

Curriculum Vitae
Chandramouli Chandrasekaran, PhD
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Academic Training:

6/2003 B.Tech.	B.Tech Information Technology, University of Madras, Chennai, India
6/2005 M.S.	M.Sc Neuroscience, International Max Planck Research School, Tuebingen, Germany
11/2008 M.A.	Psychology, Princeton University, NJ, USA
6/2011 Ph.D.	Psychology and Neuroscience, Princeton University, NJ, USA

Additional Training:

9/2011-Present Postdoctoral Fellow in Neuroscience and Electrical Engineering, Stanford University and Howard Hughes Medical Institute under the mentorship of Prof. Krishna V Shenoy. Collaborators: Prof. William Newsome (Stanford and HHMI) and Prof. Maneesh Sahani (University College London)

Academic Appointments:

Hospital Appointments or Other Employment:

Honors:

6/2010	Charlotte Elizabeth Procter Fellowship, Princeton University, NJ, USA
6/2011	Hoffman Scholar Award, Princeton University, NJ, USA

Licenses and Certification:

Departmental and University Committees:

9/2014-9/2015	Co-organizer with Dr. Vincent McGinty, Dr. Subhaneil Lahiri and Dr. Tatiana Engel of "Math, Monkeys and Machines", a theoretical, computational, and systems neuroscience seminar series comprising short 15 minute talks by Stanford postdocs and graduate students.
9/2006-6/2011	Ad-hoc Student Host for visiting Neuroscience Institute/Psychology Department speakers, Princeton University.
2009- 2010	Graduate Student Committee, 2009-2010, Psychology Department, Princeton University
2/2009	Co-organizer along with Dr. Bingni Brunton for Neuroscience graduate student recruiting, February 2009.
2007-2008	Psychology Department colloquium committee, 2007-2008

Teaching Experience and Responsibilities:

9/2009-1/2010	Teaching Assistant, MOL 408-Cellular and Systems Neuroscience Profs. Michael Berry and Prof. Uri Hasson. I created problem sets and exams, expanded on the concepts from class to juniors and seniors at Princeton University, and led office hours. Average course evaluation from 28 students: 4.59/5.
2/2010-6/2010	Teaching Assistant, PSY 251-Quantitative Methods, Spring 2010,

Prof. Harvey Keselman. I taught the lab component, created and designed homeworks, and also the in class review material. Average course evaluation from 46 students, 3.96/5.

Major Mentoring Activities:

- 5/2016-Present Ms. Iliana Erteza Bray, Undergraduate Research, Honors Thesis on beta band LFPs, now admitted to graduate school at Stanford University.
- 5/2014-Present Ms. Megan Wang, Graduate Student in Neuroscience at Stanford University.
- 5/2009-6/2010 Ms. Andrea Trubanova, Undergraduate Research and Honors Thesis, Now a graduate student at Virginia Tech, in Clinical Psychology.
- 5/2009-6/2010 Dr. Jeremy Borjon, Now a postdoctoral fellow with Prof. Linda Smith at Indiana University, Bloomington.
- 2009-2010 Dr. Marco Lanzilotto, Visiting Graduate Student. Now a postdoctoral fellow at the University of Parma with Prof. Orban.

Major Administrative Responsibilities:

Other Professional Activities:

Professional Societies: Memberships, Offices, and Committee Assignments:

- 2006-Present Society for Neuroscience, American Physiological Society

Editorial Boards:

- 2005-Present Ad Hoc Reviewer for Journal of Neuroscience, Developmental Science, Journal of Neurophysiology, PLoS Computational Biology, PLoS Biology, Neuropsychologia, Neuroimage, ACM Transactions on Applied Perception, Seeing and Perceiving, Journal of Acoustic Society of America, Experimental Brain Research. (<http://publons.com/a/431120/>).

Major Committee Assignments:

Federal Government:

Private/Foundation:

Study Sections:

State:

Other Support:

Current:

- 2017-2020 R00. PI: Chandramouli Chandrasekaran, Organization and Dynamics of Premotor and Prefrontal Cortical Circuits Mediating Goal-Directed Behavior. Total Costs: \$249000.

Past:

- 7/2015-7/2017 K99NS092972. PI: Chandramouli Chandrasekaran, Organization and Dynamics of Premotor and Prefrontal Cortical Circuits Mediating Goal-Directed Behavior. Mentors: Prof. Krishna Shenoy, Prof. William T Newsome, Prof. Maneesh Sahani. Total costs: \$89000, Direct Costs: ~\$70000

Selected Invited Lectures and Conference Presentations:

Regional/Local:

- June 15, 2017 “Towards a single-trial understanding of the neural circuit dynamics underlying perceptual decision-making”, Simons Collaboration on the Global Brain Postdoctoral Talks, UCSF, CA, *Invited Talk*
- December 16, 2016 “Towards a single-trial understanding of the neural circuit dynamics underlying perceptual decision-making”, Stanford Research Institute, Menlo Park, CA, *Invited Talk*

National:

- November 15, 2016 “Do decision-related firing rates of dorsal premotor cortex neurons ramp or step on single trials?” Society for Neuroscience (SFN), Invited talk at nanosymposium on decision-making, *Invited Talk*
- February 25th 2016 “Towards a single-trial understanding of neural circuit dynamics underlying goal-directed behavior”, Department of Neuroscience, Yale University, *Invited Talk*
- 2nd December 2015 “Towards a single-trial understanding of neural circuit dynamics underlying goal-directed behavior”. Department of Psychology, University of California, Berkeley. *Invited Talk*

International:

- February 14th 2017 “Towards a single-trial understanding of the neural circuit dynamics underlying perceptual decision-making”, *Invited Talk*, Center for Neuroscience, Indian Institute of Science, Bangalore, India, February 2017.

