



DR. BASHIR AHMAD

Google Scholar: <https://scholar.google.com/citations?user=oPOD2GcAAAJ&hl=en>
ORCID: <https://orcid.org/0000-0001-6047-3334>
IIUI web profile: https://www.iiu.edu.pk/?page_id=7789

Associate Professor, Biotechnology
In-charge Academic Affairs,
Head, Industrial Linkage and Commercialization



Profession



(2010-to date continued)
Post PhD Experience: 15 years
Pre PhD Experience: 05 years

Duties: Teaching, Research, Supervision
Interests: Commercialization of Research Products

Pakistan, (D.O.B1981); Married
Cell: (+92) 333 576 3929
Office: (+92) 51 901 9737
(e): bashir.ahmad@iiu.edu.pk

Academics



- Post Doc June 2014 to 2015 **Cambridge, UK**
- PhD Microbiology (2010) **QAU***, Pakistan
(Collaborative Research, **UW*** Canada)

Research Experience



- Alkaline Phosphatase coupled Nanosensor (University of Cambridge, UK)
- Production and characterization of alkaline phosphatase (University of Waterloo, Canada)
- Diagnostic Kits and commercialization of research-based products (IIUI)



+92-333-576-3929



Dr.BashirAhmad



@drbashir369



dr.bashir.ahmad



EduTronics



Bashir Ahmad

https://www.linkedin.com/in/bashir-ahmad17b35133?ip=urn%3A%3Apage%3Ad_flagship3_profile_view_base_contact_details%3B%3Fow%2F%3D%3D



Office 305, Department of Biological Sciences, Science and Technology Block, International Islamic University, H-10, Islamabad (44000), Pakistan

Summary





- PhDs produced / supervising	9
- MS/ M. Phils produced / supervising	35
- BS students' research projects	52
- Research projects / Grants	05
- Research publications and GenBank submissions	51+25 =76
- Books / chapters	05
- Novel bacterium / Innovations	01

- Research commercialization

- Successful start-ups	01
- Commercial Scale R&D Products	07
- Patent(s) claim	01
- unsuccessful ventures	05

- Commercial ventures

 EduTronics	 Biotech Enterprises
---	--

Objective



Short resume

*QAU: Quaid –I Azam University, Islamabad
*UW: University of Waterloo, ON, Canada
*IIUI: International Islamic University, Islamabad

**Applied Microbiology and Biotechnology Lab (AMBL),
Department of Biological Sciences, International Islamic University, H-10, Islamabad,
Pakistan**

**1: Total PhD Supervisee (9)
PhDs Produced (05); Supervising (04)**

#	Name, Duration	Thesis Title / Institutions / Labs	Status
1.	Yasir Ali 2014-2019	Production, Purification and Characterization of Psychrotolerant Alkaline Lipase and Protease and Their Application in Detergent Formulation (IIUI/ University of Texas-USA)	Degree awarded
2.	Ali Nadeem 2014- 2022	Therapeutic Applications of Bioactive Metabolites from Extremophytes IIUI/ Massachusetts University, USA	Degree awarded
3.	M. Musaddiq Shah 2016-2022	Studies on Development of a Nanosensor for Organophosphorus Neurotoxin Monitoring (IIUI/ Illinois University, USA)	Degree awarded
4.	Muhammad Riaz 2014 - 2022	Characterization and Biomedical Applications of Silver Nanoparticles Synthesized by Thermophilic Bacteria (IIUI/Uni. of Ottawa, Canada) Co-Supervisor: Dr. Farha Masood, Comsats Uni. Islamabad	Degree awarded
5	Ayesha Aftab 2017-2025	Studies of downregulation of selected oncogenes in Ductal Carcinoma (<i>invasive ductal carcinoma</i>) using Selected Nanomaterials	Thesis defense
6.	Muhammad Imran 2019 - date	Prediction of early biosignature in breast and stomach cancer	Thesis submitted
7.	Malik Najam Farooq 2022 - date	Clinical epidemiology of selected RNA viruses Infections in healthy individuals of Rawalpindi and Islamabad	Research in Progress
8.	Muhammad Amir 2022 - date	Development, standardization and commercialization of blood-based <i>Interferon Gamma Release Assay</i> for Human Papilloma Virus	Research in Progress
9.	Aleem Munir 2024 - date	Characterization of snake and scorpion venom and their biomedical applications	Research in Progress

