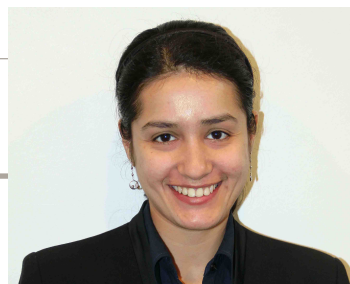


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# SVETA CHAKRABARTI

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## EXPERIENCE

2016 - ONWARD - EARLY CAREER FELLOW, IISC, BANGALORE, INDIA

I am currently working on the wounding response in *Drosophila*. I am trying to understand the role of blood cells in inter organ communication, specifically how blood cells sense damage signals and communicate this message to distance tissues after a wound.

2013 - 2014 - POST DOCTORAL FELLOW, EPFL, LAUSANNE, SWITZERLAND

I have extended on my thesis work and discovered the role specifically of a stress activated pathway in controlling not only the immune response but also the lipid homeostasis in the intestine.

2009 - 2013 - GRADUATE STUDIES, EPFL, LAUSANNE, SWITZERLAND

My thesis revealed the cross-talks between stress and immune pathways during microbial infection in the gut. I showed that stress pathways usually contribute to enduring damage caused by infection, but an excessive activation of these pathways contribute to pathogenesis.

2008 - RESEARCH ASSISTANT, GREGOR MENDEL INSTITUTE, VIENNA, AUSTRIA

I uncovered the role of a plant kinase in response to abiotic stress using chiefly biochemical approaches.

2007 - 2008 - GRADUATE ROTATIONS, INDIANA UNIVERSITY, BLOOMINGTON,  
USA

I finished the mutagenesis of the eye specific gene in *Drosophila* to create a chimeric protein, and then tested its functional effect on eye development. I optimized the expression of a recombinant Arabidopsis protein, and further tested interactions between its domains. I produced a recombinant bacterial stress chaperone protein for its biochemical characterization.

## EDUCATION

- PHD IN LIFE SCIENCES 2013 - SWISS FEDERAL INSTITUTE OF TECHNOLOGY LAUSANNE, SWITZERLAND.
- M.S PLANT MOL. BIOLOGY AND BIOTECH 2007 - DEPT. OF PLANT MOLECULAR BIOLOGY, UNIVERSITY OF DELHI, INDIA.

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Languages: English, Hindi, French

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Twitter: @svetakotak

## PUBLICATIONS

1. **S. Chakrabarti**, and S. S. Visweswariah. Intramacrophage ROS Primes the Innate Immune System via JAK/STAT and Toll Activation. *Cell Reports* 2020. <https://doi.org/10.1016/j.celrep.2020.108368>
2. **S. Chakrabarti**, JP. Dudzic, X. Li, EJ. Collas, JP Boquete, M. Poidevin, and B. Lemaitre. Remote control of intestinal stem cell activity by haemocytes in *Drosophila*. *PLoS Genetics* 2016. [doi.org/10.1371/journal.pgen.1006089](https://doi.org/10.1371/journal.pgen.1006089).
3. R.K. Vijendravarma, S. Narasimha, **S. Chakrabarti**, A. Babin, S. Kolly, B. Lemaitre, and T. J. Kawecki. Gut physiology mediates a trade-off between adaptation to malnutrition and susceptibility to food-borne pathogens. *Ecology Letters* 2015. 18 (10), 1078-1086.
4. **S. Chakrabarti**, M. Poidevin, and B. Lemaitre. The *Drosophila* MAPK p38c Regulates Oxidative Stress and Lipid Homeostasis in the Intestine. *PLoS Genetics* 2014. [doi/10.1371/journal.pgen.1004647](https://doi.org/10.1371/journal.pgen.1004647).
5. **S. Chakrabarti**, P. Liehl, N. Buchon and B. Lemaitre. Infection-induced host translational blockage inhibits immune responses and epithelial renewal in the *Drosophila* gut. *Cell Host Microbe* 2012. 12(1): 60-70.
6. D. Osman, N. Buchon, **S. Chakrabarti**, Y.T. Huang, W.C. Su, M. Poidevin, Y.C. Tsai, B. Lemaitre. Autocrine and paracrine unpaired signalling regulate intestinal stem cell maintenance and division. *J Cell Sci.* 2012 Oct
7. N. Buchon, N.A. Broderick, **S. Chakrabarti** and B. Lemaitre. Invasive and indigenous microbiota impact intestinal stem cell activity through multiple pathways in *Drosophila*. *Genes & Development* 2009. 23(19): 2333-44.
8. D. Mittal, **S. Chakrabarti**, A. Sarkar, A. Singh, A. Grover Heat shock factor gene family in rice: genomic organization and transcript expression profiling in response to high temperature, low temperature and oxidative stresses. *Plant Physiology and Biochemistry.* 2009. 47 (9), 785-795

## AWARDS

- Wellcome trust-DBT India Alliance Early Career fellowship for 5 years 2016
- H.J. Muller fellowship to support Graduate studies at Indiana University 2007
- University of Delhi Endowment Scholarship for M.S tuition 2006
- Monsanto Scholarship for M.S tuition 2005

## REFERENCES

Prof. Sandhya Vishwesrariah IISc - Dept MRDG, Bangalore, India ([sandhya@iisc.ac.in](mailto:sandhya@iisc.ac.in), +91 80 2292 2542)

Prof. Bruno Lemaitre EPFL- Global Health Institute, Lausanne, Switzerland.  
([bruno.lemaitre@epfl.ch](mailto:bruno.lemaitre@epfl.ch), +41 21 693 18 31)

Prof Irene-Miguel Aliaga, Imperial College London, UK. ([i.miguel-aliaga@lms.mrc.ac.uk](mailto:i.miguel-aliaga@lms.mrc.ac.uk))

## INVITED TALKS (AS A FELLOW)

- Sheffield Bateson Centre Research Webinar. 21<sup>st</sup> April, 2021. Host: Dr Iwan Evans.
- 62<sup>nd</sup> Annual *Drosophila* Research Conference. 23<sup>rd</sup> March-1<sup>st</sup> April, 2021
- TIFR, Hyderabad Research Webinar. 8<sup>th</sup> January, 2021. Host: Dr Manish Jaiswal.
- 5<sup>th</sup> International Asia-Pacific *Drosophila* Research Conference in Pune. 9<sup>th</sup> January, 2020.
- Bangalore Developmental Biology Club. May 3<sup>rd</sup>, 2019.
- International Congress of Cell Biology Satellite Meeting "Stem Cell Biology & Disease Models" February 2-3<sup>rd</sup>, 2018.
- Indian *Drosophila* Research Conference 3<sup>rd</sup> Biennial Meeting, IISER Bhopal. 9<sup>th</sup> and 10<sup>th</sup> December, 2017.
- Annual Postdoctoral Symposium at NCBS. 17<sup>th</sup> and 18<sup>th</sup> November, 2016.

## SKILLS

- Good mentoring capabilities
- Excellent level in Genetics and Cellular Biology
- Good project management, scientific writing and summarization capabilities
- Cleared an Indiana University teaching English proficiency exam for non native speakers.
- Organize and review the work of lab technicians and students
- Bacterial and *Drosophila* cell culture and manipulation
- DNA and RNA isolation.
- Transcriptional profiling by quantitative reverse transcription PCR (qRT-PCR)
- Statistical analysis of transcriptional data and transformation frequencies
- Proteins expression, purification, analysis and Kinase Assays