Dr. Fahmida Jabeen

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Institute of Chemical Sciences
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Date of Birth: 20th June 1986

Education

2011-2015 PhD (Chemistry) on "Fabrication of Rare-Earth Metal Oxides Based Materials for Investigation of Phosphoprotein/Peptides Signatures in Biological Fluids" Institute of Chemical Sciences, Bahauddin Zakariya University, Multan, Pakistan.

Field of Specialization: Analytical Chemistry

2009-2011 M. Phil (Analytical Chemistry) on "Rapid and selective enrichment of phosphopeptides by Silica-Lanthanum oxide composite"
Institute of Chemical Sciences, Bahauddin Zakariya University, Multan, Pakistan.
Field of Specialization: Analytical /Inorganic Chemistry
Result: 1st Division/3.76 CGPA

2005-2009 B.S Hons (Chemistry)
Department of Chemistry, Lahore College for Women University, Lahore, Pakistan.
Field of Specialization: Analytical/Inorganic Chemistry
Result: 1st Division/3.65 CGPA

2002-2004 F. Sc. **HSSC** (Pre-Medical)
B. I. S. E. Lahore
Result: 1st Division/77.8%/First Class

2000-2001 Matriculation **SSC** (Science)
B. I. S. E. Multan
Result: 1st Division/84.8%/First Class

Professional/Academic Experience

1. Assistant Professor under TTS (Teaching/Research) at the Institute of Chemical Sciences, Bahauddin Zakariya University, Multan, Pakistan (11-11-2021 till present)
2. Assistant Professor under IPFP (Teaching/Research) at the Department of Chemistry, The Women University, Multan, Pakistan (15-09-2018 – 16-09-2019)
3. Pre-doctoral Position (6 Months) by Austrian Federal Ministry of Science and Research (BMWF), September 2013 – February 2014.
4. Follow up visit (3 Months) by Austrian Federal Ministry of Science and Research (BMWF), June 2015 – August 2015.
5. Ph.D. Scholar and Instructor Practical and Research work at Institute of Chemical Sciences, Bahauddin Zakariya University, Multan, Pakistan (01-01-2012 – 07-03-2015).

Industrial Collaboration

Consultant R &D at AB Research and Development Centre, Multan under the umbrella of SOS Foundation Pakistan

Consultant fr Ufree Brand Enterprises

Research Projects under Supervision

- **Commercial Hemostat Powder-OxyCloT:** Drug Regulatory Authority of Pakistan (DRAP) and National Ethical Committee Review Pakistan documentation in progress for approval.
- **IodoTrast-Contrast Agent:** Drug Regulatory Authority of Pakistan (DRAP) documentation in progress for approval.
- **Recycling of Depleted Ion Batteries:** Up-scaling at industrial level
- **Seal Rx:** Surgical Adhesive; Applied for patent
- **Selective Wound Dressings:** Hydrogels based dressings (CelluPatch under DRAP approval), addition of bioactive components in activated cellulose acetate template. Prototype prepared and in progress for DRAP approval

Research Interests

Analytical Chemistry; Separation Science; HPLC; Solid Phase Extraction (SPE); In-Tip strategies; Cancer cell deaths; Drug delivery; Desalting; Metal organic frameworks (MOFs); Polymeric Stationary Phases; Polymeric Composites; Nanocomposites; Graphene Chemistry; MALDI/TOF-MS; Nanomaterials and Nanotechnology; Proteomics; Phospho-proteomics; Glyco-proteomics; Lipo-

proteomics; Sulfo-proteomics; Peptidomics; Lipidomics; Metallo-proteomics; Biomarker strategies; Protein Profiling by MELDI-MS (Material-Enhanced Laser Desorption/Ionization Mass Spectrometry); In-Tip & On-Target Extraction Strategies; Nanoparticles Characterization by MALDI-MS; Insulin/Estrogens in cancers; Tissue Proteomics.

Research Expertise

Analysis of biological molecules, target affinity and protocol designing, gene ontology, oncogenetics via BioMuta and proteomics tool, expertise in different proteomics and biomarker related softwares and databases.

Recent AI skills and Course Certification (Coursera-HEC DLSEI Cohort I)

Research Grants As Principal Investigator

No.	Project Title	Amount	Funding Agency, Year
1.	Cellulose-Zeolite Based Filtration Device for Water Purification	Rs. 3,00,000/-	B. Z. University, 2024
2	Nanomaterial based Colorimetric Indicative Film in Smart Food Packaging	Rs.2,00,000/-	B. Z. University, 2023
3.	The pH dependent lanthanide/Au primer nanocomposite for Apoptotic Initiation in Cancer Cell	Rs. 2,00,000/-	B. Z. University, 2022

