

Sahil Moza, PhD



CONTACT INFORMATION	Postdoctoral Fellow at Crickmore Lab Boston Children's Hospital , Harvard Medical School sahil.moza@gmail.com , sahil.moza@childrens.harvard.edu	Website: https://sahilmoza.com
RESEARCH INTERESTS	Neural basis of behavioral timing, interaction between chemical and electrical computation in neurons.	
EDUCATION & TRAINING	Postdoctoral Fellow FM Kirby Neurobiology Centre Harvard Medical School , Boston, USA Mentor: Michael Crickmore	July 2021-
	Ph.D Neuroscience/Systems Biology National Centre for Biological Sciences Bangalore, India Mentor: Upinder S. Bhalla	July 2020
	M.E. Computational and Systems Biology , GPA 7.4/9.0 Jawaharlal Nehru University New-Delhi, India	Aug 2012
	B.E. Biotechnology , GPA 3.3/4.0 Panjab University Chandigarh, India	Jul 2010
PHD THESIS	Robust memory and precise balance: Computation with biological network motifs	
RESEARCH PUBLICATIONS	Bhatia, A.*, Moza, S.* , Bhalla, U.S., "Precise excitation-inhibition balance controls gain and timing in hippocampus.", <i>eLife</i> , Apr 2019 (*Equal contribution) Faculty Opinions (Exceptional) Recommendation. In Faculty Opinions , 04 May 2020	
	Moza S. , Bhalla, U.S., "Different dimensions of robustness- noise, topology and rates - are nearly independent in chemical switches.", <i>bioRxiv</i> Aug 2020	
	HarshaRani, G.V., Moza, S. , Ramakrishnan, N., Bhalla, U.S., "SWITCHES: Searchable Web Interface for Topologies of CHEmical Switches.", <i>Bioinformatics</i> Jan 2021 . http://SWITCHES.ncbs.res.in	
BOOK CHAPTERS	Bhatia, A., Moza, S. , Bhalla, U.S., "Patterned Optogenetic Stimulation using a DMD-projector", <i>Channelrhodopsin</i> , Chapter 11, Springer Protocols , 2020	
WORK EXPERIENCE	Scientist, EBRAINS , Human Brain Project , KTH , Stockholm	Oct 2020 - July 2021
TEACHING EXPERIENCE	Teaching Assistant and Organization	
	Computational approaches to memory and plasticity (CAMP) National Centre for Biological Sciences, Bangalore	Summer 2014-18
	Boston Bangalore Biosciences Beginnings Neuroscience school Harvard University, Boston National Centre for Biological Sciences, Bangalore	Winter 2016

WORKSHOPS AND CONFERENCES	Transylvanian Experimental Neuroscience Summer School , Romania	Jun 2019
	Quantitative approaches to Behaviour & Neural Systems, Lisbon, Portugal	Oct 2018
	Neuroscience 2017, Society of Neuroscience, Washington DC, USA	Nov 2017
	Molecular Mechanisms at the Synapse, Janelia Research Campus	May 2016
	HHMI, Ashburn, Virginia, USA	
	ICTP-ICTS Winter School on Quantitative Systems Biology	Dec 2013
TALKS	NeuroMatch Conference, Online Webinar	March 2020
	No Garlands Neuroscience, IISER Pune, India	Jan 2020
	Molecules and Memory, NCBS, Bengaluru, India	Mar 2019
	Spikes lecture series, Centre for Neuroscience, IISc Bengaluru, India	Jan 2018
	No Garlands Neuroscience, IISER Pune, India	Oct 2017
	BSSE Symposium, IISc Bengaluru, India	Jan 2017
AWARDS & FELLOWSHIPS	Fellowships	
	Council of Scientific and Industrial Research (CSIR)	
	Senior Research Fellowship (SRF), Biology	Jul 2014 - July 2017
	Junior Research Fellowship (JRF), Biology (All India Rank 36)	Dec 2011
	DBT Bioinformatics National Certification (All India Rank 33)	Feb 2011
	Jawaharlal Nehru University- Masters Fellowship	Aug 2010 - Jul 2012
	University of Groningen, The Netherlands- Research Traineeship	Apr - Jun 2009
	Panjab University- Extra-mural grants	2008, 2009
	Travel Awards	
	IBRO-PERC, The Brain Prize and FENS stipend	May 2019
	Wellcome Trust Travel Award	Sep 2018
	Infosys Travel Award, Infosys Foundation	Dec 2017
	Department of Biotechnology Travel Award, Government of India	Nov 2017
	Janelia Research Campus, HHMI, Ashburn, Virginia, USA	May 2016
	Magnetic Resonance Society, EUROMAR, Gothenburg, Sweden	Jun 2009
WET SKILLS	Fly Genetics and behavior	
	binary expression systems (UAS-GAL4/lexA-lexAOp), RNAi, behavioral screen design	
	Optogenetics and Imaging	
	<i>2P imaging</i> : Brain and VNS dissection, immunofluorescence, Ca^{2+} imaging, Fluorescence Lifetime IMaging	
DRY SKILLS	Electronics and Programming	
	Arduino, Python, Perl, R, UNIX shell scripting, Octave, GNU make, C, L ^A T _E X	
	Relevant scientific libraries/software	
	<i>Machine Learning</i> : scikit-learn, TensorFlow	
	<i>Simulators</i> : MOOSE , CoPaSi , Brian , MCell	
	<i>Cluster and supercomputing</i> : Sun Grid Engine	
REFERENCES	Michael Crickmore (Postdoc Mentor)	Upi Bhalla (Thesis Advisor)
	Asst. Professor	Professor
	Harvard Medical School	NCBS, Bangalore
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