

CURRICULUM VITAE

Career objectives

To inspire and mentor students in the field of pharmacology, with a particular focus on neuropharmacology, while conducting cutting-edge research in the mechanisms of drug action on the nervous system. I aspire to integrate my academic role with my scientific endeavors to cultivate a comprehensive understanding of pharmacological sciences in both the classroom and research settings.

Personal details Name: Dr. Khadga Raj Aran Professional Title: Associate Professor Current address: ISF College of Pharmacy, GT Road, NH-95, Ghall Kalan, Moga- 142001, Punjab, India D.O.B: 6 th September, 1995 Gender: Male Qualification: M. Pharm, PhD (Neuroscience) Religion: Hindu Marital status: Single Language: English, Hindi Email ID: bishalarann@gmail.com khadgarajaran@gmail.com ORCID ID: 0000-0002-2450-2975 Google Scholar Link for research publications update: https://scholar.google.com/citations?user=GKU11SkAAA&hl=en LinkedIn: https://www.linkedin.com/in/dr-khadga-raj-aran-1635b114a/ Contact: +91-8288979902 Availability: Immediate	Areas of Interest Academics: - Advancing research through publications, presentations, and mentoring, while fostering interdisciplinary collaboration. Research (Neuroscience): - Exploring neurotoxicity and neurodegenerative diseases using <i>in vitro</i> and <i>in vivo</i> models to develop therapeutic strategies. Strengths - Offering guidance to junior/postgraduate students in research projects to enhance their understanding of scientific methodologies. - Quick adaptability to changing environments and challenges - Enthusiasm for exploring and contributing to new fields of research - Strong dedication and work ethic in achieving objectives and goals
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Academic profile

Qualification	Institution	University	Year	CGPA/%	Grade
Ph.D. (Neuro-pharmacology)	IKGPTU, Punjab		2024	8.93	Distinction
M. Pharm (Pharmacology)	ISF College of Pharmacy	MRSPTU, Punjab	2019	8.76	Distinction
B. Pharm	East West College of Pharmacy	Rajiv Gandhi University of Health Sciences, Karnataka	2017	79%	Distinction

Professional experiences

❖ June 19, 2025 to Current date:

Institute: ISF College of Pharmacy, Moga

Department: Department of Pharmacy Practice (M. Pharm)

Post: Associate Professor and Head

❖ March 1, 2024, to Current date:

Institute: ISF College of Pharmacy, Moga

Department: Department of Pharmacology

Post: Assistant Professor

❖ March 1, 2021 to Feb 29, 2024:

Institute: ISF College of Pharmacy, Moga

Department: Department of Pharmacology

Post: Assistant Professor cum Senior Research Fellowship (SRF)

❖ Jan 10, 2020 to Feb 28, 2021:

Institute: ISF College of Pharmacy, Moga

Department: Department of Pharmacology

Post: Assistant Professor

❖ July 19, 2019 to Sep 30, 2019:

Institute: Sanjay Gandhi Postgraduate Institute of Medical Science, Lucknow

Department: Department of Nuclear Medicine

Post: Junior Research Fellowship (JRF)

Key skills

1. Proficient in animal handling, including the establishment and validation of rodent and Zebrafish models for neurological diseases. Experienced in performing stereotaxic surgeries, ICV drug delivery, various blood collection techniques, and administering treatments via multiple routes.

2. Skilled in behavioral analysis using advanced software such as Animaze to assess neurological function and performance.
3. Strong expertise in operating analytical instruments, including ELISA, fluorescence microscopy, microtome, Western blotting, and UV spectrophotometry for neurobiological testing.
4. Specialized in High-Performance Liquid Chromatography with Electrochemical Detection (HPLC-ECD) to quantify neurotransmitter levels in biological samples.
5. Practical experience in RT-PCR to study gene expression and explore molecular mechanisms in neurological research.
6. Solid proficiency in computer applications with expertise in MS Word, MS Excel, and MS PowerPoint for data analysis and presentation.
7. Skilled in diagram creation using graphic design tools like Photoshop and CorelDRAW for data visualization and scientific illustrations.
8. Well-versed in modern software such as ChemDraw Ultra 8.0, GraphPad Prism, SPSS, and EndNote for data analysis, scientific plotting, and reference management.

Research career

1. Completed project:

- L-Theanine ameliorates motor deficit, mitochondrial dysfunction, and neurodegeneration against the chronic tramadol-induced rats' model of Parkinson's disease.
- Cryptotanshinone and Auranofin as neuroprotective tools to combat proton pump inhibitors and chemotherapy-associated Alzheimer's disease in experimental animals.

2. Ongoing projects:

- Neuroprotective effects of Agmatine against Cadmium chloride-induced multiple sclerosis-like symptoms in experimental rats by modulating NF- κ B pathway.
- Neuroprotective effects of Spermidine against Aluminium chloride-induced Alzheimer's disease-like symptoms in experimental rats.
- Investigating the neuroprotective effect of Cryptotanshinone against rotenone-induced Parkinson's disease-like symptoms in adult Zebrafish.

Academics and research achievements

- ✓ **Graduate Pharmacy Aptitude Test:** Qualified in 2017 (**AIR-1892**)
- ✓ Awarded as **Senior Research Fellow (SRF)** project from the **Indian Council of Medical Research (ICMR), India** in the year 2020 for research in neurological disease.
- ✓ Received **International Scientist Awards 2022** as a **Best Scholar Award** in Engineering, Science,

and Medicine.