Research Supervision

1. **M Phil**

As Supervisor

1. Fabrication and Characterization of Functional Cellulose Acetate Membrane using Neem Extract (Safia Noor, Session 2023-25)
2. Developing Conductive Carbon ink via Molecular imprinting technique as an Electrochemical Sensor for Indole-3-Acetic Acid (Ali Hafeez , Session 2023-25)
3. Quantitative Analysis of Tryptophan and Indole-3-Acetic Acid for diagnosis of Chronic Kidney Disease (Hamza Hafeez, Session 2023-25)
4. Isolation and Purification of Gelatinases from human blood (Muhammad Muzammil, Session 2023-25)
5. Formulation and evaluation of a topical gel containing isotretinoin for the treatment of acne (Maryam Ijaz, Session 2023-25)
6. Synthesis, Characterization, *in vitro* and *in vivo* evaluation of cyanoacrylate-based surgical adhesive (Syeda Fakiha, Session 2023-25)
7. Optimization of chemically induced breast cancer model and evaluation of an anticancer drug's therapeutic effects 9Ruqia Akram, Session 2023-25)
8. Synthesis and Evaluation of Ethiodized oil based Contrast Agent (Ramsha Khan, Session

2022-24)

9. Optimizing Shoe Shine: A Study on the Formulation, Properties and Application of an Effective Polishing Agent (Bushra Aslam Session 2022-24)
10. Extraction of Silica from Rice Husk Ash (Zahra Session 2022-24)
11. Fabrication of Metal-Organic Framework embedded Alginate Hydrogel for Antimicrobial Applications (Muhammad Amir, Session 2022-24)
12. Isolation and purification of Galactose-specific Lectin from Momordica charantia using magnetic egg white aggregates (Ayesha Kainat Majeed, Session 2022-24)
13. Extraction of Valuable Metals from Depleted Li-ion Batteries (LiBs) (Muhammad Hamza Nazeer, MPH-C-22-69)
14. Fabrication of Titania based Monolith for Photocatalytic Water Filtration (Rahma Abuzar MPH-C-22-70)
15. Development of Fe3O4@CQDs@HA as Cell Imaging Probe for CD44 Over Expressed Cancer Stem Cells (Sidra Siddique MPH-C-22-10)
16. Bio-sensing of Low Density Lipids (LDL)through MNP@CH from blood plasma (Maham Kainat Javed, MPH-C-22-80)
17. Non-invasive biosesning of Gelatinases through ZnO/Gelatin NPs (Ayema Saeed, MPH-C-22-03)
18. Tungsten oxide based Calorimetric Indicator for Application in Smart Food Packaging (Muhammad Asad Nawaz, 2021-2023)
19. Synthesis and Characterization of Ovatransferrin and 5FU pro-drug complex (Samreen Ashraf, 2021-2023)
20. Synthesis and Evaluation of Ethiodized oil based Contrast Agent. (Ramsha Khan, 2022-2024)
21. Optimizing Shoe Shine: A Study on the Formulation, Properties and Application of an Effective Polishing Agent. (Bushra Aslam, 2022-2024)
22. Extraction of Silica from Rice Husk Ash to Fabricate Chromatographic Grade Silica. (Zara Arshad, 2022-2024)
23. Fabrication of Metal-Organic Framework embedded Alginate Hydrogel for Antimicrobial Applications (Muhammad Amir, 2022-2024)
24. Isolation and purification of Galactose-specific Lectin from *Momordica charantia* using magnetic egg white aggregates (Ayesha Kainat Majeed, 2023-2025)

(As-Co supervisor)

1. Synthesis of magnetic Poly AGE/ DVB for enzyme immobilization (Farwa Sajjad, 2017-2019)
2. Tryptic digestion of protein by immobilizing enzyme on magnetic 1,2- Epoxy -9-

Decane/DVB copolymer.(Rida Shakeel, 2017-2019)

3. Microwave assisted protein digestion Trypsin immobilization on magnetic chitosan ZIF8 (Sana Naz, 2020-22)
4. Enzyme immobilization on MOF as template (Inshra, 2020-22)

2. PHD

1. Development of Enhanced Wound Dressings for Chronic Wounds (Saman Kainat, Session 2022- 2026)
2. Ayema Syed, Session 2024-2028
3. Sidra Siddique, Session 2024-2028

