

Shahnawaz Ali Bhat, PhD

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1. Present Position: Assistant Professor (December 2019 to present), Neuroinflammation and Neurodegeneration Lab, Department of Zoology, Aligarh Muslim University, Aligarh, India

2. Academic Qualification

S. No.	Institution/University	Degree Awarded	Year
1	Jawaharlal Nehru University, New Delhi/CSIR-Central Drug Research Institute Lucknow	Ph.D.	2017

3. PhD thesis title: A Study on Glial Activation and Neurogenesis in Rat Model of Chronic Hypertension

Mentor: Dr. Kashif Hanif, Senior Principal Scientist, CSIR- Central Drug Research Institute Lucknow, India.

4. Work experience

S.No.	Positions held	Name of the Institute	From	To
1	Assistant Professor	Department of Zoology, Aligarh Muslim University, Aligarh	Dec. 2019	Till date
2	Assistant Professor	Department of Zoology, Higher Education, Jammu and Kashmir	May 2019	Dec. 2019
3	Postdoctoral Fellow	STAR/ORC, School of Medicine University of Maryland, Baltimore, MD, USA-21201	Oct. 2017	May 2019

5. Supervision:

I. Project Research Scientist-1 (ICMR)

II. PhD Candidates: Ongoing 3 (2 SRFs & 1 JRF; Working on projects deciphering the role of glia in health and disease).

III. Master's Candidates: Awarded: 10

IV. STEM undergrad projects: Ongoing: 2

6. List of completed and ongoing projects

S.No.	Title of Project	Duration From to	Status	Funding Agency
1	Studies on the potential role of microglial signalling in amelioration of chronic neuroinflammation induced cognitive impairment	2021-2023	Completed	UGC, New Delhi
2	Oxidative stress and neuroinflammatory crosstalk in Alzheimer's disease-like pathology	2023-2026	Ongoing	ICMR, New Delhi
3	Chromatin directed Proteomics of Topoisomerase 1-poisoning	2024-2027	Ongoing (Co-PI)	DBT, New Delhi

7. Professional Recognition/ Award/ Prize/ Certificate, Fellowship received by the applicant.

S. No.	Name of award	Awarding agency	Year
1	Conference Registration and Travel Grant	Alzheimer's Association UK	2023
2	UGC-Start-Up grant 2020	UGC-New Delhi	2020
3	Incentive award (Best paper award)	CSIR-Central Drug Research Institute	2018
4	Incentive award (Best paper award)	CSIR-Central Drug Research Institute	2017
5	Awarded CICS Travel Fellowship to attend the 5th International Conference on Alzheimer's disease and Dementia held in London, UK	INSA- New Delhi	2016
6	Best Paper Presentation Award	Indian Academy of Neuroscience	2015
7	Best Poster Award	CSIR-IICB, Kolkata	2014
8	Senior Research Fellowship	ICMR	2014
9	Junior Research Fellowship	CSIR	2012
10	Junior Research Fellowship	ICMR	2011

8. Books

1. Small Molecules in Neurodegeneration (**Published**). Dar, N.J., & **Bhat, S.A.** (Eds.). (2025). Small Molecules in Neurodegeneration (1st ed.). CRC Press.
<https://doi.org/10.1201/9781003520610>
2. AI and Neurology: Transforming Research, Diagnosis, and Patient Care (**In progress**)

9. Book Chapters

1. Khan, S., Bano, N., Uversky, V. N., Ahamad, S., & **Bhat, S. A.** (2024). The Huntington's disease drug pipeline: a review of small molecules and their therapeutic targets. *Progress in Molecular Biology and Translational Science*.
<https://doi.org/10.1016/bs.pmbts.2024.08.006>. **Impact factor 4.025**
2. N Bano, S Khan, S Ahamad, F Fazal, NJ Dar, **SA Bhat** (2025) . Advances in Small Molecule Delivery Systems for the Treatment of Neurodegenerative Disease. Small Molecules in Neurodegeneration, 172-203. Small Molecules in Neurodegeneration (1st ed.). CRC Press. <https://doi.org/10.1201/9781003520610>
3. U John, JA Bhat, NJ Dar, **SA Bhat** (2025). Introduction to Neurodegenerative Diseases. Small Molecules in Neurodegeneration, 1-19. Small Molecules in Neurodegeneration (1st ed.). CRC Press. <https://doi.org/10.1201/9781003520610>
4. U John, NJ Dar, **SA Bhat** (2025). Small Molecules: An Emerging Therapeutic Frontier. Small Molecules in Neurodegeneration (1st ed.). CRC Press.
<https://doi.org/10.1201/9781003520610>

