distribution, Mutational Analysis and Antibiotic Profiling of Shiga Toxigenic *Escherichia coli* from Human and Cattle Feaces (2020)
18. Asaf Ali Khan: Multi-Drug Resistance in Gram-Negative Bacteria Causing Nosocomial Infections in Tertiary Care Hospitals at Peshawar (2019)
19. Farhan Ullah: Mutational Analysis of *Tyr* Gene Causing Oculocutaneous Albinism in Families from District Peshawar (2019)
20. Muhammad Ayaz: Cloning, Expression and Characterization of Recombinant Human Interleukin-15 (2019)
21. Faiza Rashid: Prevalence, Antibiotic Susceptibility Pattern and Identification of Gene(S) Responsible for Antibiotic Resistance in Diabetic Foot Patients (2019)
22. Muhammad Riaz: Study on Multidrug, Extensive Drug and Pan Drug Resistance in Septicemic Infants (2018)
23. Rizwan Ullah: Seroprevalence, Serological Diagnostic Methods and Associated Risk Factors of *Toxoplasma gondii* (2018)

SELECTED CONFERENCES

Training of Trainers Workshop

Pakistan Biological Safety Association and Fogarty, National Institute of Health

📍 USA

Master Trainer Workshop

Pakistan Biological Safety Association and Fogarty, National Institute of Health

📍 USA

2nd International conference on Biotechnology: Challenges and Opportunities

Pakistan Biological Safety Association

📍 Pakistan

Research Patenting

Directorate of Science and Technology, Government of KhyberPukhtunkhwa

📍 Pakistan

1st Regional General Public Science and Technology, Model Competition

Pakistan Forest Institute, Peshawar

📍 Pakistan

Training of Trainers in Plant Biodiversity

Higher Education Commission and University of Peshawar Botanical Garden

📍 Pakistan

6 Advance modules in the Biologic Risk Mitigation, Virtual Leadership Program in Pakistan

The Pakistan Biological Safety Association (PBSA), Fogarty International centre and Safer Behaviors

📍 Pakistan

24. Mohammad Riaz Khan: Seroprevalence of Dengue Virus and its Effects on Blood Cells in Clinical Samples of Tertiary Care Hospitals in Affected Districts of Khyber Pakhtunkhwa (2018)
25. Naveed Sarwar: Prevalence and Antibiotic Susceptibility Pattern of Pathogenic Bacteria Responsible for Wound Infection in Khyber Teaching Hospital, Peshawar, Pakistan (2016)
26. Zainab Liaqat: Isolation and Identification of Pathogenic Bacteria from Drinking Water of Different Areas of Peshawar (2016)
27. Rahila Anjum: Bacteriological Profile of Drinking Water in Selected Area of District Swabi (2014)
28. Muhammad Amir Khan: Biological and Phytochemical Investigations of Ariel Parts of *Ajuga bracteosa* (2014)

REFEREES

Dr. Sumera Afzal

@ shumakhan@gmail.com

✉ Associate Professor/Director, Centre of Biotechnology & Microbiology, University of Peshawar

Prof. Dr. Noor Muhammad

@ noormwazir@yahoo.com

✉ Chairman, Department of Biotechnology and Genetic Engineering, Kohat University of Science and Technology, Kohat, Pakistan

Dr. Sadiq Azam

@ drazam@uop.edu.pk

✉ Associate Professor, Centre of Biotechnology & Microbiology, University of Peshawar

PUBLICATIONS

* Articles = 62, * IF $\approx$ 100, * Citations = 1100, * h-index = 18, * i10-index = 31

