

**Dr. Jahan Zaib Arshad (HEC Approved PhD Supervisor)**

Assistant Professor

Department of Chemistry

Government College Women University Sialkot, Pakistan

Date of Birth: 17.12.1987

Marital Status: Married

Email: [jahanzaib.arshad@gcwus.edu.pk](mailto:jahanzaib.arshad@gcwus.edu.pk)

Skype ID: jahanzaib.arshad5

Contact No. -----

ORCID ID <https://orcid.org/0000-0002-6029-750X>**Academic Qualification****PhD Chemistry (Inorganic/Analytical Chemistry)**

Split PhD Program (2013–19)

**Supervisor**

Prof. Dr. Amir Waseem

**Supervisors**

Dr. Muhammad Hanif

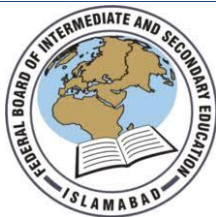
Prof. Dr. Christian Hartinger

**Dissertation Title:** Design of Protein-Targeted Organometallic Complexes as Anticancer Agents.**MS Chemistry (Inorganic/Analytical Chemistry) (2010 – 12)**(CGPA= 3.58/4, Percentage = 81.75%, **3<sup>rd</sup> Position**)**Supervisor**

A/Prof. Dr. Amara Mumtaz

**Dissertation Title:** Synthesis, Characterization and Biological Evaluation of Transition Metal Complexes of Thioureas bearing Ibuprofen Moiety.**BS (Hons) Chemistry (Inorganic/Analytical Chemistry) (2005–09)**(CGPA= 3.55/4, Percentage = 81%, **3<sup>rd</sup> Position**)**F.Sc Pre-Medical (2003–05)**(1<sup>st</sup> Division)

**Matric (2001–03)**  
(1<sup>st</sup> Division)



**Professional Research/Teaching Trainings**

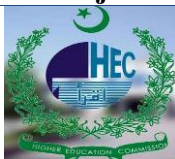
**National Faculty Development Program (NFDP) Training** (4<sup>th</sup> June 2020 – 4<sup>th</sup> July 2020)



**B.Ed (2018 – 20)**  
(1<sup>st</sup> Division)



**Fundamentals of Project Management Training (2021)**



**High Performance Liquid Chromatography (HPLC) Training (2020)** at Central Research Laboratory, GC Women University Sialkot.



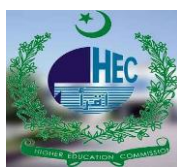
**Nuclear Magnetic Resonance Spectroscopy (NMR) Training (2015)** at School of Chemical Sciences, The University of Auckland, New Zealand.



**Two Weeks Training of “Professional Development of Faculty 2022”** held from 20<sup>th</sup> June 2022 to 1<sup>st</sup> July 2022 at Government College Women University Sialkot, Funded by Higher Education Commission, Pakistan.



## Research Collaborators



## Research Interests

1. Medicinal Chemistry
2. Bioinorganic Chemistry
3. Environmental Chemistry
4. Organometallic Chemistry
5. Coordination Chemistry
6. Material Chemistry

