

## Peer Reviewed Publications

1. Parvathy S, Basu B, Surya S, Rahul J, Meera V, Riya PA, Jyothi NP, Sanalkumar R , Praz V, Riggi N, Nair BS, Kamalesh K Gulia KK, Kumar M, Binukumar BK and **James J**; TLX3 regulates CGN progenitor proliferation during Cerebellum development and its dysfunction can lead to Autism: *iScience* (2024)27, 111260. <https://doi.org/10.1016/j.isci.2024.111260>
2. Kunnummal M, Raveendran PS, Basu B, Rani SV, Paul RA, Kuppusamy K, Angelin M, Issac J, **James J**, Das AV; HPV16 E6/E7-mediated regulation of PiwiL1 expression induces tumorigenesis in cervical cancer cells: *Cell Oncol*, (2024),47(3):917-937.
3. Riya PA, Basu B, Surya S, Parvathy S, Lalitha S, Jyothi PN, Meera V, Vishnu SJ, Sunitha P, Shahina A, Rashmi S, Achuthsankar SN, Dhanesh SB, Jiffy J, Shijulal NS, Tessa TM, Das AV and **James J**; HES1 promoter activation dynamics reveal the plasticity, stemness and heterogeneity in neuroblastoma cancer stem cells: *J Cell Sci*, (2022) 135, jcs260157. doi:10.1242/jcs.260157.
4. Jamuna S. Sreeja, Athira Jyothy, Rohith Kumar Nellikka, Sayan Ghorai, Paul Ann Riya, **Jackson James** & Suparna Sengupta; The centrosomal recruitment of  $\gamma$ -tubulin and its microtubule nucleation activity is  $\alpha$ -fodrin guided: *CELL CYCLE*, (2022), <https://doi.org/10.1080/15384101.2022.2119516>
5. Mrunal Vitthal Wanjale, Vishnu Sunil Jaikumar, KC Sivakumar, Riya Ann Paul, **Jackson James**, GS Vinod Kumar; Supramolecular Hydrogel Based Post-Surgical Implant System for Hydrophobic Drug Delivery Against Glioma Recurrence: *International Journal of Nanomedicine* 2022:17 2203–2224
6. Soundararajan Lalitha, Budhaditya Basu, Suresh Surya, Vadakkath Meera, Paul Ann Riya, Surendran Parvathy, Ani Venmanad Das, Krishnankutty Chandrika Sivakumar, Shijulal Nelson-Sathi and **Jackson James**; Pax6 modulates intra-retinal axon guidance and fasciculation of retinal ganglion cells during retinogenesis: *Scientific Reports*, 10, (2020)16075. <https://doi.org/10.1038/s41598-020-72828-4>
7. Kumar M, John M, Madhavan M, **James J**, Omkumar RV; Alteration in the phosphorylation status of NMDA receptor GluN2B subunit by activation of both NMDA receptor and L-type voltage gated calcium channel: *Neurosci Lett.*( 2019) ;709:134343. doi: 10.1016/j.neulet.2019.134343.
8. Mundackal Sivaraman Divya, Vazhanthodi Abdul Rasheed, Tiffany Schmidt, Soundararajan Lalitha , Samer Hattar, and **Jackson James**; Intraocular injection of ES cell-derived neural progenitors improve visual function in retinal ganglion cell-depleted mouse models: *Frontiers in Cellular Neuroscience*, 11 (2017) e 295, doi: 10.3389/fncel.2017.00295
9. Chandramohan Subashini, Sivadasan Bindu Dhanesh, Chih-Ming Chen, Paul Ann Riya, Vadakkath Meera, Thulasi Sheela Divya, Rejji Kuruvilla, Kerstin Buttler & **Jackson James**; Wnt5a is a crucial regulator of neurogenesis during cerebellum development: *Scientific Reports*, 7 (2017) 42523; doi: 10.1038/srep42523
10. Sivadasan Bindu Dhanesh, Chandramohan Subashini, Paul Ann Riya, Vazhanthodi Abdul Rasheed & **Jackson James**; Pleiotropic Hes-1 concomitant with its differential activation mediates neural stem cell maintenance and radial glial propensity in developing neocortex: *Cerebral Cortex* 27(2017) 3943–3961, DOI: 10.1093/cercor/bhw207

11. Thulasi Sheela Divya, Soundararajan Lalitha, Surendran Parvathy, Chandramohan Subashini, Rajendran Sanalkumar<sup>1</sup>, Sivadasan Bindu Dhanesh, Vazhanthodi Abdul Rasheed, Mundackal Sivaraman Divya, Shubha Tole & **Jackson James**; Regulation of Tlx3 by Pax6 is required for the restricted expression of Chrn $\alpha$ 3 in Cerebellar Granule Neuron progenitors during development: **Scientific Reports**, 6 (2016) 30337, DOI: 10.1038/srep30337
12. Sivadasan Bindu Dhanesh, Chandramohan Subashini & **Jackson James**: Hes1: The maestro in neurogenesis; **Cell. Mol. Life. Sci** (2016), DOI: 10.1007/s00018-016-2277-z.