10. Editorials

1. Dar NJ, Soriano Castell D, **Bhat SA** and Maher P (2025) Editorial: Oxytosis/ferroptosis: unraveling the mechanisms and its multifaceted role in neurodegenerative diseases. *Front. Mol. Neurosci.* 17:1547301. doi: 10.3389/fnmol.2024.1547301. **Impact factor 3.5**
2. Tumurkhuu, M., Ahmed, M. A., **Bhat, S. A.**, Hasnain, M. S., Hossain, S. Z., Shafiq, M., Nayak, A. K. (2025). Editorial: Cellular and Molecular Mechanisms in Metabolic Disorders: Role of Inflammation and Oxidative Stress. *Frontiers in Pharmacology*.
<https://doi.org/10.3389/fphar.2025.1580553>. **Impact factor 4.4**

3. Sabbir, M. G., Dar, N. J., **Bhat, S. A.**, Alanazi, H. H., & Perry, J. (2024). Editorial: Proteins and protein-complexes underlying mitochondrial structure-function and metabolism: implications in diseases. *Frontiers in Cell and Developmental Biology*, 12. <https://doi.org/10.3389/fcell.2024.1386787>. **Impact factor 4.6**
4. Dar NJ, **Bhat SA**, Rehman MU and Booker A (2023) Editorial: Investigating the molecular targets and therapeutic potential of Withania somnifera (Ashwagandha) in various pathophysiological conditions. *Front. Pharmacol.* 14:1187334. doi: 10.3389/fphar.2023.1187334. **Impact factor 4.4**

11. Publications

A. Publications after joining Department of Zoology, AMU, Aligarh

1. Bano N., Khan S., Ahamad S., Dar N.J., Alanazi H.H., Nazir A., Bhat S.A. Microglial NOX2 as a therapeutic target in traumatic brain injury: Mechanisms, consequences, and potential for neuroprotection; (2025) *Ageing Research Reviews*, 108, art. no. 102735, <https://doi.org/10.1016/j.arr.2025.102735>. **Impact factor 12.5**
2. Bano, N., Khan, S., Ahamad, S., Dar, N. J., Alanazi, H. H., Nazir, A., & **Bhat, S. A.** (2025). Microglial Autophagic Dysregulation in Traumatic Brain Injury: Molecular Insights and Therapeutic Avenues. *ACS Chemical Neuroscience*, 16(4), 543–562. <https://doi.org/10.1021/acscchemneuro.4c00617>. **Impact factor 4.5**
3. Ahamad S, Saquib M, Hussain MK, **Bhat SA**. (2025). Targeting Wnt signaling pathway with small-molecule therapeutics for treating osteoporosis. *Bioorg Chem.* 2025 Mar;156:108195. doi: 10.1016/j.bioorg.2025.108195. Epub 2025 Jan 23. PMID: 39864370. **Impact factor 4.5**
4. Khan, S., Bano, N., Ahamad, S., Dar, N. J., Nazir, A., & **Bhat, S. A.** (2025). Advances in nanotherapeutic strategies for Huntington's disease: Design, delivery, and neuroprotective mechanisms. *Coordination Chemistry Reviews*, 522, 216206. <https://doi.org/10.1016/j.ccr.2024.216206>. **Impact factor 20.3**
5. Dar, N. J., John, U., Bano, N., Khan, S., & **Bhat, S. A.** (2024). Oxytosis/Ferroptosis in Neurodegeneration: the Underlying Role of Master Regulator Glutathione Peroxidase 4 (GPX4). *Molecular Neurobiology*, 61(3), 1507–1526. <https://doi.org/10.1007/s12035-023-03646-8>. **Impact factor 4.6**
6. Ahamad, S., Bano, N., Khan, S., Hussain, M. K., & **Bhat, S. A.** (2024). Unraveling the Puzzle of Therapeutic Peptides: A Promising Frontier in Huntington's Disease Treatment. *Journal of Medicinal Chemistry*, 67(2), 783–815. <https://doi.org/10.1021/acs.jmedchem.3c01131>. **Impact factor 6.9**