List of selected publications

S. no.	Citations	Journal name	IF
01.	Aran KR. , Porel P, Hunjan G, Singh S, Gupta GD, Rohit. Postbiotics as a Therapeutic Tool in Alzheimer's Disease: Insights into Molecular Pathways and Neuroprotective Effects. Ageing Research Reviews. 2025 Feb 6:102685	Ageing Research Reviews	12.4
02.	Porel P, Hunjan G, Singh S, Aran KR. Is The Renin-Angiotensin System A Friend or Foe in Neurological Diseases? Unveiling Its Role and Therapeutic Potential. Ageing Research Reviews. 2025 Aug 5:102854.	Ageing Research Reviews	12.4
03.	Chakraborty A, Chaudhary P, Das J, Bhui U, Aran KR, Hussain MS, Ashique S, Debnath B. Kynurenine pathway in Parkinson's disease: pathophysiological roles and therapeutic interventions. Inflammopharmacology. 2025 Nov 27:1-29.	Inflammopharmacology	5.3
04.	Hunjan G, Aran KR. Role of mGluR7 in Alzheimer's disease: pathophysiological insights and therapeutic approaches. Inflammopharmacology. 2025 May 3:1-9.	Inflammopharmacology	5.3
05.	Mittal Y, Kumar P, Joshi K, Aran KR. Decoding the role of glucocorticoid-regulated kinase 1 in Alzheimer's disease: a promising path toward novel therapeutic strategies. Inflammopharmacology. 2025 May 15:1-7.	Inflammopharmacology	5.3
06.	Sarkar S, Porel P, Kosey S, Aran KR. Diverse role of S100 calcium-binding protein B in alzheimer's disease: pathological mechanisms and therapeutic implications. Inflammopharmacology. 2025 Mar 9:1-4	Inflammopharmacology	5.3
07.	Kaur N, Aran KR. Uncovering the intricacies of IGF-1 in Alzheimer's disease: new insights from regulation to therapeutic targeting. Inflammopharmacology. 2025 Jan 30:1-20	Inflammopharmacology	5.3
08.	Porel P, Bala K, Aran KR. Exploring the role of HIF-1 α on pathogenesis in Alzheimer's disease and potential therapeutic approaches. Inflammopharmacology. 2024 Oct:27:1-0.	Inflammopharmacology	5.3
09.	Singh G, Aran KR. Targeting mGluR7 in Parkinson's disease: a novel approach to neuroprotection and synaptic therapies: G. Singh and KR Aran. Inflammopharmacology. 2025 Oct;33(10):5977-94.	Inflammopharmacology	5.3
10.	Kumari S, Begum MY, Chinglenthoinba C, Aran KR, Panda SP, Abomughaid MM, Lakhanpal S, Avinash D, Jha NK, Gupta R. Deciphering the Neurotoxic Burden of Micro-and Nanoplastics: From Multi-model Experimental Evidence to Therapeutic Innovation. Molecular Neurobiology. 2025 Jul 4:1-23.	Molecular Neurobiology	4.3
11.	Sarkar S, Maparu K, Aran KR. Postbiotics as a Therapeutic Tool in Depression: Exploring into Molecular Pathways and Neuroprotective Effects. Probiotics and Antimicrobial Proteins. 2025 Aug 13:1-27.	Probiotics and Antimicrobial Proteins	4.4
12.	Singh G, Aran KR. Rethinking on bile acid-brain axis: decoding neurotoxic and neuroprotective landscape in aging and Alzheimer's disease. Biogerontology. 2026 Feb;27(1):37.	Biogerontology	4.1
13.	Hunjan G, Shah SS, Kosey S, Aran KR. Gut microbiota and the tryptophan-kynurenine pathway in anxiety: new insights and treatment strategies. Journal of Neural Transmission. 2025 May 14:1-35.	Journal of Neural Transmission	4.0
14.	Raj K, et al., Cost Variation Analysis of Variance Brands of Anti-Alzheimer's Agents Currently Available in Indian Pharmaceutical Market Cost Variation Analysis of Variance Brands of Anti-Alzheimer's Agents	International Journal of Biochemistry &	3.75

