# Curriculum Vitae - Narendra Mukherjee

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# **EDUCATION:**

Degree/Certificate	Institution	Year	CGPA/Percentage
Doctor of Philosophy (PhD: Neuroscience)	Brandeis University	2012 – ongoing	3.9
5 year integrated B.S – M.S (Major: Biology)	Indian Institute of Science Education and Research (IISER), Kolkata	2007- 2012	9.07 (on an absolute grading scale of 10) (Department Rank:01)

# **RESEARCH:**

#### **Publications:**

- 'Python meets systems neuroscience: affordable, scalable and open-source electrophysiology in awake, behaving rodents' - Narendra Mukherjee, Joseph Wachutka, Donald B Katz. Proceedings of the 15<sup>th</sup> Python in Science Conference (Scipy 2017) (Forthcoming).
- 2. 'The Behavioral Relevance of Cortical Neural Ensemble Responses Emerges Suddenly' Brian F Sadacca, **Narendra Mukherjee**, Tony Vladusich, Jennifer X Li, Donald B Katz and Paul Miller. Journal of Neuroscience (2016). **36(3):** 655 69.
- 2. 'Strong (Type 0) phase resetting of activity/rest rhythm of fruit flies, *Drosophila melanogaster*, at low temperature' Vishwanath Varma, **Narendra Mukherjee**, Nisha N Kannan and Vijay Kumar Sharma. *Journal of Biological Rhythms* (2013). **28(6):** 380 389.
- 3. 'Robustness of circadian timing systems evolves in fruit flies *Drosophila melanogaster* as a correlated response to selection for adult emergence in a narrow window of time' Nisha N Kannan, **Narendra Mukherjee** and Vijay Kumar Sharma *Chronobiology International* (2012). **29(10)**: 1312 28.
- 4. 'A model based on oscillatory threshold and build up of a developmental substance can explain gating of adult emergence in fruit flies *D. melanogaster'* **Narendra**

**Mukherjee**, Nisha N Kannan, Pankaj Yadav and Vijay Kumar Sharma. *Journal of Experimental Biology* (2012). **215(17):** 2960 – 68.

#### Poster presentations in conferences/workshops:

- 1. 'Optogenetically perturbing behaviorally relevant stochastic cortical population dynamics' **Narendra Mukherjee**, Joseph Wachutka and Donald B Katz (Statistical Analysis of Neuronal Data (SAND8) at Pittsburgh, PA from 31<sup>st</sup> May 2<sup>nd</sup> June, 2017).
- 2. 'Perturbing behaviorally relevant cortical population activity states' **Narendra Mukherjee**, Joseph Wachutka and Donald B Katz (Annual Meeting of the Society for Neuroscience (SfN) at San Diego, CA from 12<sup>th</sup> November 16<sup>th</sup> November, 2016).
- 3. 'Ensemble dynamics in the rat gustatory cortex can precisely predict taste ingestion-rejection decisions' **Narendra Mukherjee**, Jennifer X Li and Donald B Katz (Annual Meeting of the Society for Neuroscience (SfN) at Washington DC from 15<sup>th</sup> November 19<sup>th</sup> November, 2014).
- 4. 'Ensemble dynamics in the rat gustatory cortex can precisely predict taste ingestion-rejection decisions' **Narendra Mukherjee**, Jennifer X Li and Donald B Katz (36<sup>th</sup> Annual Meeting of the Association for Chemoreception Sciences (AChemS) at Bonita Springs, Florida from 9<sup>th</sup> April 12<sup>th</sup> April, 2014).
- 5. 'A model for gating of adult emergence in *Drosophila melanogaster*' **Narendra Mukherjee**, Nisha N Kannan, Pankaj Yadav, and Vijay Kumar Sharma (International Conference on Mathematical Biology at the Indian Institute of Science (IISc), Bangalore from 4<sup>th</sup> July 7<sup>th</sup> July, 2011).
- 6. 'Effect of selection for narrow gate of adult emergence in fruit flies *Drosophila melanogaster*' Nisha N Kannan, **Narendra Mukherjee** and Vijay Kumar Sharma (In-house symposium at Jawaharlal Nehru Centre for Advanced Scientific Research (JNCASR), Bangalore on 15<sup>th</sup> November, 2010).
- 7. 'A model for gating of adult emergence in *Drosophila melanogaster*' **Narendra Mukherjee**, Nisha N Kannan, Pankaj Yadav, and Vijay Kumar Sharma (19<sup>th</sup> European Chronobiology School (EUCLOCK) at JNCASR, Bangalore from 2<sup>nd</sup> October 9<sup>th</sup> October, 2010). Was declared the best poster of the 2<sup>nd</sup> day of the school.
- 8. 'Effect of selection for narrow gate of adult emergence in fruit flies *Drosophila melanogaster*' Nisha N Kannan, **Narendra Mukherjee** and Vijay Kumar Sharma (19<sup>th</sup> European Chronobiology School (EUCLOCK) at JNCASR, Bangalore from 2<sup>nd</sup> October 9<sup>th</sup> October, 2010).

