CURRICULUM VITAE

Name: Shiv Kumar Sharma

Designation: Scientist VII/ Senior Professor

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Professional Career:

July 2020 – Present: Scientist VII/ Senior Professor
National Brain Research Centre, Manesar-122052, Haryana.

2015 - 2020: Scientist VI/Professor
National Brain Research Centre, Manesar-122052, Haryana.

2010 - 2015: Scientist V/Additional Professor
National Brain Research Centre, Manesar-122052, Haryana.

2005 - 2010: Scientist IV/Associate Professor
National Brain Research Centre, Manesar-122052, Haryana.

2000 - 2005: Postdoctoral fellow
Department of Neurobiology and Behavior, Center for the Neurobiology of Learning and Memory, University of California Irvine (UCI), Irvine, California, USA.

2000 - 2000: Postdoctoral fellow
Department of Physiology and Biophysics, University of Colorado Health Sciences Center (UCHSC), Denver, Colorado, USA.

1996 - 2000: Postdoctoral fellow and Research Associate
Department of Microbiology and Immunology, University of British Columbia (UBC), Vancouver, BC, Canada.

Education:

Ph. D. Centre for Cellular and Molecular Biology (CCMB), Hyderabad, India (affiliated with JNU, New Delhi, India).

M.Sc. University of Allahabad, Allahabad (U.P), India.

B.Sc. University of Allahabad, Allahabad, (U.P.), India.

Scientific and Academic Recognition

1. Member, National Academy of Sciences, India, Allahabad, India.
2. Junior and Senior Research Fellowships from CSIR, India.

Membership in Scientific Societies:

1. Society for Neuroscience, USA.
2. Society for Neurochemistry, India.
3. Indian Academy of Neurosciences, India.

Publications

(A) Research Articles:

1. Pandey K, **Sharma SK** (2020) Activity- and memory training-induced acetylation of α-tubulin in the hippocampus. *Neurobiol Learn Mem.* 171:107226.

2. Singh D, Agrawal A, Singal CMS, Pandey HS, Seth P, **Sharma SK** (2020) Sinomenine inhibits amyloid beta-induced astrocyte activation and protects neurons against indirect toxicity. *Mol Brain*. 13:30.

3. Arora T, Caviedes P, **Sharma SK** (2020) Effects of a tripeptide on mitogen-activated protein kinase and glycogen synthase kinase activation in a cell line derived from the foetal hippocampus of a trisomy 16 mouse: an animal model of Down syndrome. *Neurotox Res*. 37:714-723.

4. Kamboj K, Jana S, **Sharma SK** (2019) Mechanisms of protein kinase C-induced sustained activation of extracellular signal-regulated kinase in the hippocampus. *Biochem Biophys Res Commun*. 520:453-458.

5. Pandey K, Sharma KP, **Sharma SK** (2015) Histone deacetylase inhibition facilitates massed pattern-induced synaptic plasticity and memory. *Learn Mem*. 22:514-8. This research article was highlighted in "The Telegraph"

6. Sharma KP, Singh JB, **Sharma SK** (2014) Mechanisms of cAMP-induced sustained activation of extracellular signal-regulated kinase in the hippocampus. *Neuroreport*. 25:470-4.

7. Maharana C, Sharma KP, **Sharma SK** (2013) Feedback mechanism in depolarization-induced sustained activation of extracellular signal-regulated kinase in the hippocampus. *Sci Rep*. 3:1103.

8. Shukla SM, **Sharma SK** (2011) Sinomenine inhibits microglial activation by Aβ and confers neuroprotection. *J Neuroinflammation*. 8:117.

9. Pandey K, **Sharma SK** (2011) Activity-dependent acetylation of alpha tubulin in the hippocampus. *J Mol Neurosci*. 45:1-4.

10. Mishra S, Mishra M, Seth P, **Sharma SK** (2011) Tetrahydrocurcumin confers protection against amyloid β-induced toxicity. *Neuroreport*. 22:23-7.

11. Maharana C, Sharma KP, **Sharma SK** (2010) Depolarization induces acetylation of histone H2B in the hippocampus. *Neuroscience.* 167:354-60.

12. Ye X, Shobe JL, **Sharma SK**, Marina A, Carew TJ (2008) Small G proteins exhibit pattern sensitivity in MAPK activation during the induction of memory and synaptic facilitation in Aplysia. *Proc Natl Acad Sci U S A.* 105:20511-6.

