Sanjeev Galande

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Professor (on lien) Indian Institute of Science Education and Research, Pune

Academic Record:

Name of the Institution	<u>Duration of</u> <u>Stay</u>	Principle subjects	Degree Awarded
Indian Institute Of Science	1989-1995	Biochemistry and Molecular Biology	Ph.D
University of Poona	1987-1989	Biotechnology	M.Sc.
Sir Parashurambhau College	1984-1987	Zoology	B.Sc.

Professional Experience:

Professor and Dean	June 2021 – Till date	Shiv Nadar University, Delhi NCR
Professor	May 2010-May 2021	Indian Institute of Science Education and Research, Pune
Scientist F	April 2007- April 2010	National Centre for Cell Science NCCS complex, Pune, India
Scientist E	April 2004-March 2007	National Centre for Cell Science NCCS complex, Pune, India
Scientist D	March 2001-March 2004	National Centre for Cell Science NCCS complex, Pune, India
Postdoctoral Fellow	Oct. 1996-Feb. 2001	Lawrence Berkeley National Laboratory University of California Berkeley, CA, USA
Postdoctoral Fellow	Feb. 1996-Sept. 1996	The Burnham Institute La Jolla Cancer Research Center, USA

Memberships in Professional Society:

- 1. Elected member of the American Association for Cancer Research, 1999.
- 2. Member of American Society for Microbiology (ASM), 2005-2010.
- 3. Fellow of the Indian Academy of Sciences, Bangalore, 2010.
- 4. Fellow of the Indian National Science Academy, 2012.
- 5. Fellow of the National Academy of Sciences, 2017

Awards:

- 1. Recipient of the 'JC Bose Fellowship-2019' from DST-SERB.
- 2. Recipient of the 'GD Birla Award-2014' for Scientific Excellence from the KK Birla Foundation, New Delhi.
- 3. Recipient of the 'Shantiswaroop Bhatnagar Award-2010' from the Council of Scientific and Industrial Research (CSIR).
- 4. Recipient of the 'Swarnajayanti Fellowship-2007' from the Department of Science and Technology (DST).
- 5. Recipient of the 'National Bioscience Award for Career Development-2006' from the Department of Biotechnology (DBT).

Publications: *Equal contribution *Corresponding author

- 1. Suresh V. *, Muralidharan, B. *, Pradhan, S. J. *, Bose, M., D'Souza, L., Parichha, A., Reddy, P. C., **Galande, S**. * and Tole, S. * 2023. Regulation of chromatin accessibility and gene expression in the developing hippocampal primordium by LIM-HD transcription factor LHX2. *PLoS Genetics* 19(8):e1010874.doi: 10.1371/journal.pgen.1010874.
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- 3. Gungi, A., Saha, S., Pal, M. and **Galande**, **S**. *, 2023. H4K20me1 plays a dual role in transcriptional regulation of regeneration and axis patterning in Hydra. *Life Science Alliance*, 6(5).