Awards / Achievements

- HEC Outstanding Research Award 2013/2014; "Best Research Paper Award" on Newly Developed Poly(Allyl Glycidyl Ether/Divinyl Benzene) Polymer for Phosphopeptides Enrichment and Desalting of Biofluids, by Higher Education Commission (HEC), Pakistan
- HEC Outstanding Research Award 2012; "Best Research Paper Award" on Silica–Lanthanum Oxide - Pioneer Composite of Rare-Earth Metal Oxide in Selective Phosphopeptides Enrichment, by Higher Education Commission (HEC), Pakistan
- Indigenous Ph.D. Fellowship for 5000 Scholars (03 years) by Higher Education Commission Pakistan from 2012 to 2015.
- Predoctoral Position (6 Months) by Austrian Federal Ministry of Science and Research (BMWF), September 2013 – February 2014.
- Follow up visit (3 Months) by Austrian Federal Ministry of Science and Research (BMWF), June 2015 – August 2015.
- Won Research Productivity Award (RPA) from Ministry of Science and Technology (MOST), Pakistan, for the year 2012.
- Certificate of Excellence, Silver Medal in M Phil Chemistry, dated 09-03-2013.
- Gold Medal awarded by Zikariyan Chemists Organization Multan (ZACHO) on successful completion of PHD, dated 31st March 2017.
- Shield of Appreciation for Research Contribution in PHD, awarded by Vice Chancellor, BZU in March 2017.
- Certificate of Excellence, Gold Medal in PHD awarded by Zikariyan Chemists Organization Multan (ZACHO), dated 27th March 2019.
- Secured 7th position in NAYS COVID-19 IDEA BANK in April 2020

Research Collaborations

- Institute of Analytical Chemistry and Radiochemistry, Leopold-Franzens University, Innsbruck, Austria
- Department of Oncology, Georgetown University Medical Center, Lombardi Comprehensive Cancer Center NW, Washington, DC.
- Institute of Chemical Sciences, Bahauddin Zakariya University, Multan, Pakistan.
- International Center for Chemical and Biological Sciences, HEJ, University of Karachi.

Techniques

Mass spectrometry (MALDI/TOF-MS); Chromatography (HPLC); Spectroscopic Analysis (NIR; NMR; FTIR-ATR; UV- Visible); Microscopy (SEM, TEM, AFM)

Computer Skills

- Generative AI (Coursera HEC), AI in Education (Coursera HEC), Prompt Engineering (Coursera HEC), Claude, Deepseek, Perplexity, Notebook LM, QuillBolt.
- MS Office; Visual Basic; System Analysis & Design; Operating Systems (DOS, Windows, Unix/Linux); Networking; PC Fundamentals.

Advanced Courses

- Advanced Chromatographic Techniques
- Advanced Spectroscopic Techniques
- Mass spectrometry as Proteomics Tool
- Nanotechnology; nanomaterials
- Advanced Electroanalytical Techniques
- Solid State Chemistry
- Absorption and Emission Spectroscopy
- Monolithic Stationary Phases
- Material characterisation
- Advanced Applied Chemistry
- Fundamental Analytical Techniques
- Forensic Sciences
- Foodomics

Additional Curricular / Administrative Assignments

- **DSA** (female), Institute of Chemical Sciences, Bahauddin Zakariya University, Multan, Pakistan (at current)
- **Focal person** Institute of Chemical Sciences for **Academics and BZU Digitalization** for Academics, Learning Management System (LMS) and Examination Module.
- Member of Smog Initiative Committee for Bahauddin Zakariya University, Multan since 2024
- Member of M. Phil Thesis Evaluation Committee, Institute of Chemical Sciences, Bahauddin Zakariya University, Multan, Pakistan (at current)

- Member of PHD Pre-defense Evaluation Committee, Institute of Chemical Sciences, Bahauddin Zakariya University, Multan, Pakistan (at current)
- Member of Implementation Committee of Undergraduate and Graduate Policy 2023, Institute of Chemical Sciences, Bahauddin Zakariya University, Multan, Pakistan (at current)
- Member of Building Maintenance Committee, Institute of Chemical Sciences, Bahauddin Zakariya University, Multan, Pakistan (at current)
- Maintenance of equipment and instruments in Advanced Research Laboratory, Department of Chemistry The Women University, Multan, Pakistan (01-12-2018 – 10-11-2021)
- In-charge, Maintenance Committee, Department of Chemistry The Women University, Multan, Pakistan (01-12-2018 – 10-11-2021)
- Member, Semester Implementation Committee, Department of Chemistry The Women University, Multan, Pakistan (01-12-2018 – 10-11-2021)
- Member, Member of Admission Committee, Department of Chemistry The Women University, Multan, Pakistan (01-12-2018 – 10-11-2021)
- Reviewer – Biomedical Chromatography
- Reviewer – Microchimica acta

Research Contributions

(Cumulative Impact Factor >200; Citations: >698; h-index:16; i10 index: 24)

