Venkata Prasuja Nakka, PhD
UGC-Assistant Professor
Department of Systems and Computational Biology
School of Life Sciences
University of Hyderabad
Prof. C.R. Rao Road, Gachibowli, Hyderabad-500046, Telangana
Email: nvprasuja@gmail.com

Current Position: UGC-Assistant Professor since 3rd April 2017
UGC-Assistant Professor (Level-11) with effect from 03 April 2021

Current Affiliation: Department of Systems and Computational Biology, School of Life Sciences, University of Hyderabad, Prof. C.R. Rao Road, Gachobowli, Hyderabad-500046, Telangana (Since 23 July 2024)

Previous Experience: UGC-Assistant Professor from 3rd April 2017 to 22 July 2024 @ Acharya Nagarjuna University, Guntur, Andhra Pradesh-522510

Research

The broad area of research: Neurobiology of Disease

Specific research interests

- Role of Endoplasmic Reticulum stress and Oxidative stress in Stroke & other neurological disorders
- Protein aggregation after Stroke
- Effect of stroke on organ damage such as Pancreas, Kidney and Liver

Post-doctoral Research

- SERB-Young scientist (July 2016 to March 2017): Department of Biotechnology & Bioinformatics, *University of Hyderabad*, India.

- UGC-Postdoctoral Fellow (December 2013 to June 2016): Department of Biotechnology & Bioinformatics, *University of Hyderabad*, India.

- Research Fellow (2013)**:** Department of Pharmacy, *National University of Singapore.*

- Research Associate (2009-2011)**:** Department of Neurological Surgery, School of Medicine and Public Health, *University of Wisconsin-Madison**,*** USA.

Total 6 years

Education

PhD (Life Sciences) (2009) Jawaharlal Nehru University, New Delhi/Central Drug Research Institute, Lucknow-India.

MSc (Microbiology) from Acharya Nagarjuna University, AP, India

BSc (Biology and Chemistry) from Acharya Nagarjuna University, AP, India

Qualified joint CSIR-UGC (JRF-NET) examination in 2003

Publications

1. **Nakka VP**, Gusain A, Mehta SL, Raghubir R. (2008) Molecular mechanisms of apoptosis in cerebral ischemia: multiple neuroprotective opportunities. ***Molecular Neurobiology***. 37(1):7-38**.** Impact factor: **5.6**
2. **Nakka VP**, Gusain A, Raghubir R (2010) Endoplasmic reticulum stress plays critical role in brain damage after cerebral ischemia/reperfusion in rats. ***Neurotoxicity Research.*** 17(2):189-202. Impact factor: **3.9**

3. **Nakka VP**, Lang BT, Lenschow DJ, Zhang DE, Dempsey RJ, Vemuganti R (2011) Increased cerebral protein ISGylation after focal ischemia is neuroprotective. **Journal of Cerebral Blood Flow & Metabolism**. 31 (12):2375-84. Impact factor: **6.2**

4. Dharap A, **Nakka VP**, Vemuganti R (2011) Altered expression of PIWI RNA in the rat brain after transient focal ischemia. ***Stroke.*** 42(4):1105-9. Impact factor: **10.1**

5. Dharap A, **Nakka VP**, Vemuganti R (2012) Effect of focal ischemia on long non-coding RNAs. ***Stroke.*** 43(10):2800-2. Impact factor: **10.1**

6. Pandi G, **Nakka VP**, Dharap A, Roopra A, Vemuganti R (2013) MicroRNA miR-29c down- regulation leading to de-repression of its target DNA methyltransferase 3a promotes ischemic brain damage. ***PLoS One.*** 8(3):e58039. (Equal first author). Impact factor**: 3.7**

7. **Nakka VP**, Prakash-Babu P, Vemuganti R (2016) Crosstalk Between Endoplasmic Reticulum Stress, Oxidative Stress, and Autophagy: Potential Therapeutic Targets for Acute CNS Injuries. **Molecular Neurobiology**. 53: 532-544 Impact factor**: 5.6**

8. Simhadri PK, Malwade R, Vanka R, **Nakka VP,** Kuppusamy G, Babu PP (2017) Dysregulation of LIMK-1/cofilin-1 pathway: A possible basis for alteration of neuronal morphology in experimental cerebral malaria. ***Annals of neurology*****.** 82: 429-443. Impact factor: **11.2**

9. Nakuluri K, Nishad R, Mukhi D, Kumar S, **Nakka VP**, Kolligundla LP et al. (2019) Cerebral ischemia induces TRPC6 via HIF1α/ZEB2 axis in the glomerular podocytes and contributes to proteinuria. ***Scientific reports***. 9: 1-13. Impact factor**: 4.99**

10. Vanka R, **Nakka VP**, SP Kumar, UK Baruah, PP Babu (2020) Molecular targets in cerebral malaria for developing novel therapeutic strategies. ***Brain Research Bulletin*****.** 157:100-107. (Equal first author) Impact factor: **3.71**

11. **Nakka VP** and Mohammad AQ (2020) A Critical Role for ISGylation, Ubiquitination and, SUMOylation in Brain Damage: Implications for Neuroprotection.