- 4. Chee, J.M., Lanoue, L., Clary, D., Higgins, K., Bower, L., Flenniken, A., Guo, R., Adams, D.J., Bosch, F., Braun, R.E., Brown, S.D., H.-J. Genie Chin, Dickinson, M.E., Hsu C.-W., Dobbie M., Gao X., Galande S., Grobler A., Heaney J.D., Herault Y., de Angelis M.H., Mammano F., Nutter L.M.J., Parkinson H., Qin C., Shiroishi T., Sedlacek R., Seong J.-K., Xu Y., The International Mouse Phenotyping Consortium, Brooks B., McKerlie C., Lloyd K.C.K., Westerberg H. and Moshiri A. 2023. Genome-wide screening reveals the genetic basis of mammalian embryonic eye development. *BMC biology*, 21(1), pp.1-15.
- O'Rourke, M.B., Januszewski, A.S., Sullivan, D.R., Lengyel, I., Stewart, A.J., Arya, S., Ma, R.C., Galande, S., Hardikar, A.A., Joglekar, M.V. and Keech, A.C., Jenkins A.J., Molloy M. P., 2023. Optimised plasma sample preparation and LC-MS analysis to support large-scale proteomic analysis of clinical trial specimens: Application to the Fenofibrate Intervention and Event Lowering in Diabetes (FIELD) trial. *PROTEOMICS–Clinical Applications*, 17(3), p.2200106.
- 6. Khare, S.P. *, Madhok, A. *, Patta, I., Sukla, K.K., Wagh, V.V., Kunte, P.S., Raut, D., Bhat, D., Kumaran, K., Fall, C. and Tatu, U., Chandak G.R., Yajnik C. S. *, Galande, S. * 2023. Differential expression of genes influencing mitotic processes in cord blood mononuclear cells after a pre-conceptional micronutrient-based randomised controlled trial: Pune Rural Intervention in Young Adolescents (PRIYA). *Journal of Developmental Origins of Health and Disease*, 14: 437–448. doi: 10.1017/S204017442200068X
- 7. Higgins, K., Moore, B.A., Berberovic, Z., Adissu, H.A., Eskandarian, M., Flenniken, A.M., Shao, A., Imai, D.M., Clary, D., Lanoue, L. and Newbigging, S., Nutter L.M.J., Adams D.J., Bosch F., Braun R.E, Brown S.D.M., Dickinson M.E., Dobbie M., Flicek P., Gao X., **Galande S.**, Grobler A., Heaney J.D., Herault Y., de Angelis M.H., Chin H.-J. G., Mammano F., Qin C., Shiroishi T, Sedlacek R., Seong J.-K., Xu Y., The IMPC Consortium, Lloyd K.C.K., McKerlie C., and Moshiri A. 2022. Analysis of genome-wide knockout mouse database identifies candidate ciliopathy genes. *Scientific Reports*, 12(1), p.20791.
- 8. Shetty A*, Tripathi SK*, Junttila S*, Buchacher T*, Biradar R, Bhosale SD, Envall T, Laiho A, Moulder R, Rasool O, **Galande S**, Elo LL*, and Lahesmaa R*. (2022) A systematic comparison of FOSL1, FOSL2 and BATF-mediated transcriptional regulation during early human Th17 differentiation *Nucleic Acids Res* 50:4938–4958, https://doi.org/10.1093/nar/gkac256. PMID: 35511484.
- 9. Pradhan SJ, Reddy PC, Smutny M, Sharma A, Sako K, Oak MS, Shah R, Pal M, Deshpande O, Dsilva G, Tang Y, Mishra R, Deshpande G, Giraldez AJ, Sonawane M, Heisenberg CP#, **Galande S**#. (2021) Satb2 acts as a gatekeeper for major developmental transitions during early vertebrate embryogenesis. *Nat Commun*. 12:6094. doi: 10.1038/s41467-021-26234-7. PMID: 34667153

