

Rohit Suratekar

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Date of Birth: October 16, 1989

Nationality: Indian

Languages: English, Marathi, Hindi

Current position

Postdoctoral Fellow, International Institute of Molecular and Cell Biology, Warsaw

Areas of specialization

Developmental Biology and Mathematical Modelling

Education

- | | |
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| 2019
present | - Postdoctoral Fellow in Computational Biology
International Institute of Molecular and Cell Biology, Warsaw, Poland |
| 2012 - 2018 | Doctor of Philosophy in Computational Cell Biology
National Centre for Biological Sciences, Bangalore, India
Thesis topic: Understanding structure and dynamics of the <i>Drosophila</i> PI(4,5)P ₂ cycle with mathematical models. |
| 2007 - 2011 | Bachelor of Technology in Biotechnology
Motilal Nehru National Institute of Technology, Allahabad, India
Thesis topic : Indirect and Direct Effect of Turbulence on Bacterial growth |

Publications and Talks

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| 2018 | Suratekar R, Panda A, Padinjat R, Krishna S (2018). Evidence of sinks and sources in the phospholipase C activated PIP ₂ cycle. <i>FEBS Lett.</i> 2018 Mar ; 592(6):962-972. PubMed PMID: 29427502. doi: 10.1002/1873-3468.12998 |
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Preprint

- 2017 Suratekar R, Padinjat R, Krishna S (2017). Evidence of sinks and sources in the PLC activated PIP₂ cycle. *bioRxiv*. 183509 doi: [10.1101/183509](https://doi.org/10.1101/183509)

Research talks

- 2018 *2nd International FishMed Conference on Zebrafish Research, FishMed2018*, Warsaw, Poland
Evidence of sinks and sources in the PLC activated PIP₂ cycle (Mar 25–27, 2018)
- 2018 *Aspects of Gene and Cellular Regulation*, Chennai, India
Evidence of sinks and sources in the PLC activated PIP₂ cycle (Jan 12–13, 2018)
- 2017 *Physical Concepts in Stem Cell Biology*, Tisvildeleje, Denmark
Evidence of sinks and sources in the PLC activated PIP₂ cycle (Aug 6–10, 2017)
- 2015 *NCBS-RIKEN joint meeting for theoretical approaches in biology*, Wako, Japan
Speeding up PI(4,5)P₂ recovery with top gear (Apr 7–10, 2015)

Posters

- 2018 *EMBL Symposium: Tissue Self-Organisation*, Heidelberg, Germany
Evidence of sinks and sources in the PLC activated PIP₂ cycle (Mar 11–14, 2018)
- 2018 *2nd International FishMed Conference on Zebrafish Research, FishMed2018*, Warsaw, Poland
Evidence of sinks and sources in the PLC activated PIP₂ cycle (Mar 25–27, 2018)
- 2018 *Celebrating Diversity in Biology - NCBS Annual Talks*, Bangalore, India
Evidence of sinks and sources in the PLC activated PIP₂ cycle (Jan 3–5, 2018)
- 2017 *Futures in Biology - NCBS Annual Talks*, Bangalore, India
The Hitchhiker's Guide to The Regulation of PI(4,5)P₂ Cycle During *Drosophila melanogaster* Phototransduction (Jan 11–14, 2017)
- 2015 *Biology across scale - NCBS Annual Talks*, Bangalore, India
Regulation of levels of PI(4,5)P₂ on the plasma membrane (Jan 5–8, 2015)
- 2014 *Aspects of gene regulation*, Chennai, India
PI(4,5)P₂ dynamics during *Drosophila melanogaster* phototransduction (Dec 16, 2014)
- 2014 *NCBS Annual Talks*, Bangalore, India
PI(4,5)P₂ dynamics during *Drosophila melanogaster* phototransduction (Jan 15–17, 2014)

Research Projects

- 2019-Present **Understanding the dynamics of transcriptional regulatory networks of heart development with mathematical modelling**
Supervisors : Dr. Cecilia Winata
International Institute of Cell and Molecular Biology, Warsaw.
- 2014-2019 **Understanding lipid transfer across membranes**
Supervisors : Dr. Sandeep Krishna and Prof. Raghu Padinjat
National Centre for Biological Sciences, Bangalore.
- 2013-2018 **Regulation of lipid signaling pathway in *Drosophila melanogaster***
Supervisors : Dr. Sandeep Krishna and Prof. Raghu Padinjat
National Centre for Biological Sciences, Bangalore.

- 2012 **Exploring connections between protein content, codon bias and GC content**
 Supervisor : Dr. Mukund Thattai
 National Centre for Biological Sciences, Bangalore.
- 2010-2011 **Indirect and Direct Effect of Turbulence on Bacterial growth**
 Supervisor : Dr. Shivesh Sharma
 Motilal Nehru National Institute of Technology, Allahabad.

Fellowships and Awards

- 2018 Young FishMed Speaker and Travel Award, FishMed, Poland
 2018 Best Poster and Travel Award, NCBS Annual Talks, India
 2012 - 2018 NCBS-TIFR graduate fellowship, India
 2012 Graduate Aptitude Test in Engineering (GATE) fellowship, India

Minimum Skill Set

Experimental Biology

Average: Molecular biology techniques, Protein purification
 Basic: Fly pushing, Optical Microscopy, Electro-physiology (ERG)

Computational Biology

Above average: Ordinary Differential Equations, Monte Carlo simulations,
 Diffusion reactions, Dynamical Systems, Parameter sensitivity analysis
 Average: Optimization techniques, Stochastic Calculus, Boolean Modelling
 Basic: Partial Differential equations, Bayesian Analysis

Programming languages

Above average: Python 3, Java, Kotlin, Typescript, \LaTeX
 Average: C++, Perl, Matlab
 Basic: CSS, C#, SQL/Non-SQL database

References

Dr. Cecilia Winata (IIMCB, Warsaw), email: cwinata@iimcb.gov.pl
 Dr. Sandeep Krishna (NCBS, Bangalore), email: sandeep@ncbs.res.in
 Prof. Raghu Padinjat (NCBS, Bangalore), email: praghu@ncbs.res.in