

Rajkumar Verma

UConn Health

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Experienced principal investigator with a demonstrated history of working in preclinical in-vivo, in-vitro Pharmacology, transnational research. Skilled in drug discovery, drug target identification and validation, good Laboratory Practice (GLP), microvascular surgeries in rodents, Neuroimmunology and molecular biology. Pharmaceutical science graduate (Ph.D.) in Pharmacology/Neuroscience and postgraduate experience in successful grant writing and leading a team of graduate and postgraduate scientist. Ability to adopt and implement new skills. Self-motivated and experience to handle diverse projects.

Research Experience:

Assistant Professor in Neuroscience: July 2016- Present Dept. of Neurosciences/ Calhoun cardiology (joint appointment), University of Connecticut Health Center, Farmington, CT 06032.

- a) Lead stroke research program, validation of therapeutic targets and formulation of strategies for the treatment of stroke.
- b) Writing of manuscripts, animal protocol and research proposals for extramural funding.
- c) Mentoring of postdoc, technician and undergraduate students for stroke and neuroscience research.

Postdoctoral Fellow (Feb 2012-June 2016): Dept. of Neurosciences, University of Connecticut Health Center, Farmington, CT 06032, worked on following projects either in collaboration or independently

- a) Developed and standardized in vivo mouse model of ischemic stroke in aged mice.
- b) Led project for protein acetylation/deacetylation mediated posttranslational modification leading to post-doctoral grant fellowship
- c) Independently executed microRNA profiling in post stroke social isolation that lead to NIH R01 funding for lab
- d) Led in vivo study using BDNF Nano formulation for validation of its delivery to brain and efficacy in stroke treatment.
- e) Immunophenotype profiling of blood leukocytes and infiltrated and brain resident leukocytes during ischemic brain injury.

Doctoral Research Fellow (April 2006- June 2011)

- a) Explored the role of glutamate transporters in ischemic stroke using biochemical, behavioral and molecular techniques.
- b) Screening of investigational new drugs for stroke and psychological disorders.

Academic Experience:

Assistant Professor (August 2011- Jan 2012) Bharti Vidyapeeth Deemed University Poona College of Pharmacy Pune, India

- a) Theoretical and practical demonstration of Animal Physiology, Pharmacology & Toxicology for Pharm D, B. Pharm and M. Pharma students.
- b) Case studies for dose designs

Lecturer (Nov. 2005-April 2006) College of Pharmacy IFTM University Moradabad U.P India

- a) Theoretical and practical demonstration of animal physiology and pharmacology for pharmacy undergrads

Education

INSTITUTION AND LOCATION	DEGREE	YEAR(s)	FIELD OF STUDY
H.N.B. Garhwal University Srinagar (Garhwal). Uttarakhand India	B. Pharm	1998-2002	Pharmaceutical Sciences
Birla Institute of Technology, Mesra, Ranchi, India	M. Pharm	2003-2005	Pharmacology
Birla Institute of Technology, Mesra Ranchi/Central Drug Research Institute, Lucknow, India	Ph.D.	April 2006-Sep 2011	Pharmacy /Neuroscience

Honors and Awards:

- 2002 & 2003 Graduate Aptitude Test in Engineering (GATE) India
- 2006-2008 Junior Research Fellowship, CSIR, India
- 2008-2011 Senior Research Fellowship, CSIR, India.
- 2010 **Tokuji Ikenaka Prize 'Gold Award'** for best poster presentation in 10th biennial meeting of Asia Pacific Society for Neurochemistry (APSN) Oct 17-20, 2010, Phuket, Thailand
- 2013 ISN-sponsored travel award, ICBEM, Denmark
- 2014- 2016 **American Heart Association** Postdoctoral training grant.
- 2014 Outstanding presentation award, Neurosciences retreat, UCHC, Farmington CT
- 2014 **B Unvas Gold Medal award** for best paper By Indian Pharmacological Society, India
- 2015 Award for Junior Investigators by American Heart Association to attend international stroke conference, 2015.
- 2015 **Best poster presentation** award in Sigma Xi Northeastern Regional Research Conference 2015, WestCONN Danbury CT
- 2015 Travel award for attending 13th ISN Advanced School 2015, August 19-23, Fitzroy Island, Australia
- 2018 **Atomwise Artificial Intelligence Molecular Screen (AIMS) award**, Atomwise Inc., San Francisco, CA 94105
- 2018 **Career Development Award**, American Heart Association (AHA)
- 2019 First prize winner of the 2018 **Stroke Progress and Innovation award** by American Heart Association (AHA)
- 2021 **Atomwise Artificial Intelligence Molecular Screen (AIMS) award**, Atomwise Inc., San Francisco, CA 94105