	Currently Available in Indian	Physiology	
15.	Sidhu RK, Maparu K, Singh S, Aran KR . Unveiling the role of Na ⁺ /K ⁺ -ATPase pump: neurodegenerative mechanisms and therapeutic horizons. <i>Pharmacological Reports</i> . 2025 Mar 21:1-7	Pharmacological Reports	3.6
16.	Akash A, Ahamed M, Porel P, Aran KR. Galectin-3 in Alzheimer's disease: pathological roles, biomarker potential, and therapeutic implications. <i>Brain Research</i> . 2025 Sep 19:149949.	Metabolic Brain Research	3.5
17.	Singh G, Ansari S, Yadav S, Aran KR . Gut microbiota's role in NAFLD-and HBV/HCV-related hepatocellular carcinoma: Mechanisms and therapeutic implications. <i>Microbial Pathogenesis</i> . 2026 Feb 1;211:108273.	Microbial Pathogenesis	3.5
18.	Porel P, Hunjan G, Kaur N, Sharma V, Kaur M, Mittal Y, Kaur R, Aran KR . Unlocking the neuroprotective potential of peptide nucleic acids 5 (PNA5) in neurological diseases: molecular mechanisms to therapeutic approaches. <i>Metabolic Brain Disease</i> . 2025 May 29;40(5):213.	Metabolic Brain Disease	3.5
19.	Singh G, Ansari S, Aran KR. Targeting glucose transporters in parkinson's disease: a novel metabolic approach for disease modification. <i>Metabolic Brain Disease</i> . 2025 Aug 29;40(7):253.	Metabolic Brain disease	3.5
20.	Kaur M, Aran KR , Paswan R. A potential role of gut microbiota in stroke: mechanisms, therapeutic strategies and future prospective. <i>Psychopharmacology</i> . 2024 Oct 27:1-22.	Psychopharmacology	3.5
21.	Bala, K., Porel, P., and Aran KR , 2024. Emerging roles of cannabinoid receptor CB2 receptor in the central nervous system: therapeutic target for CNS disorders. <i>Psychopharmacology</i> , 241(10), pp.1939-1954.	Psychopharmacology	3.5
22.	Sidhu RK, Mittal Y, Aran KR . Bilirubin: a game-changer in alzheimer's therapy? Unveiling its neuroprotective and disease-modifying potential. <i>Metabolic Brain Disease</i> . 2025 Jun 16;40(6):224.	Metabolic Brain Disease	3.5
23.	Ansari S, Aran KR . Modulating CGRP Signaling: A Promising Therapeutic Avenue for Attenuating Cardiac Dysfunction in Heart Failure. <i>Cardiovascular Drugs and Therapy</i> . 2026 Jan 17:1-9.	Cardiovascular Drugs and Therapy	3.1
24.	Raj, K. , Kaur, K., Gupta, G.D., and Singh, S., 2021. Current understanding on molecular drug targets and emerging treatment strategy for novel coronavirus- <i>Naunyn-Schmiedeberg's archives of pharmacology</i> , 394(7), pp.1383-1402	Naunyn-Schmiedeberg's archives of pharmacology	3.1
25.	Shaw S, Porel P, Aran KR . Transthyretin as a therapeutic target: the future of disease-modifying therapies for Alzheimer's disease. <i>Molecular Biology Reports</i> . 2025 Dec;52(1):1-6.	Molecular Biology Reports	2.8
26.	Raj, K. , Singh, S., Chib, S., & Mallan, S. (2022). Microbiota-Brain-Gut-Axis Relevance to Parkinson's Disease: Potential Therapeutic Effects of Probiotics. <i>Current Pharmaceutical Design</i> , 28(37), 3049-3067	Current Pharmaceutical Design	2.6
27.	Jamal MH, Porel P, Aran KR. Emerging biomarkers for pancreatic cancer: from early detection to personalized therapy. <i>Clinical and Translational Oncology</i> . 2025 May 10:1-20.	Clinical and Translational Oncology	2.5
28.	Sidhu RK, Maparu K, Aran KR . Neurogenetic biomarkers in epilepsy: A comprehensive narrative review of progression and therapeutic approaches. <i>Mutation Research-Reviews in Mutation Research</i> . 2025 Jul 1;796:108556.	Mutation Research	2.5

29.	Kaur M, Aran KR . Unraveling the role of Nrf2 in dopaminergic neurons: a review of oxidative stress and mitochondrial dysfunction in Parkinson's disease. <i>Metabolic Brain Disease</i> . 2025 Feb 11;40(2):123.	Metabolic Brain Disease	3.2
30.	Raj K , Kaur K, Gupta GD, Singh S. Current understanding on molecular drug targets and emerging treatment strategy for novel coronavirus-19. <i>Naunyn-schmiedeberg's Archives of Pharmacology</i> .2021 Jul;394(7):1383-402.	Naunyn-Schmiedeberg's Archive of Pharmacology	3.1
31.	Raj, K. , Chawla, P. and Singh, S., 2019. Neurobehavioral consequences associated with long term tramadol utilization and pathological mechanisms. <i>CNS & Neurological Disorders-Drug Targets (Formerly Current Drug Targets-CNS & Neurological Disorders)</i> , 18(10), pp.758-768.	CNS & Neurological Disorders-Drug Targets	2.79
32.	Kaur A, Aran KR . Unraveling the cGAS-STING pathway in Alzheimer's disease: A new Frontier in neuroinflammation and therapeutic strategies	Neuroscience	2.9
33.	Sharma V, Saqib BZ, Aran KR . Leptin as a potential neuroprotective target in Parkinson's Disease: Exploring its role in Neuroinflammation, oxidative Stress, and dopaminergic neurodegeneration. <i>Neuroscience</i> . 2025 Apr 19; 572:134-44.	Neuroscience	2.9
34.	Kaur M, Porel P, Patel R, Aran KR . Kynurenine Pathway in Epilepsy: Unraveling Its Role in Glutamate Excitotoxicity, GABAergic Dysregulation, Neuroinflammation, and Mitochondrial Dysfunction. <i>Neurotoxicity Research</i> . 2025 Apr;43(2):1-9	Neurotoxicity Research	2.9
35.	Kaur N, Aran KR. Exploring the role of HIF-1 α in pathogenesis of parkinson's disease and its potential as a therapeutic target. <i>Molecular Biology Reports</i> . 2025 Dec;52(1):858.	Molecular biology report	2.8
36.	Singh G, Kumar P, Aran KR . Targeting EGFR and PI3K/mTOR pathways in glioblastoma: innovative therapeutic approaches. <i>Medical Oncology</i> . 2025 Apr;42(4):1-7	Medical Oncology	2.8
37.	Raj K , Chawla P, Singh S. Neurological disorders associated to long term tramadol utilization: pathological mechanisms and future perspective. <i>CNS Neurol Disord Drug Targets</i> . 2019.	CNS & Neurological Disorders - Drug Targets	2.79
38.	Kaur A, Aran KR . Unraveling the dual role of bilirubin in neurological Diseases: A Comprehensive exploration of its neuroprotective and neurotoxic effects. <i>Brain Research</i> . 2025 Jan 27:149472	Brain Research	2.7
39.	Kaur N, Kumar P, Dhami M, Aran KR . Antibiotic-induced gut dysbiosis: unraveling the gut-heart axis and its impact on cardiovascular health. <i>Molecular Biology Reports</i> . 2025 Dec;52(1):319.	Molecular Biology	2.6
40.	Raj K , Singh S, Chib S, Mallan S. Microbiota-brain-gut-Axis relevance to Parkinson's disease: potential therapeutic effects of probiotics. <i>Current Pharmaceutical Design</i> . 2022 Oct 1;28(37):3049-67.	Current Pharmaceutical Design	2.6
41.	Porel P, Varish G, Aran KR . Galectin-3 as a Key Driver of Neuroinflammation and α -Synuclein Aggregation in Parkinson's Disease: Unlocking New Paths for Biomarkers and Therapies. <i>Cell Biochemistry and Biophysics</i> . 2025 Sep 27:1-21.	Cell Biochemistry and Biophysics	2.5

