

Amogh Prabhav Jalihal

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EDUCATION

Class	Board/University	Marks obtained/GPA	Year of Passing
10th Standard	CBSE	94.0%	2009
12th Standard	CBSE	93.2%	2011
Bachelor's: B.Tech	SASTRA	8.95	2011-15

Academic awards

Prize for the highest mark in Chemistry in 12th Board Examination.

Among the top 1.5% of students who appeared for 12th Board Exam from Kendriya Vidyalaya Sangathan.

On the Dean's List for the first year (top 2% for each year) and the second year (top 10% for each year).

Research Experience

2010 summer: Attended the Research Science Initiative 2010 organized by IIT Madras, based on a similar program conducted in MIT, USA. I gained lab experience in IIT Madras, in transformation experiments on bacteria, and the usage of various tools in genetic engineering.

2012-2014 Carried out a project in the Quorum Sensing Lab in SASTRA, where I reviewed the virulence regulation in *Staphylococcus aureus* and created a boolean network for the same. Currently developing a cell interaction model to study behaviour of cell interaction networks in inter-species bacterial quorum sensing.

2013 summer: Worked as an intern in C-CAMP, Bangalore and learnt the use of High Pressure Liquid Chromatography (HPLC). Worked on a phytochemistry based drug discovery project.

2014 summer: Attended the NIGINTERN'14 program at the National Institute of Genetics, Japan for a 10 week internship in the Cell Architecture Lab. Worked on a microinjection project, along with data analysis involving images of HeLa cells undergoing mitosis. Learnt handling and genetic manipulation of *C.elegans*.

2015 Spring: Carried out Bachelor's Thesis Project in Prof. Abby Dernburg's Lab in UC Berkeley. Project involved optimizing immunostaining protocol for IF in *P. pacificus* to visualize meiotic machinery, in a comparative evolution study involving double-strand break machinery.

2015 Fall: Carried out Ph.D rotation in Dr. Silke Hauf's lab in Virginia Tech. Project involved scripting to carry out semi-automated image analysis on *S. pombe* cells, to analyze temporal dynamics of various cell-cycle components including Plo1, Cdc13, Cdc2, Cdc20 etc. Also attempted to investigate apparent order in chromosome segregation in *S. pombe* by creating GFP-tagged strains, analyzed by live-cell fluorescence microscopy.

International Conferences attended

2013: Computational neuroscience (From Hippocampus to Behaviour) held in IISER Pune, India

in December 2013.

2014: *C. elegans* Asia-Pacific and Developmental Biology Conference held in Nara, Japan in July 2014.

Research Interests

Dynamics involved in Meiotic as well as Mitotic cell division.

Stochastic Resonance in biological systems, specifically in quorum sensing and neural activity.

Modeling of large-scale behavior in mixed-species bacterial colonies with respect to interacting quorum-sensing circuits, at the population level.

Non-linear dynamics in Biology.

Computer Skills

Operating Systems: Windows, Linux, MacOS

Programming languages: C, C++

Scientific software: Scilab, ImageJ

Documentation/Graphics: L^AT_EX, GIMP

Other Interests

Playing the tabla, active participant(acting, directing and script writing) in dramatics, keen interest in photography and image editing.

Active interest in nature walks, bird watching and other outdoor activities.