- 10. Pandit P, **Galande S***, Iris F. (2021) Maternal malnutrition and anaemia in India: dysregulations leading to the 'thin-fat' phenotype in newborns. *J Nutr Sci.* 10:e91. doi: 10.1017/jns.2021.83. eCollection 2021. PMID: 34733503
- 11. Unni M, Reddy PC, Pal M, Sagi I, **Galande S**[#]. (2021) Identification of Components of the Hippo Pathway in Hydra and Potential Role of YAP in Cell Division and Differentiation. *Front Genet*. 12:676182. doi: 10.3389/fgene.2021.676182. eCollection 2021. PMID: 34691138.
- 12. Shetty A, Bhosale SD, Tripathi SK, Buchacher T, Biradar R, Rasool O, Moulder R, Galande S, Lahesmaa R. (2021) Interactome Networks of FOSL1 and FOSL2 in Human Th17 Cells. *ACS Omega*.6:24834-24847. doi: 10.1021/acsomega.1c03681. eCollection 2021 Sep 28. PMID: 34604665
- 13. Sharma A, Mir R, **Galande S**[#]. (2021) Epigenetic Regulation of the Wnt/β-Catenin Signaling Pathway in Cancer. *Front Genet*. 12:681053. doi: 10.3389/fgene.2021.681053. eCollection 2021. PMID: 34552611
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- 15. Shah R, Sharma A*, Kelkar A*, Sengupta K, and **Galande** S*. 2021. A novel cis regulatory element regulates human XIST in CTCF-dependent manner. *Mol Cell Biol*, 41(8):e0038220. doi: 10.1128/MCB.00382-20DOI: https://doi.org/10.1128/MCB.00382-20
- 16. Pillai, A.*, Gungi, A.*, Reddy P.C.* and **Galande**, S.*, 2021. Epigenetic regulation in Hydra: conserved and divergent roles. *Frontiers in Cell and Developmental Biology*, 9, p.1155.
- 17. Ramanujam, P. L. *, Mehrotra, S. *, Kumar, R. P., Verma, S., Deshpande, G., Mishra, R. K. *, & **Galande**, S* (2021). Global chromatin organizer SATB1 acts as a context-dependent regulator of the Wnt/Wg target genes. *Scientific Reports*, 11(1), 3385. doi: 10.1038/s41598-021-81324-2.
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- 20. Mehrotra S[#], Bansal P, Oli N, Jayarajan S and **Galande S**. (2020) Defective Proventriculus regulates cell specification in the gastric region of *Drosophila* intestine. *Frontiers in Physiology* Jul 14;11:711. doi: 10.3389/fphys.2020.00711. eCollection 2020. PMID: 32760283.
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- 23. Reddy PC, Pradhan SJ, Karmodiya K, **Galande S**[#]. (2020) Origin of RNA Polymerase II pause in eumetazoans: Insights from Hydra. *J Biosci.* 45. pii: 8.
- 24. Narlikar G, **Galande S**. Topical collection on Chromatin Biology and Epigenetics. J Biosci. 45. pii: 1.
- 25. Reddy PC, Gungi A, Ubhe S, Pradhan SJ, Kolte A, **Galande S**[#]. (2019) Molecular signature of an ancient organizer regulated by Wnt/β-catenin signalling during primary body axis patterning in Hydra. *Commun Biol.* 2:434. doi: 10.1038/s42003-019-0680-3. eCollection 2019.
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- 33. Manjunath GP*, Ramanujam PL*, and **Galande S**#. (2018) Structure function relations in PDZ domain containing proteins: implications for protein networks in cellular signaling. *J. Biosci.* 43:155-171.
- 34. Sawant AA, **Galande S**, Srivatsan SG. (2018) Imaging Newly Transcribed RNA in Cells by Using a Clickable Azide-Modified UTP Analog. *Methods Mol Biol*. 1649:359-371.
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- 43. Pusalkar M, Suri D, Kelkar A, Bhattacharya A, Galande S, and Vaidya VA. (2015) Early stress evokes dysregulation of histone modifiers in the medial prefrontal cortex across the life span. *Dev. Psychobiol.* 58:198-210.
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- 46. Reddy PC, Unni MK, Gungi A, Agarwal P, and **Galande S***. (2015) Evolution of Hox-like genes in Cnidaria: Study of Hydra Hox repertoire reveals tailor-made Hox-code for Cnidarians. *Mech Dev.* 138 Pt 2:87-96.
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Patents:

- 1. Purbey PK, Jayakumar CP, Patole MS, and **Galande S.** 'An improved purification system'. US Patent, 2009. (Indian patent filed).
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Book chapters:

- 1. Madhok A, deSouza A, and **Galande S***. Understanding Immune System Development: An Epigenetic Perspective. In 'Epigenetics of the Immune System', Volume 16: Translational Epigenetics, pp 39-76, Edited by Prof. Dieter Kabelitz and Dr. Jaydeep Bhat, Published by Academic Press/Elsevier, Inc (2020).
- 2. Khare S, Katre P, and **Galande S**[#]. Epigenetic Regulation of islet development and regeneration, In '*Pancreatic Islet Biology*' Edited by: Dr. Anandwardhan Hardikar, Published by Springer, 2016.
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Research Areas

- 1. Role of chromatin architecture in regulation of gene expression.
- 2. Regulation of global gene expression during development, differentiation and disease.
- 3. Evolution of epigenetic mechanisms.
- 4. Functional genomics and proteomics.
- 5. Epigenetics in Health and Disease