**2. Publications (Total = 76)
Recent publications (2022 - 2024 = 11)**

#	Authors, Title,	Journal, Volume/ Issue/ Doi	Impact Factor
1.	Ali et al (2024). Successful Correction of the Misdiagnosis of a Primary Liver Neuroendocrine Tumour with a Combination of Immunohistochemical and Radiological Assessments: Report of a Rare Case from Pakistan	Journal of Case Reports and Medical History (Acquire); Vol 4(5) https://doi.org/10.54289/JCRMH2400123	1.2
2.	Aftab et al (2023). Evaluating the association of missense mutations in cyclin E1 and MYC genes with breast cancer using computational analysis.	Human Gene (Elsevier): Vol. 38, 201231 https://doi.org/10.1016/j.humgen.2023.201231	0.5
3.	Aftab et al (2023). Comparative study of microscale and macroscale technique for encapsulation of <i>Calotropis gigantea</i> extract in metal-conjugated nanomatrices for invasive ductal carcinoma	Scientific Reports (Nature) 8;13:13474 10.1038/s41598-023-39330-z	3.8


4.	Faheem et al (2023). Production, purification and characterization of p-diphenol oxidase (PDO) enzyme from ligninolytic fungal isolate <i>Schizophyllum commune</i> MF-O5	Folia Microbiologica (Springer Nature) Vol. 68; Pages 867- 888 https://link.springer.com/article/10.1007/s12223-023-01056-w	2.4
5.	Rehman et al (2023). Artemisia vulgaris reduced and stabilized titanium oxide nanoparticles for anti-microbial, anti-fungal and anti-cancer activity	Applied Nanoscience (Springer Nature) Vol. 13; 6165-6175 https://doi.org/10.1007/s13204-023-02859-6	4.11
6.	Hussain et al. (2023): Diversity in Elemental Content in Selected Artemisia L. (Asteraceae) Species from Gilgit-Baltistan Region of Pakistan Based on Inductively Coupled Plasma Atomic Emission Spectrophotometry (ICP-AES).	Biol Trace Elem Res (Springer Nature) Vol. 201; Pages 4143-4155 https://doi.org/10.1007/s12011-022-03469-z	4.51
7.	Khalid et al., (2022). Vaccinomics-aided development of next generation chimeric vaccine.	Vaccines: 14;10(10):1720. https://www.mdpi.com/2076-393X/10/10/1720	5.2
8.	Jamil et al. (2022). Child-Pugh score, MELD score and Glasgow Blatchford score to predict the in-hospital outcome of portal hypertensive patients presenting...	Journal of Clinical Medicine: 11(22), 6654. https://doi.org/10.3390/jcm11226654	3.0
9.	Riaz et al. (2022). Synthesis of Biogenic Silver Nanocatalyst and their Antibacterial and Organic Pollutants Reduction Ability	American Chemical Society (OMEGA) 7 (17): 14723–14734 https://doi.org/10.1021/acsomega.1c07365	4.1
10.	Nadeem et al. (2022). Phytochemical Profiling of Antimicrobial and Potential Antioxidant Plant: <i>Nepeta Cataria</i> .	Frontiers in Plant Sciences: Volume 13; 969316 https://doi.org/10.3389/fpls.2022.969316	6.63
11.	Shah et al. (2022). Recent trends in green synthesis of silver, gold, and zinc oxide nanoparticles and their application in nanosciences and toxicity	Nanotechnology for Environmental Engineering (Springer Nature), Vol 7: Pages 907-922 https://doi.org/10.1007/s41204-022-00287-5	3.6

