**Research Publications**:

* 1. Chakraborty, P., Deb, B. K., Taylor, C.W. and Hasan, G. (2022). Regulation of Store-Operated Ca2+ entry by IP3 receptors independent of their ability to release Ca2+ . *Bioarxiv* doi: https://doi.org/10.1101/2022.04.12.488111
	2. Dhanya, Sreeja Kumari and Hasan, G. (2022). Two photon imaging of calcium responses in murine Purkinje neurons. *Star Protocols* 3, 101105. https://doi.org/10.1016/j.xpro.2021.101105
	3. Dhanya, Sreeja Kumari and Hasan, G. (2021). Deficits associated with loss of STIM1 in Purkinje neurons, including motor deficits can be rescued by loss of Septin 7. Front. Cell Dev. Biol. 9:794807. doi: 10.3389/fcell.2021.794807
	4. Mitra R, Richhariya S, Jayakumar S, Notani D, Hasan G. (2021). [IP3-mediated Ca2+ signals regulate larval to pupal transition under nutrient stress through the H3K36 methyltransferase Set2.](https://pubmed.ncbi.nlm.nih.gov/34117888/) *Development.*148:dev199018;

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* 1. Dhanya, Sreeja Kumari and Hasan, G., (2021). Purkinje neurons with loss of STIM1 exhibit age-dependent changes in gene expression and synaptic components. *J. Neurosci* 41, 3777-3798. https://doi.org/10.1523/JNEUROSCI.2401-20.2021.
	2. Sharma, Anamika and Hasan, G., (2020). Modulation of flight and feeding behaviours requires presynaptic IP3Rs in dopaminergic neurons. eLife 9:e62297. DOI: https://doi.org/10.7554/eLife.62297
	3. Deb, B.K., Chakraborty, P., Gopurapilly, R and Hasan, G (2020). SEPT7 regulates Ca2+ entry through Orai channels in human neural progenitor cells and neurons. *Cell Calcium* 90, 102252. https://doi.org/10.1016/j.ceca.2020.102252
	4. Megha, Wegener, C. and Hasan, G. (2019). ER-Ca2+ sensor STIM regulates neuropeptides required for development under nutrient restriction in *Drosophila. PlosOne*,  <https://doi.org/10.1371/journal.pone.0219719>
	5. Gopurappilly R., Deb B.K., Chakraborty P., Hasan G. (2019) Measurement of Store-Operated Calcium Entry in Human Neural Cells: From Precursors to Differentiated Neurons. In: Joglekar M., Hardikar A. (eds) Progenitor Cells. Methods in Molecular Biology, vol 2029. Humana, New York, NY. https://doi.org/10.1007/978-1-4939-9631-5\_20.
	6. Manjila, S. B., Kuruvilla, M., Ferveur, J-F., Sane, S. P. and Hasan, G. (2019). Extended flight bouts require disinhibition from GABAergic Mushroom Body neurons. *Current Biology,* 29, 283-293. https://doi.org/10.1016/j.cub.2018.11.070
	7. Jayakumar, S., Richhariya, S., Deb, B. K. and Hasan, G. (2018). A multi-component neuronal response encodes the larval decision to pupariate upon amino acid starvation. *J. Neuroscience*, 38, 10202-10219. DOI: https://doi.org/10.1523/JNEUROSCI.1163-18.2018
	8. Ravi, P., Trivedi, D. and Hasan, G. (2018). FMRFa receptor stimulated Ca2+ signals alter the activity of flight modulating central dopaminergic neurons in Drosophila melanogaster*. Plos Genetics*, doi: [10.1371/journal.pgen.1007459](http://dx.doi.org/10.1371/journal.pgen.1007459)**.**
	9. Deb, B. K and Hasan, G. (2018). Sept7-mediated regulation of Ca2+ entry through Orai channels requires other Septin subunits. *Cytoskeleton* **2018;1-11.** doi.org/10.1002/cm.21476
	10. Gopurapilly, R., Deb, B.K., Chakraborty, P. and Hasan, G. (2018) Stable STIM1 knockdown in self-renewing human neural precursors promotes premature neural differentiation. *Front. Mol. Neurosci,* **11**:178, doi: 10.3389/fnmol.2018.00178
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	12. Manjila, S. B. and Hasan, G. (2018). Flight and Climbing Assay for Assessing Motor Functions in Drosophila. Bio-protocol 8(5): e2742. DOI: [10.21769/BioProtoc.2742](https://doi.org/10.21769/BioProtoc.2742).
	13. Richhariya, S and Hasan, G (2017), Ral function in muscle is required for flight maintenance in *Drosophila. Small GTPases;* <https://doi.org/10.1080/21541248.2017.1367456>**.**
	14. Chakraborty, S and Hasan, G (2017), Spontaneous Ca2+ Influx in Drosophila Pupal Neurons Is Modulated by IP3-Receptor Function and Influences Maturation of the Flight Circuit. *Frontiers in Molecular Neuroscience*, **10,** doi:10.3389/fnmol.2017.00111
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	16. Richhariya, S., Jayakumar S., Abruzzi, K., Rosbash, M.R. and Hasan G. (2017), A pupal transcriptomic screen identifies Ral as a target of store-operated calcium entry in Drosophila neurons. *Scientific Reports* **7:42586 |** DOI: 10.1038/srep42586**.**
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	18. Chakraborty, S., Deb, B. K., Chorna, T., Konieczny, V., Taylor, C. W. and Hasan, G. (2016) IP3 receptors attenuate store-operated Ca2+ entry by destabilizing STIM-Orai interactions in *Drosophila* neurons. *J. Cell Sci* **129**, 3903-3910. doi: 10.1242/jcs.191585
	19. Jayakumar, S., Richhariya, S., Reddy, O.V., Texada, M. and Hasan G. (2016), Drosophila larval to pupal switch under nutrient stress requires IP3R/Ca2+ signalling in glutamatergic interneurons. *eLife,*10.7554/eLife.**17495**
	20. Deb, B. K., Pathak, T. and Hasan, G (2016). Store independent modulation of Ca2+ entry by Septin 7. *Nature Communications*, **7:11751 |** DOI: 10.1038/ncomms11751 **|**
	21. Pathak, T., Agrawal, T., Richhariya, S., Sadaf, S. and Hasan, G (2015). Store-operated calcium entry through Orai is required for transcriptional maturation of the flight circuit in Drosophila. *J. Neurosci*, **35**, 13784-13799.
	22. Agrawal, T and Hasan, G Maturation of a central brain flight circuit in Drosophila requires Fz2/Ca2+ signaling (2015). *eLife*,10.7554/eLife.**07046**
	23. Sadaf, S., Reddy, O.V., Sane, S.P. and Hasan G., Neural control of wing coordination in flies (2015). *Current Biology*, **25,** 80-86. http://dx.doi.org/10.1016/j.cub.2014.10.069
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	28. Subramanian, M., Metya, S.K., Sadaf, S., Kumar, S., Schwudke, D. And Hasan, G. (2013). Altered lipid homeostasis in Drosophila InsP3 receptor mutants leads to obesity and hyperphagia. *Dis. Model. Mech* **6:** 734-744, doi: 10.1242/dmm.010017.
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	2. Kain, P., Chakraborty, T. S., Sundaram, S., Siddiqi, O., Rodrigues, V. and Hasan, G. (2008). Reduced odor responses from antennal neurons of Gq, PLCand *rdgA* mutants in Drosophila support a role for a phospholipid intermediate in insect olfactory transduction. *J. Neurosci*, **28,** 4745-4755. (29 citations)