13. Anupama Vijayakumar, Aneesh Chandran, Sivadasan Bindu Dhanesh, **Jackson James**, K. Shivakumar: Molecular mechanisms in H<sub>2</sub>O<sub>2</sub>-induced increase in AT1 receptor gene expression in cardiac fibroblasts: a role for endogenously generated Angiotensin II; **Journal of Molecular and Cellular Cardiology** (2016, In Press)
14. Mereena George, Anupama Vijayakumar, Sivadasan Bindu Dhanesh, **Jackson James**, K. Shivakumar: Molecular basis and functional significance of Angiotensin II-induced increase in Discoidin Domain Receptor 2 gene expression in cardiac fibroblasts; **Journal of Molecular and Cellular Cardiology**, 90 (2016) 59–69.
15. Vazhanthodi A Rasheed, Sreekumaran Sreekanth, Sivadasan B Dhanesh, Mundackal S Divya, Thulasi S Divya, Palakkottu K Akhila, Chandramohan Subashini, Krishnankutty Chandrika Sivakumar, Ani V Das & **Jackson James**. Developmental wave of Brn3b expression leading to RGC fate specification is synergistically maintained by miR-23a and miR-374; **Developmental Neurobiology** (2014)1155-1171.
16. Nishit Srivatsava, **Jackson James** and KS Narayan. Morphology and electrostatics play active role in neuronal differentiation processes on flexible conducting substrates; **Organogenesis** (2014)10:1, 1-5.
17. Sasidharan Shashikala, Rohith Kumar, Nisha E. Thomas, Dhanesh Sivadasan, **Jackson James** and Suparna Sengupta. Fodrinin Centrosomes: Implication of a role of Fodrin in the transport of Gamma-Tubulin Complex in Brain; **PLOS One** 8(2013)e76613.
18. Nishit Srivastava, Vijay Venugopalan, Divya MS, Rasheed VA, **Jackson James**<sup>#</sup> and K. S. Narayan<sup>#</sup>. Neuronal differentiation of embryonic stem cell derived neuronal progenitors can be regulated by stretchable conducting polymers; **Tissue Engineering**, 2013, 19(17-18)1984-1993. <sup>#Corresponding Authors</sup>.
19. Mundackal Sivaraman Divya, Roshin Elizabeth George, Thulasi Sheela Divya, Vazhanthodi Abdul Rasheed, Retnabai Thankayyan Santhoshkumar, Kandathil Eapen Elizabeth, **Jackson James**<sup>#</sup> & Radhakrishna M Pillai. Umbilical Cord blood derived mesenchymal stem cells consist of a unique population of progenitors co-expressing MSC and neuronal markers capable of instantaneous neuronal differentiation; **Stem Cell Research & Therapy**, (2012) 3:57 doi:10.1186/scrt148. <sup>#Corresponding Author</sup>.
20. Praveen K. Sobhan, Mahendra Seervi, Jeena Joseph, Saneesh Varghese, Prakash Rajappan Pillai, Divya Mundackal Sivaraman, **Jackson James**, Roshin Elizabeth George, K.E. Elizabeth, T.R. Santhoshkumar & M. Radhakrishna Pillai. Immortalized Functional Endothelial Progenitor Cell Lines from Umbilical Cord Blood for Vascular Tissue Engineering; **Tissue Engineering Part C: Methods**, 2012, Vol. 18, No. 11: 890-902
21. Indulekha CL, Divya TS, Divya MS, Sanalkumar R, Abdul Rasheed VT, Dhanesh SB, Anu Sebin, Amitha George & **Jackson James**. Hes-1 regulates the excitatory fate of neural progenitors through modulation of Tlx3 (HOX11L2) expression, **Cell. Mol. Life. Sci**, (2012) 69:611–627 (Research Article).

22. Lekha Nair K, Vidyanand S, **Jackson James** and G S Vinod Kumar. Pilocarpine loaded PLGA nanoparticles as potential candidate for controlled drug delivery with enhanced ocular pharmacological response; *Journal of Applied Polymer Science*, 2012, 124(3): 2030-2036.
