

Tanuj Gulati, Ph.D.

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PROFESSIONAL CONTACT INFORMATION

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EDUCATION

B.Sc. (Hons.) Medical Physics and Radiobiology 07/2004
All India Institute of Medical Sciences New Delhi, India

M.Sc. Neuroscience (with research) 07/2006
National Brain Research Center Manesar, India
Dissertation: Stochastic Approach to Diagnostic Characterization of Brain MRI using Fractal Morphometry

Ph.D. Neuroscience (transferred to Drexel) attended: 08/2006 – 05/2007
Medical College of Ohio Toledo, OH

Ph.D. Neuroscience (Neuroengineering track) 08/2012
Drexel University College of Medicine Philadelphia, PA
Dissertation: Motor Modularity in Voluntary Frog Behaviors and its Neural Basis

Postdoctoral fellowship, Neuroscience/ Neural Engineering 08/2018
University of California – San Francisco San Francisco, CA

PROFESSIONAL EXPERIENCE

Present Position:

09/2018- present *Assistant Professor*, Depts of Biomedical Sciences and Neurology, Center for Neural Science and Medicine, Cedars-Sinai Medical Center, Los Angeles

Previous Positions:

10/2012-08/2018 *Postdoctoral Fellow*, Department of Neurology, University of California, San Francisco (UCSF) and San Francisco VA Medical Center; Center for Neural Engineering & Prosthesis (joint venture between UCSF and UC-Berkeley)

06/2007-10/2012 *Graduate Research fellow (Ph.D. Candidate)*, Dept of Neurobiology and Anatomy, Drexel University College of Medicine (DUCOM), Philadelphia, PA

08/2006-05/2007 *Ph.D. Student*, Dept of Neurosciences, Medical College of Ohio (MCO), Toledo, OH (transferred to Drexel University after two semesters of rotation research)

- 08/2004-07/2006 *M.Sc. Candidate*, National Brain Research Center (NBRC), Manesar, India
09/2001-07/2004 *Research Assistant*, Dept of Radiodiagnosis & Medical Physics, All India Institute of Medical Sciences (AIIMS), New Delhi, India

PROFESSIONAL ACTIVITIES

Committee Services:

- 2018 Abstract review committee member for 22nd North American Neuromodulation Society meeting
2017-18 Member of Organizing committee for ‘Coffee with Postdocs’ session with visiting Neuroscience Seminar Speakers (using Kavli funds) at USCF, San Francisco
2017 Abstract review committee member for 21st North American Neuromodulation Society meeting
2010 Student Member of Committee for recommending journal club modifications in Neuroscience Graduate Program at Drexel University for benefits to students in Cellular/ Molecular Neuroscience and Systems/ Computational Neuroscience, Drexel University, Philadelphia

Professional Associations/Society Memberships:

- 2013-17 *American Heart Association/American Stroke Association (AHA)*
2009- *Society for Neuroscience (SFN)*
2010-11 *Society for Neural Control of Movement (NCM)*
2009-11,2013- *American Physiological Society (APS)*
2007-12 *American Association for Advancement of Science (AAAS)*

Editorial Services (# of reviews done):

- 2018 - Ad hoc reviewer, *Journal of Neural Engineering* (2)
2018 - Ad hoc reviewer, *PLoS One* (1)
2017- Ad hoc reviewer, *Experimental Neurology* (1)
2017- Ad hoc reviewer, *Neuromodulation: Technology at the Neural Interface* (6)
2017- Ad hoc reviewer, *PLoS Computational Biology* (1)
2017- Ad hoc reviewer, *Journal of Visualized Experiments (JoVE)* (1)
2016- Ad hoc reviewer, *eNeuro* (5)

Consulting Activities:

None

Community Services:

Skyline College – Outreach Activity San Bruno, CA
Presented Outreach Seminar on “Using mind-controlled external devices to understand the memory functions of sleep.” 2016
This was part of NIH’s Bridges to Baccalaureate Program. Purpose was to discuss the pathway as a scientist and discuss lab research to encourage students to pursue higher education.