## Publications

1. Hanif, M.; **Arshad, J.**; (*Joint First Author*) Astin, J.; Zafar, A.; Movassaghi, Leung, E.; Patel, K.; S.; Söhnel, T.; Reynisson, J.; Sarojini, V.; Rosengren, R.; Jamieson, S. M.; Hartinger, C. G., A Multitargeted Approach: Organorhodium Anticancer Agent Based On Vorinostat as a Potent Histone Deacetylase Inhibitor. *Angewandte Chemie International Edition* **2020**, 59 (34), 14609-14614. (IF= 13)  
Presented in 9<sup>th</sup> Asian Biological Inorganic Chemistry (AsBIC) Conference (2018), Singapore.
2. **Arshad, J.**; Tong, K.; Movassaghi, S.; Söhnel, T.; Jamieson, S. M.; Hanif, M.; Hartinger, C. G., Impact of Metal Ions and Leaving Groups on the Biological Activity of Organometallic Complexes of Pyridine-2-Carbothioamide. *Molecules* **2021**, 26, 833.(IF= 3.3)
3. **Arshad, J.**; Hanif, M.; Zafar, A.; Movassaghi, S.; Tong, K.; Reynisson, J.; Kubanik, M.; Waseem, A.; Söhnel, T.; Jamieson, S. M.; Organoruthenium and-Osmium Complexes of 2-Pyridinecarbothioamides Functionalized with a Sulfonamide Motif: Synthesis, Cytotoxicity and Biomolecule Interaction. *ChemPlusChem* **2018**, 83, 612-619. (IF= 3.3)
4. **Arshad, J.**; Hanif, M.; Movassaghi, S.; Kubanik, M.; Waseem, A.; Söhnel, T.; Jamieson, S. M.; Hartinger, C. G., Anticancer Ru( $\eta^6$ -p-cymene)Complexes of 2-Pyridinecarbothioamides: A Structure–Activity Relationship Study. *Journal of Inorganic Biochemistry* **2017**, 177, 395-401. (IF= 3.3)
5. Mumtaz, A.; **Arshad, J.**; Saeed, A.; Nawaz, M.A.H.; Iqbal, J.; Synthesis, Characterization and Urease Inhibition Studies of Transition Metal Complexes of Thioureas Bearing Ibuprofen Moiety. *Journal of the Chilean Chemical Society* (**2018**), 63 (2), 3934-3940. (IF= 0.74)
6. Waseem, A.; **Arshad, J.**, A Review of Human Biomonitoring Studies of Trace Elements in Pakistan. *Chemosphere* **2016**, 163, 153-176. (IF= 5.77)
7. Waseem, A.; **Arshad, J.**; Iqbal, F.; Sajjad, A.; Mehmood, Z.; Murtaza, G., Pollution Status of Pakistan: A Retrospective Review on Heavy Metal Contamination of Water, Soil, And Vegetables. *BioMed research international* **2014**, <http://dx.doi.org/10.1155/2014/813206>. (IF: 2.8)
8. **Arshad, J.**; Hanif, M.; Hydroxypyrrone Derived chelators in Drug Discovery: From Chelation Therapy to Rational Design of Metalloenzyme Inhibitors. *RSC Med. Chem*, **2022**, 13, 1127-1149 (IF: 3.470)
9. Bashir, M.S.; , Kong, X.Z.; Ramzan, N.; Arif, M.; Bashir, H.; Azhar, U.; Arshad, J.; Shah, S.S.M.; Wang, F., Systemic Study on Interfacial Polymerization Mechanism of Toluene Diisocyanate and Water for the Preparation of Polyurea Microspheres. **2022**, 143, 109814. (IF: 3.428)
10. **Arshad, J. Z\***; Tabassum, S.; Kiani, M. S.; Arshad, S.; Hashmi, M. A.; Majeed, I.; Ali, H.; Shah, S. S. A., Anticancer Properties of Ru and Os Half-Sandwich

Complexes of N,S Bidentate Schiff Base Ligands Derived from Phenylthiocarbamide. *Chemistry – An Asian Journal* **2023**, 18 (23), e202300804.

**11.** Zainab, S.; Ashraf, A.; Siddiqui, W. A.; Raza, M. A.; Niaz, S.; **Arshad, J. Z.**; Arshad, M. N.; Aman, F.; Sandhu, Z. A.; Asiri, A. M., Piroxicam analogue metal complexes: Synthesis, crystal structures, molecular modeling and biological studies. *Applied Organometallic Chemistry* **2024**, 38 (7), e7481.

**12.** Shaheen, S.; **Arshad, J. Z.\***; Haider, M.; Ashraf, A.; Ahmad, M. M.; Ashfaq, M.; Ismail, M. A.; Najam, T.; Shah, S. S. A., Synthesis and biological evaluation of  $\beta$ -lactams as potent antidiabetic agents. *New Journal of Chemistry* **2024**, 48 (46), 19427-19440.

**13.** Khan, B.; Duha; Bibi, W.; Akhtar, J.; Wajid, A.; Jadoon, T.; **Arshad, J. Z.**; Shah, I.; Shoaib, K.; Shahzad, N., Role of Alkali Metal Cations for the Selective Formation of  $\text{CH}_3\text{COOH}$  over Cu-X-ZSM-5 from Co-activation of  $\text{CH}_4$  and  $\text{CO}_2$ ; A Theoretical Insight. *Catalysis Letters* **2025**, 155 (3), 95.

#### Teaching and Research Experience

**1. Assistant Professor Chemistry** (August 2020–continue) at Government College Women University Sialkot (GCWUS), Sialkot, Pakistan.

**2. 3 Years Experience as Lecturer Chemistry** (2017–20) in Punjab College of Excellence in Commerce, Wah Cantt, Pakistan.

**3. 1 Year Experience as Researcher** (2015–16) in Hartinger Lab, School of Chemical Sciences, University of Auckland, Auckland, New Zealand.

**4. 5 Years Experience as Researcher** (2013–15, 2016–19) in Department of Chemistry, Quaid-i-Azam University, Islamabad, Pakistan.