23. Sivakumar KC, Dhanesh SB, Sekar Shobana, **Jackson James** and Sathish Mundayoor. A Systems Biology Approach to model Neuronal Stem Cell regulation by Notch, Sonic Hedgehog, Wnt, EGF signaling pathways; *OMICS: A Journal of Integrative Biology*, 2011, 15(10): 729-737.
24. KK Saju, Jayadas NH, Sasidharan Vidyanand, **Jackson James**: Investigations into the molecular level adhesion characteristics of Hydroxyapatite coated and anodized titanium surfaces using molecular orbital approach; [Proceedings of the Institution of Mechanical Engineers. Part H, Journal of Engineering in Medicine, 225:3 \(2011\) 246-254.](#)
25. Sanalkumar R, Dhanesh SB & **Jackson James**: Non-canonical activation of Notch signaling/target genes in vertebrates; [Cell. Mol. Life. Sci., 67 \(2010\) 2957–2968.](#)
26. Indulekha CL, Sanalkumar R, Anoopkumar Thekkuveetil & **Jackson James**: Seizure induces activation of multiple subtypes of neural progenitors and growth factors in hippocampus with neuronal maturation confined to dentate gyrus; [Biochem. Biophys. Res. Commun., 393 \(2010\) 864–871.](#)
27. Sanalkumar R, Indulekha CL, Divya TS, Divya MS, Anto RJ, Vinod B, Vidyanand S, Jagatha B, Venugopal S & **Jackson James**: ATF2 maintains a subset of neural progenitors through CBF1/Notch independent Hes-1 expression and synergistically activates the expression of Hes-1 in Notch dependent neural progenitors; [J. Neurochem., 113 \(2010\) 807–818.](#) (Cover page article)
28. Sanalkumar R, Vidyanand S, Indulekha CL & **Jackson James**: Neuronal vs. glial fate of embryonic stem cell derived neural progenitors (ES-NPs) is determined by FGF2/EGF during proliferation; [J. Mol. Neurosci., 42 \(2010\) 17–27.](#)
29. Rajeevkumar, R., Suma Priya, S., Mayadevi, M., Mathew Steephan, Santhoshkumar, T. R., John Cheriyan, Sanalkumar, R., Pradeep, K. K., **Jackson James**, and Omkumar R. V.: Phosphorylation status of the NR2B subunit of NMDA receptor regulates its interaction with Calcium/calmodulin dependent protein kinase II; [J. Neurochem., 110 \(2009\) 92-105.](#)
30. B Jagatha, MS Divya, R Sanalkumar, CL Indulekha, S Vidyanand, TS Divya, AV Das & **Jackson James**: *In vitro* differentiation of retinal ganglion-like cells from embryonic stem cell derived neural progenitors; [Biochem. Biophys. Res. Commun., 380 \(2009\) 230-235.](#)
31. K.K.Saju, Reshmi.R, P.S.Sreejith , Jayadas.N.H, **Jackson James**, M.K.Jayaraj: Polycrystalline coating of Hydroxyapatite on TiAl<sub>6</sub>V<sub>4</sub> implant material grown at lower substrate temperatures by hydrothermal annealing after pulsed laser deposition; [Proceedings of the Institution of Mechanical Engineers. Part H, Journal of Engineering in Medicine, 223:8 \(2009\) 1049-1057.](#)
32. K.K. Saju, Sasidharan Vidyanand, N.H. Jayadas, **Jackson James**, M.K. Jayaraj: Effect of surface characteristics of Anodized Ti-6Al-4V implant material on Osteoblast attachment and proliferation, [J.Orthopaedics 2009;6\(1\)e5 \(URL: http://www.jortho.org/2009/6/1/e5\)](#)

33. A.V. Das, **J. James**, S. Bhattacharya, A.N. Imbalzano, M.L. Antony, G. Hegde, X. Zhao, K. Mallya, F. Ahmad, E. Knudsen, and I. Ahmad: SWI/SNF chromatin remodeling ATPase, BRM regulates the differentiation of early retinal stem cells/progenitors by influencing BRN3B expression and notch signaling: [\*J. Biol. Chem\*, 282 \(2007\) 35187-201.](#)
34. G.V. Hegde, **J. James**, A.V. Das, X. Zhao, S. Bhattacharya, and I. Ahmad, Characterization of early retinal progenitor microenvironment: Presence of activities selective for the differentiation of retinal ganglion cells and maintenance of progenitors. [\*Experimental Eye Research\*, 84 \(2007\) 577-590.](#)