# **Membership in professional societies:**

Society for Neuroscience (2014-present) Association for Chemoreception Sciences (2014-present)

## Academic grants awarded:

\$70,000 per year towards tuition and fellowship for 3 years (2014-2017) from the Howard Hughes Medical Institute (HHMI) as part of the International Graduate Students' Fellowship

\$16,780 (estimated) towards cloud computing resources on the Jetstream supercomputer of the Extreme Science and Engineering Discovery Environment (XSEDE) of the National Science Foundation (NSF) (as administrator)

### **AWARDS AND SCHOLARSHIPS:**

- (2014) Howard Hughes Medical Institute (HHMI) International Graduate Fellowship (45 fellows chosen from over 350 applicants)
- (2014) Pulin Sampat Memorial Award for the Best Teaching Fellow in the Life Sciences, Brandeis University
- (2012) Presidential Life Sciences Fellowship (PLSF), Cornell University, Ithaca (*Declined*).
- (2012) Junior Research Fellowship, Council for Scientific and Industrial Research (CSIR), Govt. of India (*Declined*).
- (2012) Nominated for the Dr. Shyama Prasad Mukherjee (SPM) Fellowship, CSIR, Govt. of India.
- (2011) Summer Research Fellowship, Jawaharlal Nehru Centre for Advanced Scientific Research (JNCASR), Bangalore.
- (2010) Best poster of 2<sup>nd</sup> day of 19<sup>th</sup> European chronobiology school (EUCLOCK), JNCASR and EUCLOCK.
- (2010) Rajiv Gandhi Science Talent Research Scholarship, Rajiv Gandhi Foundation, New Delhi and JNCASR (Best project under Summer Research Fellowship, 2010).
- (2010) Summer Research Fellowship, JNCASR.
- (2010) Best participant in SERC school in chronobiology 2010, Department of Science and Technology (DST), Govt. of India.
- (2009) CSIR-CPYLS associateship at Centre for Cellular and Molecular Biology (CCMB), Hyderabad, CSIR, Govt. of India.
- (2009) Summer Research Fellowship, JNCASR (Declined).
- (2008) CSIR-CPYLS associateship at CCMB, CSIR, Govt. of India.
- (2008) Fellowship under Project Oriented Biological Education (POBE), JNCASR (Declined)
- (2008) CNR Rao Education Foundation Prize, IISER Kolkata (Best student of the 1<sup>st</sup> year of integrated B.S M.S).
- (2008) Innovation in Science Pursuit for Inspired Research (INSPIRE) Scholarship for Higher Education (SHE), DST, Govt. of India.
- (2006) CSIR Program for Youth on Leadership in Science (CPYLS), CSIR, Govt. of India.
- (2006) Harsaran Singh Thapar Memorial Merit Scholarship, Sardar Bahadur Gurbux Singh Thapar Memorial Merit Scholarship, K.K Dass Medal, and, Mrs. Shanti Devi

Sahai Memorial Medal, La-Martiniere College ( $1^{\rm st}$  position in ICSE std. 10 examination in both La-Martiniere Colleges in Lucknow).