3. INTELLECTUAL PRODUCE / KNOWLEDGE CREATION (Books/Novel strains/Patents)

3A. Patents, Trademarks, Monograms

Sr. No	Patent No	Application No	Filing date	Applicant	Title	Granted date	Expiry date	Class
3A1	144012B	220345902	16.09.2022	Muhammad Imran, Faisal Rasheed, Bashir Ahmad	Natural Isotope Abundance as a Cancer Isotope Signature	Defended 07/08/2023	22/10/2039	D 06P 5/00n (2006.01)
3A2	5603	No. 53236	21.11.2019	Muhammad Waseem, Bashir Ahmad	Milk Testing Biostrip: A quality and pasteurization indicator	Submitted for Trade Mark	-	-
3A3	28	No. 16-71	12.11.2021	Areeba Tariq, Sobia Sunawar, Bashir Ahmad	Biogenic Antipimple cream	Prepared for Trade Mark	-	-

3B. Discoveries / Knowledge creation / Novel Microorganism

<p>Bashir Ahmad, Fariha Hasan, Abdul Hameed. (2010). A psychrotrophic <i>Arthrobacter</i> sp. Nov. (MRLBA5). Deposited to culture collection centres [DSMZ (Germany) and LMG (Belgium)] ...01 (KEY strain name: MRLBA5=Microbiology Research Lab, Bashir Ahmad, Strain no. 5)</p> <p>https://www.dsmz.de/collection/catalogue/details/culture/DSM-23633</p>	<p>Isolate No. DSM-23633</p> 
---	---

3C. Books / Chapters

 <p>Bashir Ahmad (2025). Basic Laboratory Techniques in Biosciences. https://link.springer.com/chapter/10.1007/978-981-19-0197-3_13</p>	 <p>Muhammad Imran, Bashir Ahmad (2024). Microbiome and Its Impact on Human Health https://link.springer.com/chapter/10.1007/978-981-97-6948-3_2</p>	 <p>Ayesha Aftab, Bashir Ahmad (2023). http://www.jpohbs.com/articles/vol3/9%20Book%20Review.pdf</p>	 <p>Muhammad Imran, Bashir Ahmad (2022). Emerging Organic Contaminants, Personal Care Products, and Pharmaceuticals https://link.springer.com/chapter/10.1007/978-3-030-96523-5_6</p>	 <p>Usman Waheed, Asim Ansari, Bashir Ahmad, and M. Arshad Malik (2012). https://a.co/d/cCudwE</p>
---	---	---	--	---

4. Laboratory and Research Grants (Total Projects submitted / executed >8)

Founder: Applied Microbiology and Biotechnology Laboratory (AMBL), IIUI

1.	Bashir Ahmad . Optimization of conditions for the production of alkaline phosphatase from Indigenous bacteria	PM IPFP/HRD/HEC/2011/0591 by HEC (Completed 2013) 0.5 Million PKR
2.	Bashir Ahmad , Elizabeth A. Hall. Studies on development, formulation and commercialization of alkaline phosphatase inhibition based amperometric nanosensor for biomedical applications.	HEC/R&D/RGA/ NRPU/2014/4452 by HEC (Completed 2022) 4.4 Million PKR
3.	Mudassar Iqbal, Bashir Ahmad . Development of novel hydrogels modified with bio-ionic liquids for tissue engineering applications. Working as an active <u>Co-Pi</u> in the project	HEC/R&D/RGA/ NRPU/2021/18758 by HEC (Awarded 2021; In Progress) 9 Million PKR
4.	Bashir Ahmad , Ahmad Farooq. Development, Characterization and Commercialization of the Biogenic Mosquito Repellent Oil (MRO) and Mosquito Repellent Balm (MRB).	NHCG-22/R3-39 (Awarded 2024; In Progress) 5 Million PKR

5.	Bashir Ahmad, Syed Zaigham Abbas Kazmi. Production and Commercialization of Enzyme Linked Immunosorbent Assay (ELISA) based diagnostic kit specific for Pakistani isolates of <i>Citrus tristeza Virus</i> (CTV)”	Technology Development Fund (TDF) by (HEC) Application No. 22910 (Awarded 2025; In Progress) 9.2 Million PKR
----	--	--

