CURRICULUM VITAE

Fazli Wahid, ***BS Biotech., MS Biotech., Ph.D., Biotech***

Associate Professor, PAF-IAST, Pakistan

Affiliated Researcher, Terasaki Institute for Biomedical Innovations

Los Angeles, California, USA

Cell Phone: +92-345-9006132

WhatsApp: +92-345-9006132

Email:, fazli.wahid@fbse.paf-iast.edu.pk or fazli.wahid@terasaki.org

Google Scholar: https://scholar.google.com.pk/citations?user=XpiL3Z4AAAAJ&hl=en

ResearchGate: https://www.researchgate.net/profile/Fazli-Wahid-3

Personal

Nationality:	Pakistani
Date of Birth:	April 1st, 1984
Country of Birth:	Pakistan

Academic Qualifications

Degree/Certificate	Year	Institute
Fulbright Fellow (Professor)	2024	Terasaki Institute for Biomedical Innovations, LA, CA, USA
Ph.D Biotechnology	2013	Kyungpook National University, Taegu, South Korea
M.S. Biotechnology	2010	Kyungpook National University, Taegu, South Korea
BS Biotechnology	2007	University of Peshawar, Pakistan
Teaching and Management System of Applied Universities (30 ECTS Course)	2021	FH JOANNEUM, Graz & MCI, Innsbruck, Austria

Special Diploma Course in English Language,	2006	National University of Modern languages Islamabad, Pakistan

Specialization and Research Interests

Biomaterials & Tissue Engineering, 3D Bioprinting, Artificial Organ Technologies, Lab-on a Chip, Organ-on a Chip, Molecular Basis of Diseases, Natural Product Research

Thesis Project

Degree	Title	Supervisor
Ph.D	Effects of selected natural products and nano-materials on visual system of vertebrate's eye and protection against glutamate induced toxicity in cultured retinal neurons	**Prof. You Young Kim**
M.S.	Effects of Red Ginseng Extracts on Visual Processes of Vertebrate Retina.	**Prof. You Young Kim**

Professional Experience

Position	Organization	From To
Fulbright Fellow (Professor)	Terasaki Institute for Biomedical Innovations, Los Angeles, California, USA	15-01-2024 to 14-01-2025

Associate Professor (Tenured)	Department Biomedical Sciences, Pak-Austria Fachhochschule: Institute of Applied Sciences and Technology, Haripur, Pakistan	17-03-2020 to till date
Assistant Professor	Department of Biotechnology, COMSATS University Islamabad, Abbottabad Campus	19-09-2013 to 17-03-2020
Research Associate	Molecular Physiological Biochemistry Laboratory, School of Life Sciences and Biotechnology, Kyungpook National University, South Korea	18-2-2008 to 6-8-2013
Lecturer	Department of Biotech, Sarhad University of Science and Technology, Peshawar, Pakistan	03-09-2007 to 02-02-2008

Administrative Experience

Position	**Organization**	**From To**
Manager, Advanced Studies and Research Board (ASRB)	Pak-Austria Fachhochschule: Institute of Applied Sciences and Technology, Haripur, Pakistan	08-05-2020 to till date
Head, Biotechnology	Pak-Austria Fachhochschule: Institute of Applied Sciences and Technology, Haripur, Pakistan	08-05-2021 to till date

Committee(s) Convenor/Member Serving or Served

S. NO	**Committee**	**Role**
1.	Library Affairs Committee	Convenor
2.	HEC Digital Library	Focal Person
3.	HEC PhD Country Directory (PCD)	Institute Focal Person
4.	Advanced Studies and Research Board	Member cum Secretory
5.	Conferences Evaluation Committee	Convenor
6.	Institute Disciplinary Committee	Member
7.	Institute Grievances Redressal Committee	Member
8.	Institute Board of Trustees	Member
9.	Institute Research Ethics Committee	Member
10.	PAF-IAST Food Committee	Member
11.	Technical Bid Evaluation Committee (Pharmacy Labs)	Member

12.	Technical Bid Evaluation Committee (BMS Labs)	Member
13.	Board of Faculty (FBSE)	Member
14.	Board of Faculty (FCM3)	Member
15.	Board of Faculty (FECID)	Member
16.	Board of Studies (BMS)	Member
17.	Lab Equipment Inspection and Commissioning Committee	Convenor
18.	Departmental Graduate Committee (BMS)	Member
19.	Graduate Admission Interview Committee (BMS)	Member
20.	Departmental Search Committee	Member

Research Projects

Investigator	**Title of the Project**	**Amount (PKR million)**	**Funding Body**	**Status**
Principle	Development of Artificial Skin and Tissue Substitutes based on 3D Bio-printed Advanced Materials	46.5 million	DGST & Industry	On-going
Principal	Wound Healing and Tissue Regeneration Activities of Bacterial Cellulose-Montmorillonite Nano-reinforced Composite Films in Burn Mice Models	0.5 million	HEC	Completed
Principal	Phytochemical Evaluation and Anti-angiogenic Effects of *Morus alba* and *Catharanthus roseus* for the Treatment of Corneal Neovascularization	0.2 million	CUI	Completed
Co-Principal	Immune defence augmentation effect of fish collagen peptides on the human skin commensals microbiomes against pathogenic bacteria	7.2 million	PSF	On-going
Co-Principal	Molecular and Mechanistic Studies of Selected Medicinal Plants for the Treatment of Hepatitis C Virus by Inhibiting Core Gene Expression of Genotype 3a	0.5 million	HEC	Completed
Co-Principal	Identification of Genes Involved in Human Hereditary Skin Conditions	0.5 million	HEC	Completed
Co-Principal	Cellular and Molecular Studies on *Hedera nepalensis*, *Nigella sativa*, *Azadirachta indica*, *Centela asiatica*, *Lavandula stoechas*, *Spharanthus indicus* and *Carissa opaca* for the Treatment of Breast Cancer	4 million	HEC	Completed
Co-Principal	Use of Clean Technology to Convert Industrial	0.2 million	CUI	Completed

