

## **SIMRAN BHULLAR**

Ramalingaswami Re-Entry Fellow  
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### **Academic Record**

Ph.D. (Genetics), University of Delhi South Campus, New Delhi

M.Sc (Biotechnology), Panjab University, Chandigarh

B.S. (Botany), from Sri Venkateswara College, University of Delhi, New Delhi

### **Fellowships And Awards**

Ramalingaswami Re-entry Fellowship 2019-2020,  
CSIR Research Associate-ship, CSIR (NET) Fellowship, Department of Biotechnology Fellowship  
for Masters degree

**Research Interest:** Gene regulation and expression, Genome Rearrangements

### **Peer-Reviewed Publications**

1. Diamantis Sellis\*, Frédéric Guérin\*, Olivier Arnaiz, Walker Pett, Emmanuelle Lerat, Nicole Boggetto, Sascha Krenek, Thomas Berendonk, Arnaud Couloux, Jean-Marc Aury, Karine Labadie, Sophie Malinsky, **Simran Bhullar**, Eric Meyer, Linda Sperling, Laurent Duret#, Sandra Duharcourt# **(2021)** Massive colonization of protein-coding exons by selfish genetic elements in *Paramecium* germline genomes. *PLoS Biology*, 19(7): e3001309. (DOI: 10.1371/journal.pbio.3001309)
2. Irina Nekrasova, Vera Nikitashina, **Simran Bhullar**, Olivier Arnaiz, Deepankar P. Singh, Eric Meyer and Alexey Potekhin. **(2019)** Loss of a Fragile Chromosome Region leads to the Screwed Phenotype in *Paramecium tetraurelia*. *Genes*, 10, 513. (DOI: 10.3390/genes10070513)
- 3.★ Jean-François Goût, Parul Johri, Olivier Arnaiz, Thomas G Doak, **Simran Bhullar**, Arnaud Couloux, Frederic Guerin, Sophie Malinsky, Linda Sperling, Karine Labadie, Eric Meyer, Sandra Duharcourt, Michael Lynch. **(2019)** Universal trends of post-duplication evolution revealed by the genomes of 13 *Paramecium* species sharing an ancestral whole-genome duplication. *BioRxiv*, 573576. (DOI: 10.1101/573576) ★ **Not Peer-reviewed**
4. **Simran Bhullar** \*, Cyril Denby Wilkes, Olivier Arnaiz, Mariusz Nowacki, Linda Sperling and Eric Meyer\*. **(2018)** A mating-type mutagenesis screen identifies a zinc-finger protein required for specific DNA excision events in *Paramecium*. *Nucleic Acids Research*, 46(18): 9550–9562. (DOI: 10.1093/nar/gky772) \***Co-corresponding author**
5. Julien Bischerour#, **Simran Bhullar**, Cyril Denby Wilkes, Vinciane Regnier, Nathalie Mathy, Emeline Dubois, Aditi Singh, Estienne Swart, Olivier Arnaiz, Linda Sperling, Mariusz Nowacki, Mireille Betermier#. **(2018)** Six domesticated PiggyBac transposases together carry out programmed DNA elimination in *Paramecium*. *Elife*, Sep 18; 7. pii: e37927. (DOI: 10.7554/eLife.37927)

6. Deepankar Pratap Singh, Baptiste Saudemont, Gérard Guglielmi, Olivier Arnaiz, Jean-François Goût, Malgorzata Prajer, Alexey Potekhin, Ewa Przybòs, Anne Aubusson-Fleury, **Simran Bhullar**, Khaled Bouhouche, Maoussi Lhuillier-Akakpo, Véronique Tanty, Corinne Blugeon, Adriana Alberti, Karine Labadie, Jean-Marc Aury, Linda Sperling, Sandra Duhaucourt & Eric Meyer. (2014) Genome-defence small RNAs exapted for epigenetic mating-type inheritance. *Nature*, 509: 447–452. (DOI: 10.1038/nature13318)  
Highlighted in News & Views “Epigenetics: Keeping one's sex” by D. Chalker in *Nature*, (2014) 509: 430–431. (DOI: 10.1038/nature13333)
7. Amita Kush Mehrotra, **Simran Bhullar**, Pradeep Kumar Burma. (2014) Development of intron-containing barnase gene (barnase-int) encoding a toxic protein to facilitate its cloning in bacterial cells. *Journal of Plant Biochemistry and Biotechnology*, 23: 435-439. (DOI: 10.1007/s13562-014-0266-6)
8. **Simran Bhullar\***, Sudipta Datta\* and Pradeep Kumar Burma. (2011) Delayed trans-inactivation of synthetic domain A 35S promoters by 'Tobacco 271 locus' due to reduced sequence homology. *Plant Molecular Biology Reporter*, 29(1): 1-11. (DOI: 10.1007/s11105-010-0202) \*Both authors contributed equally.
9. **Simran Bhullar**, Suma Chakravarthy, Deepak Pental, Pradeep Kumar Burma. (2009) Analysis of Promoter Activity in Transgenic Plants by Normalizing Expression with Reference Gene: Anomalies Due to Influence of the Test Promoter on the Reference Promoter. *Journal of Biosciences*, 34(6): 953-962. (DOI: 10.1007/s12038-009-0109-0)
10. **Simran Bhullar**, Sudipta Datta, Sonia Advani, Suma Chakravarthy, Taru Gautam, Deepak Pental, Pradeep Kumar Burma. (2007) Functional analysis of Cauliflower Mosaic Virus 35S promoter: Re-evaluation of the role of subdomains B5, B4 and B2 in promoter activity. *Plant Biotechnology Journal*, 5(6): 696-708. (DOI: 10.1111/j.1467-7652.2007.00274x)
11. **Simran Bhullar**, Suma Chakravarthy, Sonia Advani, Sudipta Datta, Deepak Pental, Pradeep Kumar Burma. (2003) Strategies for development of functionally equivalent promoters with minimum sequence homology for transgene expression in plants: ciselements in a novel DNA context versus domain swapping. *Plant Physiology*, 132: 988-998. (DOI: 10.1104/pp.103.020602)