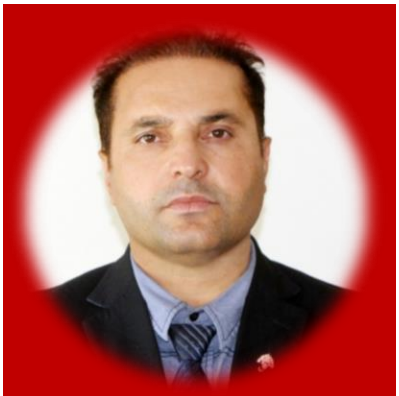

BIOGRAPHY

Surname
Zul Kamal

Postal Address
Department of Pharmacy, Shaheed Benazir Bhutto University, Sheringal, KP, Pakistan.

Permanent address
Village & P.O; Mayar Jandool, District; Dir Lower, Tehsil; Sammarbagh, Khyber Pakhtunkhwa, Pakistan

Phone
00923009594595

Date of Birth
March 1st, 1985

Passport
AD4201503

Nationality
PAKISTAN

Gender
MALE

Language Known
English, Pashto, Urdu, Hindi, Chinese

Hobbies
Painting, Photography, Music, Cricket, Badminton, Hiking, Gym, etc.

CURRICULUM VITAE

Dr. Zul Kamal
(Ph.D., Pharmacology/Pharmaceutics)
xulkamal@sbbu.edu.pk
zulkamalsjtui@sjtu.edu.cn
Cell No & WhatsApp: **+923009594595**
LinkedIn: linkedin.com/in/dr-zul-kamal-22a00546
ORCID: 0000-0002-0264-813X

WeChat

1. About me

I am a dedicated Lecturer in Pharmacology and Biopharmaceutics at the Department of Pharmacy, Shaheed Benazir Bhutto University, Sheringal, Pakistan, serving since 2009. With a PhD in Pharmacology/Pharmaceutics from School of Pharmacy, Shanghai Jiao Tong University, China. I specialize in drug delivery systems, antimicrobial resistance, and nanotechnology-based therapeutics. My expertise lies in teaching core pharmacological and biopharmaceutics principles, mentoring students, and integrating cutting-edge research into academia. Passionate about advancing pharmaceutical education, I aim to bridge the gap between theoretical knowledge and practical application through innovative teaching methodologies and research-driven insights.

2. Academic Qualification

2023-24 **Ph.D. Pharmacology/ Pharmaceutics (Cell-based Drug Delivery System, Tumor-targeting and Antimicrobial Resistance)**
School of Pharmacy, Shanghai Jiao Tong University (45th in QS Ranked).

2012-14 **MS/M.Phil. Pharmaceutical Sciences and Natural Product Chemistry,** Department of Pharmacy, University of Malakand (451-500 Asian University Ranking)

2008-09 **Pharm-D, Doctor of Pharmacy,** Department of Pharmacy, University of Malakand (451-500 Asian University Ranking)

2023-24 **Bachelor of Eastern Medicines and Surgery (BEMS),** Sarhad Tibbia Unani College, Khyber Pakhtunkhwa, Pakistan Tibb Council (QH-47703-A)

2018-19 **Certified in Traditional Chinese Medicines (TCM),** Shanghai Jiao Tong University, China

2023-24 **Certified in Cupping**, Sarhad Tibbia Unani College, Khyber Pakhtunkhwa, Pakistan Tibb Council

3. Research Areas and Interests

- **Future Research Prospects:** My current research interests lie at the connection of antimicrobial resistance and infectious diseases, focusing on the development of predictive modeling to understand resistance dynamics, the formulation of new antimicrobial agents from natural (TCM /Ayurvedic herbs), synthetic sources (Lead compounds) and biomimetic nanosystem (cell-based drug delivery systems, exosomes, nanorobotics) to combat resistant pathogens. Similarly, the exploration of modern nanotechnological tools, like cell-based drug delivery systems to enhance therapeutic efficacy and safety of existence antimicrobial/anti-tumor treatment as well new therapeutic strategies are my prime research priorities' and area of specialization.