	Wastes into Valuable Biomedical Materials by Micro-organisms			
Co-Principal	Development of Bacterial Cellulose-green Synthesized Metallic Oxides Nanocomposites as a Smart Dressing System for Cutaneous Burns	0.3 million	CUI	Completed

Patents

S. NO	Title of Invention	Patent No.
1.	Wound healing topical formulation and preparation thereof	**16/827,940** (Filed) US
2.	Wound healing formulation comprising chitosan and smectite clay	**193/2019** (Granted, 2021) Pakistan

Startups

S. NO	Name	Role
1.	BioprntX (PVT) Ltd.	**Founder**
2.	Radiant Aura (PVT) Ltd.	**Co-Founder**

Research Publications

No	Reference	Year	I.F. 2020	Country
1.	S. Haroon., Fazli Wahid., A. Said., H. Ayub., M. Kausar., H. Ullah., A. Joshi., T. Khan., *Ex-situ* development and molecular analysis of tamarind-enriched bacterial cellulose-based composite for treating burn wounds. *International Journal of Biological Macromolecules*. 144369	**2025**	**8.5**	Germany
2.	H. Wang., H. Peng., W. Ji., J. Wang., X. Du., W. Song., W. Zhang., Fazli Wahid, A. Raza., Photo-responsive polypropylene/zinc oxide/polydopamine-TEMPO composite membranes with light-induced self-sterilization. *Nano Materials Science.* 276-288.	**2024**	**17.9**	China
3.	Haghniaz, R., Montazerian, H., Rabbani, A., Baidya, A., Usui, B., Zhu, Y., Tavafoghi, M., **Fazli Wahid**., Kim, H.-J., Sheikhi, A., Khademhosseini, A., Injectable, Antibacterial, and Hemostatic Tissue Sealant Hydrogels. *Advanced Healthcare Material*.	**2023**	**11.092**	England

	2301551. https://doi.org/10.1002/adhm.202301551			
4.	H. Wang, M.Hao, G. Wang, H. Peng, **Fazli Wahid**, Y. Yang, L. Liang, S. Liu, R. Li, S.Feng., Zein nanospheres assisting inorganic and organic drug combination to overcome stent implantation-induced thrombosis and infection. *Science of The Total Environment*, 873, 162438, https://doi.org/10.1016/j.scitotenv.2023.162438	**2023**	**10.753**	Netherlands
5.	Y. Cheng, K. Xia, H. Li, P. Liu, Z. Zhao, G. Xu, Fazli Wahid, H. Wang, One-pot synthesis of NiO-MnCo2O4 heterostructure hollow spheres via template-free solvothermal method for high-performance supercapacitors. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, 669, 131544, https://doi.org/10.1016/j.colsurfa.2023.131544	**2023**	**5.518**	Netherlands
6.	H.M. Rasheed, U. Farooq, K. Bashir, **Fazli Wahid**, T. Khan, A. Khusro, M. Gajdács, S. Alghamdi, A.A. Alsaiari, M. Almehmadi, S. Afzal, M. U. K. Sahibzada, Isolation of oleanolic acid from Lavandula stoechas and its potent anticancer properties against MCF-7 cancer cells via induced apoptosis. *Journal of King Saud University - Science*, 35, 102454, https://doi.org/10.1016/j.jksus.2022.102454 .	**2023**	**3.829**	Netherlands
7.	Zia-ur Rehman, Aleksandra Gurgul, Isoo Youn, Amanda Maldonado, **Fazli Wahid**, Chun-Tao Che, Taous Khan, UHPLC-MS/MS-GNPS based phytochemical investigation of *Equisetum arvense* L. And evaluation of cytotoxicity against human melanoma and ovarian cancer cells. *Saudi Journal of Biological Sciences.* 29, (6), 103271	**2022**	**4.052**	Saudi Arabia
8.	Ayesha Khalid, A. Madni, B. Raza, M. Ul-Islam, A. Hassan, F. Ahmad, H. Ali, T. Khan, **Fazli Wahid**, Multiwalled carbon nanotubes functionalized bacterial cellulose as an efficient healing material for diabetic wounds. *International Journal of Biological Macromolecules*. 203, 256-267.	**2022**	**8.025**	Germany

9.	HM Rasheed, K Bashir, A Gurgul, Fazli Wahid, CT Che, I Shahzadi, T Khan, UHPLC-MS/MS-GNPS based phytochemical investigation of *Dryopteris ramosa* (Hope) C. Chr. and evaluation of cytotoxicity against liver and prostate cancer cell lines. *Heliyon*, e11286	**2022**	**3.776**	England
10.	Ullah MW, Ul-Islam M, **Fazli Wahid**, Yang G. Editorial: Nanocellulose: A Multipurpose Advanced Functional Material, Volume II. *Frontiers in Bioengineering and Biotechnology*. 10.3389/fbioe.2022.931256	**2022**	**5.890**	Switzerland
11.	M Ahmed, MUK Sahibzada, HM Rasheed, T Khan, Fazli Wahid, U Farooq, A Khusro, J Uddin, S Afzal, A Khan, A Al-Harrasi. Inhibition of Inflammation Associated Corneal Neovascularization by *Dalbergia sissoo* and *Catharanthus roseus* Leaves Extracts in Animal Model. *South African Journal of Botany*. https://doi.org/10.1016/j.sajb.2022.03.047	**2022**	**3.111**	South Africa
12.	F Rehman, SS Naz, MJ Dar, A Malik, M Qindeel, F Baino, Fazli Wahid, A Rahdar, S Munir, S Qaisar, KU Shah, M Razlansari. Multifunctional Silver-based Nanomaterials for Non-conventional Oral Cancer Therapy through Simultaneous LOX and Selective COX-2 inhibition. *Iranian Journal of Materials Science and Engineering*. 19(2),	**2022**	**0.222**	Iran
13.	F. Subhan, Z. Hussain, I. Tauseef, A. Shehzad and **Fazli Wahid*.** A review on recent advances and applications of fish collagen. *Critical Reviews in Food Science and Nutrition.* 61 (6), 1027-1037	**2021**	**11.208**	England
14.	R. Haghniaz, A. Rabbani, F. Vajhadin, T. Khan, R. Kousar, A. R. Khan, H. Montazerian, J. Iqbal, A. Libanori, H. J. Kim and **Fazli Wahid.** Anti-bacterial and wound healing promoting effects of zinc ferrite nanoparticles. *Journal of Nanobiotechnology*. 19:38	**2021**	**9.429**	England
15.	K. Bashir, S. Naz, U. Farooq, **Fazli Wahid**, A J. Shaha, Erin P.Mc Cauleyd, P. Crewsd and T. Khan, Assessing the ethnobotanical potential of *Carissa opaca* berries by merging outcomes from	**2021**	**9.231**	England