List of Publications

1. Iqbal, Sabeen, Sidra Siddique, Saman Kainat, Hamza Hafeez, Ali Hafeez, **Fahmida Jabeen,** Saadat Majeed, Nadeem Sabir, Mehboob Ahmed, and Muhammad Najam-ul-Haq. "Synthesis and evaluation of folic acid functionalized magnetic nanoparticles as dual system for fluorescent imaging and electrochemical detection of circulating tumor cells." Microchemical Journal (**2026**): 118068.
2. Muhammad Kashif, Muhammad Fiaz, **Fahmida Jabeen**, Muhammad Najam-ul-Haq, Ammara Shabbir, Muhammad Asim Farid, Muhammad Athar "Modification of Zr-based NH2-UiO-66 MOF by Incorporation of La2O3-based Nanomaterials as Efficient Photoelectrocatalysts for Oxygen Evolution Reaction (OER) and Photocatalysts for Degradation of Organic Dyes." Electrocatalysis 17.3 (**2026**): 536-548.
3. Sarah Ahmad, Ahmed Akrem, Muhammad Najam-ul-Haq, Sohaib Mehmood, Muazzama Batool, Ahsan Saeed, **Fahmida Jabeen**, Saima Ashraf, Nabila Bashir, Qamar Saeed, Comparative analysis of cysteine protease nano-formulations to manage c*allosobruchus maculatus* fabricius and *trogoderma granarium* everts in stored products, Scientific Reports, 15, 1, 33730.
4. Sabeen Iqbal, **Fahmida Jabeen**, Nabila Bashir, Syed Tayyab Raza Naqvi, Saadat Majeed, Azhar Rasul, Muhammad Najam-ul-Haq. Fabrication of phenylboronic acid

modified graphene oxide-silica biosensor for label-free electrochemical detection of circulating tumor cells. Bioelectrochemistry, **2025**.

5. Sabeen Iqbal, Saman Kainat, **Fahmida Jabeen**, Muhammad Salman Sajid, Saadat Majeed, Muhammad Najam-ul-Haq. Fabrication of folic acid immobilized graphene oxide-silica (FA@ GO-SiO2) for the electrochemical detection of circulating tumor cells, Sensing and Bio-Sensing Research, **2025**.
6. Soha Ghaffar, **Fahmida Jabeen**, Umar Noor, Toheed Ahmed, Muhammad Najam-ul-Haq, Copper-Doped ZnO Catalysts via Solution Blow Deposition: A Synergistic Approach to Antimicrobial Coatings, BioNanoScience, **2025**
7. Kinza Ali, Iqra Munawar, Sara Manan, Fatima Nawazish, Batool Fatima, **Fahmida Jabeen**, Adeela Saeed, Development of polymer monolith-MOF hybrid via surface functionalization for bioanalytical sciences. Anal Bioanal Chem, **2025**. https://doi.org/10.1007/s00216-025-05822-2
8. Saima Ashraf, **Fahmida Jabeen**, Zainab Mansoor, Batool Fatima, Dilshad Hussain, Nabila Bashir, Azhar Rasul, Muhammad Naeem Ashiq, Muhammad Najam ul Haq, Synergistic Chemo-Photothermal Anticancer Effect of pH-responsive Curcumin Loaded Mesoporous Silica Decorated Reduced Graphene, Journal of Drug Delivery Science and Technology, **2024,** 106321, 102. https://doi.org/10.1016/j.jddst.2024.106321
9. Malik, T., Fatima, B., Hussain, D., **Jabeen, F.,** Jawad, S., Mohyuddin, A., Najam-ul-Haq, M. Zeolite Functionalized with Magnesium/Aluminum/Lanthanum Ternary Hydroxide for the Phosphometabolite Profiling of Malignant Neoplastic Serum Samples, ACS Omega, **2024**, 9, 29, 31335–31343.
10. Sajid, M. S., Saleem, S., **Jabeen, F.**, Ishaq, M. W., Najam-ul-Haq, M., Ressom H. W. Mapping the low abundant plasma glycoproteome using Ranachrome-5 immobilized magnetic terpolymer as improved HILIC sorbent. J. Chromatogr. B, **2023**, 1227, 123846
11. Batool, R., Fatima, B., **Jabeen, F**., Hussain, D., Imran, M., Najam-ul-Haq, M. Profiling of phosphorylated metabolites from lung cancer by zeolite loaded Mg–Al–Ce ternary hydroxide (Zeolite@ MAC) composite. Heliyon, **2023,** 9, e16098.
12. Rabia Razzaq, **Fahmida Jabeen***, Zarmina Rashid, Nazar Mohammad Ranjha, In vivo Assessment of Diltiazem HCl Immobilized Co-polymeric pH Sensitive Microgel, *Frontiers in Chemical Sciences*, 48-53, 04, **2023.**

13. Sajid, M.S., Saleem, M. N., **Jabeen, F**., Saleem, S., Iqbal, S., Habib, S., Ashiq, M.N., Ressom, H. W., Najam-ul-Haq, M. Human serum N-glycome profiling via the newly developed asparagine immobilized Cellulose/Polymer nanohybrid. *Journal of Separation Science* **2022** 45, 4236-4244

14. Sajid M.S.; Saleem S., **Jabeen F.,** Najam ul Haq M., Ressom H.W. Terpoymeric platform with enhanced hydrophilicity via cysteic acid for Serum intact glycopeptide analysis. *Microchimica Acta*, **2022**, 189, 1-10.