Professional Memberships

2014	Society for Neuroscience (SFN)
2013-Present	American Heart Association (AHA)
2010-2015	International society for Neurochemistry (ISN)
2009-2010	Asia Pacific Society for Neurochemistry (APSN)

Study section:

Ad hoc reviewer NIH 2020: Acute Neural Injury and Epilepsy Study Section [ANIE] 10/2020

Ad hoc reviewer VA 2020: Neurobiology-C [NURC] 11/2020 – current

Ad hoc reviewer Veni- 2021 NWO Talent Programme for Dutch Research Council. Dutch Ministry of Education, Culture and Science Nederland

Reviewer of Journals:

Currently, serve as a peer reviewer in the following journal.

- Nature communication
- Journal of Neuroscience Research
- Metabolic Brain Research
- Behavioral and Brain Functions
- Neurochemistry International”
- Brain Injury
- PlosOne
- Scientific Reports
- Experimental neurology
- Brain, Behavior, and Immunity
- Behavioural Brain Research
- Brain and Cognition
- Brain Research
- Journal of Stroke and Cerebrovascular Diseases
- Life Sciences
- Neuroscience
- Neuroscience Letters
- Pharmacology, Biochemistry and Behavior
- Neurobiology of Disease

Editorial Board member:

- SPRINGER journal NeuroMolecular Medicine
- Guest Editor for special issue on "*Social Isolation and Post-Stroke Recovery*" in journal "*Frontier in behavior Neuroscience*" 2021
- Guest Editor for special issue on "Neurobiology of Aggression, Depression, and Suicidal Ideation (NAS)" Hindawi publication 2018.
- Associate Editor "Frontiers in Stroke. 2022

Advising and Mentorship

Postdoc:

Pranay Srivasatava- 2018-2019

Rutesh Vyas- 2020-2021

Daylin Gamiotea 2022-

Graduate students

Pengyu Zong (mentoring committee member 2020--)

Undergraduate Students

Nia Harris (2014-2015)

Maria Antony (2017HRP fellowship summer candidate)

Ian Witzgall (2018 HRP fellowship summer candidate)

Sarah Swetz (2021 HRP fellowship summer candidate)

Nicholas R Ortiz (Summer CCI BUILD Scholars from Uni of Texas)

Shreya Sagi (Undergrad at UConn Storrs)

Kiana Klafter (2022 HRP fellowship summer candidate)

Medical student trainee:

Mitchell Paro (2nd year)

Melisha Budhathoki (2nd year)

Selected presentations and talks:

1. Abstract WP261: Encephalomyosynangiosis Improves Angiogenesis And Recovery In Mice After Transient Ischemic Stroke, Mitch Paro, Daylin Gamiotea-Turro, Leslie Blumenfeld, Ketan R Bulsara and Rajkumar Verma Stroke Volume 53, Issue Suppl_11 February 2022

2. Abstract P774: Therapeutic Efficacy of Next Generation Anti-miR-141-3p for Ischemic Stroke K Dhuri, L Blumenfeld, R Bahal, R Verma Stroke 52 (Suppl_1), AP774-AP774.