	metabolomics profiling, enzyme assays, and in silico docking studies. *Food Chemistry.* 363, 130259			
16.	H. M. Rasheed, **Fazli Wahid**, M. Ikram, Muhammad Qaisar, A. J. Shah, T. Khan, Chemical profiling and anti-breast cancer potential of hexane fraction of *Sphaeranthus indicus* flowers. *Tropical Journal of Pharmaceutical Research* 20 (9), 1931-1939.	**2021**	**0.523**	Nigeria
17.	M. Badshah, H. Ullah, **Fazli Wahid** and T. Khan. Properties and Applications of Modified Bacterial Cellulose-Based Materials. *Current Nanoscience.* 17 (3), 351-364	**2021**	**1.513**	UAE
18.	A. Madni, A. Khalid, **Fazli Wahid**, H. Ayub, R. Khan and R. Kousar. Preparation and Applications of Guar Gum Composites in Biomedical, Pharmaceutical, Food and Cosmetics Industries, *Current Nanoscience.* 17 (3), 365-379	**2021**	**1.513**	UAE
19.	A. Rabbani, R. Haghniaz, T. Khan, R. Khan, A. Khalid, S. S. Naz, M. Ul-Islam, F. Vajhadin, **Fazli Wahid**. Development of bactericidal spinel ferrite nanoparticles with effective biocompatibility for potential wound healing applications. *RSC Advances* 11 (3), 1773-1782.	**2021**	**4.036**	England
20.	A. Madni, R. Kousar, N. Naeem, **Fazli Wahid**. Recent Advancements in Applications of Chitosan-based Biomaterials for Skin Tissue Engineering. *Journal of Bioresources and Bioproducts,* 6 (1), 11-25.	**2021**	**-**	China
21.	W. Sajjad, F. He, M. W. Ullah, M. Ikram, S. M. Shah, R. Khan, T. Khan, A. Khalid, G. Yang, and **Fazli Wahid**, Fabrication of Bacterial Cellulose-Curcumin Nanocomposite as a Novel Dressing for Partial Thickness Skin Burn. *Frontiers in Bioengineering and Biotechnology*, 2020; 8: 553037. https://doi.org/10.3389/fbioe.2020.553037	**2020**	**5.890**	Switzerland
22.	T. Khan, M. Badshah, H. Ullah, F. He, **Fazli Wahid**, U. Farooq and M. Andersson. Development and Evaluation of Drug Loaded Regenerated Bacterial Cellulose-based Matrices as a Potential	**2020**	**5.890**	Switzerland

	Dosage Form. *Frontiers in Bioengineering and Biotechnology,* 2020; 8:579404. https://doi.org/10.3389/fbioe.2020.579404			
23.	M. Badshah, H. Ullah, **Fazli Wahid**, T. Khan. Bacterial Cellulose-Based Metallic Green Nanocomposites for Biomedical and Pharmaceutical Applications. *Current Pharmaceutical Design.* https://doi.org/10.2174/1381612826666201006125142	**2020**	**3.116**	UAE
24.	Said, N. Naeem, S. Siraj, T. Khan, A. Javed, H. Majid Rasheed, W. Sajjad, K. Shah, **Fazli Wahid.** Mechanisms Underlying the Wound Healing and Tissue Regeneration Properties of *Chenopodium album*. *3 Biotech*. 10, 452 (2020). https://doi.org/10.1007/s13205-020-02436-6	**2020**	**2.406**	Germany
25.	N. Zafar, A. Madni, A. Khalid, T. Khan, R. Kousar, S. Sohaila Naz, **Fazli Wahid**. Pharmaceutical and Biomedical Applications of Green Synthesized Metal and Metal Oxide Nanoparticles, *Current Pharmaceutical Design*. (2020) 26: 1. https://doi.org/10.2174/1381612826666201126144805	**2020**	**3.116**	UAE
26.	HM Rasheed, **Fazli Wahid**, R Qayyum, AJ Shah, T Khan. Chemical Composition and Pharmacological Evaluation of Essential Oil from *Jasminum officinale* Flowers for Spasmolytic and Vasodilator Activities. *FARMACIA* 68 (4), 722-727. DOI: 10.31925/farmacia.2020.4.19	**2020**	**1.433**	Romania
27.	W. Sajjad, T. Khan, M. Ul-Islam, R. Khan, **Fazli Wahid*.** Development of modified montmorillonite-bacterial cellulose nanocomposites as a novel substitute for burn skin and tissue regeneration. *Carbohydrate Polymers*, 206, 548-556. ***Corresponding author**	**2019**	**9.381**	England
28.	Z. Hussain, W. Sajjad, T. Khan, and **Fazli Wahid***. Production of Bacterial Cellulose from Industrial Wastes: A Review. *Cellulose.* 26, 2895–2911. ***Corresponding author**	**2019**	**5.044**	England
29.	Ali Said, **Fazli Wahid***, Kashif Bashir, Hafiz Majid Rasheed, Taous Khan, Zohaib Hussain, and Sami Siraj*. *Sauromatum*	**2019**	**3.503**	England