1. Khadija S, Faryal S, Shazia SM, **Ibrar K**, Saad A, Kalsoom K, Asad U, Huma J, Sadiq A. Sequence Variation and Structural Insights into Porin Genes (ompF, ompC) of Wastewater-Derived *Escherichia coli*: A Molecular and Bioinformatics Approach. **2025** (Accepted)
2. Asad Ullah, Sadiq A, **Ibrar K**, Farhan S, Farhad MA, Faris F, Aba Alkhayl, Eid A Alwtawi. Design and Validation of a Polyunit Epitopes Vaccine Against *Enterococcus faecium*. *Journal of Computational Biophysics and Chemistry*, Vol. 25, No. 03, pp. 431–453, **2026**.
 <https://doi.org/10.1142/S273741652550053X>
3. Asad Ullah, Sadiq A, Ahmad S, **Ibrar K**, Alammari DM, Abassi SW, Wei DQ, Alshabrmi FM, Aljasir MA, Alatawi EA. Towards precision epitopes based vaccine against *Enterococcus faecalis* by integrating vaccinomics, reverse vaccinology and biophysics approaches. *Biochem Biophys Rep.*, Vol. 10, No. 43, pp. 102082, **2025**.
 <https://doi.org/10.1016/j.bbrep.2025.102082>
4. Zeeshan K, Qaisar A, **Ibrar K**, Jamila J, Noor R, Mesaik MA, Jalal U, Ajmal K, Ahmed AH. Current Pattern of Antibiotic Resistance and Molecular Characterization of Virulence Gene in *Klebsiella pneumoniae* Obtained from Urinary Tract (UTIs) Infection Patient, Peshawar. *PLOS ONE* 20(4): e0319273, **2025**.  <https://doi.org/10.1371/journal.pone.0319273>
5. Khadija S, Sajjad A, **Ibrar K**, Asad U, Sadiq A, Zainab L, Huma J, Faisal A, Norah A, Abdulrahman MA, Dong QW. Highly Drug Resistant *Escherichia coli* from Hospital Wastewater with Several Evolutionary Mutations: An Integrated Insights from Molecular, Computational and Biophysics. *Molecular Biotechnology*, 40091143, **2025**.  <https://doi.org/10.1007/s12033-025-01410-y>
6. Gul e Sehra, Sadiq A, Sajjad A, Amjad A, **Ibrar K**, Asad U, Muhammad W, Noor R, Muhammad A,

- Abdulrahman A, Norah A, Dong-Qing W. Elucidating the resistance mechanisms and binding pattern of novel Oxa-48-like carbapenemases covalent inhibitors: A hybrid experimental and in silico approach. *Journal of Molecular Structure* 1321, 140073, **2025**
🌐 <https://doi.org/10.1016/j.molstruc.2024.140073>
7. Muhammad SK, **Ibrar K**, Farhat AK, Farah S, Muhammad Z, Sadiq A, Sanjeet K, Riaz U, Muhammad E, Ahmed B. Preparation of silymarin-loaded zein polysaccharide core-shell nanostructures and evaluation of their biological potentials. *Green Processing and Synthesis* 13, 20240002, **2024**
🌐 <https://doi.org/10.1515/gps-2024-0002>
 8. Sonia Q, Zainab L, Sadiq A, Mahboob UH, Sajjad A, Metab A, **Ibrar K**, Identification of Efflux Pump Mutations in *Pseudomonas aeruginosa* from Clinical Samples, *Antibiotics*, 12(3), 486, **2023**.
🌐 <https://doi.org/10.3390/antibiotics12030486>