42.	Singh S, Gupta GD, Aran KR . Emerging role of antioxidants in Alzheimer's disease: insight into physiological, pathological mechanisms and management. Pharmaceutical Science Advances. 2024 Dec 1;2:100021.	Pharmaceutical Science Advances	-
43.	Raj K , Kaur P, Gupta GD, Singh S. Metals associated neurodegeneration in Parkinson's disease: Insight to physiological, pathological mechanisms and management. Neuroscience Letters. 2021 May 14;753:135873.	Neuroscience Letters	2.5
44.	Sahel DK, Kaira M, Raj K , Sharma S, Singh S. Mitochondrial Dysfunctioning and neuroinflammation: Recent highlights on the possible mechanisms involved in Traumatic Brain Injury. Neuroscience letters. 2019 Sep 25;710:134347.	Neuroscience Letters	2.5
45.	Solomon J, Mandal S, Aran KR . cGAS-STING activation in Parkinson's Disease: From mechanisms to Disease-Modifying therapeutic strategies. Gene. 2026 Jan 5:150000.	Gene	2.4
46.	Aran KR , Singh S, Gupta GD. Cost variation analysis of oral antidiabetic drugs currently available in the Indian pharmaceutical market. Nat Prod Chem Res. 2022;10:1-3.	Natural Products Chemistry & Research	2.29
47.	Yadav S, Singh G, Aran KR . Beyond the Liver: Exploring Gut Microbiota Driven Drug Metabolism and Personalized Therapeutics. The International Journal of Gastroenterology and Hepatology Diseases. 2025 Jan;4(1):E26662906374737.	The International Journal of Gastroenterology and Hepatology Diseases	2.1
48.	Porel P, Kaur M, Sharma V, Aran KR . Understanding molecular mechanism of diabetic wound healing: addressing recent advancements in therapeutic managements. Journal of Diabetes & Metabolic Disorders. 2025 Jun;24(1):1-5.	Journal of Diabetes & Metabolic Disorders	1.8
49.	Khadga Raj et al., Fighting Corona Virus Using Convalescent Plasma as a Potential Therapy: A Review	Journal of Plant Biochemistry & Physiology	6.1
50.	Aran KR . The Aging Brain-Impact of Iron Metal in Neurotoxicity. Biomedical Journal of Scientific & Technical Research. 2023;52(3):43742-6.	Biomedical Journal of Scientific & Technical Research	1.2
51.	Singh S, Gupta GD, Aran KR . Cost Variation Analysis of Various Brands of Anti-Depressants Agents Currently Available in Indian Markets. Journal of Neuroscience and Neurological Disorders. 2023 Jun 21;7(1):017-21.	Journal of Neuroscience and Neurological Disorders	0.4
52.	Kumar P, Patel R, Shah SS, Aran KR . Exploring the role of AMPK-JNK signaling pathways in Parkinson's disease: Pathophysiology to therapeutic strategies. Neuroscience and Behavioral Physiology. 2025 Feb 10:1-5.	Neuroscience and Behavioral Physiology	0.37
53.	Saqib BZ, Patel R, Porel P, Aran KR . Gatekeeper of the brain: unraveling the role of ABCB1 in Parkinson's disease progression and therapy. Neuroscience and Behavioral Physiology. 2025 Oct;55(8):1331-52.	Neuroscience and Behavioral Physiology	-
54.	Bala K, Aran KR . Exploring the Common Genes Involved in Autism Spectrum Disorder and Parkinson's Disease: A Systematic Review. Aging and Health Research. 2024 Oct 19:100206.	Aging and Health Research	-

55.	Aran KR , Singh S. Mitochondrial dysfunction and oxidative stress in Alzheimer's disease–A step towards mitochondria based therapeutic strategies. Aging and Health Research. 2023 Dec 1;3(4):100169.	Aging and Health Research	-
56.	Sharma V, Aran KR . Unraveling the Molecular Mechanisms of Vitamin Deficiency in Alzheimer's Disease Pathophysiology. Aging and Health Research. 2025 Mar 23:100226	Aging and Health Research	-
57.	Umar AA, Isyaku I, Rajab SA, Aran KR . A narrative review on the role of stem cell therapy in stroke treatment: Current advances, mechanisms, and future prospects. Advanced Neurology. 2025 Jan 17:5582.	Advanced Neurology	-
58.	Khan A, Maparu K, Aran KR . Catharanthus roseus: A Comprehensive Review of Its Phytochemicals, Therapeutic Potential, and Mechanisms of Action.	Nature Cell and Science	-
59.	Kaur A, Raj K , Rajput P, Bhatia R. Nanotherapeutics and nanotheranostics in miscellaneous fungal infections. In Applications of Nanotherapeutics and Nanotheranostics in Managing Infectious Diseases 2025 Jan 1 (pp. 473-491). Academic Press.	Application of Nanotherapeutics and Nanotheranostics in Managing Infectious Diseases	-
60.	Alam, M.R., Raj, K. and Singh, S., 2022. The Roles of Calcium Ions in Parkinson's Disease: Calcium Channel Inhibitors as a Novel Agents. Journal of Molecular Pathology, 3(4), pp.243-261.	Journal of Molecular Pathology	0.8
61.	Dhami M, Raj K , Singh S. Relevance of gut microbiota to Alzheimer's disease (AD): Potential effects of probiotic in management of AD. Aging and Health Research. 2023 Mar 1;3(1):100128.	Aging and Health Research	-
62.	Singh, S., Gupta, G.D. and Aran, K.R. , 2023. Emerging role of antioxidants in Alzheimer's disease: Insight to physiological, pathological mechanisms and management. Pharmaceutical Science Advances, p.100021	Pharmaceutical Science Advances	-
63.	Jamal MH, Dhupar M, Aran KR . Exploring the Role of Ferroptosis Pathways in Huntington's Disease: Insight of Pathophysiology to Emerging Treatment. Brain Disorders. 2025 Mar 3:100207.	Brain Disorders	-
64.	Aran KR , Singh S, Gupta GD. COVID-19 and Central Nervous System Manifestations: A Systemic review on Therapeutic Outcome	Corona virus	-
65.	Raj K , Rohit, Ghosh A, Singh S. Coronavirus as silent killer: recent advancement to pathogenesis, therapeutic strategy and future perspectives. VirusDisease. 2020 Jun;31:137-45.	Virus Disease.	-
66.	Raj K , Dogra R, Vikram V, Singh S. Exploring the Role of Protein Biomarkers in Traumatic Brain Injury: Preclinical and Clinical Highlights.	Journal of cellular and molecular pharmacology	-
67.	Kaur A, Kaur N, Singh S, Narang RK, Grover S. Shielding the Brain: Nrf2-ARE Pathway as a Therapeutic Focus in Epilepsy. Current Medicinal Chemistry-Central Nervous System Agents. 2025.	Central Nervous System Agents in Medicinal Chemistry	-