- **Ph.D. Cell-based Drug Delivery System**: **Research Dissertation Title:** "Study on Construction of Biomimetic Nanosystem for Chlorogenic Acid and Vancomycin Loaded Red Blood Cells Membrane Against Methicillin-Resistant *Staphylococcus aureus* Infections" Pharmaceutics/Pharmacology, 2023.

- **MS/MPhil. Pharmaceutical Sciences and Natural Product Chemistry Research Thesis Title: "**Preliminary Phytochemical Screenings and Pharmacological Activities of *Atriplex laciniata* (L.)", Pharmaceutical Sciences, 2014.

- **Pharm-D. Clinical Pharmacy, Thesis Title:** "Rational Therapy for the Management of early Acute Myocardial Infarction", Hospital Based Clinical Pharmacy Project, 2008

4. Professional Experience (>15 Years)

2009-2023
- **Senior Lecturer,** Department of Pharmacy, Shaheed Benazir Bhutto University, Sheringal, Dir Upper KP, (Pakistan).

2021-2023
- **Co-Lecturer/Course Director,** Summer School, School of Pharmacy, Shanghai Jiao Tong University (China).

2008-2009
- **Lecturer (Internship)**, Department of Pharmacy, University of Malakand (UOM), Chakdara, KP, (Pakistan).

2009-2009
- **Quality Control Analyst,** Raza Pharmaceuticals, Industrial Estate, Hayatabad, Peshawar, Pakistan (3 months).

2009-2009
- **Production Pharmacist,** In charge of In-process production operations (e.g., infusion and injectable formulations) at Welwrd Pharmaceutical, Hattar, Haripur, Pakistan (4 months).

5. Research Experience

- **School of Pharmacy, Shanghai Jiao Tong University, Minhang, Shanghai, China (2016-2023)**

Seven years as a PhD research student/assistant in the research group of Prof. Dr. Mingfeng Qiu, Qiu Lab of Pharmaceutics/Pharmacology, New Drug Formulation, TCM, Functionalization of Cell-Based Drug Delivery System, On-demand antibiotic delivery, Antimicrobials, Pharmacokinetics and Biodistribution studies. Published more than 12 publications in reputed journals like Advance Healthcare Materials, Journal of Drug Delivery Science and Technology, RSC advances, Pharmaceutics etc.

- **Institute of Health-Metric Evaluation (IHME), Global Burden of Diseases (GBD), University of Washington, United State (US). (2019-tll to date)**

Research collaborative projects, which has been published in journal of The Lancet infectious diseases, The Lancet, Lancet Oncology, and Nature. Recently, worked in a collaborative project with, University of Oxford on GRAM Project on Antimicrobial Resistance (AMR), University of Calgary, US, and St. Andrew University, UK.

- **Department of Pharmacy, University of Malakand, Chakdara, KP, Pakistan (2012-2014)**

Two years as MS/MPhil scholar in the research group of Dr. Farhat Ullah, Associate professor, Pharmaceutical sciences, UOM (Natural product chemistry, phytochemical screening and basic pharmacological activities).

6. Hand on Experience and Skills

Skills	Rating
Nanosystem Fabrications	Excellent
Cellular and Molecular Characterization: SEM, TEM, FTIR, DLS Zeta Nanosize (Zeta, PDA, Size), Atomic Force Microscopy, HPLC, LC-MS/MS	Excellent
Proteomics: SDS-PAGE & Western Blot, Extrusion	Very good
Cell Lines Culture: (RAW 264.7 Macrophage cells, LO2 (Liver cells), 293T cell (Kidney Cells), HL60, MCF7 (breast cancer cell line), MTT assays	Excellent
Antibacterial/Antifungal: Culture growth, Growth-curve, Conc./Time Kill Kinetics, MIC, MBC, Antibiotic synergism, Colony forming units (CFU), Culture-sensitivity tests, Well-Disc Diffusion, Staining and dying techniques, AMR	Excellent
Molecular Biology: Confocal Laser Scanning Fluorescence Microscopy, Q-PCR, ELISA, IVIS Live Imaging, Cell Uptake Studies, Apoptosis, Inflammatory cascades, protein expressions, inhibitions	Excellent
In Vivo: Animal model development and studies (in vivo), Pharmacokinetics, Cmax, Tmax, Biodistribution, IVIS live imaging, tissue fluorescence tomography, H&E stainings, hemolysis etc.	Excellent
Software's: R-Software, Nanoscopy, GrapPad Prism, Biorinder, ImageJ, CheBiodraw, Excel, Adobe Illustrator, Graphical Abstract and Image Illustrations	Excellent