#### Research Grant Awarded

**1. Start-Up Research Grant Program (SRGP)** Project entitled “**A Non-Conventional Approach towards Development of Metal based Anticancer Agents**” Awarded by HEC on dated 15<sup>th</sup> January 2021. Ref. No. 187/IPFP-II(Batch-I)/SRGP/NAHE/HEC/2020/34

#### Research Supervision

**1.** Aqsa Mehmood 2024–28 (PhD Student)

**2.** Saman Ijaz 2024–28 (PhD Student)

**3.** Rimsha Arshad 2019–21 (MS Student)

**4.** Sana Tabassam 2020–22 (MS Student)

**5.** Samiya Zafar 2020–22 (MS Student)

**6.** Khadija Mudassar 2021–23 (MS Student)

**7.** Asma Sajjad 2021–23 (MS Student)

**8.** Esha Mubasher 2023-24 (MS Student)

**9.** Nadia Bibi 2023-24 (MS Student)

**10.** Fatima Younas 2023-25 (MS Student)

**11.** Aqsa 2023-25 (MS Student)

**12.** Kinza 2024-26 (MS Student)

#### Journal Editing/Reviewing

**1.** ChemistrySelect (1 Paper Reviewed)

**2.** Chemistry – An Asian Journal (1 Paper Reviewed)

**3.** Toxics (2 Papers Reviewed)

**4.** International Journal of Molecular Sciences IJMS (1 Paper Reviewed)

**5.** Antibiotics (1 Paper Reviewed)

**6.** ACS Omega (1 Paper Reviewed)

**7.** Pharmaceutics (1 Paper Reviewed)

#### Administrative Duties

**1.** Focal Person for the Admission of BS (Hons) Chemistry 2021-25

**2.** Focal Person for the Admission of BS (Hons) Chemistry 2023-27

**3.** Focal Person for the Admission of ADP Chemistry (Lateral Entry) 2023-25

**4.** Coordinator of BS (Hons) Chemistry 2021-25

**5.** Coordinator of ADP Chemistry (Lateral Entry) 2023-25

**6.** Focal Person of Pre-ISAC Committee for the following Scholarships:

- 1) Ehsaas Scholarship Program
- 2) HEC Need Base Scholarship
- 3) Punjab Educational Endowment Fund (PEEF)
- 4) Ministry of Religious Affairs (MORA) Scholarship
- 5) Pakistan Bait-ul-Mal (PBM) Scholarship
- 6) Financial Support Fund (FSF) Scholarship
- 7) Sialkot International Airport Scholarship
7. Focal Person for Submission of Self-Assessment Reports (SAR) 2021-22
8. MS Admission Test/Interview Committee of Department of Chemistry since July 2022
9. Timetable Incharge of the Department of Chemistry
10. Facilitation Person in Prime Minister's Youth Laptop Scheme Phase-III Verification Process of Chemistry Department
11. Member of Sub-Committee of Central Admission Committee (CAC) for Documents Verification of Eligible/Selected Candidates for Admission 2023-24
12. Secretary of the "Recruitment Complaints Redressal Cell" of Government College Women University Sialkot

#### Achievements

- |         |  |
|---------|--|
| 2021–22 | Start-Up Research Grant Program (SRGP) Project Awarded by HEC, Islamabad.                        |
| 2015–16 | International Research Support Initiative Program (IRSIP) Scholarship Awarded by HEC, Islamabad. |
| 2013–17 | PhD Fellowship Awarded By Quaid-i-Azam University, Islamabad.                                    |
| 2010–11 | MS Scholarship Awarded By COMSATS University, Abbottabad.  |
| 2010–12 | Overall <b>3<sup>rd</sup> Position</b> in MS Chemistry.  |
| 2005–09 | Overall <b>3<sup>rd</sup> Position</b> in BS(Hons) Chemistry.                                    |

#### Instrumental Expertise

1. Nuclear Magnetic Resonance (NMR) Spectrometer
2. High Performance Liquid Chromatography (HPLC)
3. UV/Visible Spectrophotometer
4. IR Spectrophotometer

#### Biological Expertise

1. Hydrolytic Stability Studies of Metal Complexes by  $^1\text{H}$ NMR
2. Amino Acids and Protein Binding Studies by  $^1\text{H}$ NMR
3. DNA Binding Constant by Cyclic Voltammetry

#### Computer Expertise

1. Proficient is use of DOS, Windows XP, Vista, 7, 8, 10 Operating Systems
2. MS Office (Word, Powerpoint, Excel)
3. Top Spin Software for NMR Data Interpretation
4. Mercury Software for Single Crystal XRD Structure Analysis
5. ChemOffice (ChemDraw Ultra, ChemBioDraw Ultra)
6. Endnote Program
7. Autodock Vina

