

Dr. Zahid Shafiq, Ph.D., FRSC

Institute of Chemical Sciences, Bahauddin
Zakariya University, Multan, Pakistan
Email: zahidshafiq@bzu.edu.pk
Tel: [+92 \(0\)3006559811](tel:+923006559811)

Highlights and Evidence of Esteem:

- Recipient of the **Alexander von Humboldt (AvH) Fellowship for Experienced Researchers**, Germany—a highly competitive international fellowship recognizing outstanding researchers.
- Secured a **Return Fellowship** by **AvH Foundation** to re-establish an independent research program, demonstrating initiative and the ability to build sustainable research capacity.
- Received **multiple travel and research grants** to attend and present work at major international conferences (Australia, Germany, Japan, Portugal, Spain, and Pakistan).
- Extensive international research background across **China, Germany, and Pakistan**, with collaborations involving partners from **the UK, Canada, Oman, Italy, and China**—enhancing cross-border knowledge exchange and project execution.
- Developed and optimized novel **bioactive heterocyclic scaffolds** targeting neurodegenerative and anticancer pathways, bridging fundamental chemistry and therapeutic application.
- Successfully led research teams under competitive fellowship funding.
- Presented research at **major international conferences** (Australia, Germany, Portugal, Japan, Spain, Pakistan), strengthening global professional networks and visibility.
- Published in reputable international journals with strong citation record in **synthetic and medicinal chemistry** with more than **150 peer-reviewed articles** with more than **5800 citations (h-index 40)** [Dr. Zahid Shafiq - Google Scholar](#).
- Recognition as **World's Top 2% Scientists** by Stanford University and Elsevier.
- **Recipient of the Global Talent Visa (UK)** — a prestigious, merit-based recognition awarded to individuals demonstrating exceptional talent and international research achievements.

Education:

Ph.D. Organic Chemistry	2004–2008
Institute of Chemistry, Chinese Academy of Sciences (ICCAS), Beijing, China	
Thesis Title: Regioselective Nucleophilic Substitution of the Baylis-Hillman Adducts: Applications to the Synthesis of Heterocycles	
M.Phil., Chemistry	2001
Quaid-i-Azam University, Islamabad, Pakistan, (Gold Medal)	
M.Sc., Chemistry	1998
Bahauddin Zakariya University, Multan, Pakistan, (Gold Medal)	

Employment:

Professor	2020 onwards
Bahauddin Zakariya University, Multan, Pakistan	
• Lead research in organic synthesis, medicinal chemistry, and drug design, focusing on applied and translational outcomes. • Supervise and mentor graduate and master researchers in experimental design and publication. • Develop and teach advanced chemistry courses aligned with current industry trends. • Build collaborations with national and international academic and industrial partners. • Secure and manage research funding and project resources. • Contribute to editorial and peer-review activities and present findings at international forums	

George Forster Fellow (Experienced Researcher)

University of Bonn, Germany

2021– 2023

- Conducted advanced research in organic synthesis and medicinal chemistry, focusing crafting ligands for the orphan G Protein-Coupled Receptor 35 (GPR35) and formulating chromone derivatives as formidable GPR35 inhibitors.
- Supervised Master and Erasmus theses, fostering interdisciplinary collaboration.

Postdoctoral Researcher

2010–2013

Max-Planck Institute for Polymer Research, Mainz, Germany

- Developed bioinspired underwater adhesives in cooperation with **HERAEUS Dentistry** and Photosensitive Biomimetic Peptides and other Phototriggerable molecules for Cell applications & Bioadhesives.
- Published in high-impact journals, including *Nature Materials* and *Angewandte Chemie International Edition, Advanced Materials* etc.

Funded Projects

-
- Return Fellowship, Alexander von Humboldt Foundation, Germany, 2024–2025 (€6,500)
 - NRPU, Higher Education Commission (HEC), Islamabad, Pakistan, 2022–2025 (Rs. 6.16 million)
 - NRPU, HEC, Islamabad, Pakistan, 2020–2023 (Rs. 4.39 million)
 - ORIC, Bahauddin Zakariya University, Multan, Pakistan, 2015–2017 (Rs. 0.85 million, multiple grants)

Awards and Honors:

-
- George Forster Fellowship for Experienced Researchers, Alexander von Humboldt Foundation, Germany, 2021–2023
 - German Research Foundation (DFG) Fellowship, Germany, 2011–2013
 - Research and Productivity Award, PCST, Pakistan, 2010–2012
 - Director's Scholarship/Award, ICCAS, Beijing, China, 2007
 - Excellent Young Scientist Award, ICCAS, Beijing, China, 2005–2006
 - Participation in the 59th Meeting of Nobel Laureates, Lindau, Germany, 2009

Experience working with Instruments:

-
- Hands-on expertise and interpreting data from various spectroscopic and analytical techniques, including HPLC, NMR, LC-MS, GC-MS, UV-Vis, FTIR, Flash Chromatography, and Microwave-Assisted Synthesis.