 9. Mohammad RK, Sadiq A, Sajjad A, Qaisar A, Zainab L, Noor R, **Ibrar K**, Metab A, Abdulrahman A. Molecular Characterization and Epidemiology of Antibiotic Resistance Genes of β -Lactamase Producing Bacterial Pathogens Causing Septicemia from Tertiary Care Hospitals of District Peshawar. *Antibiotics*. 12, 617, **2023**.
🌐 <https://doi.org/10.3390/antibiotics12030617>
 10. Lalina M, **Ibrar K**, Hamid H, Sadiq A, Waris K. Microbial degradation of low-density polyethylene by *Exiguobacterium* sp. strain LM-IK2 isolated from plastic dumped soil. *World Journal of Microbiology and Biotechnology*. 22;38(11):197, **2022**.
🌐 <https://doi.org/10.1007/s11274-022-03389-z>
 11. Zainab L, **Ibrar K**, Sadiq A, Yasir A, Eman HA, Lalina M. Isolation and Molecular Characterization of Extended Spectrum Beta Lactamase Producing *Escherichia coli* from Chicken Meat in Pakistan. *PLOS ONE*. 3;17(6): e0269194. **2022**.
🌐 <https://doi.org/10.1371/journal.pone.0269194>
 12. Zainab L, **Ibrar K**, Sadiq A, Hamid AK, Midrar U, Noor R. Extended Spectrum Beta Lactamases-Producing *Escherichia coli* in Retail Chicken Meat. *Saudi Journal of Biological Sciences*. 29(6):103280, **2022**.
🌐 <https://doi.org/10.1016/j.sjbs.2022.103280>
 13. Sadiq A, Nauman K, **Ibrar K**, Muhammad A, Amjad A, Azam H, Gul S, Anila F, Noor R. Molecular characterization and mutational analysis of fluroquinolones and tetracycline resistant genes of *Escherichia coli* isolated from UTIs patients. *Brazilian Archives of Biology and Technology*. 65: e22210199. **2022**.
🌐 <https://doi.org/10.1590/1678-4324-2022210199>
 14. Muhammad A, Naheed, Aakash AK, Sadiq A, Noor R, **Ibrar K**, Gul S, Anila F. Bacterial profile and antimicrobial susceptibility pattern of aerobic vaginal pathogens in gynae patients visiting to Khyber Teaching hospital Peshawar. *Journal of Gandhara Medical and Dental Sciences*. 8(4): 48-54. **2021**.
🌐 <https://doi.org/10.37762/jgmds.8-4.258>
 15. Noor R, Sadiq A, Amjad A, **Ibrar K**, Muhammad A, Momena A, Muhammad W, Farman U, Gul e Sehra. Molecular epidemiology of antibiotic resistant genes and potent inhibitors against TEM, CTX-M-14, CTX-M-15 and SHV-1 proteins of *Escherichia coli* in district Peshawar, Pakistan. *Saudi Journal of Biological Sciences*. 28(11):6568-6581. **2021**.
🌐 <https://doi.org/10.1016/j.sjbs.2021.07.028>
 16. Nazish K, **Ibrar K**, Sadiq A, Farhan A, Hamid AK, Asma S, Midrar U. Potential cytotoxic and mutagenic effect of *Pinus wallichiana*, *Daphne oleiodes* and *Bidens chinensis*. *Saudi Journal of Biological Sciences*. 28: 4793-4799. **2021**.
🌐 <https://doi.org/10.1016/j.sjbs.2021.05.005>
 17. Hira M, Jehan B, **Ibrar K**, Bashir A. Antimicrobial efficacy and prevalence of colicinogenic *E. coli* in faecal matter of human, cow and sheep. *International Journal of Antimicrobial Agents*. 57 (1):