HONORS AND SPECIAL AWARDS

- 2018 Invited to present a talk at the 21st North American Neuromodulation Society (NANS) annual meeting in the ‘Frontiers in Basic Neuroscience Enabled by Invasive Devices’ session and moderate a session on ‘Technology on the Cusp’, Las Vegas, NV
2017 NIH/ NINDS K99/ R00 Pathway to Independence Award
2016 Invited to the Inaugural American Heart/Stroke Association’s Research Leaders Academy that systematically explored and debated contemporary & future issues within global stroke

- research environment, and develop robust professional network amongst senior and promising emerging researchers within the cardiovascular and stroke science fields, San Antonio, TX
- 2015-17 American Heart/Stroke Association Postdoctoral Fellowship Award
- 2014 Society for Neuroscience selected Sleep-related BMI consolidation paper for Press Conference on 'Importance of Sleep: The Complex Relationship Between Sleep and Memory' in Nov 2014 in Washington, DC
- 2011 Society of Neural Control of Movement Travel Scholarship for NCM 2011 Meeting at San Juan, PR
- 2010 Biomedical Graduate Studies GSA Travel Award (Drexel University) for attending SFN 2010 Conference at San Diego, CA
- 2009 Honors in Poster Presentation in Senior Student Category at Discovery Day, Drexel University College of Medicine, Philadelphia
- 2007-08 Ph.D. Scholarship, Drexel University College of Medicine, Philadelphia
- 2006-07 Ph.D. Scholarship, Medical College of Ohio, Toledo
- 2004-06 M.Sc. Scholarship, National Brain Research Center, India
- 2004 First Rank B.Sc. Program (University-level)
- 2001-04 Undergraduate B.Sc. Scholarship, All India Institute of Medical Sciences
- 1998 Junior Science Talent Search Scholar, Science Branch, Department of Education, Delhi Government (Scholarship in 10th grade, High School)

RESEARCH GRANTS AND FELLOWSHIPS RECEIVED

Active/ Ongoing:

Pending Administrative Review

NIH /NINDS R00NS097620 (R00 phase of Parent K99/R00 career transition grant) 09/2018–08/2021

Closed-loop Brain Stimulation for Motor Recovery Post-Stroke

This proposal extends the activity-dependent stimulation system (developed in K99 phase) for modulating joint cerebello-cortical connectivity to promote motor recovery after stroke and uses optogenetic manipulation to understand causal basis of recovery

Role: Principal Investigator (PI)

Inactive/ Completed:

NIH /NINDS K99NS097620 (K99 phase of Parent K99/R00 career transition grant) 04/2017–03/2019

Closed-loop Brain Stimulation for Motor Recovery Post-Stroke

Stroke is a major cause of motor disability. This proposal tests an activity-dependent stimulation system for restricted to peri-infarct motor cortex to improve motor recovery post-stroke.

Role: Principal Investigator (PI)

(Resigned earlier in 8/2018 to active R00 transition of award)

AHA (American Heart/Stroke Association) 15POST25510020 Postdoctoral Fellowship 07/2015–06/2017

Optimized Closed-loop Brain Stimulation for Motor Recovery after Stroke

This project studied the effects of closed-loop epidural stimulation in perilesional motor cortex tied to movement intention.

Role: Principal Investigator (PI)

(resigned earlier on 3/2017 to activate NIH career award)

RESEARCH FOCUS AND INTERESTS

- Understanding the motor basis of behavior using cortical and spinal electrophysiology, as well as sleep related consolidation of a motor skill;
- Investigating novel neuroengineering strategies for repair and functional recovery after brain and spinal cord injury (stroke/ SCI) that utilize development of spinal/ cortical motor prostheses, brain machine interfaces (BMIs) and neurorobotics.