Research Collaborations:

UK Collaborations:

- Prof. Thomas Wirth, University of Cardiff, UK
- Prof. Anthony P. Davis, University of Bristol, UK
- Prof. M. Safwan Akram, National Horizons Centre, Teesside University, UK

International Collaborations:

-
- University of Nizwa, Oman; Bartın University, Turkey; Quaid-i-Azam University, NUST, COMSATS, Pakistan

Professional Memberships:

-
- Member, Royal Society of Chemistry (MRSC)
 - Member, The American Chemical Society
 - Member, The Chemical Society of Pakistan

Selected Talks and Seminars:

-
- Invited Lecture: Organic Molecular Chemistry for Biomedical Applications, Northumbria University, Newcastle, UK, August 2024

- Oral Presentation: 1st International Conference on Biological and Biomimetic Adhesives, University of Lisbon, Portugal, May 2012
- Poster: Network Meeting of the Alexander von Humboldt Foundation, Rostock, Germany, April 2022
- RACI Centenary Congress 2017 held in Melbourne, Australia from 23-28 July, 2017 (Poster)
- Smart Polymers Biennial Meeting of the GDCh-Division of Macromolecular Chemistry held at the JGU University, Mainz, Germany, from 07-09 October, 2012 (Poster)
- ESF-EMBO Symposium on Biological Surfaces and Interfaces held in Sant Feliu de Guixols, Spain from June 26-July 1, 2011 (Poster)
- International Max-Planck Research School (IMPRS) on Biomimetic Adhesives held in Segovia, Spain from October 4-8, 2010 (Poster)
- 2nd International Conference on “Recent Advances in Chemical Sciences” at Govt. College University, Lahore, Pakistan from March 20-22, 2019 (Invited Lecture)
- International Conference on “Recent Trends in Chemistry” at Allama Iqbal Open University, Islamabad, Pakistan from November 07-08, 2018 (Invited Lecture)
- 8th International & 20th National Chemistry Conference held in the Department of Chemistry, Quaid-i-Azam University, Islamabad, Pakistan from 15-17 February, 2010 (Oral)
- 1st National Junior Chemistry Symposium under the age of 35 held at the University of AJK, Muzaffarabad, Azad Kashmir from October 19-22, 2008 (Oral)
- JASS’03-Winter School on NMR Spectroscopy at the Frontier of Progress in the Life Sciences at the Institute for Protein Research, Osaka University, Suita, Osaka, Japan, January 19-30, 2004 (Oral)

Leadership Role:

• Member, Senate Bahauddin Zakariya University, Multan	2016- till date
• Member, Board of Studies, ICS, Bahauddin Zakariya University, Multan	2016 till date
• Member, Board of Studies, Emerson University, Multan	2023 till date
• Member, Board of Studies, University of Layyah, Layyah	2023 till date
• Member, Academic Council, Bahauddin Zakariya University, Multan	2020 till date
• Member, DTRC, ICS, Bahauddin Zakariya University, Multan	2016 -2020
• Departmental Students’ Advisor (DSA), ICS, Bahauddin Zakariya University, Multan	2015-2018

Curricular Development and Teaching at Undergraduate, Graduate and Master Level (Level 6,7 &8):

Advanced Stereochemistry	(Module Designing & Teaching at Graduate Level)
Advanced Heterocyclic Chemistry	(Module Designing & Teaching at Graduate Level)
Advanced Spectroscopy; Retrosynthesis	(Teaching at Graduate, Master and Ph.D. Level)
Organometallic Compounds	(Teaching at Graduate & Master Level)
Rearrangements; Reactive Intermediates	(Teaching at Undergraduate & Master Level)
Advanced Organic Chemistry (Lab)	(Module Designing & Teaching at Graduate Level)
Basic Organic Chemistry	(Teaching at Undergraduate Level)
Oxidation & Reduction Reactions	(Teaching at Undergraduate & Master Level)
Pericyclic Reactions	(Teaching at Undergraduate & Master Level)
Aromatic Electrophilic & Nucleophilic	(Teaching at Undergraduate & Master Level)
Substitution Reactions	(Teaching at Undergraduate & Master Level)