106221. 2021.

 <https://doi.org/10.1016/j.ijantimicag.2020.106221>

18. Zermína Z, Sadiq A, Noor R, **Ibrar K**, Sumera A, Gul-e-Sehra, Anhar Ullah, Muhammad A. Phenotypic and molecular characterization of virulence factors of extra-intestinal pathogenic *Escherichia coli* isolated from patients of Peshawar, Pakistan. *Pakistan Journal of Pharmaceutical Sciences*. 34 (1): 085-094. 2021.
 doi.org/10.36721/PJPS.2021.34.1.REG.085-094.1
19. **Ibrar K**, Mamooná J, Rameen N, Akhtar N, Sadiq A, Inam U, Farhan A. Green synthesis, characterization and biological evaluation of zinc nanoparticles from flower extract of *brassica oleracea italica*. *Pakistan Journal of Botany*. 53(1): 281-286. 2021.
 [https://doi.org/10.30848/pjb2021-1\(40\)](https://doi.org/10.30848/pjb2021-1(40))
20. Lalina M, **Ibrar K**, Han SY, Suji K, Hong-Tae P, Bashir A, Sadiq A. Identification and characterization of low density polyethylene-degrading bacteria isolated from soils of waste disposal sites. *Environmental Engineering Research*. 26(3): 200167. 2021.
 <https://doi.org/10.4491/eer.2020.167>
21. Noor R, Sadiq A, Amjad A, **Ibrar K**, Muhammad A, Muhammad W, Farman Ullah, Zermína Z, Gul-e-Sehra, Muhammad A. Designing of potent inhibitors for metallo-beta-lactamases producing *Escherichia coli* in molecular specification hereto. *Pakistan Journal of Pharmaceutical Sciences*. 33, 6(Suppl),: 2739-2750. 2020.
 doi.org/10.36721/PJPS.2020.33.6.SUP.2739-2750.1
22. Nazish K, **Ibrar K**, Akhtar N, Sadiq A, Inam U, Farhan A, Hamid A. Pinus wallichiana synthesized silver nanoparticles as biomedical agents: In-vitro and in-vivo approach. *Green Chemistry Letters and Reviews*. A13 (2): 69–82. 2020.
 <https://doi.org/10.1080/17518253.2020.1733105>
23. Farhan U, **Ibrar K**, Sajjad AS, Sadiq A, Shah F, Hashir M. Mutational Analysis of TYR Gene Causing Oculocutaneous Albinism in Families from District Peshawar. *International Journal of Human Genetics*. 19(4): 170-178. 2019.
 <https://doi.org/10.31901/24566330.2019/19.04.742>
24. Hira M, Jehan B, **Ibrar K**, Soniya A, Bashir A. Molecular characterization of colicinogenic *E. coli* inhibitory to *E. coli* O157:H7 and *E. coli* O26:H11. *International Journal of Biosciences*. 15 (3): 379-391. 2019.
 <http://dx.doi.org/10.12692/ijb/15.3.379-391>
25. SaifUllah K, Bashir A, **Ibrar K**, Shumaila R, Sadiq A, Irfan Ullah. Optimization of growth conditions for the maximum production of secondary metabolites from *Trichoderma harzianum* and their biological activities. *International Journal of Pharmacology*. 15, 351-360. 2019.
 <https://doi.org/10.3923/ijp.2019.351.360>
26. **Ibrar K**, Bashir A, Sadiq A, Fida H, Nazish, Aamir A, Noor R. Pharmacological activities of *Justicia adhatoda*. *Pakistan Journal of Pharmaceutical Sciences*. 31(2): 371-377. 2018.
27. Nazish, **Ibrar K**, Khalid K, Sadiq A, Ikhwan A, Inam Ullah. An insight into in vitro and in vivo pharmacological activities of *Pinus wallichiana*. *Pakistan Journal of Botany*. 50(4): 1487-1497 2018.
28. Noor R, Bilal O, Azam H, Sadiq A, Bashir A, **Ibrar K**, Zermína Z. Prevalence of Hepatitis C virus and its risk factors in blood donors in district Peshawar. *Pakistan Journal of Pharmaceutical Sciences*. 31 (1): 083-087, 2018.
29. Sana FA, **Ibrar K**, Abdul W, Sadiq A, Noor R, Muhammad W, Kashif B, Asaf AK. Pathogens constancy, harbinger of nosocomial infection cum identification of resistant genes and drug designing. *Computational Biology and Chemistry*. 74: 347–359, 2018.
 <https://doi.org/10.1016/j.compbiolchem.2018.04.010>
30. **Ibrar K**, Naveed S, Bashir A, Sadiq A, Noor R. Bacteria in wound infection and their antibiotic sensitivity pattern in KTH, Peshawar, Pakistan. *Advancement in life sciences*. 5(1)08-12 2017.