5. Selected Research based commercial products from our laboratory

#	Name /Registration No.	Thesis Title
1	Waseem Shah (2017)	Studies on the Development of Alkaline Phosphatase Coupled Milk Biosensor
2	Izhar Ali (2017)	Studies on development of a microbial biosensor for food quality
3	Muhammad Sarfraz (2017)	Studies on development of a microbial biosensor for environmental applications
4	Sayyad Waqas Umar (2017)	Studies on characterization of plant-based antidote against snake venom Co-supervisor: Ms. Amina Wajid (NIH, Islamabad)
5	M. Hashim Raza (2017)	'Studies on development of a rapid microbial detection system' Co-supervisor: Professor Hamid Mukhtar (GCU, Lahore)
6	Areeba Tariq (2017)	Formulation of Antipimple Medicated Cream using Mandarin (<i>Citrus Reticulata</i>) Seeds
7	Rubina Riaz (2017)	Studies on The Formulation of Medicated Body Wash Using Mandarin (<i>Citrus reticulata</i>) Juice
8	Sara Arif (2017)	Studies on The Formulation of Medicated Lotion Using Mandarin (<i>Citrus reticulata</i>) Juice
9	Sobia Sunawar Rathore (2017)	Formulation of medicated antipimple cosmetic base using mandarin (<i>Citrus reticulata</i>) peels
10	Muneeba Qureshi (2017)	Formulation of medicated scar healing cosmetic foundation using mandarin (<i>Citrus reticulata</i>) peels
11	Muhammad Bilal (2018)	Evaluation of Extract from <i>Aloe vera</i> and <i>Cucumis sativus</i> to formulate an anti-Inflammatory Cosmetic Cream
12	M. Afaq Johar (2018)	Formulation of Value-added Compounds from <i>Citrus reticulata</i> (kinnow)
13	Muhammad Qasim (2019)	Purification of thermophilic DNA polymerase from <i>P. aeruginosa</i>
14	Waqas Ahmad (2019)	Formulation of silver nanoparticles adsorbed bactericidal cold cream against clinical pathogens
15	Fawad Akhtar (2019)	Characterization and application of silver nanowires in wound dressing and its dermal assessment

6. Research for Domestication and Commercialization

S. No	Important Dates	Venture	Locale
1.	August 15, 2009	Joined as “Deputy Director of Innovation and Commercialization” , but quitted this role upon joining as an Assistant Professor at IIUI.	Center for Innovation and Entrepreneurship (CIE) National University of Science and Technology (NUST), Islamabad
2.	November 01, 2021 <i>Functional to date</i>	Launched a Startup: The EduTronics (SMC-PRIVATE) Limited at IIUI	Business Incubation Center (BIC); IIUI Running effectively

3.	November 20, 2021 <i>Dormant after Corona Clearance</i>	Launched a Startup: Clinical Express (PVT) Limited	- Free lancing
4.	November 11-16, 2018	CitroMetrics: Citrus-based products [Biogenic Cream, 7 Essential Oils] Jump Start up Pakistan "organized by Up Lift Pakistan at Jinnah Convention Center, Islamabad	1 st prize in the Category of Biologicals, Islamabad - Free lancing
5.	2020	You Tube Channel EduTronics , running effectively	https://youtube.com/@Drbasahirahmad
6.	December 12, 2016	Biotech Enterprises: Product; Biogas Production Plant Research-Based Business Competition at CASE SPARK 2016	3 rd prize, CASE, Islamabad - Partially effective
7	March 01, 2023 onwards	Biomerchant: Essential oils, Sanitizer, Biogenic Anti-acne Cream, Anti-aging serum, Moringa (Leaves, seed, extract, coarse powder, ointment, serum)	- Free lancing
8	April 21, 2024	Renewable Energy Solutions: Biogas, Biomethane, Artificial Firewoods	- Free lancing