	guttatum extract Promotes Wound Healing and Tissue Regeneration in Burn Mice Model via Up-regulation of Growth Factors. *Pharmaceutical Biology.* https://doi.org/10.1080/13880209.2019.1676266. ***Corresponding author**			
30.	A. Madni, R. Khan, M. Ikram, S. S. Naz, T. Khan, and **Fazli Wahid***. Fabrication and Characterization of Chitosan–Vitamin C–Lactic Acid Composite Membrane for Potential Skin Tissue Engineering. *International Journal of Polymer Science*. Article ID 4362395, 8 pages. https://doi.org/10.1155/2019/4362395. ***Corresponding author**	**2019**	**2.642**	England
31.	S. Khan, H. Ayub, T. Khan and **Fazli Wahid***. MicroRNA biogenesis, gene silencing mechanisms and role in breast, ovarian and prostate cancer. *Biochimie*. 167:12-24. ***Corresponding author**	**2019**	**4.079**	France
32.	A. Shoukat, **Fazli Wahid**, T. Khan, M. Siddique, S. Nasreen, G. Yang, M. Wajid Ullah, R. Khan. Titanium oxide-bacterial cellulose bioadsorbent for the removal of lead ions from aqueous solution. *International Journal of Biological Macromolecules.* 129: 965-971	**2019**	**6.953**	Germany
33.	N. Mansoor, **Fazli Wahid**, M. Azam, K. Shah, R. Qamar and H. Ayub. Molecular Mechanisms of Complement System Proteins and Matrix Metalloproteinases in the Pathogenesis of Age-Related Macular Degeneration. *Current Molecular Medicine.* doi: 10.2174/1566524019666190828150625	**2019**	**2.222**	UAE
34.	H. Ullah, M. Badshah, A. Correia, **Fazli Wahid**, H. A. Santos, and T. Khan. Functionalized Bacterial Cellulose Microparticles for Drug Delivery in Biomedical Applications. *Current Pharmaceutical Design*. 25(34):3692-3701.	**2019**	**3.116**	UAE
35.	Z. Qureshi, T. Khan, A. Khalid, Z. Rehman, A. J. Shah and **Fazli Wahid***, *Solanum incanum* Extract Enhances Wound Healing and Tissue Regeneration in Burn Mice Model. *Bangladesh Journal of*	**2019**	**0.930**	Bangladesh

	Pharmacology. 14: 101-106. ***Corresponding author**			
36.	Y.N. William, A. Gilbert, A.J. Shah, **Fazli Wahid**, M. Marius, M.A. Yameen, S.L. Shah, K. Bashir, W. Sajjad, J.R. Kuiate, K. Albert, T. Khan. Curative effects of *Distemonanthus benthamianus* Baillon. trunk-bark extracts on enteropathogenic *Escherichia coli* 31-induced diarrhoea in rats. *Journal of Complementary and Integrative Medicine.* https://doi.org/10.1515/jcim-2018-0202	**2019**	**ISI**	Germany
37.	Syed Luqman Shah, **Fazli Wahid***, Noorullah Khan, Umar Farooq, Abdul Jabbar Shah, Shah Tareen, Fiaz Ahmad and Taous Khan. Inhibitory Effects of *Glycyrrhiza glabra* and Its Major Constituent Glycyrrhizin on Inflammation-Associated Corneal Neovascularization. *Evidence-Based Complementary and Alternative Medicine*. Volume 2018, Article ID 8438101, 8 pages. ***Corresponding author**	**2018**	**2.629**	England
38.	Tahir Y, Shazia R, **Fazli Wahid**, Sidra R, Abdul N, Javeria R, Kashif A, Ghulam S, and Shahid M S. Phytochemical Profiling and Antiviral Activity of *Ajuga bracteosa, Ajuga parviflora, Berberis lycium* and *Citrus lemon* against Hepatitis C Virus. *Microbial Pathogenesis,* 118:154-158.	**2018**	**3.738**	England
39.	M. Qureshi, E A. Al-Suhaimi, **Fazli Wahid**, O. Shehzad, A. Shehzad. Therapeutic potential of curcumin for multiple sclerosis. Neurological Sciences, 39, 207–214.	**2018**	**3.307**	Germany
40.	A. Khalid, H. Ullah, M. Ul-Islam, R. Khan, S. Khan, F. Ahmad, T. Khan & **Fazli Wahid*.** Bacterial Cellulose-TiO_2 Nanocomposites Promotes Healing and Tissue Regeneration in Burn Mice Model. *RSC Advances*, 47662-47668. ***Corresponding author**	**2017**	**3.361**	England
41.	Ayesha Khalid, R. Khan, M. Ul-Islam, T. Khan, **Fazli Wahid*.** Bacterial Cellulose-Zinc Oxide Nanocomposites as a Novel Dressing System for Burn Wounds. *Carbohydrate Polymers.* 164,	**2017**	**9.381**	England

