Krishna Shrinivas

Curriculum Vitae

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Research Interests: I am broadly interested in gaining mechanistic insights into organization and regulation of cellular physiology. The primary focus of my PhD has been to study the role of phase separation in gene regulation, in collaboration with the Sharp and Young Labs at MIT.

Education

2014 - 2020*
*expected in May

PhD, Chemical Engineering *M.I.T*
GPA: 4.9/5.0
Thesis advisor: Dr. Arup K. Chakraborty
Thesis title: A role for phase separation in gene regulation

2010 - 2014

B.Tech, Chemical Engineering (Honors), IIT-Madras, India
GPA: 9.62/10 (**1st** rank in class), minor in physical chemistry
Thesis advisor: Dr. Upendra Natrajan
Thesis title: Statistical mechanics of multi-component polymer blends

Publications

Mol. Cell 2019

K. Shrinivas[=], B.R. Sabari[=], E.L. Coffey, et al.,
Enhancer features that drive formation of transcriptional condensates

Nature 2019

Y.E. Guo[=], J.C. Manteiga[=], ..., **K. Shrinivas** et al.,
Pol II phosphorylation regulates a switch between transcriptional and splicing condensates

PNAS 2018

A. Gao[=], **K. Shrinivas**[=], et al.,
Evolution of weak cooperative interactions for biological specificity

Cell 2018

A. Boija[=] , I.A. Klein[=] , B.R. Sabari, A. Dall'Agnese, ... , **K. Shrinivas** et al.,
Transcription factors activate genes through the phase separation capacity of their activation domains

Science 2018

B.R. Sabari[=], A. Dall'Agnese[=], A. Boija, I.A. Klein, E.L. Coffey, **K. Shrinivas**, et al.,
Coactivator condensation at super-enhancers links phase separation and gene control

Cell 2017

D. Hnisz[=], **K. Shrinivas**[=], R.A. Young[c], A.K. Chakraborty[c], P.A. Sharp[c],
A phase separation model for transcriptional control

IJCRE 2016

K. Shrinivas[=], R.P. Kulkarni[=], S. Shaikh[=], et al.,,
Prediction of reactivity ratios in free radical copolymerization from monomer resonance–polarity (Q–e) parameters: Genetic programming-based models

J. Macro Sci B — **K. Shrinivas**, U. Natarajan[c],
A self-consistent lattice formulation for thermodynamic properties of multi-component polymer mixtures adsorbed at solid interfaces

PLOS One 2014 — S. Roy, **K. Shrinivas**, & B. Bagchi[c],
A stochastic chemical dynamic approach to correlate autoimmunity and optimal vitamin-D range

[=] Equal contributions, [c] Corresponding author

Honors and Awards

2019 Dow Travel Award for Professional Development
2018 Edward W. Merill Outstanding Teaching Assistant Award
2017 NIH R13 Travel Award
2014 - 2015 MITSCEP 1936 Course Xa Fellowship, MIT
2014 Institute silver medal and Reliance Heat Transfer Prize, IIT-Madras
2012 - 2014 Academic excellence awards, IIT-Madras

Presentations

2019 **Center for Systems Biology and MPI-CBG** *Dresden, Germany*
Department Colloquia, Invited talk

Keystone Symposia on Biomolecular Condensates *Snowbird UT*
Plenary talk, poster

APS March Meeting *Boston MA*
Contributed talk

IMES Research Seminar Series *MIT*
Seminar talk

2018 **Biophysics retreat, MIT** *Cape Cod*
Poster prize

Greater Boston Area Stat Mech Meeting *Brandeis University*
Table talk

Liquid-liquid phase separation in cells, conference *EMBL, Heidelberg*
Poster

2017 **Weekly seminar series** *Brandeis University, MA*
Invited talk

Biophysics retreat, MIT *Cape Cod*
Contributed talk

Phase separation and RNA processing in disease, conference *San Diego*
Plenary Talk

Sixth Annual P01 Meeting on T-cell signaling *UC,San Francisco*

Teaching and mentorship

2019	Kaufman Teaching Certificate Program, MIT
2017 - Now	Mentored 1 PhD and 2 M.S. students, MIT
Fall 2017	Teaching assistant for U.G. Transport Class, MIT Received student-nominated outstanding TA prize

Service

Peer review	Reviewer for *Cell*, *Science*, and *PNAS* (along with PI)
Sci-comm	MIT ChemE Communication Lab
Open science	Organized workshops, mentored >5 UROPS, and developed open-access resources eLife Community Ambassador
Journal club	Lead monthly meetings on phase separation in biology

Industrial Experience

Mar - Apr 2016	**Visting Scientist, Merck** *(Ballydine, Ireland)* Pharmaceutical manufacturing strategies
Jan - Feb 2016	**Visting Scientist, Cenovus Energy** *(Calgary, Canada)* Improving the efficiency of oil extraction from oil sands

References

References available upon request