INVITED LECTURES AND PRESENTATIONS

Jun 2018	Using Neural Engineering Approaches for Stroke Rehabilitation, Seminar to Prof. Krishna Shenoy's Research Group, Stanford University, Stanford, CA
Apr 2018	Using Brain-Machine Interface based Approaches for Stroke Rehabilitation, Dept of Physiology, Emory University, Atlanta, GA
Apr 2018	Using Neural Engineering Approaches for Stroke Rehabilitation, School of Biomedical Engineering, Science and Health Systems, Drexel University, Philadelphia, PA
Mar 2018	Using Brain-Machine Interface based Approaches for Stroke Rehabilitation, Center for Neurotechnology & Neurorecovery, Dept of Neurology, Massachusetts General Hospital and Harvard Medical School, Boston, MA
Mar 2018	Using Brain-Machine Interface based Approaches for Stroke Rehabilitation, Dept of Anatomy & Neurobiology, Boston University School of Medicine, Boston, MA
Feb 2018	Using Brain-Machine Interface based Approaches for Stroke Rehabilitation, Dept of Biology, Northeastern University, Boston, MA
Feb 2018	Using Neural Engineering Approaches for Stroke Rehabilitation, Dept of Biomedical Engineering, University of Utah, Salt Lake City, UT
Feb 2018	Using Brain-Machine Interfaces to Probe Memory Functions of Sleep and for Stroke Rehabilitation, Dept of Brain and Cognitive Sciences, University of Rochester, Rochester, NY
Feb 2018	Using Brain-Machine Interfaces to Probe Memory Functions of Sleep and for Stroke Rehabilitation, Dept of Biology, University of Illinois - Chicago, Chicago, IL
Jan 2018	Using Brain-Machine Interface based Approaches for Stroke Rehabilitation, Dept of Biology and Institute of Applied Life Sciences, University of Massachusetts - Amherst, Amherst, MA
Jan 2018	Using Brain-Machine Interface based Approaches for Stroke Rehabilitation, Center for Neural Science and Medicine, Cedars-Sinai Medical Center, Los Angeles, CA
Jan 2018	Using Brain-Machine Interfaces for Identifying Novel Neuromodulatory Targets, North American Neuromodulation Society 21 st Annual Meeting, Las Vegas, NV
Feb 2017	Using Brain-Machine Interface based Approaches for Stroke Rehabilitation, Dept of Neuroscience, Physiology and Behavior, University of California-Davis, Davis, CA
Jan 2017	Using Brain-Machine Interface based Approaches for Stroke Rehabilitation, Dept of Neuroscience and Experimental Therapeutics, Albany Medical College, Albany NY
Dec 2016	Using Neural Engineering Approaches for Stroke Rehabilitation, Dept of Biomedical Engineering, University of Minnesota, Minneapolis, MN
Jun 2016	Using Brain-Machine Interface based Approaches for Stroke Rehabilitation, Dept of Cellular and Molecular Medicine, University of Ottawa, Canada
May 2016	Using Brain-Machine Interfaces and Optogenetics to Understand Memory Functions of Sleep, Center for Integrative Neuroscience, University of California, San Francisco

- Nov 2014 The Complex Relationship between Sleep and Memory: Reactivation of emergent task-related ensembles during slow-wave sleep after neuroprosthetic learning, Society for Neuroscience meeting press conference, Washington, DC
- July 2012 Organizational Modularity in Voluntary Frog Behaviors and its Neural Basis, Dept of Physiology, Emory University, Atlanta, GA
- May 2006 Stochastic Approach to Diagnostic Characterization of Brain MRI using Fractal Morphometry, Max Planck Institute for Biophysical Chemistry, Göttingen, Germany
- May 2006 Stochastic Approach to Diagnostic Characterization of Brain MRI using Fractal Morphometry, Department of Psychology, University of Konstanz, Konstanz, Germany

TEACHING ACTIVITIES

Clinical Teaching: N/A

Non-clinical teaching:

University of California, San Francisco

San Francisco, CA

Mentoring Graduate Students and Research Interns in lab research

2012 – 2018

Graduate Students:

Ling Guo (PhD Neuroscience – 3rd year)

Daniel Silversmith (PhD Bioengineering – 3rd year)

Research Interns/ Assistants:

Anitha Bodepudi (BS – UC Berkeley)

Angie Zhang (BS – UMich)

April Hishinuma (BS – UC Berkeley)

Trained and taught above-mentioned students - rodent stereotaxic surgeries for neural and EMG implants, signal processing in MATLAB, and neurophysiologic analyses such as single-unit spike sorting, spectral analyses of local-field potential, spike field coherence, principal components analysis, constructing customizable behavioral boxes, etc.

Drexel University College of Medicine

Philadelphia, PA

Teaching Assistant, Medical Neuroscience Labs (for MD & PhD students)

2011

Teaching Assistant, Neuroscience Topics ‘Motor Control & Movement Disorders’

2011

Teaching Assistant, Neuroscience Topics ‘Electrophysiology in Epilepsy’

2008

For the medical neuroscience course, I was a TA in Neuroanatomy labs; as a TA in the Topics course, I introduced the topic and advised junior graduate students on selecting relevant papers for the topics course, and led discussions during journal club meetings on these topics.