	214-221. ***Corresponding author**			
42.	A. Khan, S. Shah, **Fazli Wahid,** F. G. Khan, Saima Jabeen. MicroRNA precursors identification using reduced and hybrid features. *Molecular BioSystems*, 13, 1640-1645	**2017**	**3.336**	England
43.	A. Saeed, **Fazli Wahid**, H. M. Rasheed, R. Qayyum, A. J. Shah, Taous Khan. Effects of *Heliotropium strigosum* and *Trapa bicornis* in hyperactive gut disorders. *Bangladesh Journal of Pharmacology,* 12, 190-196	**2017**	**0.930**	Bangladesh
44.	H. Ullah, **Fazli Wahid**, H. A. Santos, and T. Khan. Advances in Biomedical and Pharmaceutical Applications of Functional Bacterial Cellulose-Based Nanocomposites. *Carbohydrate Polymers.* 150, 330-352	**2016**	**9.381**	England
45.	TK Sayyad Ali, Rahila Qayyum, Izhar Hussain, **Fazli Wahid**, Abdul Jabbar Shah. Intestinal and vascular smooth muscle relaxant effect of Viscum album explains its medicinal use in hyperactive gut disorders and hypertension. BMC Complementary and Alternative Medicine 16, 251.	**2016**	**3.659**	England
46.	**Fazli Wahid***, T. Khan, O. Shehzad, A. Shehzad, and Y.Y. Kim. Phytochemical analysis and effects of *Pteris vittata* extract on visual processes. *Journal of Natural Medicines.* 70, 8-17. ***Corresponding author**	**2016**	**2.343**	Japan
47.	H. M. Rasheed, T. Khan**, Fazli Wahid***, R. Khan, A. J. Shah (2016) Chemical composition and vascular and intestinal smooth muscle relaxant effects of the essential oil from *Psidium guajava* fruit. *Pharmaceutical Biology*. DOI: 10.1080/13880209.2016.1178309	**2016**	**3.503**	England
48.	**Fazli Wahid***, R. Khan, T. Khan, M. Ul-Islam and Y.Y. Kim. Effects of Nickel Oxide Nanoparticles on Visual Processes and Electro-retinography Waves in the Bullfrog Eye. *Journal of the Chemical Society of Pakistan*, 38, 56-62. ***Corresponding author**	**2016**	**0.536**	Pakistan
49.	A. Haider, A. Shehzad, **Fazli Wahid**, A. Kumar, K. M. Rao and S.	**2016**	**-------**	Spain

	S. Han. The Multi Regulatory Role of Signal Transducer and Activator of Transcription Factor Brn-3a. Journal of Neurology and Neuroscience 7 (2), 1-7.			
50.	M. A. N. Khan, M. Siddique, **Fazli Wahid**, R. Khan. Removal of reactive blue 19 dye by sono, photo and sonophotocatalytic oxidation using visible light. *Ultrasonics Sonochemistry.* 26 (0), 370-377.	**2015**	**7.491**	England
51.	W.A. Khattak, T. Khan, M. Ul-Islam, **Fazli Wahid**, J.K. Park. Production, characterization and physico-mechanical properties of bacterial cellulose from industrial wastes. *Journal of Polymers and the Environment.* 23, 45-53.	**2015**	**3.667**	U.S.A
52.	W.A. Khattak, T. Khan, M. Ul-Islam, M.W. Ullah, S. Khan, **Fazli Wahid,** J.K. Park, Production, characterization and biological features of bacterial cellulose from scum obtained during preparation of sugarcane jaggery (gur). *Journal of Food Science and Technology*, 52, 8343-8349	**2015**	**2.701**	India
53.	H.M. Rasheed, T. Khan, **Fazli Wahid***, R. Khan, A.J. Shah, Chemical composition, vasorelaxant and antispasmodic effects of essential oil from *Rosa indica* L. petals, *Evidence-Based Complementary and Alternative Medicine*, vol. 2015, Article ID 279247, 9 pages, 2015. doi:10.1155/2015/279247	**2015**	**2.629**	England
54.	**Fazli Wahid,** T. Khan, S. Khan, Y.Y. Kim. MicroRNA and Diseases: Therapeutic Potential as New Generation of Drugs. *Biochimie.* 104:12-26.	**2014**	**4.079**	France
55.	**Fazli Wahid*,** T. Khan, A. Shehzad, M. Ul-Islam, and Y. Y. Kim. Interaction of Nanomaterials with Cells and Their Medical Applications. *Journal of Nanoscience and Nanotechnology*, 14, 744-754. ***Corresponding author**	**2014**	**1.134**	U.S.A.
56.	A. Shehzad, M. Ul-Islam, **Fazli Wahid**, and Y. S. Lee. Multifunctional Polymeric Nanocurcumin for Cancer Therapy. *Journal of Nanoscience and Nanotechnology*, 14, 803-814.	**2014**	**1.134**	U.S.A.

57.	**Fazli Wahid,** M. Ul-Islam, R. Khan, T. Khan, W.A. Khattak, K. Hwang, J.S. Park, S.C Chang and Y.Y. Kim. Stimulatory Effects of Zinc Oxide Nanoparticles on Visual Sensitivity and ERG b-waves in the Bullfrog Eye. *Journal of Biomedical Nanotechnology*. 9, 1408-1415.	**2013**	**4.099**	U.S.A.
58.	K.H. Hwang, S.C. Chang, J.S. Park, **Fazli Wahid** and Y.Y. Kim* (2013) Anti-inflammatory Effects of Inhalation of Injured Starfish Extracts on Formaldehyde Exposure. *Korean Journal of Life Science*. 4, 501-509.	**2013**	--------	South Korea
59.	**Fazli Wahid**, H. Jung, T. Khan, K.H. Hwang, J.S. Park, S. Chang, M.A. Khan, Y.Y Kim. Effects of Rubus coreanus extract on visual processes in bullfrog's eye. *Journal of Ethnopharmacology* 138: 333–39.	**2011**	**4.360**	Ireland
60.	**Fazli Wahid**, A. Shehzad, T. Khan, and You Young Kim (2010) microRNA: Synthesis, Mechanism, Function and Recent Clinical Trials. *BBA-Molecular Cell Research*. 1803, 1231-43.	**2010**	**4.739**	Netherlands
61.	**Fazli Wahid,** H. Jung, T. Khan and Y.Y. Kim (2010) Effects of Red Ginseng Extracts on Visual Sensitivity and ERG b-wave of bullfrog's eye. *Planta Medica*, 76 (5):426-32.	**2010**	**3.352**	Germany
62.	A. Shehzad, **Fazli Wahid**, Young Sup Lee (2010). Cancer chemoprevention by curcumin: molecular targets, pharmacokinetics, bioavailability and clinical trials: A Review. *Archiv der Pharmazie* 343(9):489-99	**2010**	**3.751**	Germany
63.	G.H. Choi, **Fazli Wahid** and Y.Y. Kim. The Effect of Phytosphingosine like-Substance Isolated from A. pectinifera on Involucrin Expression in Mite Antigen-Stimulated HaCaT Cells. *Natural Product Communications*, 5 (7): 1081-1084	**2010**	**0.986**	U.S.A.
64.	**Fazli Wahid**, T. Khan, F. Subhan, Mir A. Khan and Y.Y. Kim. Ginseng pharmacology: multiple molecular targets and recent clinical trials. Drugs of the Future, 35(5): 399-407	**2010**	**0.148**	Spain
65.	F. Subhan, A. Khan, **Fazli Wahid**, A. Shehzad, A.Ul. Jan.	**2011**	--------	South Korea