3. Abstract P786: Effect of Age and Stroke on Purinergic Receptor P2x4 (p2x4r) Expression in Human Monocyte Subsets R Verma, SE DiMauro, L Blumenfeld, P Srivastava, S Mittal, KR Bulsara, B Liang. Stroke 52 (Suppl_1), AP786-AP786

4. Abstract WP143: Acute Treatment With Purinergic Receptor P2X4 Inhibitors Show Neuroprotective and Neuro-Rehabilitation Potential in Ischemic Stroke. R Verma, P Srivastava, CG Cronin, V Scranton, KA Jacobson, BT Liang Stroke 50 (Suppl_1), AWP143-AWP143

5. Abstract TMP35: CD200-CD200R1 Inhibitory Signaling Attenuates Neuroinflammation and Reduces Behavioral Deficits Following Ischemic Stroke. RM Ritzel, AA Mamun, JD Crapser, R Verma, AR Patel, BE Knight, ... Stroke 49 (Suppl_1), ATMP35-ATMP35

6. Restoration of MiRNA MiR-181c-5p Rescue From the Detrimental Effect of Social Isolation in the Mice Subjected to Ischemic Stroke. M Antony, M Byrne, L McCullough, R Verma Stroke 49 (Suppl_1), A180-A180

7. Abstract WP110: Identification and Validation of a Unique Mirna Target Mir-141-3p in Post Stroke Socially Isolated Aged Mice R Verma, LD McCullough. Stroke 48 (suppl_1), AWP110-AWP110

8. Abstract TP84: Comparative Analysis of Genetic and Pharmacological Inhibition of Sirt3 in Post Ischemic Injury R Verma, R Ritzel, B Liang, L McCullough Stroke 48 (suppl_1), ATP84-ATP84

9. Abstract TP270: Interleukin-6 Receptor Inhibition with Tocilizumab Ameliorates Ischemic Stroke Damage in Mice J Hudobenko, R Verma, L McCullough Stroke 48 (suppl_1), ATP270-ATP270
10. Role of acute P2X4 blockade on long-term recovery in ischemic stroke 2019, Hartford CT.
11. RNA-Seq analysis reveals extracellular matrix pathway proteins as a potential mechanism of neuroprotection in P2X4R KO mice after ischemic stroke 2019, Hartford CT.
12. Search of novel purinergic P2X4 receptor antagonists for the treatment of ischemic stroke 2019, Hartford CT. P. SRIVASTAVA , V. K. RAO , B. T. LIANG , T. O'BRIEN , R. VERMA ;
13. Search of novel purinergic P2X4 receptor antagonists for the treatment of ischemic stroke 2019, SFN Chicago. P. SRIVASTAVA , V. K. RAO , B. T. LIANG , T. O'BRIEN , R. VERMA ;

Invited talks

1. "Impact of post stroke social isolation on stroke recovery in aging mice" The Northeastern Glenn Symposium on the Biology of Aging at UCONN Cell & Genome Sciences, 400 Farmington Avenue, Farmington, CT. USA 2014
2. "Impact of Social Isolation on Stroke Outcome" at Department of Pharmacology and toxicology NIPER Mohali Punjab. March 2015.
3. "Role of P2X4 receptors in post stroke recovery" at Department of Neurology McGovern medical school UT Texas Health and science center Houston TX, Feb 2017
4. "Role of infiltrating myeloid cells in ischemic stroke" Cutting edge in Clinical neuroscience symposium at UConn School of Medicine Farmington CT Nov 16, 2019"
5. "Post-stroke depression models in long-term stroke recovery" invited symposium' Exploring long term consequences of ischemic stroke in preclinical models' talk. International stroke conference 2020 Los Angeles CA. Feb 2020.
6. UConn Medical Student neurosurgery interest group research symposium "preclinical model of ischemic stroke" 2020, Farmington CT USA
7. Preclinical and molecular methods in neuroscience "Role of purinergic receptor P2X4 in myeloid cell activation after ischemic stroke" 2020, Hyderabad India.
8. Seminar speaker at Department of Molecular Medicine, Byrd Alzheimer's Center and Research Institute, University of South Florida Morsani College of Medicine. A talk on "Role of purinergic receptor P2X4 in ischemic stroke" Dec 6, 2021
9. Invited speaker in international conference on "Emerging trends in nuerotherapeutics" St Thomas College Palai TN India. Dec 13-15, 2021

And many more can be found on

(<https://scholar.google.com/citations?user=xz0iFVYAAAAJ&hl=en>)

Peer reviewed publications:

1. Paro M R, Gamiotea-Turro D, McGonnigle M, Bulsara KR and Verma R A Model for Encephalomyosynangiosis Treatment after Middle Cerebral Artery Occlusion-Induced Stroke in Mice accepted April 22 2022 in Journal of Visualize Experiment. doi: 10.3791/63951