Bibliography:

Original, Peer Reviewed Articles: (please see [google scholar Page](#))

1. **Chandrasekaran C**, Canon V, Dahmen JC, Kourtzi Z, Welchman AE (2007), *Neural Correlates of Disparity-Defined Shape Discrimination in the Human Brain*, J Neurophysiol. Feb; 97(2): 1553-65.
2. Ghazanfar AA, **Chandrasekaran C**, Logothetis NK (2008), *Interactions between the Superior Temporal Sulcus and Auditory Cortex Mediate Dynamic Face/Voice Integration in Rhesus Monkeys*, J Neurosci, 28: 4457-4469.
3. Maier JX, **Chandrasekaran C**, Ghazanfar AA (2008), *Integration of Bimodal Looming Signals through Neuronal Coherence in the Temporal Lobe*, Current Biology, 18(13): 963-968.
4. **Chandrasekaran C**, Ghazanfar AA (2009), *Different Neural Frequency Bands Integrate Faces & Voices Differently in the Superior Temporal Sulcus*, J Neurophysiol, Feb 101(2): 773-788.
5. **Chandrasekaran C**, Trubanova A, Stillitano S, Caplier A, Ghazanfar AA (2009), *The Natural Statistics of Audiovisual Speech*, PLoS Comput Biol 5(7): e1000436.
6. Ghazanfar AA, **Chandrasekaran C**, Morrill RJ (2009), *Rhythmic Facial Expressions and the Superior Temporal Sulcus of Macaque Monkeys: Implications for the Evolution of Audiovisual Speech*, European Journal of Neuroscience 31: 1807-1817.
7. **Chandrasekaran, C**, Turner L, Bülthoff HH & Thornton, IM (2010), *Attentional networks and biological motion*, Psihologija, 43(1), 5-20.
8. **Chandrasekaran C**, Turesson HK, Charles Brown, Ghazanfar AA (2010), *The Influence of Natural Scene Dynamics on Auditory Cortical Activity*, J Neurosci 30: 13919-13931.
9. **Chandrasekaran C**, Lemus L, Trubanova A, Gondon M and Ghazanfar AA (2011), *Monkeys and humans share a common computation for face/voice integration*, PLoS Computational Biology, 7: e1002165.

10. **Chandrasekaran C**, Lemus L, Ghazanfar AA (2013), *Dynamic faces speed up the onset of auditory cortical spiking responses during vocal detection*, Proceedings of the National Academy of Sciences, 110 (48), E4668-E4677.
11. Chandrasekaran C, Peixoto D, Newsome WT, Shenoy KV (2017), *Laminar differences in decision-related neural activity in dorsal premotor cortex*, Nature Communications 8, 614, doi:10.1038/s41467-017-00715-0
12. O'Shea DJ, Kalanithi P, Ferenczi E, Hsueh B, **Chandrasekaran C**, Goo W, Ramakrishnan C, Diester I, Kaufman MT, Yeom K, Deisseroth K, Shenoy KV, Development of a new world primate model for rapid optogenetic neural circuit dissection, revised and resubmitted to Scientific Reports.
13. **Chandrasekaran C**, Gondon MG, *Audiovisual detection at different intensities and delays*, under revision for Journal of Mathematical Psychology. See biorxiv submission (<https://doi.org/10.1101/173773>).

Web Publications and Videos:

Case Reports, Reviews, Chapters, and Editorials:

Editorials, Previews, and Critical Reviews:

1. O'Shea DJ, Trautmann E, **Chandrasekaran C**, Stavisky SD, Kao JC, Sahani M, Ryu S, Shenoy KV (2016), The need for calcium imaging in nonhuman primates: new motor neuroscience and brain-machine interfaces. Experimental Neurology (review),
2. **Chandrasekaran C**, (2017), Computational Models and Principles of Multisensory Integration, In Current Opinion in Neurobiology for special issue on Neurobiology of Learning and Plasticity, 43, 25-34 (2017).
3. **Chandrasekaran C**, Ghazanfar AA (2011), When what you see is not what you hear , Nature Neuroscience, Jun; 14 (6):675-6.
4. Ghazanfar AA, **Chandrasekaran C** (2007), Paving the Way Forward: Integrating the Senses through Phase- Resetting of Cortical Oscillations, Neuron. Jan 18;53(2): 162-4.

Textbook Chapters:

5. Ghazanfar AA, **Chandrasekaran C** (2012), The Influence of Vision on Auditory Communication in Primates, In Neural Correlates of Auditory Cognition, Springer Handbook for Auditory Research (SHAR). Edited by Cohen YE, Popper AN, and Fay RR. Springer Press.
6. Ghazanfar AA, **Chandrasekaran C** (2012), Non-human Primate Models of Audiovisual Communication, In the New Handbook of Multisensory Processes. Edited by Stein BE. MIT Press. Pages: 407-420.
7. **Chandrasekaran C**, Ghazanfar AA (2012), Coding Across Sensory Modalities: Integrating the Dynamic Face With The Voice, In Principles of neural coding, edited by Quiñero R & Panzeri S. Taylor & Francis Press.

Case Reports:

1. **Chandrasekaran C**, Thornton IM, Bühlhoff HH (2006), Selective Attention and Biological Motion , Max Planck Institute for Biological Cybernetics, Technical Report 139