7. Projects Accomplished

1. Promoting education for sustainable mountain development through curriculum enrichment and capacity-building" initiated by Karakoram International University, Gilgit, in collaboration with mountain universities of Hindukush, Karakorum and Himalayas under the US-Pakistan University Grants Partnership Program (Focal person from SBBU).
2. Major New Drugs Innovation and Development, National Science and Technology, Projects No: 2018ZX09711003-008-002.
3. Drug Formulation Project on Biomimetic Nanosystem, National Natural Science Foundation of China, Project No: 81973487
4. TCM Formulation and Development, Shanghai Association for Science and Technology, 18ZR1419700.
5. Global Burden of Disease and Geospatial Analysis of Antimicrobial Resistance (AMR), Collaborative project of University of Oxford, UK with Department of Pharmacy, Shaheed Benazir Bhutto University, Sheringal, KP, Pakistan, (2020-2023).

8. Research Achievements

Research/Review Articles (SCI/HEC-HJRS recognized)	42
Invited speaker (national/international)	11
Total Impact Factor	**427.554 (2024 September)**
International Books/Chapters	06
Proceedings/Abstract	11
News Article/TV- Vlogs, Social Media Program	02
Citations (Google Scholar)	1507
H-Index	18
i10-Index	26

Research Supervisions/Co-Supervision

- Ph.D. 01
- MS/MPhil 08
- BS (Zoology, Botany) 05
- Pharm-D 46

Conference's Organized/Co-Organized

- National 02
- International 02

9. Awards

- Travel Grant to Bangkok, Thailand
- Alumni of U.S-Pakistan University Partnerships Grants Program (UPGP), 2022-23.
- Chinese Government Scholarship (CSC) for Doctoral Studies awarded by People Republic of China. CSC No: 2016GXZ849 (2016-20).

10. Research/Review Articles

S. No	Years	Publications	IF/Category
1)	**2024**	Naghavi, M., Vollset, S. E., Ikuta, K. S., Swetschinski, L. R., Gray, A. P., Wool, E. E., ... & Dekker, D. M.,**Kamal, Z**., (2024). Global burden of bacterial antimicrobial resistance 1990–2021: a systematic analysis with forecasts to 2050. ***The Lancet***, 404(10459), 1199-1226.	98.400, W
2)	**2024**	Esa, M., **Kamal, Z.,** Ullah, A., Khan, W. A., Khan, A., Khan, M. A., & Ali, H. (2024). Antibiotic Resistance in Pediatric Pneumonia Patients: Assessing Prevalence and Prescribing Practices. Proceedings of the Pakistan Academy of Sciences: B. Life and Environmental Sciences, 61(S).	0.610, X
3)	**2024**	Jan, N., Bostanudin, M. F., Moutraji, S. A., Kremesh, S., **Kamal, Z**., & Hanif, M. F. (2024). Unleashing the biomimetic targeting potential of platelet-derived nanocarriers on atherosclerosis. ***Colloids and Surfaces B: Biointerfaces***, 113979.	5.071, W
4)	**2024**	Hmwe H. Kyu, GBD Collaborators., **Kamal. Z.,** 2023. Global, regional, and national incidence and mortality burden of non-COVID-19 lower respiratory infections and aetiologies, 1990–2021: a systematic analysis from the Global Burden of Disease Study 2021. ***The Lancet Infectious Diseases***. S1473-3099 (24) 00176-2.	36.401, W
5)	**2024**	Li, Y., Hu, Y., **Kamal, Z**., Chen, Y., Xue, X., Yao, S., Zhao, H., Jia, M., Li, Y., Wang, Z. and Li, M., 2024. Optimization of Dendritic Polypeptide Delivery System for Antisense Antibacterial Agents Targeting *ftsZ*. **ACS Omega**. April-2024	4.110, W
6)	**2024**	Aiman, B., Muhammad Esa., **Kamal, Z*.,** Bashir Ullah, Kashif Ali Khan, Sania Hameed, Muhammad Sohail, Anwar Ul Haq, Sara Khan, Fahmida Aslam. Antimicrobial Resistance, Pathogen Transmission, and Cross-Infection across regions and boarders. ***Proceeding of the Pakistan Academy of Sciences***. 61(S), pp.1-11.	0.610, X