(Corr. author)

2. Dhuri K, Vyas R, Blumenfeld L, **Verma R**, Bahal R. Nanoparticle Delivered Anti-miR-141-3p for Stroke Therapy. *Cells*. *Cells* 2021, 10(5), 1011; <https://doi.org/10.3390/cells10051011>
(Co-Corr. author)
3. Srivastava P, Cronin CG, Scranton VL, Jacobson KA, Liang BT, **Verma R***. Neuroprotective and neuro-rehabilitative effects of acute purinergic receptor P2X4 (P2X4R) blockade after ischemic stroke. *Exp Neurol*. 2020 Jul; 329:113308. doi: 10.1016/j.expneurol.2020.113308. Epub 2020 Apr 11. PubMed PMID: 32289314; PubMed Central PMCID: PMC7242087.
(Corr. author)
4. Patrizz A, Doran SJ, Chauhan A, Ahnstedt H, Roy-O'Reilly M, Lai YJ, Weston G, Tarabishy S, Patel AR, **Verma R**, Staff I, Kofler JK, Li J, Liu F, Ritzel RM, McCullough LD. EMMPRIN/CD147 plays a detrimental role in clinical and experimental ischemic stroke. *Aging (Albany NY)*. 2020 Mar 19;12(6):5121-5139. doi: 10.18632/aging.102935. Epub 2020 Mar 19. PubMed PMID: 32191628; PubMed Central PMCID: PMC7138568.
5. Antony M, Scranton V, Srivastava P, **Verma R***. Micro RNA 181c-5p: A promising target for post-stroke recovery in socially isolated mice. *Neurosci Lett*. 2020 Jan 10;715:134610. doi: 10.1016/j.neulet.2019.134610. Epub 2019 Nov 10. PubMed PMID: 31722236; PubMed Central PMCID: PMC7054848.
(Corr. author)
6. Srivastava A, Srivastava P, **Verma R***. Role of bone marrow-derived macrophages (BMDMs) in neurovascular interactions during stroke. *Neurochem Int*. 2019 Oct;129:104480. doi: 10.1016/j.neuint.2019.104480. Epub 2019 May 27. Review. PubMed PMID: 31145968.
(Corr. author)
7. Ritzel RM, Al Mamun A, Crapser J, **Verma R**, Patel AR, Knight BE, Harris N, Mancini N, Roy-O'Reilly M, Ganesh BP, Liu F, McCullough LD. CD200-CD200R1 inhibitory signaling prevents spontaneous bacterial infection and promotes resolution of neuroinflammation and recovery after stroke. *J Neuroinflammation*. 2019 Feb 18;16(1):40. doi: 10.1186/s12974-019-1426-3. PubMed PMID: 30777093; PubMed Central PMCID: PMC6378746.
8. **Verma R***, Ritzel RM, Crapser J, Friedler BD, McCullough LD. Evaluation of the Neuroprotective Effect of Sirt3 in Experimental Stroke. *Transl Stroke Res*. 2019 Feb;10(1):57-66. doi: 10.1007/s12975-017-0603-x. Epub 2018 Jan 4. PubMed PMID: 29302794.
(Corr. author)
9. **Verma R**, Ritzel RM, Harris NM, Lee J, Kim T, Pandi G, Vemuganti R, McCullough LD. Inhibition of miR-141-3p Ameliorates the Negative Effects of Poststroke Social Isolation in Aged Mice. *Stroke*. 2018 Jul;49(7):1701-1707. doi: 10.1161/STROKEAHA.118.020627. Epub 2018 Jun 4. PubMed PMID: 29866755; PubMed Central PMCID: PMC6019570.
10. Ritzel RM, Lai YJ, Crapser JD, Patel AR, Schrecengost A, Grenier JM, Mancini NS, Patrizz A, Jellison ER, Morales-Scheihing D, Venna VR, Kofler JK, Liu F, **Verma R**, McCullough LD. Aging alters the immunological response to ischemic stroke. *Acta Neuropathol*. 2018 Jul;136(1):89-110. doi: 10.1007/s00401-018-1859-2. Epub 2018 May 11. PubMed PMID: 29752550; PubMed Central PMCID: PMC6015099.
11. **Verma R**, Cronin CG, Hudobenko J, Venna VR, McCullough LD, Liang BT. Deletion of the P2X4 receptor is neuroprotective acutely, but induces a depressive phenotype during recovery from ischemic stroke. *Brain Behav Immun*. 2017 Nov;66:302-312. doi: 10.1016/j.bbi.2017.07.155. Epub 2017 Jul 24. PubMed PMID: 28751018; PubMed Central PMCID: PMC5650951.
(Corr. author)