31. Aamir A, **Ibrar K**, Sadiq A, Shaista M, Bashir A. Comparative antimicrobial, phytotoxic and haemagglutination potential of Eriobotrya japonica leaves extract & its Zinc nanoparticles. *Pakistan Journal of Botany*. 49(5): 1917-1924, **2017**.
32. Bashir A, Nabia H, Gulshan A, Sadiq A, Shumaila B, **Ibrar K**. Antibacterial activity of crude methanolic extract and various fractions of Vitex agnus castus and M. africana against clinical isolates of Methicillin-Resistant Staphylococcus aureus. *Pakistan Journal of Pharmaceutical Sciences*. 29 (6): 1977-1983, **2016**.
33. Sadiq A, Muhammad SS, Faisal Z, Bashir A, **Ibrar K**, Zermira Z, Imran K. Antibacterial, antifungal, phytotoxic, antioxidant and haemagglutination activities of organic fractions of Arisaema tortuosum. *Pakistan Journal of Pharmaceutical Sciences*. 29 (3): 991-997, **2016**.
34. Bashir A, Farah S, Shumaila B, **Ibrar K**, Sadiq A. Green synthesis, characterization and biological evaluation of AgNPs using Agave americana, Mentha spicata and Mangifera indica aqueous leaves extract. *IET Digital Library*. 10, 1-7. **2016**.
 <https://doi.org/10.1049/iet-nbt.2015.0053>
35. Bashir A, Nabia H, Shumaila B, Midrarullah, Sadiq A, **Ibrar K**, Sahar N. Comparative analysis of the biological activities of bio-inspired gold nano-particles of phyllanthus emblica fruit and beta vulgaris bagasse with their crude extracts. *Pakistan Journal of Botany*. 47(S1): 139-146, **2015**.
36. Bashir A, Saima N, Sadiq A, **Ibrar K**, Shumaila B, Fida H. Antimicrobial, phytotoxic, haemagglutination, insecticidal and antioxidant activities of the fruits of Sarcococca saligna (d. don) Muel. *Pakistan Journal of Botany*. 47(S1): 313-319, **2015**.
37. Amina R, Shumaila B, Khanzadi FK, Bashir A, **Ibrar K**, Sadiq A, Jamshaid A. Antifungal, antibacterial, phytotoxic and insecticidal activities of Nigella sativa seeds. *Asian Journal of Chemistry*. 27(12): 4591-4594. **2015**.
 <https://doi.org/10.14233/ajchem.2015.19246>
38. Bashir A, Ambreen, Muhammad SK, Ali H, **Ibrar K**. Agrobacterium mediated transformation of brassica juncea (L.) Czern. With chitinase gene conferring resistance against fungal infections. *Pakistan Journal of Botany*. 47(1): 211-216. **2015**.
39. Haroon A, **Ibrar K**, Wagma N. Antioxidation and Antiglycation Properties of Bunium Bulbocastanum fruits various fractions and its possible role in reducing diabetes complication and ageing. *Vitamins & Minerals*. 3 (1): 118. **2014**.
 <https://doi.org/10.4172/2376-1318.1000118>
40. Sadiq A, Zeeshan K, Bashir A, **Ibrar K**, Javid A. Production of Single Cell Protein from Orange Peels Using Aspergillus niger and Saccharomyces cerevisiae. *Global Journal of Biotechnology & Biochemistry*. 9 (1): 14-18. **2014**.
41. **Ibrar K**, Haroon A, Bashir A, Sadiq A. Antiglycation and antioxidation properties of berberis lyceum and terminalia chebula: possible role in curing diabetes and slowing aging. *Pakistan Journal of Botany*. 46(4): 1469-1471, **2014**.
42. Nasar A, Pushpendra KV, **Ibrar K**, Sohaib M. In Vitro antibacterial, antifungal and phytotoxic activities of Ficus Carica MeOH leaves extracts. *International Journal of Current Biotechnology*. 2(2):11-15, **2014**.
43. **Ibrar K**, Haroon A, Bashir A. Antiglycation and antioxidation properties of Capsicum frutescens and Curcuma longa fruits: Possible role in prevention of diabetic complication. *Pakistan Journal of Pharmaceutical Sciences*. 27 (5): 1359-1362, **2014**.
44. Bashir A, Maria Q, Muhammad B, Shumaila B, Javid A, **Ibrar K**, Javed K. Production of polyclonal antibodies for establishment of antigen detection test against brucella melitensis. *Life Science Journal*. 11(3s): 6-11, **2014**.
45. **Ibrar K**, Haroon A, Nasir A, Bashir A, Hamid T. Screening of Bunium bulbocastanum for antibacterial, antifungal, phytotoxic and haemagglutination activities. *Pakistan Journal of Pharmaceutical Sciences*. 26 (4): 787-791, **2013**.