35. Ani V. Das , Xing Zhao , **Jackson James** , Min Kim, Kenneth H. Cowan , Iqbal Ahmad: Neural stem cells in the adult ciliary epithelium express GFAP and are regulated by Wnt signaling: [\*Biochem. Biophys. Res. Commu.\*,339 \(2006\) 708–716.](#)
36. Ani V. Das, Sreekumaran Edakkot, Wallace B. Thoreson, **Jackson James**, Sumitra Bhattacharya, and Iqbal Ahmad: Membrane properties of retinal stem cells/progenitors: [\*Progress in Retinal and Eye Research\*, 24 \(2005\) 663-81.](#)
37. Ani V. Das, **Jackson James**, Jörg Rahnenführer, Wallace B. Thoreson, Sumitra Bhattacharya, Xing Zhao, and Iqbal Ahmad: Retinal properties and potential of the adult mammalian ciliary epithelium stem cells: [\*Vision Research\* 45 \(2005\) 1653–1666.](#)
38. **Jackson James**, Ani V. Das, Jörg Rahnenführer and Iqbal Ahmad; Cellular and molecular characterization of early and late retinal stem cells/progenitors: Differential regulation of proliferation and context dependent role of Notch signaling: [\*Journal of Neurobiology\*, 61\(2004\) 359-376.](#)
39. Ani V. Das, **Jackson James**, Xing Zhao, Jörg Rahnenführer and Iqbal Ahmad; Identification of c-Kit receptor as a regulator of adult neural stem cells in the vertebrate eye: Interactions with Notch signaling: [\*Dev. Biol.\*,273 \(2004\) 87-105.](#)
40. Iqbal Ahmad, Ani V. Das, **Jackson James**, Sumitra Bhattacharya and Xing Zhao; Neural stem cells in the mammalian eye: types and regulation: [\*Seminars in Cell and Developmental Biology\*, 15\(2004\) 53-62.](#)
41. **Jackson James**, Ani V. Das, Sumitra Bhattacharya, David M. Chacko, Xing Zhao and Iqbal Ahmad; *In Vitro* generation of early-born neurons from late retinal progenitors: [\*Journal of Neuroscience\*, 23\[23\] \(2003\) 8193-8203.](#)
42. Constance M. Dooley, **Jackson James**, C. Jane McGlade and Iqbal Ahmad; Involvement of Numb in vertebrate retinal development: Evidence for multiple roles of Numb in neural differentiation and maturation: *Journal of Neurobiology*, 54(2003) 313-325.
43. David M. Chacko, Ani Das, Xing Zhao, **Jackson James**, Sumitra Bhattacharya and Iqbal Ahmad; Transplantation of ocular stem cells: The role of injury in incorporation and differentiation of grafted cells in the retina: [\*Vision Research\*, 43\[8\] \(2003\) 937-946.](#)
44. Sumitra Bhattacharya, John D. Jackson, Ani V. Das, Wallace B. Thoreson, Charles Kuszynski, **Jackson James**, Shantaram Joshi and Iqbal Ahmad; Direct identification and enrichment of retinal stem cells/progenitors by Hoechst dye efflux assay: [\*Investigative Ophthalmology & Visual Science\*, 44\[6\] \(2003\) 2764-2773.](#)
45. Xing Zhao, Ani V. Das, Wallace B. Thoreson, **Jackson James**, Tami E. Wattnem, Jorge Rodriguez-Sierra and Iqbal Ahmad ; Adult corneal limbal epithelium: a model for studying neural potential of non-neural stem cells/progenitors: [\*Developmental Biology\*, 250 \(2002\) 317-331.](#)

46. **J.Jackson** and C.S. Paulose; Brain 5HT<sub>2A</sub> receptor regulation by tryptophan supplementation in streptozotocin diabetic rats: *J. Biochemistry Molecular Biology & Biophysics*, 5 (2000) 1-7.
47. **Jackson .J** and Paulose C.S; Enhancement of [*m*-methoxy 3H] MDL100907 binding to 5-HT<sub>2A</sub> receptors in cerebral cortex and brain stem of streptozotocin induced diabetic rats: [\*Molecular & Cellular Biochemistry\*, 199 \(1999\) 81-85.](#)
48. **Jackson James**, Pius S. Padayatti, Thomas Paul and C.S. Paulose; Platelet monoamine changes in diabetic patients and streptozotocin induced diabetic rats: *Current Science*, 72 (1997) 137-139.