15. Sajid, M. S., Saleem, S., **Jabeen, F.;** Fatima, B., Zulfikar, M., Ashiq, M. N., Ressom, H. W., Pukala, T. L., Najam-ul-Haq, M. Iminodiacetic acid (IDA)-generated mesoporous nanopolymer: a template to relate surface area, hydrophilicity, and glycopeptides enrichment. *Microchimica Acta*, **2021**, 188

16. Javed, R.; Hussain, D.; **Jabeen, F.;** Sajid, M.S., Fatima, B.; Ashiq, M.N., Najam ul Haq, M. Apo-H (Beta-2-Glycoprotein) Intact N-Glycans Analysis by MALDI-TOF-MS Employing Sialic Acid Derivatization. *Anal Bioanal Chem*. **2021**, 413, 7441–7449.

17. **Jabeen F.;** Sajid M.S.; Fatima B.; Saeed A.; Ashiq M. N.; Najam-Ul-Haq M. Graphene oxide-metal oxide nanocomposites for on-target enrichment and analysis of phosphorylated biomolecules. *J Sep Sci.* **2021**. doi: 10.1002/jssc.202001276.

18. Saleem, S.; Sajid, M.S.; Hussain, D.; Fatima, B.; **Jabeen, F.;** Najam-ul-Haq, M.; Saeed, A. Highly porous terpolymer-ZIF8@BA MOF composite for identification of mono- and multi-glycosylated peptides/proteins using MS-based bottom-up approach. *Microchimica Acta* **2021,** *187*, 555.

19. Sajid, M.S.; Mittal, P.,Fatima, F.; Hussain, D.; **Jabeen, F.;** Ashiq, M.N.; Pukala, T. L.; Najam-ul-Haq. M. Glycosylation Heterogeneity and Low Abundant Serum Glycoproteins MS Analysis by Boronic acid Immobilized Fe3O4@ 1, 2-Epoxy-5-Hexene/DVB Magnetic Core Shell Nanoparticles, *Microchemical Journal*, **2020,** *159*, 105351.

20. Sajid, M.S.; **Jabeen, F.;** Hussain, D.; Gardner, Q.; Ashiq, M.N.; Najam ul Haq, M. Boronic Acid Functionalized Fibrous Cellulose for the Selective Enrichment of Glycopeptides, *Journal of Separation Science,* **2020,** *43,* 1348-1355.

21. Saleem, S.; Sajid, M.; Hussain, D.; **Jabeen, F.;** Najam-ul-Haq, M.; Saeed, A. Boronic Acid Functionalized MOFs as HILIC Material for N-Linked Glycopeptides Enrichment. *Analytical and Bioanalytical Chemistry,* **2020,** *412,* 1509–1520.

22. Sajid, M.; Jovcevski, B.; Pukala, T.; **Jabeen, F.;** Najam-ul-Haq, M. Fabrication of Piperazine Functionalized Polymeric Monolithic Tip for Rapid Enrichment of Glycopeptides/Glycans. *Analytical Chemistry* **2020,** *92*, 683-689.

23. Javeed, R.; Hussain, D.; **Jabeen, F.;** Saeed, A.; Batool, F.; Ashiq, M.N.; Najam-ul-Haq, M. Enrichment of HDL Proteome and Phospholipidome from Human Serum via IMAC/MOAC Affinity. *Biomedical Chromatography,* **2020,** *34,* e4693.

24. Hussain, D.; Musharraf, Syed.; Batool.; Saeed, A.; **Jabeen, F.;** Ashiq, M.; Najam-ul-Haq, M. Magnetite nanoparticles coated with chitosan and polyethylenimine as anion exchanger for sorptive enrichment of phosphopeptides. *Microchimica Acta*, **2019,** *186*. 852.

25. Saeed, A.; Hussain, D.; Saleem, S.; Mehdi, S.; Javeed, R.; **Jabeen, F.**; Najam-ul-Haq, M. Metal Organic Frameworks Based Affinity Materials in Proteomics. *Analytical and Bioanalytical Chemistry* **2019**, *411*, 1745-1759.

26. **Jabeen, F.;** Najam-ul-Haq, M.; Rainer, M.; Huck, C. W.; Bonn, G. K. In-Tip Lanthanum Oxide Monolith for the Enrichment of Phosphorylated Biomolecules. *Analytical Chemistry* 2017, *89*, 10232-10238.

27. Sajid, M. S.; **Jabeen, F.**; Hussain, D.; Ashiq, M. N.; Najam-ul-Haq, M. Hydrazide-Functionalized Affinity on Conventional Support Materials for Glycopeptide Enrichment. *Analytical and Bioanalytical Chemistry* **2017,** *409*, 3135-3143.

28. **Jabeen, F.;** Najam-ul-Haq, M.; Ashiq, M. N.; Rainer, M.; Huck, C. W.; Bonn, G. K.

