Curriculum Vitae

Ranjit Kumar Giri, Ph. D.
Scientist VI (Professor)
Molecular and Cellular Neuroscience Division
National Brain Research Centre,
Manesar, Gurgaon, Haryana 122052

Educational Qualification

1992-1997: Ph. D. in Life Sciences from Institute of Life Sciences, Bhubaneswar, India.
Thesis Title: Activation of oncogenes during N-nitrosodiethylamine-mediated carcinogenesis in AKR mice

1989-1991: Master of Science (M. Sc) in Environmental Sciences, First Class, Jawaharlal Nehru University, New Delhi, India. **Thesis Title:** Level of Hyaluronic acid as a marker of skin cancer.

Professional experience (Positions held with duration):

2007-Present: Scientist IV-VI (Associate Professor-Professor), NBRC, Manesar, Haryana, India.
2003-2007: Associate Research Scientist, McLaughlin Research Institute, Great Falls, MT, USA.
2001-2003: Research Associate, Keck School of Medicine, USC, Los Angeles, CA, USA.
2000-2001: Research Associate, Albert Einstein College of Medicine, Bronx, NY, USA.
1999-2000: Research Associate, Keck School of Medicine, USC, Los Angeles, CA, USA.
1997-1999: Project Associate, National Institute of Immunology, New Delhi, India.

Awards, Honors and Fellowships (Latest 5):

2017: Best Paper Award: First International Conference on Nutraceuticals and Chronic Diseases, Sep 9-11, 2016, Cochin, Kerala, India. Curcumin-mediated induction of proapoptotic *Bex* genes is associated with apoptosis in mouse neuro 2a neuroblastoma cells and involves activation of p53. **Recipient: Himakshi Sidhar, Ph.D. Student**

2014: Best Poster Award, IAN 2014, NIMHANS, Bangalore, India. Alteration of death stimulating factors to increased beta amyloidopathy in Tg(*APPswePSEN1dE9*) mouse model of Alzheimer's disease. **Recipient: Pankaj S. Ghate, Ph.D. Student**

2008-2013: Ramalingaswami Fellowship, Understanding the cellular pathogenesis of Alzheimer's disease employing CNS stem cell cultures: Development of a novel in vitro model of Alzheimer's disease, Department of Biotechnology, New Delhi, India.

2002: Best Poster Award; Anti-inflammatory effect of Egr-1 SiRNA on beta amyloid-mediated activation of monocytes. Annual Retreat, Department of Biochemistry and Molecular Biology, Keck School of Medicine, USC, Los Angeles, CA.

1998: Best Poster Award (2nd), Anticarcinogenic activity of d-limonene in N-nitrosodiethylamine-mediated hepatocarcinogenesis. Single Theme Consensus Conference on Hepatitis B and C: Carrier to Cancer, Department of Gastroenterology, G.B. Pant Hospital, New Delhi.

Memberships of academic societies / editorial Board:

i) Elected as a life member in Indian association for cancer research, India
ii) Elected as a life member in society for neurochemistry, India
iii) Elected as a life member in Indian academy of neuroscience, India
iv) Elected as an associate member in American society for Biochemistry and molecular biology, USA.
v) Elected as a member in society for neuroscience, USA.

Publications:

Abstract:

a) National:

1. **Giri RK**, Das BR. Anticarcinogenic activity of d-limonene in N-nitrosodiethylamine-mediated hepatocarcinogenesis, Indian J Gastroenterol 18, supplement 1, 37, 1998.

b) International

1. **Giri RK**, Gibson A, Pistick R, Carlson GA. Expression of prion protein in mouse CNS stem cells and their progeny, Neurobiology of Aging, 25, S458, 2004.
2. Malhi H, **Giri R**, Zhou P, Croizat H, Gupta S. Stem/progenitor cells isolated from the fetal human liver demonstrate capacity for multilineage differentiation potential, Hepatology, 34, 851, 2001.
3. Wege H, Le H, Wu J, **Giri R**, Malhi H, Gupta S, Zern MA. Telomerase reconstitution immortalizes human hepatocytes, Hepatology, 34, 301, 2001.
4. Zamir E, **Giri R,** Kalra V, Riano W, Read RW and Rao NA. Use of a Y chromosome-specific DNA sequence to differentiate retinal microglia from blood borne macrophages in bone marrow-chimeric rats, Investigative Ophthalmology & Visual Science, 41, 1994B240, 2000.

