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## BIOGRAPHICAL SKETCH

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NAME JYOTI MISHRA	POSITION TITLE Post-doctoral Research Fellow, Dept. of Neurology, UCSF; Senior Brain Plasticity Research Fellow, Brain Plasticity Institute		
eRA COMMONS USER NAME (credential, e.g., agency login) drjmishra			
EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)			
INSTITUTION AND LOCATION	DEGREE (if applicable)	MM/YY	FIELD OF STUDY
Delhi University, India	B.Sc.	06/2000	Biochemistry
National Centre for Biological Sciences, India	M.Sc.	06/2003	Life Sciences
University of California, San Diego	Ph.D.	03/2008	Computational Neurobiology
University of California, San Diego	Postdoctoral Fellow	06/2009	Cognitive Neurosciences

### Positions

- 2009 - present Postdoctoral Research Fellow, Dept. of Neurology  
University of California, San Francisco
- 2009 - present Senior Brain Plasticity Research Fellow,  
Brain Plasticity Institute, San Francisco

### Honors

- 1997 1<sup>st</sup> place. All India Entrance Scholarship, Delhi University, India
- 2000 1<sup>st</sup> place. Ambedkar Center for Biomedical Research Post-Graduate Entrance
- 2000 1<sup>st</sup> place. All India Institute of Medical Sciences M.S. Biotechnology Entrance
- 2000 1<sup>st</sup> place. All India Masters in Biotechnology Combined Entrance
- 2000 1<sup>st</sup> place. Bioinformatics & recent advances, Biotechcellence, National Students' Biotechnology Symposium, India
- 2000 NCBS-TIFR Junior Scholarship, India
- 2003 TIFR Alumni Association Scholarship for Career Development, India
- 2003 NSF Integrative Graduate Education and Research Training (IGERT) award
- 2004 Graduate Internship award, RIKEN-Brain Research Institute, Japan
- 2006 Graduate Student award, International Multisensory Research Forum
- 2010 Finalist, UC President's Postdoctoral Fellowship Program
- 2010 Postdoctoral Scholar Research Award, UCSF Graduate division
- 2010 Postdoctoral Award, Program for Breakthrough Biomedical Research
- 2011 Finalist, Burroughs-Wellcome Career award at the Scientific Interface
- 2011 Fellow, Fogarty International Clinical Research

### Peer-reviewed publications

- 1 Kothekar V, Sahi S, and **Mishra J**. Enzyme selectivity of new cyclooxygenase-2/5 lipoxygenase inhibitors using molecular modeling approach. Indian Journal of Biochemistry & Biophysics 37: 86-96. 2000. PMCID 10983419.
- 2 Kothekar V, Sahi S, Srinivasan M, Mohan A, and **Mishra J**. Recognition of cyclooxygenase-2 (COX-2) active site by NSAIDs: a computer modeling study. Indian Journal of Biochemistry & Biophysics 38: 56-63. 2001. PMCID 11563332.
- 3 **Mishra J**, and Bhalla US. Simulations of Inositol Phosphate Metabolism and its Interaction with InsP<sub>3</sub> mediated Calcium Release. Biophysical Journal 83: 1298-1316. 2002. PMCID 12202356.
- 4 Sivakumaran S, Hariharaputran S, **Mishra J**, and Bhalla US. The Database of Quantitative Cellular Signaling: management and analysis of chemical kinetic models of signaling networks. Bioinformatics 19: 408-415. 2003. PMCID 12584128.
- 5 **Mishra J**, Fellous JM, and Sejnowski TJ. Selective attention through phase relationship of excitatory and