	Determination of Optimal Toxic Concentration and Accumulation of Cadmium in Broiler Chicks. *Toxicological Research* 143-147.		-	
66.	**Fazli Wahid,** Taous Khan, Kyung-hee Hwang and You Young Kim (2009) Piwi-interacting RNA in animals: The story so far. *African Journal of Biotechnology,* 8 (17): 4002-4006.	**2009**	**-------**	Kenya
Total Impact Factor of all Published Papers **Total Google Scholar Citations** **h-Index**			**270** **5885** **30**	

Students Supervision

Supervisory Status	Name of Student	PhD/MS/ BS	Title of Synopsis/ Tentative Titles	Status
Supervisor	Muhammad Junaid Ahmad Tariq	PhD	Not yet Approved	Enrolled
Supervisor	Ishtiaq Ali	PhD	Not yet Approved	Enrolled
Supervisor	Saba Iftikhar	PhD	Not yet Approved	Enrolled
Supervisor	Shazma Yousaf	PhD	Not yet Approved	Enrolled
Supervisor	Atiya Rabbani	PhD	Chitosan-Spinel Ferrite Nanocomposites as a Novel Antimicrobial and Wound Dressing System	Completed, Nov, 2022
Co-supervisor	Ayesha Khalid	PhD	Functionalizing Bacterial Cellulose with Carbon Nanofillers to Develop a Smart Dressing System for Chronic Diabetic Wounds	Completed, January 2023
Co-supervisor	Hafiz Majid Rasheed	PhD	Bioactivity-Oriented Isolation and Characterization of Anti-Breast Cancer Constituents from *Sphaeranthus indicus* and *Lavandula stoechas*	Completed, Sep, 2022
Co-supervisor	Zia Ur Rehman	PhD	Bioactivity-directed Isolation and Characterization of Anticancer Constituents from *Dryopteris ramosa* and *Equisetum arvense*	Completed, May, 2023
Supervisor	Alia Babar	MS	Bacterial Cellulose based Hydrogel for Wound Healing	Completed, Aug, 2023
Supervisor	Saba Iftikhar	MS	Designing of Chitosan Based Bioink for Manufacturing of Artificial Skin	Completed, Aug, 2023
Supervisor	Shazma Yousaf	MS	Analysis of Alginate Based Bioink for the Designing of Artificial Skin	Completed, Aug, 2023
Co-supervisor	Tayyaba Usama	MS	Evaluation of Collagen Scaffold for 3D Culturing of Cancer Cell Line	Completed, Aug, 2023

Supervisor	Milad Ahmad Said Khili	MS	Evaluation of Biocellulose-based 3D Printed Scaffold for Treatment of Skin Burns in Animal Models	Completed Feb, 2024
Supervisor	Ahmad Madni	MS	Fabrication of Bacterial Cellulose-green Synthesized Metallic Oxides Nanocomposites Multifunctional Dressing System for Skin Burns	Completed Jan, 2020
Supervisor	Nabila Zaffar	MS	Evaluation of Antioxidant and Anticancer Potentials of *Nigella sativa, Azadirachta indica* and *Centella asiatica* Extract	Completed Jan, 2020
Supervisor	Naveera Naeem	MS	Development of Chitosan-Smectite Clay Based Flexible Burn Wound Dressing	Completed Aug. 2019
Supervisor	Zohaib Hussain	MS	Development of Multifunctional Scaffolds for Skin Tissue Engineering	Completed Jan. 2019
Supervisor	Wasim Sajjad	MS	Synthesis of Bacterial Cellulose and Composites Facial Masks for Potential Applications in Cosmetics	Completed Aug. 2018
Supervisor	Shah Tareen	MS	Evaluation of Honokiol, Umbelliferone and Continentalic Acid for the Treatment of Corneal Neovascularization	Completed Jan. 2017
Supervisor	Ayesha Khalid	MS	Wound Healing activities of Nano-reinforced Bacterial Cellulose Composite Films in Burn Mice Model	Completed Feb. 2016
Co-Supervisor	Noorullah Khan	MS	Phytochemical Analysis and Evaluation of Anti-angiogenic Potentials of *Achyranthes aspera, Juglans regia, Urtica dioica, Dodonea viscose* and *Mentha longifolia*	Feb. 2017
Co-Supervisor	Zainab Qureshi	MS	Phytochemical Evaluation and Wound Healing Activity of *Melia azedarch*, *Tagetes minuta* and *Solanum incanum* in Burn Mice Model	Completed Aug. 2015
Co-Supervisor	Munir Ahmed	MS	Phytochemical Evaluation and Pharmacological Effects of *Piper longum*, *Dalbergia sissoo* and *Catharanthus roseus* in Corneal Neovascularization	Completed Aug. 2015
Co-Supervisor	Umar Farooq	MS	Phytochemical and pharmacological evaluation of *Azadirachta indica*, *Centella asiatica*, *Lavandula stoechas* and *Sphaeranthus indicus* for the treatment of corneal neovascularization	Completed Aug. 2014
Supervisor	Naveera Naeem	BS	Fabrication of chitosan-based Na, Ca and Cu modified montmorillonites composites membrane as potential wound dressing system	Completed Aug. 2017
Supervisor	Nabila Zaffar	BS	Green synthesis of Metal Nanoparticles using *Brassica oleracea capitata* (Cabbage): Characterization and Antibacterial Activity	Completed Jan. 2018
Supervisor	Ahmad Madni	BS	Fabrication and Characterization of Chitosan-Vitamin C-Lactic acid Composite for Skin Tissue Engineering	Completed Jan. 2018
Supervisor	Sanna Khan	BS	A Review on MicroRNAs Biosynthesis, Mechanism and Role in Breast, Ovarian and Prostate Cancer	Completed Aug. 2018
Supervisor	Zohaib Hussain	BS	Production of Bacterial Cellulose from Industrial Wastes using *Acetobacter xylinum*	Completed Jan. 2017