13. **Sharma SK**, Sherff CM, Stough S, Hsuan V, Carew TJ (2006) A tropomyosin-related kinase B ligand is required for ERK activation, long-term synaptic facilitation, and long-term memory in aplysia. *Proc Natl Acad Sci U S A.* 103:14206-10.

14. Sutton MA, Bagnall MW, **Sharma SK**, Shobe J, Carew TJ (2004) Intermediate-term memory for site-specific sensitization in aplysia is maintained by persistent activation of protein kinase C. *J Neurosci*. 24:3600-9.

15. **Sharma SK**, Sherff CM, Shobe J, Bagnall MW, Sutton MA, Carew TJ (2003) Differential role of mitogen-activated protein kinase in three distinct phases of memory for sensitization in Aplysia. *J Neurosci*. 23:3899-907.

16. **Sharma SK**, Bagnall MW, Sutton MA, Carew TJ (2003). Inhibition of calcineurin facilitates the induction of memory for sensitization in Aplysia: requirement of mitogen-activated protein kinase. *Proc Natl Acad Sci U S A.* 100:4861-6.

17. Purcell AL, **Sharma SK**, Bagnall MW, Sutton MA, Carew TJ (2003) Activation of a tyrosine kinase-MAPK cascade enhances the induction of long-term synaptic facilitation and long-term memory in Aplysia. *Neuron*. 37:473-84.

18. **Sharma SK**, Wallace BG (2003) Lithium inhibits a late step in agrin-induced AChR aggregation. *J Neurobiol.* 54:346-57.

19. **Sharma SK**, Brock DA, Ammann RR, DeShazo T, Khosla M, Gomer RH, Weeks G (2002) The cdk5 homologue, crp, regulates endocytosis and secretion in dictyostelium and is necessary for optimum growth and differentiation. *Dev Biol.* 247:1-10.

20. **Sharma SK**, Carew TJ (2002) Inclusion of phosphatase inhibitors during Western blotting enhances signal detection with phospho-specific antibodies. *Anal Biochem*. 307:187-9.

21. **Sharma SK**, Das MR (2002) Enhanced expression of heterotrimeric GTP-binding protein subunits in Zajdela ascitic hepatoma. *Indian J Biochem Biophys.* 39:148-54.

22. **Sharma SK**, Michaelis C, Lee KY, Wang JH, Weeks G (1999) Binding and catalytic properties of the Cdc2 and Crp proteins of Dictyostelium. *Eur J Biochem*. 260:603-8.

(B) Review Articles:

1. **Sharma S** (2010) Hepatocyte growth factor in synaptic plasticity and Alzheimer's disease. *ScientificWorldJournal.* 10:457-61.

2. **Sharma SK** (2010) Protein acetylation in synaptic plasticity and memory. *Neurosci Biobehav Rev*. 34:1234-40.

3. **Sharma SK**, Carew TJ (2004) The roles of MAPK cascades in synaptic plasticity and memory in Aplysia: facilitatory effects and inhibitory constraints. *Learn Mem*. 11:373-8.

(C) Book Chapter:

Sharma, SK, "Cellular and Molecular Mechanisms of Memory" in "Expanding Horizons of the Mind Science(s), edited by PN Tandon, RC Tripathi and N Srinivasan, published by Nova Science Publishers, Inc. New York.

Ph.D. and Integrated Ph.D. Research Supervision:
Students join my laboratory to work towards their thesis for PhD or Integrated PhD. The students enrolled in these programs and worked or continuing with me are:

Students graduated

1. Chinmoyee Maharana (PhD student)
2. Shilpa Mishra (PhD student)
3. Kiran Pandey (PhD student)
4. Kaushik P Sharma (PhD)
5. Kautuk Kamboj (PhD student)
6. Tushar Arora (PhD student)

Students currently working

1. Biswaranjan Sahoo (PhD student)
2. Apurva Agrwal (Integrated PhD student)
3. Deepti Dama (PhD student)

M.Sc. Research Supervision:

Students graduated

1. Ranjit Pradhan (graduated with M.Sc. Neuroscience)

2. Sharmishtha Panda (graduated with M.Sc. Neuroscience)

Student currently working

Akshay Tiwari (working for MSc dissertation)