Original Research Papers (Peer-reviewed):

1. Sidhar H, **Giri RK**. Induction of Bex genes by curcumin is associated with apoptosis and activation of p53 in N2a neuroblastoma cells. **Sci Rep**. Feb 1;7:41420, doi: 10.1038/ srep41420, 2017
2. Ghate PS, Sidhar H, Carlson GA and **Giri RK**. Development of a novel cellular model of Alzheimer's disease utilizing neurosphere cultures derived from B6C3-Tg(*APPswe*,*PSEN1dE9*)85Dbo/J embryonic mouse brain. **Springerplus**, 3:161, 2014
3. Sahu U, Sidhar H, Ghate PS, Advirao GM, Raghavan SC, **Giri RK**. A Novel Anticancer Agent, 8-Methoxypyrimido[4',5':4,5]thieno(2,3-b) Quinoline-4(3H)-One Induces Neuro 2a Neuroblastoma Cell Death through p53-Dependent, Caspase-Dependent and -Independent Apoptotic Pathways**. PLoS One.** 8(6):e66430, 2013.
4. Sharma S, Panjamurthy K, Choudhary B, Srivastava M, Shahabuddin M, **Giri R**, Advirao GM, Raghavan SC. A novel DNA intercalator, 8-methoxy pyrimido[4',5':4,5]thieno (2,3-b)quinoline-4(3H)-one induces apoptosis in cancer cells, inhibits the tumor progression and enhances lifespan in mice with tumor. **Mol Carcinog.**, 52(6):413-25. 2013.
5. **Giri RK**, Young R, Pitstick R, DeArmond SD, Prusiner SB and Carlson GA. Prion infection of mouse neurospheres. **PNAS (USA),** 103 (10): 3875-80, 2006.
6. **Giri RK,** Rajgopal V, Shahi S, Zlokovic BV, Kalra VK. Mechanisms of amyloid peptide induced CCR5 expression in monocytes and its inhibition by siRNA for Egr-1. **Am. J Physiol Cell Physiol.,** 289 (2) C264-76, 2005.
7. Thomas PB, Albini T, **Giri RK,** See RF, Evans M, Rao NA. The effects of atorvastatin in experimental autoimmune uveitis, **Br J Ophthalmol,** 89(3): 275-9, 2005.
8. **Giri RK,** Rajgopal V, Kalra VK, Curcumin, the active constituent of turmeric, inhibits amyloid peptide-induced cytochemokine gene expression and CCR5-mediated chemotaxis of THP-1 monocytes by modulating Egr-1 transcription factor, **Journal of Neurochemistry,** 91(5): 1199-210, 2004.
9. Krezowski J, Knudson D, Ebeling C, Pistick R, **Giri RK,** Schenk D, Westaway D, Younkin L, Younkin SG, Ashe KH and Carlson GA. Identifiation of Loci determining susceptibility to lethal effects of amyloid precursor protein transgene overexpression, **Human Molecular Genetics,** 13(18): 1989-97, 2004.
10. Cho J-J, Joseph B, Sappal BS, **Giri RK,** Wang R, Ludlow JW, Furth ME, Susick R and Gupta S. Fuctional integrity of cryopreserved human liver cells with ability to establish xenografts in immunodeficient mice indicates potential for clinical applications, **Liver,** 24(4): 361-70, 2004.
11. **Giri RK,** Malhi H, Joseph B, Kandimalla J, Gupta S. Metal catalyzed oxidation of extracellular matrix components perturbs hepatocyte survival with activation of intracellular

signaling pathways, **Exp Cell Res.,** 291(2): 451-62, 2003.

