Ameya Pranav Jalihal

Ph.D Candidate
Cellular and Molecular Biology Program
University of Michigan, Ann Arbor

Education

Board/ University	Overall marks / GPA	Year
PhD Candidate, U of M, Ann Arbor, MI, USA	4.0 / 4.0	2015-2017
B.Tech(Biotech.), SASTRA, Thanjavur, India	8.87 / 10	2011-2015
High School(CBSE), KVIIT Chennai, India	91.0%	2010-2011

Awards and Fellowships

Graduate
Honorable Mention, Best Poster Presentation, 36th Annual CMB Symposium
Honorable mention, NSF GRFP, 2017
Conference Travel Grant, Rackham Graduate School, 2017
Pre-Candidate Fellowship, Rackham Graduate School, 2016
Bernard Maas Fellowship, 2015

Undergraduate
Khorana Scholarship, 2014
Indian Academy of Sciences Summer Fellowship, 2014
Department awards for highest marks in the department.
On the Dean's List (top 2% in each year) for 2^{nd} year, SASTRA.
On the Dean's List (top 10% in each year) for 1^{st} year, SASTRA.

High school
Prize for highest mark in Biology in 12^{th} standard.
Dr. C.N.R. Rao prize for highest marks in Science in 10^{th} standard.

Current Research Interests

1. Studying mechanisms and consequences of hyperosmolarity-induced protein aggregation.
2. Designing quantitative microscopy-based assays to study mRNA translation and mRNA-miRNA interactions *in cellulo*.

Publications

2016
Ray JCJ, Wickersheim ML, *Jalihal AP*, Adeshina YO, Cooper TF Balázsi G."Cellular growth arrest and persistence from enzyme saturation" PLOS Comp Biol. 2016 Mar 24

Presentations

[Oral] RNA Society Meeting, Prague, Czech Republic 2017
"Microscopically visible liquid droplet P-bodies contribute minimally to miRNA mediated gene silencing".
Authors: Pitchiaya S, Jalihal AP, Max Denies, Mourao M, Schnell S, Walter NG

[Poster] Phase Separation Meeting, San Diego, CA 2017
"Characterizing hypertonicity induced P-Body aggregation".
Authors: Pitchiaya S, Jalihal AP, Max Denies, Walter NG

[Poster] Rustbelt RNA Meeting, Cleveland, OH 2016
"Microscopically visible P-bodies contribute minimally to miRNA-mediated gene silencing".
Authors: Pitchiaya S, Jalihal AP, Mourao M, Schnell S, Walter NG

Past Research Experiences

Undergraduate thesis project, University of Kansas 2015
Design and implementation of synthetic genetic circuit in E. coli to study effect of bacterial cytosolic memory on growth phenotypes based on the Landauer Principle.
Mentor: Dr. Christian Ray.

Khorana Scholarship, Rice University Summer 2014
Studying the role of stochastic frequency modulated pulses of alternative sigma factors in bacterial stress response by modeling and analytical methods in the Cellular Systems Dynamics Lab.
Mentor: Dr. Oleg Igoshin.

Undergraduate project, SASTRA 2013
Modeling bacterial toxin-antitoxin system dynamics.
Mentor: Dr. R Chandramohan.

IISER Mohali Summer Internship Summer 2013
Characterizing functional role of cell adhesion molecules at neural synapse as the basis of learning and memory formation in the model organism C. elegans.
Mentor: Dr. Kavita Babu

Undergraduate project, SASTRA 2012
Project on developing profile hidden-Markov models(HMMs) of phage integrase proteins to understand domain-modularity of integrases:
Mentor Dr. Arunachalam.

Research Science Initiative-Chennai Summer 2010
(A month-long summer program for high-school students organized by IIT Madras based on and in collaboration with the RSI program at MIT, USA) Carried out a project on qualitative analysis of lipase producing bacteria in the Bioorganic Chemistry lab.
Mentor Dr. P. Gautam

Skills

Mol biology	Extraction of bacterial genomic and plasmid DNA, mammalian total RNA, PCR, PAGE, DNA agarose gel electrophoresis, Western Blots, immunoprocipitation
Cell culture	Mammalian and bacterial cell culture; Biochemical assays Bru-Seq, Bru-DRb-Seq and Bru-Chase Seq assays, mammalian cell lipid based transfection, electroporation of bacteria
C. elegans	Genetic Crosses, genotyping, behavioural assays
Imaging	Image analysis using ImageJ, fluorescent Hilo microscopy
Programing	MATLAB, SCILAB, PYTHON

Other Activites

Organizations	President, Association of Multicultural Scientists (AMS), U of Michigan Lean In for Graduate Students, U of Michigan chapter
Outreach	Teaching Assistant for Computational Biology Summer Camp 2016, mirCore Science demonstrations volunteer at Michigan Science Center, Detroit
Past	Treasurer/Secretary, Association of Multicultural Scientists (AMS), U of M Head of the Dramatics Club "The Studio". Involved in, and won awards for script writing, direction and acting. Founder of "Science Arattai", an interdisciplinary forum for students of engineers to innovate in the life-sciences

- Learning and performing Hindustani vocal and instrumental music in Ann Arbor.