BIBLIOGRAPHY/PUBLICATIONS:**A. Research Papers – Peer-Reviewed**

1. Ramanathan DS*, Guo L*, **Gulati T***, Davidson G, Hishinuma A, Won SJ, Knight RT, Chang EF, Swanson RA, Ganguly K (2018). Low frequency cortical activity is a neuromodulatory target that tracks recovery after stroke. *Nature Medicine*; 24(8):1257-1267 (* Equally contributing authors)
(Featured on UCSF News Center: ‘[Electrically Stimulating the Brain May Restore Movement After Stroke](#)’: June 18, 2018; & 10 news items in 10 outlets: enlisted here: <https://www.altmetric.com/details/43842653/news>)
2. **Gulati T**, Guo L, Ramanathan DS, Bodepudi A, Ganguly K (2017). Neural reactivations during sleep determine network credit assignment. *Nature Neuroscience*; 20(9): 1277-1284
(Featured on the Journal cover & UCSF News Center: ‘[Deep Sleep Reinforces the Learning of New Motor Skills: Neurons Recap Useful Firing Patterns During Deep Sleep](#)’: August 10, 2017; & 20 news items in 18 outlets: enlisted here: <https://nature.altmetric.com/details/21731033/news>)
3. Godlove J*, **Gulati T***, Dichter B, Chang EF, Ganguly K (2016). Cortically-tuned muscle synergies in a severely paralyzed chronic stroke patient. *Annals of Clinical and Translational Neurology*; 3(12): 956-961 (* Equally contributing authors)
4. Ramanathan DS, **Gulati T**, Ganguly K (2015). Sleep-dependent replay of ensembles in motor cortex promote skill consolidation. *PLoS Biology*; 13(9):e1002263
(Featured commentary by: Genzel L and Robertson EM (2015) To Replay, Perchance to Consolidate. *PLoS Biology* 13(10):e1002285)
5. **Gulati T**, Won SJ, Ramanathan DS, Wong CC, Bodepudi A, Swanson RA, Ganguly K (2015) Robust neuroprosthetic control from the stroke perilesional cortex. *Journal of Neuroscience*; 35(22):8653-8661
(Featured in Research highlights – [Neuroscience: Stroke brain still controls device](#) (2015) *Nature*; 522(7554): 9; and in *The Epoch Times*: Tech News - ‘Cyborg ’ Rats Show Promise for Stroke Victims : June 10, 2015)
6. Wong CC, Ramanathan DS, **Gulati T**, Won SJ, Ganguly K (2015) An automated behavioral box to assess forelimb function in rats. *Journal of Neuroscience Methods*; 246:30-37
7. Castro-Alamancos MA and **Gulati T** (2014) Neuromodulators produce distinct activated states in neocortex. *Journal of Neuroscience*; 34(37): 12353-12367
8. **Gulati T**, Ramanathan DS, Wong CC, Ganguly K (2014) Reactivation of emergent task-related ensembles during slow-wave sleep after neuroprosthetic learning. *Nature Neuroscience*; 17(8): 1107-1113
(Featured on the Journal cover & commentary in Harris KD (2014) Sleep replay meets brain-machine interface. *Nature Neuroscience*; 17(8): 1019-1021; and Upson S (2014) The Neural Code: Cyborg Confidential. *Scientific American Mind*; 25(6): 30-35; and <http://www.sfn.org>: Inside Neuroscience: Exploring the Intricate Relationship Between Sleep and Memory. *Neuroscience Quarterly*: Fall 2015)
9. Kim T, Branner A, **Gulati T**, Giszter SF (2013). Braided multi-electrode probe: mechanical compliance characteristics and recordings from spinal cords. *Journal of Neural Engineering*; 10(4):045001

B. Research Papers– Peer-Reviewed (In Press)

None

C. Research Papers - Peer-Reviewed (Submitted)

Patent

- Ganguly K, **Gulati T**, Ramanathan DS. Systems Methods and Devices for Closed Loop Stimulation to Enhance Stroke Recovery. *U.S. Patent Application No.:* 62/354,543 (*Pending Patent*: This patent pending neurotechnology implements an activity dependent stimulation for stroke recovery, specifically to modulate biomarkers for recovery. A Provisional Patent was filed by UCSF's Office for Innovation, Technology and Alliances on this invention in 2016, and a conversion to a permanent patent has been filed in 2017)

Thesis/ Book Chapters:

1. **Gulati T** (2012) Motor modularity in voluntary frog behaviors and its neural basis. PhD Thesis. Drexel University, Philadelphia PA
2. **Gulati T** (2006) Stochastic Approach to Diagnostic Characterization of Brain MRI. MSc Thesis. National Brain Research Center, Manesar, India.