12. G**iri RK,** Selvaraj SK and Kalra VK. Amyloid peptide induced cytokine and chemokine expression in monocytes is blocked by small inhibitory RNA Duplexes for Egr-1 mRNA, **Journal of Immunology**, 170, 5281-5294, 2003.
13. Selvaraj SK, **Giri RK,** Perelman N, Johnson C, Malik P and Kalra VK. Mechanism of monocytes activation and expression of pro-inflammatory cytochemokines by placenta growth factor, **Blood,** 102(4):1515-24, 2003.
14. Zalzman M, Gupta S, **Giri RK**, Berkovich I, Sappal BS, Karnieli O, Zern MA, Fleischer N and Efrat S. Reversal of hyperglycemia in mice using human expandable insulin producing cells differentiated from fetal liver progenitor cells. **Proc. Natl. Acad. Sci.** (USA), 100 (12): 7253-8, 2003.
15. Wege H, Le HT, Chui MS, Liu L, Wu J, **Giri R**, Malhi H, Sappal BS, Kumaran V, Gupta S, Zern MA. Telomerase Reconstitution Immortalizes Fetal Human Hepatocytes without disrupting their differentiation potentials, **Gastroenterology,** 124, 432-44, 2003.
16. Narsing A Rao, Takashi Kimoto, Ehud Zamir, **Ranjit Giri,** Robert wang, Shinji Ito, Geeta Pararajagegaram, Russell W Reed, Guey-Shuang Wu. Pathogenic role of retinal microglia in experimental uveoretinitis, **Invest Ophthalmol Vis Sci.,** 44, 22-31, 2003.
17. **Giri R,** Selvaraj S, Miller CA, Hofman F, Yan SD, Stern D, Zlokovic BV and Kalra VK. Effect of Endothelial cell polarity on beta-amyloid-induced migration of monocytes across cultured brain endothelial cell monolayer of normal and AD individual, **Am. J. Physiology-Cell Physiology,** 283, C895-C904, 2002.
18. **Giri R,** Shen Y, Stins M, Du Yan S, Schmidt AM, Stern D, Kim KS, Zlokovic B, Kalra VK. Beta-amyloid-induced migration of monocytes across human brain endothelial cells involves RAGE and PECAM-1, **Am. J. Physiology-Cell Physiology,** 279, 772-81, 2000.
19. **Giri RK,** Das BR. Mutational activation of c-Ha-ras oncogene or cancer promotion by phenobarbital upregulates the transcription of c-jun and c-myc oncogene in N-nitrosodiethylamine-mediated hepatocarcinogenesis. **Hepatology Research,** 16, 1-11, 1999.
20. Vrati S, **Giri RK,** Razdan A, Malik P. Complete nucleotide sequence of an Indian strain of Japanese encephalitis virus: sequence comparison with other strain and phylogenetic analysis. **Am J Trop Med Hyg**., 61, 6772-7780, 1999.
21. **Giri RK,** Parija T, Das BR. d-limonene chemoprevention of hepatocarcinogenesis in AKR mice: inhibition of c-jun and c-myc oncogenes, **Oncology Reports,** 6, 1123-1127, 1999.
22. **Giri RK,** Baral RN, Das BR. Induction of lung carcinogenesis in AKR mice by N-nitrosodiethylamine-Phenobarbitone, associated with high expression of c-myc and c-jun oncoproteins, **Cancer Letters,** 112, 57-63, 1997.
23. **Giri RK,** Das BR. Differential expression of c-jun and c-myc in N-Nitrosodiethylamine-induced hepatic oncogenesis in AKR mice, **Cancer Letters,** 109, 121-127, 1996.