12. Ritzel RM, Patel AR, Spychala M, **Verma R**, Crapser J, Koellhoffer EC, Schrecengost A, Jellison ER, Zhu L, Venna VR, McCullough LD. Multiparity improves outcomes after cerebral ischemia in female mice despite features of increased metabovascular risk. *Proc Natl Acad Sci U S A*. 2017 Jul 11;114(28):E5673-E5682. doi: 10.1073/pnas.1607002114. Epub 2017 Jun 23. PubMed PMID: 28645895; PubMed Central PMCID: PMC5514696.
13. Harris NM, Ritzel R, Mancini NS, Jiang Y, Yi X, Manickam DS, Banks WA, Kabanov AV, McCullough LD, **Verma R***. Nano-particle delivery of brain derived neurotrophic factor after focal cerebral ischemia reduces tissue injury and enhances behavioral recovery. *Pharmacol Biochem Behav*. 2016 Nov - Dec;150-151:48-56. doi: 10.1016/j.pbb.2016.09.003. Epub 2016 Sep 13. PubMed PMID: 27619636; PubMed Central PMCID: PMC5145740.

(Corr. author)

14. Lepeta K, Lourenco MV, Schweitzer BC, Martino Adami PV, Banerjee P, Catuara-Solarz S, de La Fuente Revenga M, Guillem AM, Haidar M, Ijomone OM, Nadorp B, Qi L, Perera ND, Refsgaard LK, Reid KM, Sabbar M, Sahoo A, Schaefer N, Sheean RK, Suska A, **Verma R**, Vicidomini C, Wright D, Zhang XD, Seidenbecher C. Synaptopathies: synaptic dysfunction in neurological disorders - A review from students to students. *J Neurochem*. 2016 Sep;138(6):785-805. doi: 10.1111/jnc.13713. Epub 2016 Sep 8. Review. PubMed PMID: 27333343; PubMed Central PMCID: PMC5095804.
15. Ritzel RM, Pan SJ, **Verma R**, Wizeman J, Crapser J, Patel AR, Lieberman R, Mohan R, McCullough LD. Early retinal inflammatory biomarkers in the middle cerebral artery occlusion model of ischemic stroke. *Mol Vis*. 2016;22:575-88. eCollection 2016. PubMed PMID: 27293375; PubMed Central PMCID: PMC4893077.
16. Crapser J, Ritzel R, **Verma R**, Venna VR, Liu F, Chauhan A, Koellhoffer E, Patel A, Ricker A, Maas K, Graf J, McCullough LD. Ischemic stroke induces gut permeability and enhances bacterial translocation leading to sepsis in aged mice. *Aging (Albany NY)*. 2016 May;8(5):1049-63. doi: 10.18632/aging.100952. PubMed PMID: 27115295; PubMed Central PMCID: PMC4931853.
17. **Verma R**, Harris NM, Friedler BD, Crapser J, Patel AR, Venna V, McCullough LD. Reversal of the Detrimental Effects of Post-Stroke Social Isolation by Pair-Housing is Mediated by Activation of BDNF-MAPK/ERK in Aged Mice. *Sci Rep*. 2016 Apr 29;6:25176. doi: 10.1038/srep25176. PubMed PMID: 27125783; PubMed Central PMCID: PMC4850427.
18. Ritzel RM, Crapser J, Patel AR, **Verma R**, Grenier JM, Chauhan A, Jellison ER, McCullough LD. Age-Associated Resident Memory CD8 T Cells in the Central Nervous System Are Primed To Potentiate Inflammation after Ischemic Brain Injury. *J Immunol*. 2016 Apr 15;196(8):3318-30. doi: 10.4049/jimmunol.1502021. Epub 2016 Mar 9. PubMed PMID: 26962232; PubMed Central PMCID: PMC4868658.
19. Ritzel RM, Patel AR, Grenier JM, Crapser J, **Verma R**, Jellison ER, McCullough LD. Functional differences between microglia and monocytes after ischemic stroke. *J Neuroinflammation*. 2015 May 29;12:106. doi: 10.1186/s12974-015-0329-1. PubMed PMID: 26022493; PubMed Central PMCID: PMC4465481.
20. Chatterjee M, **Verma R**, Kumari R, Singh S, Verma AK, Dwivedi AK, Palit G. Antipsychotic activity of standardized Bacopa extract against ketamine-induced experimental psychosis in mice: Evidence for the involvement of dopaminergic, serotonergic, and cholinergic systems. *Pharm Biol*. 2015;53(12):1850-60. doi: 10.3109/13880209.2014.976350. Epub 2015 Apr 9. PubMed PMID: 25856700.