7. Bano, N., Khan, S., Ahamad, S., Kanshana, J. S., Dar, N. J., Khan, S., Nazir, A., & **Bhat, S. A.** (2024). Microglia and gut microbiota: A double-edged sword in Alzheimer's disease. *Ageing Research Reviews*, 101, 102515. <https://doi.org/10.1016/j.arr.2024.102515>. **Impact factor 12.5**
8. Dar, N. J., Bhat, J. A., John, U., & **Bhat, S. A.** (2024). Neuroglia in Neurodegeneration: Exploring Glial Dynamics in Brain Disorders. *Neuroglia*, 5(4), 488–504. <https://doi.org/10.3390/neuroglia5040031>.
9. Khan, S., Bano, N., Ahamad, S., John, U., Dar, N. J., & **Bhat, S. A.** (2024). Excitotoxicity, Oxytosis/Ferroptosis, and Neurodegeneration: Emerging Insights into Mitochondrial Mechanisms. *Aging and Disease*. <https://doi.org/10.14336/AD.2024.0125-1>. **Impact factor 7.0**
10. **Bhat, S. A.**, Ahamad, S., Dar, N. J., Siddique, Y. H., & Nazir, A. (2023). The Emerging Landscape of Natural Small-molecule Therapeutics for Huntington's Disease. *Current Neuropharmacology*, 21(4), 867–889. <https://doi.org/10.2174/1570159X21666230216104621>. **Impact factor 4.8**
11. Ahamad, S., & **Bhat, S. A.** (2022). Recent Update on the Development of PCSK9 Inhibitors for Hypercholesterolemia Treatment. *Journal of Medicinal Chemistry*, 65(23), 15513–15539. <https://doi.org/10.1021/acs.jmedchem.2c01290>. **Impact factor 6.9**
12. Chopra G, Shabir S, Yousuf S, Kauts S, **Bhat SA**, Mir AH, Singh MP (2022). Proteinopathies: Deciphering Physiology and Mechanisms to Develop Effective Therapies for Neurodegenerative Diseases. *Mol Neurobiol*. 2022 Dec;59(12):7513-7540. doi: 10.1007/s12035-022-03042-8. Epub 2022 Oct 7. PMID: 36205914. **Impact factor 4.6**
13. Yousuf I, Mantoo IA, Bashir M, **Bhat SA** (2022) Structure elucidation of a bimetallic μ -hydroxo-bridged Cu(II)-flufenamate-bpy complex and cytotoxic evaluation against MDA-MB-231 and A549 carcinoma cell lines. *Appl Organomet Chem* 36:. <https://doi.org/10.1002/aoc.6906>. **Impact factor 3.7**
14. **Bhat, S. A.**, Fatima, Z., Sood, A., Shukla, R., & Hanif, K. (2021). The Protective Effects of AT2R Agonist, CGP42112A, Against Angiotensin II-Induced Oxidative Stress and Inflammatory Response in Astrocytes: Role of AT2R/PP2A/NF κ B/ROS Signaling. *Neurotoxicity Research*, 39(6), 1991–2006. <https://doi.org/10.1007/s12640-021-00403-4>. **Impact factor 3.978**