7)	**2024**	Rajesh. Sharma., GBD Collaborators., **Kamal. Z.,** 2024. Temporal patterns of cancer burden in Asia, 1990–2019: a systematic examination for the Global Burden of Disease 2019 study***. The Lancet Regional Health Southeast Asia.*** 21 (2024).	5.000, W
8)	**2023**	Shafique, M., Maqsood, U.M., **Kamal Z***, Rami M. A, Sameer, Ali H. Alamri, Mohammed A. B., 2023. Lipid polymer hybrid nanoparticles of doxorubicin: formulation development and its in-vitro, in-vivo and computational evaluation. ***Frontiers in Pharmacology*** 14, p.1025013.	5.988, W
9)	**2023**	Shah, H., Uzma B., **Kamal, Z*.,** Muhammad E., Muhammad N., Saleh A., Muhammad Shafique., Prescribing Practices Attitude of Ampicillin and Cloxacillin, its Sensitivity and Responsiveness in Pneumonia. ***Proceeding of the Pakistan Academy of Sciences***. 60(S), pp.65-75.	0.610, X
10)	**2022**	**Kamal, Z*.,** Su, J., Yuan, W., Raza, F., Jiang, L., Li, Y. and Qiu, M., 2022. Red blood cell membrane-camouflaged vancomycin and chlorogenic acid-loaded gelatin nanoparticles against multi-drug resistance infection mice model. ***Journal of Drug Delivery Science and Technology***, 76, p.103706.	5.01, W
11)	**2022**	Shah, M., Bibi, S., **Kamal, Z.,** Al-Sabahi, J.N., Alam, T., Ullah, O., Murad, W., Rehman, N.U. and Al-Harrasi, A., 2022. Bridging the Chemical Profile and Biomedical Effects of Scutellaria edelbergii Essential Oils. ***Antioxidants,*** 11(9), p.1723.	7.675, W
12)	**2022**	Saleem A, Afzal M, Naveed M, Makhdoom SI, Mazhar M, Aziz T, Khan AA, **Kamal. Z.,** Shahzad M, Alharbi M, Alshammari A. 2022. HPLC, FTIR and GC-MS Analyses of Thymus vulgaris Phytochemicals Executing in vitro and in vivo Biological Activities and Effects on COX-1, COX-2 and Gastric Cancer Genes Computationally. ***Molecules.*** Dec 3;27(23):8512.	4.927, W
13)	**2021**	Raza, F., Siyu, L., Zafar, H., **Kamal, Z**., Zheng, B., Su, J. and Qiu, M., 2021. Recent Advances in Gelatin-Based Nanomedicine for Targeted Delivery of Anti-Cancer Drugs. ***Current pharmaceutical design***. 28(5), pp.380-394.	3.311, W
14)	**2021**	Raza, F., Zafar, H., Zhang, S., **Kamal, Z**., Su, J., Yuan, W.E. and Mingfeng, Q., 2021. Recent Advances in Cell Membrane-Derived Biomimetic Nanotechnology for Cancer Immunotherapy. ***Advanced Healthcare Materials***, *10*(6), p.2002081.	11.092, W
15)	**2021**	Hussain, H., Ahmad, S., Shah, S.W.A., Ghias, M., Ullah, A., Rahman, S.U., **Kamal, Z**., Khan, F.A., Khan, N.M., Muhammad, J. and Almehmadi, M., 2021. Neuroprotective Potential of Synthetic Mono-Carbonyl Curcumin Analogs Assessed by Molecular Docking Studies. ***Molecules*****,** *26* (23), p.7168.	4.927, W
16)	**2021**	Shah, M., Murad, W., Ur Rehman, N., Mubin, S., Al-Sabahi, J.N., Ahmad, M., Zahoor, M., Ullah, O., Waqas, M., Ullah, S. and **Kamal, Z**., 2021. GC-MS Analysis and Biomedical Therapy of Oil from n-Hexane Fraction of *Scutellaria edelbergii* Rech. f.: In Vitro, In Vivo, and In Silico Approach. ***Molecules***, *26*(24), p.7676.	4.927, W
17)	**2021**	Alvarez, E.M., Force, L.M., Xu, R., Compton, K., Lu, D., Henrikson, H.J., Kocarnik, J.M., Harvey, J.D., Pennini, A., Dean, F.E. and Fu, W., **Kamal. Z**., GBD Collaborators., 2021. The global burden of adolescent and young adult	41.631, W