21. Venna VR, **Verma R**, O'Keefe LM, Xu Y, Crapser J, Friedler B, McCullough LD. Inhibition of mitochondrial p53 abolishes the detrimental effects of social isolation on ischemic brain injury. *Stroke*. 2014 Oct;45(10):3101-4. doi: 10.1161/STROKEAHA.114.006553. Epub 2014 Sep 9. PubMed PMID: 25205311; PubMed Central PMCID: PMC4192598.
22. **Verma R**, Friedler BD, Harris NM, McCullough LD. Pair housing reverses post-stroke depressive behavior in mice. *Behav Brain Res*. 2014 Aug 1;269:155-63. doi: 10.1016/j.bbr.2014.04.044. Epub 2014 May 2. PubMed PMID: 24793492; PubMed Central PMCID: PMC4114771.
23. Manwani B, Friedler B, **Verma R**, Venna VR, McCullough LD, Liu F. Perfusion of ischemic brain in young and aged animals: a laser speckle flowmetry study. *Stroke*. 2014 Feb;45(2):571-8. doi: 10.1161/STROKEAHA.113.002944. Epub 2013 Dec 19. PubMed PMID: 24357659; PubMed Central PMCID: PMC3946827.
24. Chatterjee M, **Verma R**, Lakshmi V, Sengupta S, Verma AK, Mahdi AA, Palit G. Anxiolytic effects of *Plumeria rubra* var. *acutifolia* (Poiret) L. flower extracts in the elevated plus-maze model of anxiety in mice. *Asian J Psychiatr*. 2013 Apr;6(2):113-8. doi: 10.1016/j.ajp.2012.09.005. Epub 2012 Nov 3. PubMed PMID: 23466106.
25. Chatterjee M, **Verma R**, Ganguly S, Palit G. Neurochemical and molecular characterization of ketamine-induced experimental psychosis model in mice. *Neuropharmacology*. 2012 Nov;63(6):1161-71. doi: 10.1016/j.neuropharm.2012.05.041. Epub 2012 Jun 6. PubMed PMID: 22683513.
26. **Verma R**, Mishra V, Gupta K, Sasmal D, Raghubir R. Neuroprotection by rosiglitazone in transient focal cerebral ischemia might not be mediated by glutamate transporter-1. *J Neurosci Res*. 2011 Nov;89(11):1849-58. doi: 10.1002/jnr.22710. Epub 2011 Aug 8. PubMed PMID: 21826699.
27. Raghubir R, **Verma R**, Samuel SS, Raza S, Haq W, Katti SB. Anti-stroke profile of thiazolidin-4-one derivatives in focal cerebral ischemia model in rat. *Chem Biol Drug Des*. 2011 Sep;78(3):445-53. doi: 10.1111/j.1747-0285.2011.01153.x. Epub 2011 Jul 8. PubMed PMID: 21649861.
28. Mishra V, **Verma R**, Singh N, Raghubir R. The neuroprotective effects of NMDAR antagonist, ifenprodil and ASIC1a inhibitor, flurbiprofen on post-ischemic cerebral injury. *Brain Res*. 2011 May 10;1389:152-60. doi: 10.1016/j.brainres.2011.03.011. Epub 2011 Mar 10. PubMed PMID: 21396924.
29. Mishra V, **Verma R**, Raghubir R. Neuroprotective effect of flurbiprofen in focal cerebral ischemia: the possible role of ASIC1a. *Neuropharmacology*. 2010 Dec;59(7-8):582-8. doi: 10.1016/j.neuropharm.2010.08.015. Epub 2010 Sep 8. PubMed PMID: 20813117.
30. **Verma R**, Mishra V, Sasmal D, Raghubir R. Pharmacological evaluation of glutamate transporter 1 (GLT-1) mediated neuroprotection following cerebral ischemia/reperfusion injury. *Eur J Pharmacol*. 2010 Jul 25;638(1-3):65-71. doi: 10.1016/j.ejphar.2010.04.021. Epub 2010 Apr 24. PubMed PMID: 20423712.
31. **Verma R**, Hanif K, Sasmal D, Raghubir R. Resurgence of herbal antihypertensives in management of hypertension. *Current hypertension reviews*. 2010; 6(3):190-198.