Publication type: Research article

S. no.	Title	Citation	Journal name	IF
1.	Auranofin Alleviates Cognitive Deficit Induced by Cladribine in Experimental Rats.	Aran KR . Auranofin Alleviates Cognitive Deficit Induced by Cladribine in Experimental Rats. Alzheimer's & Dementia. 2024 Dec;20:e085721.	Alzheimer's & Dementia	13.1

	Alzheimer's & Dementia			
2.	Spermine protects aluminium chloride and iron-induced neurotoxicity in rat model of Alzheimer's disease via attenuation of tau phosphorylation, Amyloid- β (1–42) and NF- κ B pathway	Raj, K. , Gupta, G.D. and Singh, S., 2021. Spermine protects aluminium chloride and iron-induced neurotoxicity in rat model of Alzheimer's disease via attenuation of tau phosphorylation, Amyloid- β (1–42) and NF- κ B pathway. <i>Inflammopharmacology</i> , 29(6), pp. 1777-1793	Inflammopharmacology	4.6
3.	Design, synthesis, and pharmacological evaluation of N-propargylated diphenylpyrimidines as multitarget directed ligands for the treatment of Alzheimer's disease	Kumar, B., Dwivedi, A.R., Arora, T., Raj, K. , Prashar, V., Kumar, V., Singh, S., Prakash, J. and Kumar, V., 2022. Design, synthesis, and pharmacological evaluation of N-propargylated diphenylpyrimidines as multitarget directed ligands for the treatment of Alzheimer's disease. <i>ACS Chemical Neuroscience</i> , 13(14), pp.2122-2139	ACS Chemical Neuroscience	4.2
4.	Design, Synthesis, Pharmacological and In Silico Screening of Disubstituted-Piperazine Derivatives as Selective and Reversible MAO-A Inhibitors for Treatment of Depression	Nandi, N. K., Bhatia, R., Saini, S., Rawat, R., Sharma, S., Raj, K. , Kumar, B. (2023). Design, Synthesis, Pharmacological and In Silico Screening of Disubstituted-Piperazine Derivatives as Selective and Reversible MAO-A Inhibitors for Treatment of Depression. <i>Journal of Molecular Structure</i> , 134671.	Journal of Molecular Structure	4.0
5.	L-theanine attenuates LPS-induced motor deficit in experimental rat model of Parkinson's disease: emphasis on mitochondrial activity, neuroinflammation, and neurotransmitters	Kumar S, Awasthi A, Raj K , Singh S. L-theanine attenuates LPS-induced motor deficit in experimental rat model of Parkinson's disease: Emphasis on mitochondrial activity, neuroinflammation, and neurotransmitters. <i>Psychopharmacology</i> 2023 Jul;240(7):1493-508.	Psychopharmacology	3.5
6.	Neuroprotective Effect of Fucoxanthin against Intracerebroventricular Streptozotocin (ICV-STZ) Induced Cognitive Impairment in Experimental Rats	Dhami, M., Raj, K. and Singh, S., 2021. Neuroprotective Effect of Fucoxanthin against Intracerebroventricular Streptozotocin (ICV-STZ) Induced Cognitive Impairment in Experimental Rats. <i>Current Alzheimer Research</i> , 18(8), pp.623-637	Current Alzheimer Research	1.8
7.	Allicin ameliorates aluminium-and copper-induced cognitive dysfunction in Wistar rats: Relevance to neuroinflammation, neurotransmitters, and A β (1–42) analysis	Kaur, S., Raj, K. , Gupta, Y.K. and Singh, S., 2021. Allicin ameliorates aluminium-and copper-induced cognitive dysfunction in Wistar rats: Relevance to neuroinflammation, neurotransmitters, and A β (1–42) analysis. <i>JBIC Journal of Biological Inorganic Chemistry</i> , 26(4), pp.495-510.	JBIC Journal of Biological Inorganic Chemistry	2.7