B. PhD and Postdoc Publications

15. **Bhat, S. A.**, Henry, R. J., Blanchard, A. C., Stoica, B. A., Loane, D. J., & Faden, A. I. (2021). Enhanced Akt/GSK-3 β /CREB signaling mediates the anti-inflammatory actions of mGluR5 positive allosteric modulators in microglia and following traumatic brain injury in male mice. *Journal of Neurochemistry*, 156(2), 225–248. <https://doi.org/10.1111/jnc.14954>. **Impact factor 4.2**
16. Kumar, A., Henry, R. J., Stoica, B. A., Loane, D. J., Abulwerdi, G., **Bhat, S. A.**, & Faden, A. I. (2019). Neutral Sphingomyelinase Inhibition Alleviates LPS-Induced Microglia Activation and Neuroinflammation after Experimental Traumatic Brain Injury. *Journal of Pharmacology and Experimental Therapeutics*, 368(3), 338–352. <https://doi.org/10.1124/jpet.118.253955>. **Impact factor 6.9**
17. **Bhat, S. A.**, Sood, A., Shukla, R., & Hanif, K. (2019). AT2R Activation Prevents Microglia Pro-inflammatory Activation in a NOX-Dependent Manner: Inhibition of PKC Activation and p47phox Phosphorylation by PP2A. *Molecular Neurobiology*, 56(4), 3005–3023. <https://doi.org/10.1007/s12035-018-1272-9>. **Impact factor 4.6**
18. **Bhat, S. A.**, Goel, R., Shukla, S., Shukla, R., & Hanif, K. (2018). Angiotensin Receptor Blockade by Inhibiting Glial Activation Promotes Hippocampal Neurogenesis Via Activation of Wnt/ β -Catenin Signaling in Hypertension. *Molecular Neurobiology*, 55(6), 5282–5298. <https://doi.org/10.1007/s12035-017-0754-5>. **Impact factor 4.6**
19. Goel, R., **Bhat, S. A.**, Hanif, K., Nath, C., & Shukla, R. (2018). Angiotensin II Receptor Blockers Attenuate Lipopolysaccharide-Induced Memory Impairment by Modulation of NF- κ B-Mediated BDNF/CREB Expression and Apoptosis in Spontaneously Hypertensive Rats. *Molecular Neurobiology*, 55(2), 1725–1739. <https://doi.org/10.1007/s12035-017-0450-5>. **Impact factor 4.6**
20. **Bhat, S. A.**, Goel, R., Shukla, R., & Hanif, K. (2017). Platelet CD40L induces activation of astrocytes and microglia in hypertension. *Brain, Behavior, and Immunity*, 59, 173–189. <https://doi.org/10.1016/j.bbi.2016.09.021>. **Impact factor 8.8**
21. **Bhat, S. A.**, Goel, R., Shukla, R., & Hanif, K. (2016). Angiotensin Receptor Blockade Modulates NF κ B and STAT3 Signaling and Inhibits Glial Activation and Neuroinflammation Better than Angiotensin-Converting Enzyme Inhibition. *Molecular Neurobiology*, 53(10), 6950–6967. <https://doi.org/10.1007/s12035-015-9584-5>. **Impact factor 4.6**
22. Goel, R., **Bhat, S. A.**, Hanif, K., Nath, C., & Shukla, R. (2016). Perindopril Attenuates Lipopolysaccharide-Induced Amyloidogenesis and Memory Impairment by

Suppression of Oxidative Stress and RAGE Activation. *ACS Chemical Neuroscience*, 7(2), 206–217. <https://doi.org/10.1021/acschemneuro.5b00274>. **Impact factor 4.2**

23. Goel, R., **Bhat, S. A.**, Rajasekar, N., Hanif, K., Nath, C., & Shukla, R. (2015). Hypertension exacerbates predisposition to neurodegeneration and memory impairment in the presence of a neuroinflammatory stimulus: Protection by angiotensin converting enzyme inhibition. *Pharmacology Biochemistry and Behavior*, 133, 132–145. <https://doi.org/10.1016/j.pbb.2015.04.002>. **Impact factor 3.3**

12. Administrative Work/Membership

- **Member of ISTAART, Alzheimer's Association, USA**
- **Steering Committee Member of the ISTAART Immunity and Neurodegeneration PIA [Executive Committee of the Alzheimer's Association International Society to Advance Alzheimer's Research and Treatment (ISTAART)]**
- **Member of Environmental Mutagen Society, India**
- **Editorial Board Member: Scientific Reports**
- **Guest Associate Editor: Brain Disease Mechanisms**
- **Guest Associate Editor: Cellular Biochemistry**
- **Guest Associate Editor: Ethnopharmacology**
- **Guest Associate Editor: Neuropharmacology**
- **Member of NAAC accreditation Committee, Faculty of Life Science, AMU**
- **Core member of Website Maintenance Committee, Department of Zoology, AMU**