Seminars / Workshops / Conferences Attended:

National:

1. **Invited Speaker,** November 2014, Understanding the Mechanisms of Neuroblastoma Cell Death by a Novel Anticancer Agent, 8-Methoxypyrimido[4',5':4,5]thieno(2,3-b) Quinoline-4(3H)-One, Vellore Institute of Technology University, Vellore, Tamilnadu, India.
2. **Invited Speaker,** November 2014, Establishment of a Novel *in vitro* Model of Alzheimer's Disease using Neurosphere Culture and its Application on Drug Discovery**,** IAN annual meeting, NIMHANS, Bengaluru, Karnataka, India.
3. **Invited Speaker,** February 2014, Cellular models of prion disease, Indo-US symposium on viral infections on nervous system, NBRC, Gurgaon, India.
4. **Invited Speaker,** 2011, 25th annual meeting of society for neurochemistry and international symposium on metabolic signaling in brain in health and diseases, University of Hyderabad, India.
5. **Invited Speaker,** 2011, International conference on molecular medicine, Charusat, Gujrat, India.
6. **Invited Speaker,** 2011, Biosparks, School of Life Sciences, JNU, New Delhi, India.

7. **Invited Speaker,** June 2010, 3rd UGC networking resource centre training programme on emerging trend in drug discovery and development, UIPS, Punjab University, Chandigarh.
8. **Invited Speaker,** August 2009, Eleventh refresher course on biotechnology, JNU, New Delhi, India.
9. **Poster Presentation,** 1998, Single theme consensus conference on Hepatitis B and C: career to cancer, New Delhi, India.

International:

1. **Invited Talk,** March 2012, McLaughlin Research Institute, Great Falls, Montana, USA.
2. **Poster presentation,** 2011, Annual meeting, Society for neuroscience, Washington DC, USA.
3. **Oral Presentation,** August 2006, 25th Annual Biomedical Science Workshop and Scientific Advisory Committee Meeting, McLaughlin Research Institute, Great Falls, MT.
4. **Poster Presentation,** June 2006, Montana Neuroscience Retreat, Seeley Lake, MT.
5. **Invited Speaker,** December 2005, National Prion Research Program Investigators Meeting, Dept. of Defense USA, Chantilly, Virginia.
6. **Invited Speaker,** November 2005, Second annual synthetic Mammalian Prion Meeting, Inst. of Neurodegenerative Diseases, UCSF, San Francisco.
7. **Poster Presentation,** October 2005, Prion 2005, Between Fundamentals and Society's needs, Congress Center Dusseldorf, Dusseldorf, Germany.
8. **Oral Presentation,** August 2006, 24h Annual Biomedical Science Workshop and Scientific Advisory Committee Meeting, McLaughlin Research Institute, Great Falls, MT.
9. **Invited Speaker,** June 20004, Neuroscience retreat, University of Montana, Missoula, Montana
10. **Poster Presentation,** July 2004, The 9th International Conference on Alzheimer's disease and related Disorders, Philadelphia, PA.
11. **Poster Presentation,** 2002, USC Keck School of Medicine, Dept. of Biochemistry Annual Retreat, Los Angeles, CA. (**Recipient of best poster award**).

Grants:

1) 2008-2013, Understanding the cellular pathogenesis of Alzheimer's disease employing CNS stem cell cultures: Development of a novel in vitro model of Alzheimer's disease, Ramalingaswami Fellowship, Department of Biotechnology, New Delhi, India (Rs. 68.8 Lakhs).

2) 2009-2012, Understanding the cellular and molecular pathology of prion diseases using CNS stem cell cultures replicating mouse prions, Department of Biotechnology, New Delhi, India (Rs. 48.55 Lakhs).

3) 2013-2015, Using Peptidomimetics to design small molecules from a novel Pl peptide, for its interaction with beta amyloid oligomers by in silico, in-vitro approaches and its efficiency in clearing beta amyloid load by ex vivo model of Alzheimer's disease, BIRAC, New Delhi, India (Rs. 29.89 Lakhs).

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