Gadolinium Oxide – Exclusive Selectivity and Sensitivity in Enrichment of Phosphorylated Biomolecules. *Journal of Separation Science* **2016,** *39*, 4175-4182.

29. Najam-ul-Haq, M.; **Jabeen, F.;** Fatima, B.; Ashiq, M. N.; Hussain, D. Alumina Nanocomposites - A Comparative Approach Highlighting the Improved Characteristics of Nanocomposites for Phosphopeptides Enrichment. *Amino Acids* **2016,** *48*, 2571-2579.
30. **Jabeen, F.;** Najam-ul-Haq, M.; Rainer, M.; Güzel, Y.; Huck, C. W.; Bonn, G. K. Newly Fabricated Magnetic Lanthanide Oxides Core–Shell Nanoparticles in Phosphoproteomics. *Analytical Chemistry* 2015, *87*, 4726–4732.
31. Fatima, B.; **Jabeen, F.;** Padashbarmchi, Z.; Najam-ul-Haq, M. Enhanced Enrichment Performance of Nickel Oxide Nanoparticles via Fabrication of Nanocomposite with Graphene Template. *RSC Advances* **2015,** *5*, 23658-23665.
32. Javeed, R.; **Jabeen, F.;** Saeed, H.; Najam-ul-Haq, M. Advance Workflow in Lipoproteomics via Polymeric Ion Exchanger. *Analytical Chemistry* **2015,** *87*, 3505–3512.
33. Najam-ul-Haq, M.; **Jabeen, F.;** Shafiq, F.; Sajid, S.; Saba, A. New Cellulose-Silica Composite IMAC/C18 for Selective Enrichment of Phosphorylated Molecules and Improved Recovery of Hydrophilic Species. *RSC Advances* **2015,** *5*, 1034-1042.
34. Najam-ul-Haq, M.; Saeed, A.; **Jabeen, F.;** Hussain, D.; Khan, N.; Shabir, M.; Raza, N.; Ashiq, M. N.; Malana, M. A.; Zafar, Z. I. Development of New Multifunctional Terpolymer Sorbent for Proteomics Applications. *Biomedical Chromatography* **2015,** *29*, 981-989.
35. **Jabeen, F.;** Najam-ul-Haq, M.; Javeed, R.; Huck, C. W.; Bonn, G. K. Au-Nanomaterials as a Superior Choice for Near-Infrared Photothermal Therapy. *Molecules* 2014, *19*, 20580-20593.
36. Najam-ul-Haq, M.; Saeed, A.; **Jabeen, F.;** Maya, F.; Ashiq, M. N.; Sharif, A. Newly

Developed Poly(Allyl Glycidyl Ether/Divinyl Benzene) Polymer for Phosphopeptides Enrichment and Desalting of Biofluids. *ACS Applied Materials & Interfaces* **2014,** *6*, 3536-3545.

37. Hussain, D.; Najam-ul-Haq, M.; Saeed, A.; **Jabeen, F.**; Athar, M.; Ashiq, M. N. Synthesis of poly GMA/DVB and its application for the removal of Malachite Green from aqueous medium by adsorption process. *Desalination and Water Treatment*, **2013**, *53*, 2518-2528.
38. Saeed, A.; Najam-ul-Haq, M.; **Jabeen, F.;** Svec, F. High Affinity Phosphopeptides Enrichment and Desalting of Biological Materials on Newly Engineered Poly(Glycidyl Propargyl Ether/Divinyl Benzene). *Analytical Chemistry* **2013,** *85*, 8979-8986.
39. Fatima, B.; Najam-ul-Haq, M.; **Jabeen, F.;** Majeed, S.; Ashiq, M. N.; Musharraf, S. G.; Shad, M. A.; Xu, G. Ceria-based Nanocomposites in Enrichment and Identification of Phosphopeptides. *Analyst* **2013,** *138*, 5059-5067.
40. Hussain, D.; Najam-ul-Haq, M.; **Jabeen, F.;** Ashiq, M. N.; Athar, M.; Rainer, M.; Huck, C. W.; Bonn, G. K. Functionalized Diamond Nanopowder for Phosphopeptides from Complex Biofluids. *Analytica Chimica Acta* **2013,** *775*, 75-84.
41. **Jabeen, F.;** Hussain, D.; Fatima, B.; Musharraf, S. G.; Huck, C. W.; Bonn, G. K.; Najam-ul-Haq, M. Silica-Lanthanum Oxide - Pioneer Composite of Rare Earth Metal Oxide in Selective Phosphopeptides Enrichment. *Analytical Chemistry* **2012,** *84*, 10180-10185.
42. Najam-ul-Haq, M.; **Jabeen, F.;** Hussain, D.; Saeed, A.; Musharraf, S. G.; Huck, C. W.; Bonn, G. K. Versatile Nanocomposites in Phosphoproteomics: A Review. *Analytica Chimica Acta* **2012,** *747*, 7-18.