		cancer in 2019: a systematic analysis for the Global Burden of Disease Study 2019. ***The Lancet Oncology,*** *23*(1), pp.27-52.	
18)	**2021**	Natalie C Galles*, Patrick Y Liu*, Rachel L Updike*, **Kamal. Z.,** GBD Collaborators. Local Burden of Disease Vaccine Coverage Collaborators, 2021. Mapping routine measles vaccination in low-and middle-income countries. ***Nature***, *589*(7842), p.415.	50.504, W
19)	**2021**	Haya Hussain, Shujaat Ahmad, Syed Wadood Ali Shah, Niaz Ali , Abid Ullah1 , Asaf Khan, Shafiq Ur Rahman , Mehreen Ghias , Hamid Hussain , **Kamal. Z**, Shafiullah and Ziaul Islam., 2021. Potential role of synthetic curcumin analogs as antibacterial, antioxidant and anticancer agent. ***Bioscience Research*** 18(2): 749-753.	0.701, Y
20)	**2021**	Abid Ullah, Niaz Ali, Shujaat Ahmad, Sayed Wadood Ali Shah, Haya Hussain , Asaf Khan , Jahangir Khan, Shafiq Ur Rahman **Kamal. Z**., and Hamid Hussain., 2021. Moxifloxacin hypoglycemic effect via interactions with glycogen synthase kinase-3 enzyme: A Molecular Dock based approach. ***Bioscience Research*** 18(1): 749-753.	0.701, Y
21)	**2021**	Galles, N.C., Liu, P.Y., Updike, R.L., Fullman, N., Nguyen, J., Rolfe, S., Sbarra, A.N., Schipp, M.F., Marks, A., Abady, G.G. and Abbas, K.M., Kamal. Z., GBD collaborators 2021. Measuring routine childhood vaccination coverage in 204 countries and territories, 1980–2019: a systematic analysis for the Global Burden of Disease Study 2020, Release 1. ***The Lancet***, 398(10299), pp.503-521.	98.400, W
22)	**2020**	Li, X., Su, J., **Kamal, Z**., Guo, P., Wu, X., Lu, L., Wu, H. and Qiu, M., 2020. Odorranalectin modified PEG–PLGA/PEG–PBLG curcumin-loaded nanoparticle for intranasal administration. ***Drug Development and Industrial Pharmacy***, pp.1-11.	3.727, X
23)	**2020**	Xu, E., Wu, X., Zhang, X., **Kamal**. **Z,** Raza, F., Su, J. and Qiu, M., **2020**. Study on the protection of dextran on erythrocytes during drug loading. ***Colloids and Surfaces B: Biointerfaces***, *189*, p.110882.	5.999, W
24)	**2019**	Jing Su, Ran Zhang, Yumei Lian, **Kamal, Z.**, Zhongyao Cheng, Yujiao, Qiu, Mingfeng Qiu/. 2019. Preparation and Characterization of Erythrocyte Membrane-Camouflaged Berberine Hydrochloride-Loaded Gelatin Nanoparticles. ***Pharmaceutics,*** 11(2), p.93.	6.525, W
25)	**2019**	Xiao Que, Jing Su, **Kamal, Z.**, Ran Zhang, Yumei Lian, Zhongyao Cheng, Yujiao, Qiu, Mingfeng Qiu., 2019. Study on preparation, characterization and multidrug resistance reversal of red blood cell membrane-camouflaged tetrandrine-loaded PLGA nanoparticles. ***Drug Delivery,*** 26(1), pp.199-207.	6.890, W
26)	**2018**	Su, J., Liu, G., Lian, Y., **Kamal, Z**., Que, X., Qiu, Y., & Qiu, M., 2018. Preparation and characterization of erythrocyte membrane cloaked PLGA/arsenic trioxide nanoparticles and evaluation of their in vitro anti-tumor effect. ***RSC Advances***, *8*(36), 20068-20076.	4.036, W
27)	**2018**	Cheng, Z., Lian, Y., **Kamal, Z**., Ma, X., Chen, J., Zhou, X., Su, J. and Qiu, M., 2018. Nanocrystals technology for pharmaceutical science. ***Current pharmaceutical design***, *24*(21), pp.2497-2507.	3.111, W
28)	**2018**	Waris, T.S., Khan, M.R., Shah, N.A., Shuaib, M., Hussain, F., Ishaq, M., Kamal, Z., Zeb, U., Ali, S., Ali, K. and Ahmed, S., 2018. Heptoprotective Role of Artemisia scoparia Waldst. and Kit Against CCl 4-induced Toxicity in Rats. ***Polish Journal of Environmental Studies***, 27(3).	1.871, X