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 **Reviews:**

1. Mitra, R and Hasan, G (2022). Store-operated Ca2+ entry regulates neuronal gene expression and function. *Current Opinion in Neurobiology,*  73:102520. Invited review.
2. Hasan, G and Sharma, A (2020). Regulation of neuronal physiology by Ca2+ release through the IP3R. *Curr Op in Phys* 17, 1-8. Invited review.
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6. Megha and Hasan, G (2017). Control of protein translation by IP3R-mediated Ca2+ release in Drosophila neuroendocrine cells. *Fly,* **11,** 290-296**.** DOI: 10.1080/19336934.2017.1384103 Invited review
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9. Hasan, G. (2013). Intracellular signaling in neurons: unraveling specificity, compensatory mechanisms and essential gene function. *Current Opinion in Neurobiology,* **23**:62–67 http://dx.doi.org/10.1016/j.conb.2012.07.004. Invited review.
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15. Banerjee S. and Hasan G. (2005), The InsP3 receptor: its role in neuronal physiology and neurodegeneration. *Bioessays*, **27**, 1035-1047.

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**Articles in Books and Special Issues:**

1. Hasan, G (2016) Obaid Siddiqi’s legacy of behavioural neurogenetics. Special Volume on Obaid Siddiqi in the *Biographical memoirs of the fellows of the Indian National Science Academy*, **42,** 44-47.
2. Hasan, G (2012) The early years of Drosophila chemosensory genetics in Mumbai’s Tata Institute of Fundamental Research. Special issue for Obaid Siddiqi*J. Neurogenet* **26,** 264-266**.**
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