Book Chapters

1. Handbook of Nanomaterials, Volume 2: Chapter 6 Nanobiointerface, 2024, Elsevier.
2. Handbook of Nanomaterials 1: Chapter 19 Nanomaterials as Biosensors, 2024, Elsevier
3. Handbook of Nanomaterials 2: Chapter 2 Nanomaterials in Separation Science, 2024, Elsevier

4. MXenes as Surface-Active Advanced Materials, Fundamentals to Industrial and Biomedical Applications Micro and Nano Technologies, Pages 457-478, ISBN 9780443135897, 2024, Elsevier
5. Kainat, S., Iqbal, S., **Jabeen, F.,** Ashiq, M. N., Najam-ul-Haq, M. Chapter 18 - MXenes in imaging, In Micro and Nano Technologies, MXenes as Surface-Active Advanced Materials, Elsevier, **2024**,457-478, ISBN 9780443135897,
6. Ashraf, S., **Jabeen, F.,** Iqbal, S.; Sajid, M. S.; Najam-ul-Haq, M. Chapter 13; Carbon dots in Photothermal Therapy; 1st Edition; De Gruyter, **2023**, ISBN: 978-3-11079992-7.
7. Sajid, M. S.; Saleem, S.; **Jabeen, F.**; Fatima, B.; Saeed, A.; Hussain, D.; Majeed, S.; Ashiq, M. N.; Najam-ul-Haq, M. Chapter 8; Drugs Resistance in Lungs Diseases in: Biochemistry of Drug Resistance; 1st Edition; Springer Nature, **2021**, ISBN-978-3-030-76320-6, DOI: 10.1007/978-3-030-76320-6.
8. Fatima, B.; Jamil, M.; Hussain, D.; Saeed, A.; **Jabeen, F.**; Sajid, M. S.; Najam-ul-Haq, M. Chapter 13; Drug Resistance in Cancer in: Biochemistry of Drug Resistance; 1st Edition; Springer Nature, **2021**, ISBN-978-3-030-76320-6, DOI: 10.1007/978-3-030-76320-6.
9. **Jabeen, F.**; Sajid, M. S.; Saeed, A.; Fatima, B.; Hussain, D.; Majeed, S.; Ashiq, M. N.; Najam-ul-Haq, M. Chapter 14; Drugs Resistance and Treatment Failure in HIV and / or AIDS in: Biochemistry of Drug Resistance; 1st Edition; Springer Nature, **2021,** ISBN-978-3-030-76320-6, DOI: 10.1007/978-3-030-76320-6.
10. Hussain, D.; Saeed, A.; Rashid, N.; Fatima, B.; Sajid, M. S.; **Jabeen, F.**; Najam-ul-Haq, M. Chapter 15; Drug Resistance in Reproductive Diseases in: Biochemistry of Drug Resistance; 1st Edition; Springer Nature, **2021**, ISBN-978-3-030-76320-6, DOI: 10.1007/978-3-030-76320-6.

Poster Presentation

1. Sajid, M. S., **Jabeen, F.**, Najam ul Haq, M. Mapping of Serum Intact Glycoproteins/peptides by Polymeric HILIC Probe. Symposium of Belt and Road International Cooperation on Interdisciplinary Materials, **2023**

2. Sajid, M. S., **Jabeen, F.**, Iqbal, S., Najam ul Haq, M. Human Serum N- Glycome Profiling via Cellulose/Polymer Nanohybrid@Asparagine. Symposium of Belt and Road International Cooperation on Interdisciplinary Materials, **2023**

3. **Jabeen, F.;** Hussain, D.; Fatima, B.; Rainer, M.; Huck, C. W.; Bonn, G. K.; Najam-ul-

Haq, M. Silica−Lanthanum Oxide: Pioneer Composite of Rare-Earth Metal Oxide in Selective Phosphopeptides Enrichment. 11th Austrian Proteomic Research Symposium (APRS 2013), (Center for Chemistry and Biomedicine (CCB), Innsbruck, **Austria**; 23–25.09.2013).

Patent Submission

Dual Mode/Bimodal Separation Media for Sample Preparation, 2022, Office of Technology Commercialization, GeorgeTown University, Washington DC

International Trainings

Participated in International School on Theory and Experimentation of Disease Biomarker for Countries along the Belt and Road and Developing Countries, held in Changchun, China August 18th to September 3rd, 2023.