***Neurochemical Research*.**45:1975-1985. Impact factor: **4.41** * Corresponding author

12. **Nakka VP**, Gogada R, Simhadri PK, Abdul Qadeer M, Phanithi PB (2022) Post-treatment with apocynin at a lower dose regulates the UPR branch of eIF2α and XBP-1 pathways after stroke. ***Brain Research Bulletin***. 182:1-11 Impact factor: **3.71**

13. Lunavat SK, Singh SS, Mohammed AQ, **Nakka VP**, Phanithi PB, Medisetty R, Gogada R (2022) The MreA metal binding sites C40, H65 and C69 plays a critical role in metal tolerance of Pseudomonas putida KT2440. ***Current Microbiology***. 24; 79:142. Impact factor: **2.18**
14. Dulam, V., Katta, S., & **Nakka, VP** (2024). Stroke and Distal Organ Damage: Exploring Brain-Kidney Crosstalk. ***Neurochemical research***, 10.1007/s11064-024-04126-8. Advance online publication. Impact factor: **4.4**

Book Chapters/Books edited

15. Raghubir R, **Nakka VP**, Mehta SL (2011) Endoplasmic reticulum stress in brain damage. **Methods Enzymology**. 489:259-75 Impact factor**: 1.3**

16. Dharap A, **Nakka VP**, Vemuganti R (2012) MicroRNAs in Ischemic Brain: The Fine-Tuning Specialists and Novel Therapeutic Targets. ***Springer Series*** *in Translational Stroke Research,* pp 335-352 March 2012. Impact factor: **6.8**

17. **Venkata Prasuja Nakka (2020)** Immunotherapeutics of Gastrointestinal Malignancies. Springer Nature. https://link.springer.com/chapter/10.1007/978-981-15-6487-1_4. * Corresponding author

18. **Venkata Prasuja Nakka** (2022) Chapter 14 - Immune checkpoint inhibitors for hepatocellular carcinoma. Theranostics and Precision Medicine for the Management of Hepatocellular Carcinoma, Volume 3, Academic Press, Pages: 215-223, ISBN 9780323992831. * Corresponding author

19. R Gogada, P Banerjee, P Boddana and **Venkata Prasuja Nakka** (2022) Pharmaco-Biotechnology and Nanotechnology: Therapeutic Applications and Strategies. Cambridge Scholars Publishing. ISBN: 1-5275-8902-1. (one of the book editors)

Conference papers/Abstracts

20. K Morris-Blanco, **V Nakka**, R Chandran, G Pandi, S Mehta, R Vemuganti (2017) Transcriptomic profiling of long non-coding RNAs after traumatic brain injury. **Journal of Cerebral Blood Flow & Metabolism.** 37, 442-442. Impact factor: **6.2** *XXVIIIth Symposium on Cerebral Blood Flow, Metabolism and Function & XIIIth Conference on Quantification of Brain Function with PET, Berlin, Germany.*

Nakka VP, Bodden LO, Vemuganti R (2014) ER stress inhibitor salubrinal is neuroprotective after TBI. ***Journal of Neurotrauma***. 31 (12), a107-a107. *The 32nd Annual National Neurotrauma Symposium June 29–July 2, 2014 at San Francisco, California*. Impact factor: **5.2**

21. Vemuganti R, Kim TH, Pandi G, Kaimal B, **Nakka VP**, Dharap A (2014) MicroRNA dysfunction promotes neuronal death and neurological dysfunction after stroke. ***Journal of Neurochemistry***. 130: 24-24. Impact factor: **5.3**
12th Biennial Meeting of the Asian-Pacific-Society-for-Neurochemistry, Kaohsiung, Taiwan

	Google Scholar	Scopus
Citations	1573	1196
h-Index	12	11

Google Scholar: https://scholar.google.co.in/citations?user=mVnNpwIAAAAJ&hl=en
Scopus: https://www.scopus.com/authid/detail.uri?authorId=23028309000

Research Grants obtained as Principal Investigator

1. Studies on molecular crosstalk between endoplasmic reticulum and mitochondria in brain damage after stroke. Funding agency: SERB; Project Cost: Rs. 32, 56,000/- (Completed)

2. UGC Start-Up grant for newly recruited faculty. Amount funded: Rs. 6, 00,000/-

3. Mechanistic role of apocynin on unfolded protein response and protein aggregation in stroke. Funding agency: SERB ; Project Cost: Rs. 42, 11,000/- (Completed)
4. Centre for Innovation and Intellectual Property Rights, Acharya Nagarjuna University "Seed Money Grant". Budget Sanctioned: Rs. 2, 00,000/-
5. ICMR Investigator Initiated Research Proposal (2023): Potential neuroprotective role of chemically engineered GNSs/TSG/CDs nanomaterials against microglia macrophage induced cell death in stroke (One of the PI's in a collaborative project). Reference: IIPR-2023-1583/F1