46. Bashir A, Riaz M, Sajid A, Shumaila B, Javid A, **Ibrar K**, Javed AB. Screening of Actinomycetes Against Multi Drugs Resistant Human Pathogenic Bacteria Isolated from the Soil of KP & Optimization Studies of Selected Streptomyces RMN6. *Life Science Journal*. 10(12s): 409-416, **2013**.
47. **Ibrar K**, Haroon A, Nasir A, Bashir A, Sadiq A, Fida H. Screening of Fumaria Indica for Antibacterial, Antifungal, Phytotoxic and Haemagglutination Activities. *International Journal of Current Biotechnology*. 1(9):13-16, **2013**.
48. Haroon A, **Ibrar K**. Antiglycation and antioxidative properties of Fumaria indica various fractions: Role in reducing diabetic complications and ageing. *Indian Journal of Health & Wellbeing*. 3(3): 692-694, **2012**.
 <https://doi.org/10.4172/2376-1318.1000118>
49. Haroon A, Nasar A, Bashir A, **Ibrar K**. Screening of Solanum surrattense for antibacterial, antifungal, phytotoxic and haemagglutination. *Journal of Traditional Chinese Medicine*. 32(4): 616-620, **2012**.
 [https://doi.org/10.1016/s0254-6272\(13\)60080-1](https://doi.org/10.1016/s0254-6272(13)60080-1)
50. Haroon A, **Ibrar K**, Abdul W. Antiglycation and antioxidation properties of juglans regia and calendula officinalis: possible role in reducing diabetic complications & slowing down ageing. *Journal of Traditional Chinese Medicine*. 32(3): 411-414, **2012**.
 [https://doi.org/10.1016/s0254-6272\(13\)60047-3](https://doi.org/10.1016/s0254-6272(13)60047-3)
51. Bashir A, Nida M, Shumaila B, Sadiq A, **Ibrar K**, Mohammad A. Biological screening of Hedera nepalensis. *Journal of Medicinal Plant Research*. 6(39): 5250-5257, **2012**.
 <https://doi.org/10.5897/jmpr12.244>
52. Bashir A, **Ibrar K**, Shumaila B, Sadiq A. Chemical composition and antifungal, Phytotoxic, brine shrimp cytotoxicity, insecticidal & antibacterial activities of essential oils of Acacia modesta. *Journal of Medicinal Plant Research*. 6(31): 4653-4659, **2012**.
 <https://doi.org/10.5897/jmpr12.016>
53. Bashir A, **Ibrar K**, Shumaila B, Sadiq Azam, Farrukh H. Screening of Zizyphus jujuba for Antibacterial, Phytotoxic and Haemagglutination activities. *African Journal of Biotechnology*. 10(13): 2514-2519, **2011**.
54. Bashir A, **Ibrar K**, Sadiq Azam, Shumaila B, Niaz A. Screening of Acacia modesta for antifungal, anti-termite, nitric oxide free radical scavenging assay and brine shrimp cytotoxic activities. *Journal of Medicinal Plant Research*. 5(15): 3380-3386, **2011**.
55. Bashir A, **Ibrar K**, Shumaila B, Sadiq Azam, Niaz A. Screening of Acacia modesta for Haemagglutination, antibacterial, phytotoxic and insecticidal activities. *Journal of Medicinal Plant Research*. 5(14): 3090-3096, **2011**.
56. Bashir A, **Ibrar K**, Sadiq Azam, Shumaila B, Niaz A. The antifungal, cytotoxic, antitermite & insecticidal activities of Zizyphus jujuba. *Pakistan Journal of Pharmaceutical Sciences*. 24 (4): 489-493, **2011**.
57. Bashir A, Sadiq Azam, Shumaila B, Niaz A, **Ibrar K**. Phytotoxic, antibacterial and Haemagglutination activities of the aerial parts of Myrsine africana. *African Journal of Biotechnology*. 10(1): 97-102, **2011**.
58. Farrukh H, Ishfaq H, Ghulam D, Shams-un-Nisa, **Ibrar K**, Bashir A. Cytotoxicity and phytotoxicity of some selected medicinal plants of the family Polygonaceae. *African Journal of Biotechnology*. 9 (5): 770-774, **2010**.
 <https://doi.org/10.5897/ajb09.232>
59. Bashir A, Sadia, Sadiq Azam, Shumaila B, **Ibrar K**. Biological Screening of the aerial parts of the Sarcococca saligna. *Journal of Medicinal Plant Research*. 4(22): 2404-2410, **2010**.
60. Bashir A, Sadiq Azam, Shumaila B, **Ibrar K**, Achyut A, Chaudhary MI. Anti-inflammatory and Enzyme inhibitory activities of crude extract and a new pterocarpan isolated from the aerial parts of Vitex agnus castus. *Biotechnology Journal*. 5(11) 1207-1215, **2010**.

61. Bashir A, Niaz A, Shumaila B, Choudhary MI, Sadiq Azam, **Ibrar K**. Parasitocidal, Antifungal and Antibacterial activities of *Onosma griffithii* Vatke. *African Journal of Biotechnology*. 8(19): 5084-5087, **2010**.
 62. Bashir A, Niaz A, Shumaila B, Jamshaid A, Sadiq Azam, **Ibrar K**. Cholinomimetic and calcium channel blocking activities of the aerial parts of *Tylophora hirsuta* (Wall). *Journal of Chemical Society of Pakistan*. 31: (4) 647-651, **2009**.
-