Ph.D Thesis Supervised /Director of Studies: 13

M.Phil. Thesis Supervised = 100+

Patents:

-
- A system for synthesizing N-(3-(methylthio)propyl) thiosemicarbazide-derived imine derivatives for diabetes management, German Patent, Case No. DE: 20 2025 100 799.1, April 2025

Editorial Contributions:

Reviewer: Journal of Medicinal Chemistry, ACS Chemical Neuroscience, Pest Management Science, ACS Omega (ACS Publishers), Anti-Cancer Agents in Medicinal Chemistry, Journal of Biochemical and Molecular Toxicology, Archiv der Pharmazie, Journal of Molecular Structures, Bioorganic Chemistry, International J. Biological Macromolecules

Editorial Board Member: Frontiers in Chemistry, Results in Chemistry

Selected Publications:

1. Design, Synthesis, In Vitro, and In Silico Studies of 5-(Diethylamino)-2-Formylphenyl Naphthalene-2-Sulfonate Based Thiosemicarbazones as Potent Anti-Alzheimer Agents. *Archiv der Pharmazie*, 2025, 358(7), p.e70050.
2. Bioinspired Underwater Bonding and Debonding on Demand, *Angew. Chem. Int. Ed.*, 2012, 51, 4332 – 4335
3. Synthesis, in vitro, and in silico studies of morpholine-based thiosemicarbazones as ectonucleotide pyrophosphatase/phosphodiesterase-1 and-3 inhibitors. *International Journal of Biological Macromolecules*, 2024, p.131068.
4. Design, synthesis, molecular docking and biological evaluation of 1, 3, 5-trisubstituted-1H-pyrazole derivatives as anticancer agents with cell cycle arrest, ERK and RIPK3-kinase activities. *Bioorganic Chemistry*, 2023, p.107058.
5. Cu (I)-catalyzed cross dehydrogenative coupling (CDC) of ethers and substituted styrenes. *Tetrahedron*, 2022, 110, 132704.
6. Efficient Electrosynthesis of Thiazolidin-2-imines via Oxysulfurization of Thiourea-Tethered Terminal Alkenes using the Flow Microreactor, *European Journal of Organic Chemistry*, 2019, 6, 1371-1376.
7. N-hexylsulfonyl indole based thiosemicarbazones as potent and selective ecto-5'-nucleotidase and NTPDase inhibitors, *Bioorganic Chemistry*, 163, 2025, 108717.
8. Synthesis, Characterization and In Silico Studies of Novel Spirooxindole Derivatives as Ecto-5'-Nucleotidase Inhibitors, ACS Medicinal Chemistry, 2020, *ACS Medicinal Chemistry Letters*, 2020, 11(12), 2397-2405.
9. Light-Triggered in vivo Activation of Adhesive Peptides Regulates Cell Adhesion, Inflammation and Vascularization of Biomaterials, *Nature Materials*, 2015, 14, 352-360
10. Antibacterial Strategies from the Sea: Polymer-Bound Cl-Catechols for Prevention of Biofilm Formation, *Advanced Materials*, 2013, 25(4), 529-533
11. CuO Hollow Cubic Caves Wrapped with Biogenic N-Rich Graphitic C for Simultaneous Monitoring of Uric Acid and Xanthine, *ACS Applied Materials & Interfaces*, 2020 12 (42), 47320-47329.
12. An Organocatalytic, δ - Regioselective and Highly Enantioselective Nucleophilic Substitution of Cyclic Morita-Baylis-Hillman Alcohols with Indoles, *Angew. Chem. Int. Ed.*, 2010, 49, 7294 –7298
13. A Highly α -Regioselective AgOTf-Catalyzed Nucleophilic Substitution of the Baylis-Hillman Acetates with Indoles, *Organic Letters*, 9(13), 2007, 2525-2528
14. In vitro and in silico analysis of synthesized N-benzyl indole-derived hydrazones as potential anti-triple negative breast cancer agents. *RSC Advances*, 15(17), p.13284.
15. Gauging and Tuning Crosslinking Kinetics of Catechol-PEG Adhesives via Catecholamine Functionalization, *Biomacromolecules*, 2015, 16 (12), 3811-3818.