Peer-reviewing experience/ Professional Recognition

Reviewer for journals: *Metabolic Brain Disease; Translational Stroke Research; Neurochemistry International; Molecular and cellular Biochemistry; Mathews Journal of Case Reports; Journal of Pediatric Neurology; Biochimica et Biophysica Acta (BBA) - General Subjects; Brain Research Bulletin*

Projects Reviewer: *Science and Engineering Research Board (SERB)*

Invited Book Chapters: *Springer Nature, Methods Enzymology, and Translational Stroke Research*

Teaching experience

3-April-2017 to 22-July-2024 at the department of Biochemistry, Acharya Nagarjuna University, Nagarjuna Nagar, Andhra Pradesh-522510

Course taught: M.Sc. Biochemistry

Subjects: Immunology, Advanced Enzymology, Plant Biochemistry, Genetic Engineering

and basics of Bioinformatics and Biostatistics.

Teaching and practical's work load: 16-18hours per week

Research Guidance

1. PhD thesis submitted – **1**
2. BSc Internship students – **8**
3. M.Pharm student projects – **4**
4. MSc student projects – **15**

Technical Expertise

Expertise in rodent models of stroke and Traumatic Brain Injury

Fellowships/Awards received

1. 2003-2005- CSIR Junior Research Fellow
2. 2005-2008- CSIR Senior Research Fellow
3. Selected under UGC-Faculty Recharge Program as Assistant Professor (Cycle III)
4. Received Young scientist award (Gold medal) for oral presentation in "International Conference on Innovations in Pharma and Biopharma Industry (ICIPBI-2017) held at University of Hyderabad, India

Trainings received

1. Received special training (2009) on handling of animal species (Rat and Mouse) at Research Animal Resources Center (RARC), University of Wisconsin-Madison, USA and National University of Singapore (2013), Singapore.

2. Pre-PhD coursework (August 2005 to July 2006) of Jawaharlal Nehru University, at Central drug research institute, Lucknow, included two compulsory papers (Advancement in Drug Research and Drug Development Issues) and three optional papers (Molecular and Cellular Biology, rDNA technology and Pharmacology), hands-on-training and familiarization to novel analytical research methodologies (Confocal microscopy and RT-PCR), lab seminar and one term paper (Apoptosis and Stroke).

3. National workshop on Molecular techniques in transplantation biology (2004), SGPGI, Lucknow

4. Training received on Manufacture of toxoid based vaccine "Diptheria" at Pasteur Institute of India, Coonoor (1999), Tamilnadu, India.

Conferences/workshops conducted

- The National Workshop on Inculcation of innovative knowledge to promote entrepreneurship in biochemical sciences (24-25 January 2020) at Acharya Nagarjuna University-522510, serving as the Treasurer and Organizing Member.
- National Symposium on Recent Trends in the Treatment and Management of Diabetes: From Bench to Clinic (9th February 2019) at Acharya Nagarjuna University-522510, serving as the Treasurer and Organizing Member.
- The National seminar on Technological Advances in biochemical sciences: Academia to Industry (13-14, February 2023) at Acharya Nagarjuna University-522510, serving as the Treasurer and Organizing Member.

- The National Workshop on Skill Development and Start-up Ecosystem in Biosciences (5-4, January 2024) at Acharya Nagarjuna University-522510, serving as the Organizing Secretary.

Conferences attended

1. 35th annual conference of society for neurochemistry (International Conference) at University of Hyderabad (2021)- Invited speaker
2. Indo-Taiwan joint interdisciplinary neuroscience symposium (2014), University of Hyderabad, India.
3. 40th Annual meeting of Society for Neuroscience (2010), Sandiego, CA, USA.
4. 40th Annual Conference of Indian Pharmacological Society, Changing Trends in Drug Discovery &Development (2007), November 1-3. Chandigarh, India.
5. 29th All India Cell Biology conference (2006), ITRC-Lucknow, January 18- 20.
6. 3rd NBRC International symposium (2006), December 13th -15th, New Delhi, India.
7. National workshop on Molecular techniques in transplantation biology (2004), September 15 October 5, Lucknow, India.

Invited Talks

1. International conference on neuroscience and neurological disorders NEHU- Shillong in September 2023
2. 35th Annual Conference of Society for Neurochemistry India (December 2021)
3. Guest lecture at the School of Life Sciences (hosted by DoSCB) at the University of Hyderabad.

Career Development Programs

1. 108th Orientation course (August 23-September 12, 2019) conducted by HRDC of University of Hyderabad
2. Refresher course in Life Sciences (16th to 28th November 2020) conducted by HRDC of University of Hyderabad
3. Faculty Development Programme between 7 and 11 June 2-2021 (5 days) conducted by REVA University, Bangalore

Membership in professional societies

1. Life member: Indian Academy of Neurosciences (IAN)
2. Life member: Society for Neurochemistry, India (SNCI)