Supervisor	Wasim Sajjad	BS	Fabrication and evaluation of bacterial cellulose-based composites for skin tissue engineering	Completed Aug. 2016

Book Chapters

1. Ayesha Khalid, Naveera Naeem, Taous Khan and **Fazli Wahid*,** Polysaccharide composites as a wound-healing sponge**.** In: Advanced Applications of Polysaccharides and their Composites. ed, Amir A.l-Ahmed and Inamuddin, published by; Materials Research Forum LLC USA. **2020.**
2. **Fazli Wahid**, T. Khan, Z. Hussain, H. Ullah, Nanocomposites Scaffolds for Tissue Engineering; Preparation, Properties and Applications**.** In: Applications of Nanocomposite Materials in Drug Delivery 1st ed, Inamuddin, A. M. Asiri, A. Mohammad (Eds.), Elsevier Inc., Imprint by Woodhead Publishing Ltd. UK. **2018**.
3. M. Badshah, T. Khan, H. Ullah, **Fazli Wahid**, and M. W. Ullah**.** Applications of Nanofibrillar Celluloses in Drug Delivery: From Conventional Tablet Excipient to Novel Drug Carrier. In: Nanocellulose Synthesis, Structure, Properties, and Applications, Guang Yang (Ed), World Scientific Publishers Cooperation, UK. **2019**.
4. N. Naeem, N. Zafar, **Fazli Wahid**. Antimicrobial Green Composites (, In: Green Sustainable Process for Chemical and Environmental Engineering and Science (Pages 187-206), Dr. Inamuddin, Tariq Altalhi, (Eds), Elsevier, **2023**, ISBN 9780323951692**,** https://doi.org/10.1016/B978-0-323-95169-2.00012-2
5. N. Zafar, N. Naeem, T. Khan, H. Ullah, **Fazli Wahid**, Green Composites for Drugs Capsule Coatings, In: Green Sustainable Process for Chemical and Environmental Engineering and Science (Pages 1-20), Dr. Inamuddin, Tariq Altalhi, (Eds), Elsevier, 2023, ISBN 9780323951692, https://doi.org/10.1016/B978-0-323-95169-2.00001-8
6. A. Madni, H. Ayub, A. Khalid, T. Khan, Fazli Wahid, Applications of guar gum composites, In: Green Sustainable Process for Chemical and Environmental Engineering and Science (Pages 27-46), Dr. Inamuddin, Tariq Altalhi, (Eds), Elsevier, 2023, ISBN 9780323951838, https://doi.org/10.1016/B978-0-323-95183-8.00017-2

Curriculum Development and Program Design

S. No.	Program	Role
1.	BS Biomedical Sciences	Concept, Curriculum and Starting of the Program
2.	BS Biotechnology	Concept, Curriculum and Starting of the Program
3.	MS Biotechnology	Concept, Curriculum and Starting of the Program
4.	MS Biomedical Sciences	Concept, Curriculum and Starting of the Program
5.	BS Bioinformatics	Concept, Curriculum and Starting of the Program
6.	BS Microbiology	Concept, Curriculum and Starting of the Program
7.	BS Health Informatics and	Concept, Curriculum and Starting of the Program

	Management	
8.	PhD Biomedical Sciences	Concept, Curriculum and Starting of the Program
9.	PhD Biotechnology	Concept, Curriculum and Starting of the Program

Courses Taught

Course Title	Credit Hours	PhD/Master/ Undergrad
Introduction To Biotechnology	2,0	Undergrad
Trends in Biotechnology	3,0	PhD/Master
Advances Industrial Biotechnology	3,0	PhD/Master
Biomaterials and Tissue Engineering	2,1	Undergrad
Advances in Artificial Organ Technology	3,0	PhD/Master
Recent Trends in Regenerative Medicine	3,0	PhD/Master
Immunology	2,0	Undergrad
Medical Biotechnology	3,0	PhD/Master
Immunology	2,0	Undergrad
Medical Biotechnology	3,0	PhD/Master
Immunology	2,0	Undergrad
Introduction to Nano-biotechnology	3,0	Undergrad
Immunology	2,0	Undergrad
Medical Biotechnology	3,0	Master
Medical Biotechnology	3,0	PhD
Immunology	2,0	Undergrad
Health biotechnology	2,0	Undergrad
Forensic Biotechnology	3,0	PhD
Medical Biotechnology	3,0	PhD
Medical Biotechnology	3,0	Master
Pharmaceutical Biotechnology	2,1	Undergrad
Pharmaceutical Biotechnology	2,1	Undergrad
Introduction to Nano-biotechnology	3,0	Undergrad
Pharmaceutical Biotechnology	2,1	Undergrad
Introduction to Nano-biotechnology	3,0	Undergrad
Pharmaceutical Biotechnology	3,0	Undergrad
Introduction to Nano-biotechnology	3,0	Undergrad
Pharmaceutical Biotechnology	3,0	Undergrad
Introduction to Nano-biotechnology	3,0	Undergrad
Pharmaceutical Biotechnology	3,0	Undergrad
Medical Biotechnology	3,0	PhD/Master
Animal Biotechnology	3,0	Undergrad
Pharmaceutical Biotechnology	3,0	Undergrad

Editor of Journals

1. Editorial Board Member of Journal of Trends in Biotechnology: Open Access (Cresco Online Publishing, USA)

2. Editorial Board Member of Journal of RNA & DISEASE (Smart Science Technology)

Abstracts/Presentations in Symposia, Conferences & Workshops

1. **Fazli Wahid**, International Workshop on Training of Trainers in Plant Biodiversity, November 23-25, 2006 Organized by Higher Education Commission of Pakistan.