8.	Oxiracetam and Zinc Ameliorate Autism-Like Symptoms in Propionic Acid Model of Rats	Paudel R, Raj K , Gupta YK, Singh S. Oxiracetam and zinc ameliorate autism-like symptoms in propionic acid model of rats. <i>Neurotoxicity research</i> . 2020 Apr;37:815-26.	Neurotoxicity Research	2.9
9.	Neuroprotective Effect of Quercetin in Combination with Piperine Against Rotenone- and Iron Supplement-Induced Parkinson's Disease in Experimental Rats	Sharma S, Raj K , Singh S. Neuroprotective effect of quercetin in combination with piperine against rotenone-and iron supplement-induced Parkinson's disease in experimental rats. <i>Neurotoxicity Research</i> . 2020 Jan;37(1):198-209.	Neurotoxicity Research	2.9
10.	L-Theanine ameliorates motor deficit, mitochondrial dysfunction, and neurodegeneration against chronic tramadol-induced rat model of Parkinson's disease	Raj, K. , Gupta, G.D. and Singh, S., 2021. L-Theanine ameliorates motor deficit, mitochondrial dysfunction, and neurodegeneration against chronic tramadol-induced rat model of Parkinson's disease. <i>Drug and Chemical Toxicology</i> , pp.1-12	Drug and Chemical Toxicology	2.1
11.	Protective effects of cerebrolysin against chemotherapy (carmustine) induced cognitive impairment in Albino mice	Sharma, S., Raj, K. and Singh, S., 2021. Protective effects of cerebrolysin against chemotherapy (carmustine) induced cognitive impairment in Albino mice. <i>Drug and Chemical Toxicology</i> , pp.1-11	Drug and Chemical Toxicology	2.1
12.	Design, synthesis, and pharmacological evaluation of aryl oxadiazole-linked 1, 2, 4-triazine derivatives as anticonvulsant agents	Grover, G., Pal, R., Bhatia, R., Yar, M.S., Nath, R., Singh, S., Raj, K. , Kumar, B. and Akhtar, M.J., 2022. Design, synthesis, and pharmacological evaluation of aryl oxadiazole linked 1, 2, 4-triazine derivatives as anticonvulsant agents. <i>Medicinal Chemistry Research</i> , 31(5), pp.781-793.	Medicinal Chemistry Research	2.6
13.	Cryptotanshinone ameliorates cladribine-induced cognitive impairment in rats	Aran, K.R. , Gupta, G.D. and Singh, S., 2023. Cryptotanshinone ameliorates cladribine-induced cognitive impairment in rats. <i>Asian Pacific Journal of Tropical Biomedicine</i> , 13(7), pp.296-305	Asian Pacific Journal of Tropical Biomedicine	1.7
14.	Amelioration of Cognitive Deficit by Cryptotanshinone in a Long-term Utilisation of Proton Pump Inhibitor-Induced Alzheimer's Disease- Like Condition in a Rat Model	Aran KR , Das Gupta G, Singh S. Amelioration of cognitive deficit by cryptotanshinone in a long-term utilisation of proton pump inhibitor-induced alzheimer's disease-like condition in a rat model. <i>Revista Brasileira de Farmacognosia</i> . 2023 27.Jun;33(3):595-609.	Revista Brasileira de Farmacognosia	1.63
15.	Lansoprazole induces hippocampal cell apoptosis and impairs learning and memory functions via activation of tau phosphorylation and A β (1–42) pathway in adult rats	Aran KR , Gupta GD, Singh S. Lansoprazole induces hippocampal cell apoptosis and impairs learning and memory functions via activation of tau phosphorylation and A β (1–42) pathway in adult rats. <i>Toxicology and Environmental Health Sciences</i> . 2024 Aug 22:1-6.	Toxicology and Environmental Health Sciences	1.6

16.	Case Report A Rare Case of Stevens-Johnson Syndrome Associated with Anti-Tuberculosis Drugs	Aran KR , Sharma B. A Rare Case of Stevens-Johnson Syndrome Associated with Anti-Tuberculosis Drugs. Biomedical Journal of Scientific & Technical Research. 2023 Apr 3;49(5):41110-3.	Journal of Scientific & Technical Research	1.5
17.	Cadmium as a silent neurotoxin: modeling behavioral, biochemical, and myelin alterations through NF-κB signaling in rats	Porel P, Aran KR . Cadmium as a silent neurotoxin: modeling behavioral, biochemical, and myelin alterations through NF-κB signaling in rats. Toxicology and Environmental Health Sciences. 2025 Oct 27:1-9.	Toxicology and Environmental Health Sciences	1
18.	Delayed CNS Relapse in Diffuse Large B-Cell Lymphoma: Insights into Diagnosis, Management, and Therapeutic Challenges in an Elderly Patient	Singh G, Ansari S, Aran KR. Delayed CNS Relapse in Diffuse Large B-Cell Lymphoma: Insights into Diagnosis, Management, and Therapeutic Challenges in an Elderly Patient. J Chronic Dis Prev Care. 2025;2(2):1-4.	Journal of Chornic Disease Prevention Care	-
19.	Unmasking the impact of tuberculosis on daily life: a comprehensive observational study on health-related quality of life among patients at a tertiary care hospital	Shaw S, Ansari S, Aran KR . Unmasking the impact of tuberculosis on daily life: a comprehensive observational study on health-related quality of life among patients at a tertiary care hospital. Indian Journal of Tuberculosis. 2025 Dec 10.	Indian Journal of Tuberculosis	-
20.	Protective effects of Embelin in Benzo[α]pyrene induced cognitive and memory impairment in experimental model of mice	Raj K , Singh S, Arora R. Protective effects of Embelin in Benzo [α] pyrene induced cognitive and memory impairment in experimental model of mice. Current Research in Neurobiology. 2024 Jan 1;6:100122.	Current Research in Neurobiology	-

STUDENTS GUIDED FOR PG PROJECTS (Pharm D. and M. Pharm.)