- inhibitory input synchrony in a model cortical neuron. Neural Networks 19: 1329-46. 2006. PMID 17027225.
- 6 **Mishra J**, Martinez A, Sejnowski TJ, Hillyard SA. Early cross-modal interactions in auditory and visual cortex underlie a sound-induced visual illusion. Journal of Neuroscience 27: 4120-4131. 2007. PMID 17428990.
  - 7 Bonath B, Noesselt T, Martinez A, **Mishra J**, Schwiecker K, Heinze H, Hillyard SA. Neural basis of the Ventriloquist illusion. Current Biology 17: 1-7. 2007. PMID 17884498.
  - 8 **Mishra J**, Martinez A, Hillyard SA. Cortical Processes Underlying Sound-Induced Flash Fusion. Brain Research 1242: 102-15. 2008. PMID 18585695.
  - 9 **Mishra J**, Hillyard SA. Endogenous attention selection during binocular rivalry at early stages of visual processing. Vision Research 49: 1073-80. 2009. PMID 18384833.
  - 10 **Mishra J**, Martinez A, Hillyard SA. Effect of Attention on Early Cortical Processes associated with the Sound-induced Extra Flash Illusion. Journal of Cognitive Neuroscience. 2010. 22: 1714-1729. PMID 19583464.
  - 11 **Mishra J**, Zinni M, Bavelier D, and Hillyard SA. Neural basis of superior performance of video-game players in an attention-demanding task. Journal of Neuroscience. 2011. 31: 992-998. PMID 21248123.
  - 12 **Mishra J**, Martinez A, Schroeder C, and Hillyard SA. Spatial attention boosts short-latency neural responses in human visual cortex. Neuroimage. 2011 (*in review*)

### Book Chapter

- 1 **Mishra J**, Bavelier D, and Gazzaley A. Probing the Plasticity of Attention and Working Memory. Cambridge Handbook on Applied Perception Research. 2011 (*in review*)

### Manuscripts in Preparation

- 1 **Mishra J**, and Gazzaley A. Attention distributed across sensory modalities underlies neural processing efficiency and superior behavioral performance. 2011
- 2 **Mishra J**, Boccanfuso J, and Gazzaley A. Behavioral and neural impacts of multimodal attention in aging. 2011
- 3 **Mishra J**, Nilakantan A, and Gazzaley A. Mechanisms of auditory working memory disruption by external interference in youth and aging. 2011
- 4 **Mishra J**, Merzenich MM, and Gazzaley A. Evaluation of a novel neuro-plasticity based auditory training program to remediate top-down cognitive control deficits in healthy aging. 2011

### Conference Abstracts

- 1 Sahi S, Mishra J, and Kothekar V. Enzyme selectivity of new cyclooxygenase-2/5 lipoxygenase inhibitors using molecular modeling approach. Indian Biophysics Society Symposium. 1999
- 2 Mishra J Computational model of visual face processing. National Computational Neuroscience Workshop. 2000.
- 3 Mishra J, and Bhalla US. Simulations of Inositol Phosphate Metabolism and its Interaction with  $\text{InsP}_3$  mediated Calcium Release. International Symposium on Cell & Developmental Biology. 2001
- 4 Mishra J, and Bhalla US. Simulations of Inositol Phosphate Metabolism and its Interaction with  $\text{InsP}_3$  mediated Calcium Release. Networks and Behavior: International Neurobiology Symposium. 2003
- 5 Mishra J, Fellous JM, and Sejnowski TJ. A Biophysical Neuronal Model exploring Attention Mechanisms in Visual Cortex. Society for Neuroscience Poster 331.14. 2004.
- 6 Mishra J, Martinez A, Salejarvi WT, Sejnowski TJ, and Hillyard SA. Cortical processes underlying the sound induced visual illusion. International Multisensory Research Forum podium presentation. 2006.
- 7 Mishra J, Martinez A, Sejnowski TJ, and Hillyard SA. Effect of attention on cortical processes underlying the sound induced extra flash illusion. Cognitive Neuroscience Society Poster D57. 2007.
- 8 Mishra J, Zinni M, Bavelier D, and Hillyard SA. Neural basis of superior performance of video-game players in an attention-demanding task. Society for Neuroscience Poster KKK58. 2010.
- 9 Mishra J, Gazzaley A. Attentional control of multisensory integration. Cognitive Neuroscience Society podium presentation. 2011.

## **Research Support**

2011-2012. JM awarded Fogarty International Clinical Research Fellowship (\$97K).

“Evaluation of a novel neuroplasticity-based training program to remediate cognitive control deficits in Attention-deficit/hyperactivity disorder (ADHD).”

2010-2011. JM awarded Program for Breakthrough Biomedical Research Postdoctoral Fellowship (\$15K).

“Evaluation of a novel neuroplasticity-based training program to ameliorate attention and working memory deficits in the aging brain.”

2010-2011. JM awarded UCSF Graduate division Postdoctoral Scholar Research Award (\$5K).

“Evaluation of a novel neuroplasticity-based training program to ameliorate attention and working memory deficits in the aging brain.”