#### Conferences/Symposiums/Webinars

1. 9<sup>th</sup> Asian Biological Inorganic Chemistry Conference (2018) Singapore Organized by National University of Singapore, Singapore and Nanyang Technological University, Singapore. (PhD Research Work Presented).
2. 1<sup>st</sup> Auckland Symposium On Medicinal Inorganic Chemistry (2015) Organized by School of Chemical Sciences, The University of Auckland, Auckland, New Zealand. (Participant)
3. Green Chemistry Symposium (2015) Organized by School of Chemical Sciences, University of Auckland, Auckland, New Zealand. (Participant)
4. International Conference on Chemical Sciences (2019) Jointly Organized by Department of Chemistry, Quaid-i-Azam University, Islamabad and Pakistan Academy of Sciences, Islamabad. (Participant)



5. Training Session for Entry of Publications on Scopus (2020) Organized by Department of Chemistry, Government College Women University Sialkot.(Participant)
6. How to Manage Your References Using RefWorks (2020) Organized by ProQuest HEC.
7. Reflective Practice in Teaching and Learning: Capacity Building for IPFP Fellows (2021) by NAHE-HEC. (Participant)
8. Micro-gel Polymers for the Treatment of Contaminated Water (2021) Organized by Department of Chemistry, Government College Women University Sialkot. (Participant)
9. Effective Research Proposal Writing for Research Grant (2021) Organized by ORIC, Government College Women University, Sialkot. (Participant)
10. Webinar **“To discuss Different Collaboration Approaches with Baku State University”** held on 17<sup>th</sup> September 2021 in the Department of Chemistry, Government College Women University Sialkot.
11. Webinar on **“Thesis Writing and Viva Voce: What would Delight Examiners?”** held at 18<sup>th</sup> November 2021 in the Department of Chemistry, Government College Women University Sialkot.
12. Seminar on **“Entrepreneurship and Protection of Intellectual Property Rights: Filing Process and Prosecution of Patents”** held on 21<sup>st</sup> March 2022 at Auditorium Hall, Government College Women University Sialkot.
13. Seminar on **“Synthesis of Metallic Nanoparticles for Heterogeneous Catalysis”** held on 12<sup>th</sup> May 2022 at Auditorium Hall, Government College Women University Sialkot.
14. **One Day Training of Fourier Transform Infra-Red (FTIR) Spectrophotometer** held on 10<sup>th</sup> August 2022 at Central Research Laboratory, Government College Women University Sialkot
15. **“Virtual Drug Discovery Symposium”** held at September 16, 2022 by Department of Chemistry and Chemical Engineering, Lahore University of Management Sciences (LUMS), Lahore.
16. **“Virtual Organic and Medicinal Chemistry Symposium”** held at December 9, 2022 by the Department of Chemistry and Chemical Engineering, Lahore University of Management Sciences (LUMS), Lahore.
17. Webinar on **“Exploring Bioactive Phenolic Compounds in Food and Natural Real-World Sample”** held at October 14, 2022 by MDPI Molecules
18. Webinar on **“Offshore Renewables for a Transition to a Low Carbon Society”** held at October 18, 2022 by MDPI Journal of Marine Science and Engineering
19. Webinar on **“Plasma Oncology”** held at October 24, 2022 by MDPI Cancers
20. Webinar on **“Metal Complexes on Biomedical Applications”** held at October 24, 2022 by Wiley-VCH
21. Webinar on **“Revealing the Invisible: How to Prepare and Analyze Battery Samples with Electron Microscopy”** held at September 15, 2022 by Wiley Analytical Science
22. Webinar on **“Navigating the Pathways of Publishing in High-quality Journals”** held at 8<sup>th</sup> November 2023 by Elsevier
23. Webinar on **“Accessing Wiley Journals and Publications Tips for Authors and Researchers (HEC)”** held at 15<sup>th</sup> November 2023 by Wiley-VCH
24. Webinar on **“How to Effectively use Mendeley in Research Cycle”** held at 21<sup>st</sup> November 2023 by Elsevier
25. **The 3<sup>rd</sup> International Electronic Conference on Antibiotics** held from 01–15 December 2023 by MDPI Antibiotics
26. **The 4<sup>th</sup> International Electronic Conference on Cancers** held from 06–08 March 2024 by MDPI Cancers

## References

1. Dr. Muhammad Hanif (PhD Foreign Supervisor)  
School of Chemical Sciences, University of Auckland, Auckland, New Zealand.  
Email Address: [m.hanif@auckland.ac.nz](mailto:m.hanif@auckland.ac.nz)
2. Prof. Dr. Aamir Waseem (PhD Supervisor)  
Department of Chemistry, Quaid-i-Azam University, Islamabad, Pakistan.  
Email Address: [amir@qau.edu.pk](mailto:amir@qau.edu.pk)
3. Prof. Dr. Christian Hartinger (PhD Foreign Supervisor)  
School of Chemical Sciences, University of Auckland, Auckland, New Zealand.  
Email Address: [c.hartinger@auckland.ac.nz](mailto:c.hartinger@auckland.ac.nz)