29)	**2018**	Nazish A., **Kamal Z***, Faiz U.R., Pinky S., Zahra D., Awareness and Prevalence of Epilepsy; a Study in Educational Hubs at Sheringal, Khyber Pakhtunkhwa, Pakistan**,** 2018, ***ARC Journal of Neuroscience*****,** 3 (1), 9-20	0.020, X
30)	**2017**	Ahmad A, Liu Q, Ullah M, Khan S, **Kamal. Z**, Ahmad S, Hazart A, Iqbal A. Morels, the valuable non-woody forest products of Shishi valley, district. Chitral KPK, Pakistan.2017, ***SciFed Journal of Herbal Medicine.***;1(1):1-5.	0.041, X
31)	**2017**	**Kamal Z***, Farhat Ullah, Sajjad Ahmad, Muhammad Ayaz, Abdul Sadiq, Muhammad Imran, Shujat Ahmad, Faiz Ur Rahman, Anwar Zeb, Saponins and solvent extracts from *Atriplex laciniata* L. exhibited high anthelmintic and insecticidal activities, 2017, *Journal* ***Traditional Chinese Medicines***, 37 (15), 599-606.	2.547, X
32)	**2015**	**Kamal Z***, Midrarullah, S Ahmad, Farhat U, Abdul S, M Ayaz, A Zeb and M Imran. Ex-Vivo Antibacterial, Phytotoxic and Cytotoxic, Potential in the crude Natural Phytoconstituents of *Rumex hastatus* d. don, 2015 ***Pakistan Journal of Botany*** **,** (SI), 293-299.	1.101, X
33)	**2015**	F. U. Rahman1, F. Perveen, T. Rauf, M. Salim, Z. Ali, S. Khan and **Z. Kamal** "Habitat Analysis of *Scotophilus Heathii* Horsfield, 1831 In Northwestern Parts of Pakistan", 2015, ***The Journal of Animal & Plant Sciences***, 25 (3 Supp. 2) 731-734.	0.701, Y
34)	**2015**	F. U.Rahman, F. Perveen, T. Rauf, M. Salim, S. Khan, H. Ullah, A. Ullah, **Z. Kamal** and Z. Ali"Occurrence Of Rhinopoma Microphyllum (Brunnich, 1782) In Khyberpakhtoonkhawa, Pakistan", 2015, ***The Journal of Animal & Plant Sciences***, 25 (3 Supp. 2) 450-453.	0.701, Y