Complete List of Published Work in My bibliography:

<https://www.ncbi.nlm.nih.gov/myncbi/rajikumar.verma.1/bibliography/public/>

Patent applications:

1. Methods for pharmacologic treatment of stroke B Liang, **R Verma**, KA Jacobson US US Patent 10,695,355

Ongoing Research/funding support

1. NIH NINDS R01 Verma (PI) Jun 2022-May 2027

Therapeutic implications of purinergic receptor P2X4 in ischemic stroke

This study aims to explore the mechanism and therapeutic implications of P2X4R in ischemic stroke

Role: PI

2. NIH R21 Verma (PI) May 2020-April 2022

Next generation gamma Peptide Nucleic Acids (γPNAs) for the treatment of ischemic stroke

This study will explore γPNA-based miRNA inhibitors in stroke recovery.

Role: PI

3. AHA Transformational project award Verma (PI) July 2022

Encephalomyosynangiosis to promote angiogenesis and functional recovery in a mouse model of ischemic stroke

Role: PI

Completed Research Support

1. 18CDA34110011 Career Development Award by American Heart Association

Verma (PI) July 2018-June 2022

Therapeutic potential of purinergic P2X4 receptors in stroke.

This study aims to explore the role of purinergic receptor P2X4 in ischemic stroke

Role: PI

2. UConn Convergence grant Verma PI Aug 2020-June 2022

Validation of miRNA inhibitors in ischemic stroke

This study will validate novel miRNA inhibitors for the ischemic stroke.

Role: PI

3. 1R41HL156322-01 Liang (PI) Dec 2020-Dec 2021

A New Anti-inflammatory Therapy for Ischemic Stroke

This study aims to synthesize and develop novel P2X4R antagonist for the treatment of ischemic stroke.

Role: Co-I

4. 3R01DK032948-33S1 Mains (PI) Aug 2018-Nov 2019

Cell Biology of Bioactive Peptide Secretion

To study role of Kalirin proteins in vascular dementia

Role: Co-I

5. Research Excellence Program (REP-UConn) by OVPR UConn

Verma (PI) July 2017-Mar 2019

Role of Vortioxetine in post-stroke depression

Goal of this project is to study post-stroke depression and explore role of Vortioxetine in post stroke recovery.

Role: PI

6. START PPOC by Office of Vice president for Research at UConn

Verma (PI) Aug 2018-July 2019

Purinergic receptor P2X4 inhibitors: Potential treatment for ischemic stroke.
The goal of this study to validate new P2X4R inhibitors for the treatment of stroke.

Role: PI

7. Path Trailblazer award by Office of Vice president for Research at UConn

Verma (PI) May 2019-Dec 2020

Discovery of novel purinergic P2X4 receptor antagonist for the treatment of ischemic stroke.

This study aims to screen and test novel P2X4R inhibitors.

Role: PI

8. UConn Convergence grant

Lixia (PI) May 2019-June 2021

Oxidative stress activated TRPM2 as a novel therapeutics target for ischemic stroke

This study aims to establish TRPM2 channels a potential therapeutic target for ischemic stroke.

Role: Co-PI

9. AHA postdoctoral grant

Verma (PI) July 2014-June 2016

Exploring the role of Sirt3, a key metabolic regulator in ischemic stroke

Role: PI

Date: 7-28-2022

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