S. no.	Name of students	Course	Project title	Status
1.	Pratyush Porel	M. Pharm., 2 nd Year	Neuroprotective effects of Agmatine against Cadmium chloride-induced Multiple sclerosis like symptoms in experimental rats	Thesis submitted
2.	Manpreet Kaur	M. Pharm., 2 nd Year	Neuroprotective effects of Cryptotanshinone against Rotenone induced Parkinson's disease like symptoms in Zebra fish	Thesis submitted
3.	Vipul Sharma	M. Pharm., 2 nd Year	Neuroprotective effects of Spermidine against Aluminum chloride induced Alzheimer's disease like symptoms in experimental rats	Thesis submitted
4.	Mohd. Haris Jamal	M. Pharm., 2 nd Year	Assessment and Evaluation of Quality of Life Among Patients Suffering from Chronic Obstructive Pulmonary Disease at Tertiary Care Hospital: An Observational Study	Thesis submitted
5.	Swetaleena Shaw	M. Pharm., 2 nd Year	Assessment and Evaluation of Quality of Life of Patients Suffering from Tuberculosis at Tertiary Care Hospital: An Observational Study	Thesis submitted
6.	Arshdeep Kaur and Navpreet Kaur	Pharm D, 5 th Year	Assessment and evaluation of cognitive impairment in Type 2 Diabetes Mellitus patient	Thesis submitted

			using ACE-3 at tertiary care hospital	
7.	Ramandeep Kaur Sidhu and Upmanu Gupta	Pharm D, 5 th Year	Assessment of depression severity among healthcare students in Punjab using Hamilton Depression Rating Scale	Thesis submitted
8.	Gulam Waris	Pharm D, 5 th Year	Assessment and Evaluation of quality of life of iron deficiency anaemia patients using FACT-Anaemia scale at tertiary care hospital	Thesis submitted
9.	Akash A and Yukti Mittal	Pharm D, 5 th Year	Assessment and Evaluation of quality of life in epileptic patients by comparing EQ-5D-5L and EQ-HWB-S at a tertiary care hospital	Thesis submitted
10.	Tuhin James Paul and Shubham Kumar	Pharm D, 5 th Year	Assessment Of Health Equity in Radiological Screening for Chronic Kidney Disease Among the Geriatric Population at A Tertiary Care Hospital in Punjab	Thesis submitted
11.	Meghna Dhupar and Bhat Zada Unjum Saqib	Pharm D, 5 th Year	Assessment and Evaluation of the Severity Level of Parkinson's Disease Patients Using MDS-UPDRS at a Tertiary Care Hospital	Thesis submitted
12.	Kanchan Bala	Pharm D, 5 th Year	Epidemiological Analysis of Various Neurological Disorders and Their Drug Prescription Pattern at A Tertiary Care Hospital	Thesis submitted
13.	Sikha Mishra	Pharm D, 5 th Year	Effects of proton pump inhibitors on the progression and severity of chronic liver disease in patients admitted to a tertiary care teaching hospital	Thesis submitted

List of published books

S. no.	Authors	Title	Publisher	Year	ISBN NO.
1.	Khadga Raj Aran, Shamsher Singh, GD Gupta	A Textbook of Clinical Pharmacy	Brillion Publishing	2024	97881-96884- 85-7
2.	Shamsher Singh, GD Gupta, Khadga Raj Aran	A Textbook of Pharmacovigilance	Brillion Publishing	2023	97881-19238- 33-0
3.	Shamsher Singh, Khadga Raj Aran	A Textbook of Environmental Sciences	Pee Vee Publisher	2023	97815-43347- 27-1
4.	Shamsher Singh, Khadga Raj Aran, Dr. Rohit	Practical Notebook of Clinical Pharmacy	Pee Vee Publisher	2021	97815-43344- 95-0
5.	Khadga Raj Aran	Pharmaceutical Analysis-1	Pritam Publishing	2024	978-93-5735- 759-3

Guest lectures

S. no.	Guest lectures delivered
1.	Delivered lecture on “ ADR Reporting Culture for Patient Safety ” as a Resource Person , in the 4 th National Pharmacovigilance Week, at the ISF College of Pharmacy
2.	Delivered a lecture as a keynote speaker on topic “ Pharmacovigilance overview and ADR monitoring ” at Two-Week Faculty Development Program (Blend-Mode) on "Quality

	of Teaching Learning & Research (OTLR)" Organized by ISF College of Pharmacy (An Autonomous College), Moga, Punjab in collaboration with APTI Punjab State Branch & IQAC-ISFCP.
3.	Delivered a lecture as a keynote speaker at “One Day Virtual Seminar on Innovative Advancement in Pharmacovigilance and Pharmaceutical Science” at Maya Devi University, Dehradun.
4.	Participated in online training of Teacher (TOT) programme on Human Anatomy and Physiology as a Resource Person and delivered lecture on Module 3: Respiratory and Urinary System
5.	Delivered lecture on “Pharmacovigilance Overview and ADR Monitoring” as a Resource Person at R.C. Institute of Pharmaceutical Education and Research, Shirpur (RCPIPER) on 6 th April, 2025
6.	Delivered an online lecture as a keynote speaker on “Publishing and Disseminating Review Papers, Selecting suitable journals and conferences” organized by Society of Clinical Research and Medical Professionals- SCRMP on 6 th April, 2025

Patents and copyrights

- Copyright registered from the Copyright office of India, **Registration number 7870/2025-CO/L**, entitled **“Fatty Liver”**.
- Design patent registered from the Patent office of India, **Registration number 100617** for **checking behaviour activity**.
- Copyright registered from the Copyright office of India, on **Tulsi and Clove oil gel used to prevent acne**, **Registration number 5931/2023-CO/L**.