**Corresponding*

11. Books/Books Chapters

S. No	Years	Book/Books Chapters	Country/ Publisher
1)	**2025**	**Kamal, Z*.,** Esa, M., Sahar, H., Ali, A., Sher, U., & Jan, A. K. (2025). Exploring the Impact of Endophytes on Secondary Metabolite Production in Medicinal Plants under Abiotic Stress. In *Symbiotic Association of Microorganisms with Medicinal and Herbal Plants* (pp. 71-82). CRC Press.	CRC Press
2)	**2024**	**Kamal, Z*.,** Esa, M., Khan, S., Bilal, A., Iqbal, G., Peng, C., ... & Khan, A. Citronella Aromatic Essential Oil and Its Mosquito Repellent Properties. In Plants as Medicine and Aromatics (pp. 302-312). CRC Press.	CRC Press
3)	**2023**	Ahmad, W., Khan, M. S., Jan, A. K., & **Kamal, Z***. (2023). Transition of photoelectrochemical analysis to bioanalysis and its potential applications. In Photoelectrochemical Bioanalysis (pp. 171-190). Elsevier. ISBN: 978-0-443-18955-5	USA/ Elsevier
4)	**2023**	**Kamal, Z***., Jan, A. K., Almawash, S., Ullah, A., Esa, M., & Shafique, M. (2023). Photoelectrochemical cell-mediated detection. In Photoelectrochemical Bioanalysis (pp. 127-138). Elsevier. ISBN: 978-0-443-18955-5	USA/ Elsevier
5)	**2023**	Ismail, M., Sajjad A., Qamar, A., **Kamal. Z***., Ishtiaq, H., Syeda, S. F., Benish, Z., Muhammad, R., Hasin, S., Abdul, K. J., (2023). Book Title: Mountain Studies (Understanding and managing mountains for people and	Pakistan/ KIU, Gilgit

		nature). Chapter 10: Medicinal and Aromatic plants. ISBN: 978-969-23809-0-4.	
6)	**2019**	Zul Kamal., Jing Su, Mingfeng Qiu. (2019). Book Title: Metal Nanoparticles for Drug Delivery and Diagnostic Applications. Chapter 3: Erythrocytes modified (coated) gold nanoparticles for effective drug delivery. ISBN: 978-0-12-816960-5.	USA/ Elsevier

**Corresponding*

12. Patents

S. No	Years	Patent Title/Detail	Patent Country
1	**2022**	Jing Su, Li Yichen , Qiu Mingfeng, Yuan Weien, Rong Ruonan, Liu Yuhao, **Kamal, Z.** " Antitumor drug delivery system and preparation method and application thereof" People Republic of China, The Scientific Research system of Shnaghai Jiao Tong University, China. Application CN202210114281.8A, Patent No: CN114344473B. Dated 22 Jan 2022. Inventor 苏靖, 李怡琛, 邱明丰, 袁伟恩, 荣若男, 刘宇浩, 狮全能 (My Chinese name, Zul Kamal). Link: https://patents.google.com/patent/CN114344473B/en?oq=CN114344473B	China