Research Conferences/Workshops/Webinar

1. **META ANALYSIS IN RESEARCH: A PRACTICAL GUIDE"**, organized by PASTIC Sub-Centre Karachi, 27 Aug 2026
2. Participted in webinar titled "Climate Change & Carbon Markets," conducted by Gitchia Institute of Global Certification, on 31 March 2026
3. Online Webinar Accelerating LC/MS Impurity Screening Followed by ECD-Based Sequence Analysis for GLP-1 Analogs by Agilent Technologies, 8th May 2026.
4. Online Webinar Automation at the Next Level: Never Lose Track of Your Sample by Agilent Technologies, 12 Mar, 2026.
5. Strengthening the University Innovation Ecosystem: Capacity Building Webinar on Patents, Copyrights and Trademarks by Higher Education Commission (HEC), in collaboration with the Intellectual Property Organization of Pakistan (IPO-Pakistan), 4 Feb, 2026.
6. One Day Capacity Building International Workshop on Generative AI for Higher Education and Research conducted at CASPAM, B. Z. University Multan 17th Nov 2025
7. Participated in Online International Webinar: Future Skills in Frontier Technologies: Trends and Challenges by COMSTECH Islamabad 25th Sep 2025
8. Participated in Online webinar: Step by Step Guide to Submitting and Publishing Your Research by Elsevier's Learning Content and Development. 23rd Oct 2025
9. Participated in ICS Research Project/Thesis/ Product Showcasing 2025 Institute of Chemical Sciences, B. Z. University Multan16th May 2025
10. Patron in Chief/Keynote Lecture 5th International Conference on Recent Trends in Natural Sciences (ICRTNS-2025), Joint Venture of Dr. Wang Research Group (College of Chemistry and Molecular Sciences, Henan University China) & IM Group of Researchers 22-23 Feb 2025

11. Participated in One-Day Online Capacity Building Training Workshop on "Data-Driven Decision Maing Using Excel" Organized in ORIC-Bahauddin Zakariya University, Multan 14 Nov **2024**.
12. Participated in Two-Day Workshop on Patent Writing and Drafting organized by Punjab Higher Education Commission (PHEC), Lahore 6^{th}-7^{th} Nov **2024**.
13. Participated in Three-Day Online Capacity Building Workshop on Outcome Based Education, Organized by Centre for Engineering Education (CEE), Universiti Teknologi Malaysia (UTM), Johor Bahru, Malaysia 10^{th} Oct to Dec 12thth **2024.**
14. Invited Speaker at International Conference on Collaborative Strategies of Higher Education Institutions and Industry to Promote Sustainable Development Goals, 4^{th}-5^{th} Mar **2024,** The Women University, Multan Pakistan.
15. Presented in Online Workshop Characterization Techniques, Aug 3-4 **2024** by IM Group of Researchers.
16. Participated in Cyberbiosecurity Training Workshop, Nov 30^{th} and Dec 1^{st} 2023.
17. Patron in Chief of 4rth International Life and Chemical Sciences, 25^{th} and 26^{th} Nov, 2023.
18. Guest Speaker at 3rd Multidisciplinary International Research Conference March 18-19th, 2023.
19. Invited Speaker with Oral Presentation at 3rd International Conference on Chemical and Allied Sciences for Sustainable Development 2022 (CASSD-2022) at WUM 28-30 Nov 2022
20. Guest Speaker with Oral Presentation at Multidimensional International Research Conference; (online) by IM Group of Researchers, Abdul Wali Khan University Mardan, 9th Oct 2022
21. Guest Speaker with Oral Presentation at One Day International Conference; Research Skills Development Conference (online) by Abdul Wali Khan University Mardan 6th Aug 2022
22. Participation in Capacity Building Course for Researchers by British Council- HEC, 1st Aug-4rth Aug 2022
23. Participated with Oral Presentation in 7th International Multidisciplinary Research Conference, Post Covid-19 Global Prosperity, at Sarhad University of Science and Information Technology, Peshawar, 26th – 28th July 2022
24. Participated with Oral Presentation in International Conference on Chemicals and Material Sciences at Department of Chemistry, The University of Education, Lahore, 21st May 2022

25. Participated in USA-Pakistan Bilateral Conference on Energy Nanomaterials 2020 held at School of Natural Sciences, NUST, Islamabad on 16th January 2020
26. Among organizers in one day symposium Role of Researcher to link Academia & Industry, held in The Women University, Multan, 20th November 2019
27. Among organizers in one day symposium Role of Researcher to link Academia & Industry, held in The Women University, Multan, 20th November 2019.
28. Presented in International Conference, Forefront in Chemistry, Celebrations of International Periodic Table Year, held in BZU, March 2019.
29. Presentation in 1st International Conference on Strongly Correlated Electron Systems and Nanotechnology held at The Women University, Multan in 2019.
30. Among organizers in International Travelling Expo 2011 "It's all about Chemistry", held at Bahauddin Zakariya University, Multan, Pakistan.
31. Participated in 10th International and 22nd National Chemistry Conference at University of Agriculture Faisalabad, Pakistan in 2011
32. Participated in 9th International and 21st National Chemistry Conference at University of Karachi, Pakistan in March 2011

Reference

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