2. **Fazli Wahid**, Certificate Course, an Introduction to Bioinorganic and Medicinal Chemistry of Metals by Institute of Chemical Sciences, University of Peshawar

3. Wasim Sajjad, Zohaib Hussain, Taous Khan and **Fazli Wahid*** "Bacterial Cellulose-Cu-Montmorillonite as Novel Dressing System for Burn wounds" Poster presented at 13th Biennial Conference of Pakistan Society for Biochemistry and Molecular Biology (PSBMB) on "Recent Advances & Challenges in Molecular Biology, Biochemistry and Biotechnology". Organized by Center of Advanced Drug Research (CADR), COMSATS Institute of Information Technology, Abbottabad. (25-27 August, 2016). (***Corresponding Author)**

4. Zohaib Hussain, Wasim Sajjad, Taous Khan and **Fazli Wahid*** "BC-Curcumin Nanocomposites for Burn Wound Healing and Tissue Regeneration" Poster presented at 13th Biennial Conference of Pakistan Society for Biochemistry and Molecular Biology (PSBMB) on "Recent Advances & Challenges in Molecular Biology, Biochemistry and Biotechnology". Organized by Center of Advanced Drug Research (CADR), COMSATS Institute of Information Technology, Abbottabad. (25-27 August, 2016). (***Corresponding Author)**

5. Wasim Sajjad, Taous Khan and **Fazli Wahid*** "Bacterial cellulose-Cu-montmorillonite nanocomposites as skin graft for partial thickness burn" Poster (P-04) presented at the 5th International Symposium on Biomedical Materials, PC Hotel Lahore. Organized by Interdisciplinary Research Centre in Biomedical Materials (IRCBM), COMSATS Institute of Information Technology, Lahore and University of Sheffield, UK. Page No 58 (14-16 December 2016). (***Corresponding Author)**

6. Zohaib Hussain, Wasim Sajjad, Ayesha Khalid, Taous Khan and **Fazli Wahid*** "Bacterial Cellulose-Curcumin Nanocomposites as a Novel Dressing Material for Burn Wounds" Poster (P-05) presented at the 5th International Symposium on Biomedical Materials, PC Hotel Lahore. Organized by Interdisciplinary Research Centre in Biomedical Materials (IRCBM), COMSATS Institute of Information Technology, Lahore and University of Sheffield, UK. Page No 59 (14-16 December 2016). (***Corresponding Author)**

7. Ayesha Khalid**,** Taous Khan and **Fazli Wahid*** "Bacterial cellulose-zinc oxide nanocomposites for burn wound healing and tissue regeneration" Oral presentation at the *5th International Symposium on Biomedical Materials*, PC Hotel Lahore. Organized by Interdisciplinary Research Centre in Biomedical Materials (IRCBM), COMSATS Institute of Information Technology, Lahore and University of Sheffield, UK. Page No. 49 (14-16 December 2016). (***Corresponding Author)**

Honors and Awards

- ✓ **Fulbright Fellowship (2024-2025)** granted by The **U.S.** Department of State's Bureau of Educational and Cultural Affairs
- ✓ **Best Researcher Award** in Department 2018 from COMSATS University
- ✓ **Appreciation Letter & Honorarium** from COMSATS University for 2017-18 Performance
- ✓ **Pakistan Council of Science & Technology (PCST)**-Research Productivity Award - 2017
- ✓ **Doctoral Fellowship Award** (Tuition and Fees, Monthly Stipend) form Kyungpook National University, Republic of Korea and Research Supervisor (Feb 2010 ~ Aug 2013).
- ✓ **Cash awards** in 2010, 2011, 2012 for SCI publication in world reputed journals from Kyungpook National University.
- ✓ **Master Fellowship Award** (Tuition and Fees, Monthly Stipend) form Kyungpook National University, Republic of Korea and Research Supervisor (Feb 2008 ~ Feb 2010).
- ✓ **HEC Approved Supervisor**
- ✓ **Research Productivity Award 2014, 2015, 2016, 2017** for SCI publication in world reputed journals from COMSATS Institute of Information Technology.

- ✓ **Top 25 Hottest Articles** A paper first authored (MicroRNAs: Synthesis, mechanism, function and recent clinical trials, *Biochimica et Biophysica Acta - Molecular Cell Research*, 1803, 2010, 1231-1243) was selected as the top hottest article (http://top25.sciencedirect.com/subject/biochemistry-genetics-and-molecular-biology/3/journal/biochimica-et-biophysica-acta-bba-molecular-cell-research/01674889/archive/28)

- ✓ **Hottest articles in Medicinal & Pharmaceutical Chemistry** A paper co-authored (Curcumin in Cancer Chemoprevention: Molecular Targets, Pharmacokinetics, Bioavailability, and Clinical Trials, *Archiv der Pharmazie*, 343, 2010, 489–499,) was selected as one of the hottest article (http://wileyasiablog.com/2012/02/23/top-articles-in-medicinal-pharmaceutical-chemistry/)

Professional References

1. Prof. Dr. Taous Khan
   Professor & Chairman, Department of Pharmacy
   COMSATS University Islamabad, Abbottabad Campus, Pakistan
   Phone: +92-346-8152220
   Email: taouskhan@cuiatd.edu.pk

2. Dr. Fazal Wahab
   Chairman, Department of Biomedical Sciences
   Pak-Austria Fachhochschule: Institute of Applied Sciences and Technology, Khanpur Road, Mang Haripur, Khyber Pakhtunkhwa, Pakistan
   Phone: +92-314-9140716
   Email: fazal.wahab@fbse.paf-iast.edu.pk

3. Dr. Mazhar Ul-Islam
   Associate Professor, Department of Chemical Engineering
   Dhofar University, Salalah, Sultanate of Oman
   Email: mulislam@du.edu.om