Papers in Preparation (Research Completed):

1. **Gulati T**, Hart CB, Monroy J, Uyeno T, Nishikawa KC, Giszter SF. Premotor drive pulses as modular primitives in frog prey strike behavior (in preparation; to be submitted to *Journal of Neuroscience*)
2. Kim JK, **Gulati T**, Ganguly K. Closed-loop inhibition of spiking activity during slow oscillations and effects on spindles. (in preparation)
3. Hishinuma AK, **Gulati T**, Burish M, Ganguly K. Large-scale modulation of spontaneous neural activity in sensorimotor cortex using somatosensory electrical stimulation. (in preparation, to be submitted to *Frontiers in Neuroscience*)

Abstracts:

1. Kim JK, **Gulati T**, Ganguly K. Closed-loop inhibition of spiking activity during slow oscillations and effects on spindles. *Neuroscience Meeting Planner: Neuroscience 2018: 48th Annual Meeting of Society for Neuroscience. San Diego, CA* (upcoming)
2. Hishinuma AK, **Gulati T**, Burish M, Ganguly K. Large-scale modulation of spontaneous neural activity in sensorimotor cortex using somatosensory electrical stimulation. *Neuroscience Meeting Planner: Neuroscience 2018: 48th Annual Meeting of Society for Neuroscience. San Diego, CA* (upcoming)
3. **Gulati T**, Silversmith D, Guo L, Ramanathan DS, Ganguly K. Sleep dependent processing after neuroprosthetic learning. *Neuroscience Meeting Planner: Neuroscience 2017: 47th Annual Meeting of Society for Neuroscience. Washington, DC*
4. Ramanathan DS, Guo L, **Gulati T**, Won SJ, Davidson G, Hishinuma A, Ganguly K (2017) Enhancing low-frequency oscillations using on-demand direct-current stimulation improves motor function after stroke. *Brain Stimulation* 10 (2), 521-522

5. **Gulati T**, Guo L, Ramanathan DS, Hishinuma A, Bodepudi A, Ganguly K. Optogenetic inhibition of spiking during slow wave activity prevents consolidation of neuroprosthetic learning. *Neuroscience Meeting Planner: Neuroscience 2016: 46th Annual Meeting of Society for Neuroscience. San Diego, CA*
6. Guo L, Ramanathan DS, **Gulati T**, Won SJ, Hishinuma AK, Ganguly K. A neural-interface to boost motor function after stroke. *Neuroscience Meeting Planner: Neuroscience 2016: 46th Annual Meeting of Society for Neuroscience. San Diego, CA*
7. Ramanathan DS, Guo L, **Gulati T**, Ganguly K. Reorganization of low-frequency oscillatory dynamics during skilled motor learning. *Neuroscience Meeting Planner: Neuroscience 2016: 46th Annual Meeting of Society for Neuroscience. San Diego, CA (Nanosymposium talk)*
8. **Gulati T**, Ramanathan DS, Ganguly K. Microstructure of replay events predicts motor cortical rescaling. *Neuroscience Meeting Planner: Neuroscience 2015: 45th Annual Meeting of Society for Neuroscience. Chicago, IL*
9. Godlove J, **Gulati T**, Dichter B, Chang EC, Ganguly K. Cortical basis of abnormal muscle synergies after stroke. *Neuroscience Meeting Planner: Neuroscience 2015: 45th Annual Meeting of Society for Neuroscience. Chicago, IL*
10. Ramanathan DS, Wong CC, Veuthey T, Malzyner R, Won SJ, **Gulati T**, Swanson RA, Ganguly K. Neural plasticity and replay in motor cortex associated with functional recovery after stroke. *Neuroscience Meeting Planner: Neuroscience 2015: 45th Annual Meeting of Society for Neuroscience. Chicago, IL*
11. **Gulati T**, Ramanathan DS, Wong CC, Ganguly K. Reactivation of emergent task-related ensembles during slow-wave sleep after neuroprosthetic learning. *Neuroscience Meeting Planner: Neuroscience 2014: 44th Annual Meeting of Society for Neuroscience. Washington, DC*
12. Ganguly K, Won SJ, Ramanathan DS, Wong CC, Bodepudi A, Swanson RA, **Gulati T**. Robust neuroprosthetic control from the immediate perilesional cortex. *Neuroscience Meeting Planner: Neuroscience 2014: 44th Annual Meeting of Society for Neuroscience. Washington, DC*
13. Wong CC, **Gulati T**, Ramanathan DS, Won SJ, Swanson RA, Ganguly K. An automated reach box to assess forelimb function in healthy and injured rodents. *Neuroscience Meeting Planner: Neuroscience 2014: 44th Annual Meeting of Society for Neuroscience. Washington, DC*
14. Ramanathan DS, **Gulati T**, Wong CC, Ganguly K. Skilled motor learning results in increased replay of task-related neural ensembles during subsequent slow-wave sleep. *Neuroscience 2014: 44th Annual Meeting of Society for Neuroscience. Washington, DC*
15. **Gulati T**, Wong CC, Ganguly K. Neurophysiological correlates of motor recovery after focal stroke. *Neuroscience Meeting Planner: Neuroscience 2013: 43rd Annual Meeting of Society for Neuroscience. San Diego, CA.*
16. Ganguly K, **Gulati T**. Large-scale modulation of spontaneous neural activity using epidural direct current stimulation. *Neuroscience Meeting Planner: Neuroscience 2013: 43rd Annual Meeting of Society for Neuroscience. San Diego, CA.*
17. **Gulati T**, Hart CB, Ramakrishnan A, Kim T, Giszter SF. Patterns of primitive use during lunging prey-strike of bullfrogs are adjusted to generate turning strikes and use neurons with motor projections matching the spinal primitives during voluntary behaviors. *Neuroscience Meeting Planner: Neuroscience 2012: 42nd Annual Meeting of Society for Neuroscience. New Orleans, LA.*
18. **Gulati T**, Hart CB, Ramakrishnan A, Monroy J, Uyeno T, Nishikawa KC, Giszter SF. Premotor Drive Pulses as Modular Primitives Shared in Voluntary Frog Prey Strike Behavior and its Descending Control. *Neuroscience Meeting Planner: Neuroscience 2011: 41st Annual Meeting of Society for Neuroscience. Washington, DC.*
19. Giszter SF, Hart CB, **Gulati T**, Ramakrishnan A, Pai D, Nishikawa KC, Monroy J, Uyeno T. Modular motor control using spinal primitives in prey strike and spinal reflexes. *Collaborative Research in Computational Neuroscience (CRCNS) Principal Investigators Meeting Program Booklet. Princeton University, Princeton, NJ: CRCNS PI Meeting, 2011*