International book chapters

S. no.	Authors	Title	Publisher	Year	DOI no.
01.	Debarshi Mondal, MustakAhamed, Pratyush Porel, Khadga Raj Aran	ROS and Inflammation Interplay in Hypertension and Other CVDs	Springer	2026	https://doi.org/10.1007/978-3-032-11752-6_10
02.	Tuhin James Paul, Rojin G. Raj, Amandeep Singh, Md. Misbah, Khadga Raj Aran	Brain Informatics Technology	Wiley	2025	https://doi.org/10.1002/9781394345625.ch15
03.	Pratyush Porel, Navpreet Kaur, Rohit, Khadga Raj Aran	Regulating Lipid Profiles and Hypertension	Taylor and Francis	2025	ISBN9781003607779

04.	Pratyush Porel, Vipul Sharma, Khadga Raj, Sriyansh Srivastava, Ranjit Sah	Future Directions in Aptamer-Based Cancer Diagnosis and Therapy	Springer	2025	https://doi.org/10.1007/978-981-96-8387-1_13
05.	Falguni Goel, Mayank Attri, Khadga Raj and Shamsheer Singh	Social Preference Test in Zebrafish	Bentham Science	2025	10.2174/9789815324631125010012
06.	Shivani Chib, Bhaskar Jyoti Dutta, Sudhanshu Mallan, Khadga Raj Aran , Shamsheer Singh	Allicin as nutraceutical: Protective mechanisms and therapeutic potential in Alzheimer's disease	Elsevier	2023	https://doi.org/10.1016/B978-0-323-90052-2.00051-2
07.	Khadga Raj , Navneet Arora, Rohit, Shamsheer Singh, GD Gupta	Role of Gut Microbiota in Neuroinflammation and Neurological Disorders	Bentham Science	2022	https://doi.org/10.2174/9789815179842124120005
08.	Mayank Patel, Lav Goyal, Khadga Raj , Shamsheer Singh	Neuroprotective role of garlic constituents against neurological disorders	Elsevier	2022	https://doi.org/10.1016/B978-0-443-23763-800038-5
09.	Khadga Raj , Sudhanshu Mallan, Ayansh Kaushik, Shamsheer Singh	Role of Glycogen Synthase Kinase-3 β (Gsk-3 β) in Intracranial Haemorrhage	Apple Academic Press	2024	ISBN9781032680026

List of seminars and symposia attended

1. 7th International Workshop on Food and Brain Health on (7-8 April 2021), held under the auspices of (FoodScience and Nutrition/Sultan Qaboos University, Oman).
2. 5th IBRO-APRC Chandigarh Associate School on Neuropsychiatric and Neurodegenerative Diseases 23 – 27Aug 2021 (online).
3. National Symposium: “**CME ON NEUROLOGICAL DISEASES**” Workshop & hands-on practice in advanced histopathological technique using microtome (fa), cryostat & tissue processor.
4. Attended and presented a poster on **1st IBRO-APRC** Associate School on Advances in Neurotherapeutics and Neurological Disorders (7th -10 November 2022), (online).
5. Attended and presented a poster at the **9th International Conference of FIPS-2022 NIPER Hyderabad** (25th March-27th March 2022) under the **Young Scientist oral presentation**.
6. Abstract accepted on **International Congress of Parkinson's Disease and Movement Disorders**, Copenhagen, Denmark, Aug 27-31, 2023 entitled “Tramadol Induces Neuroinflammation, Mitochondrial Oxidative Stress, Neurotransmitters Dysbalanced and Produced Parkinson's Disease Like Symptoms in Experimental Wistar Rats”.

Most important meetings, presentations, and awards

1. Awarded a travel grant of **Rs. 15000** by IBRO for attending “**BRO-APRC Nepal School on Understanding of Neuroscience and Spectrum of Neurogenetic Disorders**”, Nepal from 18/04/2020-01/05/2020 2018.
2. Awarded with a travel grant by IBRO for **IBRO-APRC BHU 2022** – Varanasi, India (12th -18th September 2022).
3. Received a grant of **500 Euros** from **IBRO-LARc/FALAN** to present research work in Brazil.
4. Received a grant of **\$1,000 USD** from MDS International Congress to present research work in Philadelphia, PA, USA.
5. Awarded a prize of **150 Euros** for oral presentation in the Young Research Category, during the **5th IBRO-ARC** online held at Alexandria University, Egypt.
6. I received a prize for my oral presentation at the 5th APTI conference, which was held at Bela College of Pharmacy, Punjab, India.
7. Got a prize in a poster presentation at the **International Brain Research Organization (IBRO)** held at ISF College of Pharmacy, Moga.
8. Received certificate of excellence in reviewing from the International Journal of Biochemistry Research and Review (2021).

International and national memberships

1. Member of the International Parkinson and Movement Disorder Society (MDS).
2. Member of the International Society of Neurochemistry (ISN), Association of Pharmaceutical Teachers of India (APTI).
3. Biological Scientist of Institutional Animal Ethics Committee (IAEC) under CPCSEA at ISF College of Pharmacy.

Projects received from a government agency

Title	Funding Agency	Budget
Cryptotanshinone and Auranofin as Neuroprotective Tool to Combat Proton Pump Inhibitors and Chemotherapy Associated Alzheimer's Disease in Experimental Animals	ICMR	14.45 lakhs

Google Scholar profile

Citations	H-index	i-10 index
1171	19	29

List of peer reviewer contributions

1. As a peer reviewer contributing to Neurological Science, Springer.
2. As a peer reviewer, contribution to the International Journal of Biochemistry Research & Review.
3. As a peer reviewer contribution in phytomedicine plus, Elsevier.
4. As a peer reviewer, contribution to Functional Food, Elsevier.

Extra curriculum activities

1. Participated in the inter-school Quiz and Dance Competition.
2. Participated and won a Volleyball Competition.
3. Voluntarily working for society by participating in blood donation camps and medical camps.

Strength

1. Highly dedicated to work
2. Ability to work in a team
3. Excellent oral and written skills
4. Ability to coordinate and work in a team

Declaration

I hereby declare that the above-mentioned information is true to the best of my knowledge.
References would be provided on demand.



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