13. Certificate/Diploma Achieved

1. Certified by Global Research of Antimicrobial Resistance (GRAM), Institute of Health Metric Evaluation (IHME), on "**Antimicrobial Resistance, Burden, Estimation and Infectious Disease Modeling**", Organized by Mahidol Oxford Tropical Medicine Research Unit (MORU) in Bangkok, Thailand (November, 2024).
2. Certified in "**Infectious Disease Modeling**" jointly organized and supported by the Hong Kong Jockey Club Global Health Institute (HKJC-GHI), and the Health Intervention and Technology Assessment Program (HITAP), Ministry of Public Health, Bangkok, Thailand. (November, 2024).
3. Certified by Health Emergence Program, World Health Organization (WHO), for the course "**Antimicrobial stewardship programmes in health-care facilities in low-and middle-income countries: a WHO practical toolkit**", (March, 2024).
4. Certified in "**Prescription Drug Misuse and Addiction: Compassionate Care for a Complex Problem**", Stanford Medicine, Sandford University, School of Medicine, US (October-2023).
5. Certified in "**To Prescribed or not to Prescribed? Antibiotics and Outpatient Infections**", Stanford Medicine, Sandford University, School of Medicine, US (October-2023).
6. Certified in "**Optimizing Antimicrobial Therapy with Timeouts**", Stanford Medicine, Sandford University, School of Medicine, US (October-2023).
7. Certified by Health Emergence Program, World Health Organization (WHO), for the course **"Antimicrobial Resistance and Infection Prevention and Control"**, (July, 2023).
8. Certified in "**Antimicrobial Stewardship: improving clinical outcomes by optimization of Antibiotic practices**", Stanford Medicine, Sandford University, School of Medicine, US (January-2023).
9. Diploma in **Eastern Medicines and Surgery** (Fazili Tibb o Jarrahat), Sarhad Unani Tibbia College, KP, Pakistan, Registered with National Tibb Council of Pakistan (December, 2019-2023).
10. Certified in **Cupping therapy**, from Sarhad Unani Tibbia College, KP, Pakistan, Registered with National Tibb Council of Pakistan (December, 2021).
11. **Chinese Medicines Manual Soap** in Herb Innovation Workshop, School of Pharmacy, Shanghai Jiao Tong University (October, 2019)

12. Certified in **Traditional Chinese Medicines and Culture**, Online Course CNMOOC, Shanghai Jiao Tong University, China (December 2018).
13. **Summer School** of Traditional Chinese Medicines and Chinese Culture, School of Pharmacy, Shanghai Jiao Tong University, Shanghai China July 2017 & 2018.
14. **Tiajiquan** learning, School of Pharmacy, Shanghai Jiao Tong University, Shanghai China (July 2017).
15. Participate in a three days cascading on **"APM and Projects Development** organized by Shaheed Benazir Bhutto university in coordination with Higher Education Commission **(June, 2014).**
16. Participated in **"Project Formulation Workshop"** organized by Pakistan Science Foundation (PSF), Islamabad in Shaheed Benazir Bhutto University **(June, 2014).**
17. Learning Innovation Division, HEC, Islamabad and organized by SBBU **(March, 2013).**
18. 5. Attend a one-week workshop on **"Research Methodology and Skilled Development** held in SBBU, organized by English Language Teaching Reforms, Phase II, Learning Innovation Division, HEC Islamabad **(July, 2012).**

14. Affiliation/Registration

- Guest Editor, in the Special Issue, "Antimicrobial Resistance and Modern Therapeutics Approaches" Frontiers in Pharmacology, July, 2023-2024.
- Reviewer of Saudi Journal of Biological Sciences, KSA (Elsevier, 1319-562X)
- Reviewer of Cellular and Molecular Biology, France (0145-5680)
- Member of the British Society for Antimicrobial Chemotherapy, UK
- GBD/IHME Collaborator
- International Epilepsy Association, Nova Scotia, Canada.
- Reviewer of the Journal of Drug Delivery, UK, (ISSN: 1071-7544)
- Reviewer of the AEJ-Alexandria Engineering Journal, Egypt, (ISSN: 1110-0168).
- Reviewer of Journal of Pharmaceutical Research International, India, (2456-9119).
- Registered Herbal Practioner, National Tibb Council, Government of Pakistan.
- Registered Pharmacist with Pharmacy Council Khyber Pakhtunkhwa, Pakistan under the Registration No: 1391-A/2009-PC, KPK.
- Registered with Pakistan Pharmacist Association, Pakistan.

15. Reference's

- **Prof. Dr. Shujaat Ahmad**

Chairman/Associate Professor, Department of Pharmacy, Shaheed Benazir Bhutto University, Sheringal, Pakistan, Email: **shujaat@sbbu.edu.pk**

- **Prof. Dr. Jing Su**

Associate Professor, School of Pharmacy, Shanghai Jiao Tong University, China, Email: **jingsu@sjtu.edu.cn**

- **Prof. Dr. Mingfeng Qiu**

Professor, School of Pharmacy, Shanghai Jiao Tong University, China
Shanghai, China, Email: **mfqiu@sjtu.edu.cn**