20. **Gulati T**, Hart CB, Giszter SF. Modular spinal primitives and their pulse adjustments in frog prey strike behavior. *21st Annual Meeting of Society for Neural Control of Movement Brochure. San Juan, PR: NCM Conference 2011*
21. **Gulati T**, Monroy J, Uyeno T, Nishikawa KC, Hart CB, Giszter SF. Premotor Drive Pulses as Modular Primitives Shared in both Spinal Reflexes and Voluntary Frog Prey Strike Behavior. *Neuroscience Meeting Planner: Neuroscience 2010: 40th Annual Meeting of Society for Neuroscience. San Diego, CA*
22. **Gulati T**, Hart CB, Monroy J, Uyeno T, Ramakrishnan A, Nishikawa KC, Giszter SF. Premotor drive pulses as modular primitives in frog prey strike behavior. *Collaborative Research in Computational Neuroscience (CRCNS) Principal Investigator Meeting Program Booklet. Johns Hopkins University, Baltimore, MD: CRCNS PI Meeting, 2010*
23. **Gulati T**, Hart CB, Giszter SF. Premotor drive pulses as modular primitives in frog prey strike behavior and its biomechanical correlates. *20th Annual Meeting of Society for Neural Control of Movement Brochure. Naples, FL: NCM Conference 2010*
24. **Gulati T**, Ramakrishnan A, Kim T, Gilles B, Uyeno T, Monroy J, Hart CB, Nissanov J, Nishikawa KC, Pai DK, Giszter SF. Neural and Mechanical Basis of Motor Primitives in Voluntary Frog Behavior: Data for Reconstruction, Model Framework and Recent Developments in Segmental Motor Systems. *Collaborative Research in Computational Neuroscience (CRCNS) Principal Investigator Meeting Program Booklet. CRCNS PI Meeting, 2009*
25. Vani K, **Gulati T**, Paul S, Roy PK (2006) Stochastic approach to diagnostic characterization of brain MRI using fractal morphometry. *Neuroscience Research*; 55 (Supp 1): pg. 72
26. Vani K, **Gulati T**, Roy PK (2006) A stochastic topological study towards fractal MRI-based differential diagnosis of hydrocephalic syndromes. *Proc. 8th Japan-Korea-China-India-Australia Joint Workshop on Neurobiology & Neuroinformatics*; Riken Brain Science Institute, pg. 82, Kyoto, Japan