

AMOGH PRABHAV JALIHAL

Postdoctoral Fellow, Harvard Medical School

@ amogh_jalihal@hms.harvard.edu amoghpj.github.io
https://github.com/amoghpj

EDUCATION

Virginia Polytechnic and State University

August 2015 – May 2020

Blacksburg, VA

Doctor of Philosophy in Genetics, Bioinformatics, and Computational Biology

SASTRA University

June 2011 – May 2015

Thanjavur, India

Bachelor of Technology in Biotechnology

RESEARCH

- “Mechanisms and significance of ratio sensing in *S. cerevisiae*”, with Michael Springer (ongoing)
- “Assay development for high throughput threat assessment from bacterial samples”, with Michael Springer (ongoing)
- “Modeling and Analysis of Nutrient Signaling in *S. cerevisiae*”, co-advised by Dr.s John Tyson and T.M. Murali, GBCB program, Virginia Tech
- Lab rotation, Fall 2015, Hauf Lab, Under supervision of Dr. Silke Hauf, Virginia Tech
- Laboratory Assistant, Spring 2015, Dernburg Lab, under supervision of Dr. Abby Dernburg, UC. Berkeley, Berkeley, CA
- Summer Intern NIGINTERN 2014, Summer 2014, Cell Architecture Laboratory, under supervision of Dr. Akatsuki Kimura, National Institute of Genetics, Mishima, Japan

PUBLICATIONS

- Jalihal, A.P., Degennaro, C., Jhuang, H-Y, Commins, N., Hamrick, S., Springer, M., 2021, Passive plasma membrane transporters play a critical role in perception of carbon availability in yeast, *bioRxiv*
- Jalihal, A. P., Kraikivski, P. , Murali, T. M. & Tyson, J. J., 2020, Modeling and Analysis of the Macronutrient Signaling Network in Budding Yeast, *Molecular Biology of the Cell*
- Pratapa, A., Jalihal, A. P., Law, J. N., Bharadwaj, A., & Murali, T. M. (January 2020). Benchmarking algorithms for gene regulatory network inference from single-cell transcriptomic data. *Nature Methods*, 1-8.

PRESENTATIONS

- Work In Progress Seminar, Department of Biological Sciences, Blacksburg, VA, *Applications of Modeling to Biological Decision Making* December 2019
- Biology and Medicine through Mathematics, Richmond, VA, *Macronutrient Signaling in S. cerevisiae* May 2018
- Biological Sciences Research Day, Blacksburg, VA, *Macronutrient Signaling in S. cerevisiae* February 2018
- Computational Tissue Engineering Seminar, Blacksburg, VA, *Macronutrient Signaling in S. cerevisiae* October 2017
- International Conference on Systems Biology, Blacksburg, VA, *Macronutrient Signaling in S. cerevisiae* August 2017

TEACHING

Virginia Polytechnic and State University

- Graduate Teaching Assistant Integrated Science Curriculum II (ISC 1106), Spring 2018
- Graduate Teaching Assistant Integrated Science Curriculum I (ISC 1105), Fall 2017

SERVICE

- Organized the Computational Tissue Engineering IGEP Graduate Seminar Spring 2017 – Fall 2019
- Contributed to maintenance of the GBCB website Summer 2019
- Volunteer at Kid’s Tech University, Virginia Tech Spring 2017
- Treasurer for the SPIC-MACAY chapter at Virginia Tech (Kala) Summer 2018 – Spring 2020

SKILLS

- Languages** Python, MATLAB, Bash, C++, Emacs-lisp
- Computing and graphics** Docker, Git, Emacs, L^AT_EX, GIMP, Inkscape, Snakemake
- Mathematics** ODE modeling, Nonlinear dynamics, Numerical optimization, Bioinformatics pipelines
- Laboratory** Tissue culture, sequencing library preparations (16S, whole genome, RNA sequencing), next generation sequencing (Miseq v2, v3 kits), yeast genetics, flow cytometry

1. Pratapa, A., **Jalihal, A. P.**, Ravi, S. S., & Murali, T. M. (August 2018). Efficient Synthesis of Mutants Using Genetic Crosses. In *Proceedings of the 2018 ACM International Conference on Bioinformatics, Computational Biology, and Health Informatics* (pp. 53-62). ACM.

AWARDS

Silver award (second place), Flash talk, *Modeling Nutrient Signaling in Yeast*, Graduate Student Assembly Research Symposium, Spring 2018

WORKSHOPS

- Attended the Parameter Estimation RTG workshop at NCSU, Raleigh **Summer 2018**

MENTORSHIP

- Mentor for Computationally Driven Experiment Design REU at Virginia Tech, **Summer 2019**
- **Larissa Perara** Undergraduate, CS, Virginia Tech, **Spring 2018**
- **Alex Corrigan** Undergraduate, Virginia Tech, **Fall 2017**
- **Akshay Goel** Undergraduate, CS, Virginia Tech, **Fall 2017**