

PUBLICATIONS:

Metrics: PubMed indexed publications 25; h-index 14.

PEER-REVIEWED PUBLICATIONS

1. **Senapati P**, Miyano M, Basam M, Sayaman RW, Leung A, LaBarge MA, Schones DE. (2023) Loss of epigenetic suppression of retrotransposons with oncogenic potential in aging mammary luminal epithelial cells. *Genome Res*; 33(8):1229-1241.
2. Shin H, Leung A, Costello KR, **Senapati P**, Kato H, Schones DE. (2023) Glucose-regulated O-GlcNAcylation of DNMT1 inhibits DNA methyltransferase activity and maintenance of genomic methylation. *Elife*; 12:e85595.
3. Dror E, Fagnocchi L, Wegert V, Apostle S, Grimaldi G, Gruber T, Panzeri, I, Heyne S, Hoffler KD, Kreiner V, Ching R, Lu TT, Semwal A, Johnson B, **Senapati P**, Lempradl A, Schones D, Imhof A, Shen H, Pospisilik JA. (2023) Epigenetic dosage identifies two major and functionally distinct β cell subtypes. *Cell Metabolism*; 35, 1–16.
4. **Senapati P**, Bhattacharya A, Das S, Dey S, Sudarshan D, Shyla G, Vishwakarma J, Sudevan S, Ramachandran R, Maliekal TT, Kundu TK. (2022) Histone chaperone Nucleophosmin regulates transcription of key genes involved in oral tumorigenesis. *Molecular and Cellular Biology*; 42(2):e0066920.
5. Miyano M, Sayaman RW, Shalabi SF, **Senapati P**, Lopez JC, Angarola BL, Hinz S, Zirbes A, Anczukow O, Yee LD, Sedrak MS, Stampfer MR, Seewaldt VL, LaBarge MA. (2021) Breast-specific molecular clocks comprised of ELF5 expression and promoter methylation identify individuals susceptible to cancer initiation. *Cancer Prevention Research*; 14(8):779-794.
6. Ishak Gabra MB, Yang Y, Li H, **Senapati P**, Hanse EA, Lowman XH, Tran TQ, Zhang L, Doan LT, Xu X, Schones DE, Fruman DA, Kong M. (2020) Dietary glutamine supplementation suppresses epigenetically-activated oncogenic pathways to inhibit melanoma tumour growth. *Nature Communications*; 11(1):3326.
7. **Senapati P**, Kato H, Lee M, Leung A, Thai C, Sanchez A, Gallagher EJ, LeRoith D, Seewaldt VL, Ann DK, Schones DE. (2019) Hyperinsulinemia promotes aberrant histone acetylation in triple-negative breast cancer. *Epigenetics & Chromatin*; 12(1):44.
8. Das S, Zhang E, **Senapati P**, Amaram V, Reddy MA, Stapleton K, Leung A, Lanting L, Wang M, Chen Z, Kato M, Oh HJ, Guo Q, Zhang X, Zhang B, Zhang H, Zhao Q, Wang W, Wu Y, Natarajan R. (2018) A novel Angiotensin II induced long noncoding RNA *Giver* regulates oxidative stress, inflammation, and proliferation in vascular smooth muscle cells. *Circulation Research*; 123(12):1298-1312.
9. **Senapati P**, Dey S, Sudarshan D, Das S, Kumar M, Kaypee S, Mohiyuddin A, Kodaganur GS, Kundu TK. (2018) Oncogene c-fos and mutant R175H p53 regulate expression of Nucleophosmin implicating cancer manifestation. *The FEBS Journal*; 285(18):3503-3524.
10. Das S, Reddy MA, **Senapati P**, Stapleton K, Lanting LL, Wang M, Amaram V, Ganguly R, Zhang L, Devaraj S, Schones DE, Natarajan R. (2018) Diabetes Mellitus-induced Long Noncoding RNA *Dnm3os* regulates macrophage functions and inflammation via nuclear mechanisms. *Arteriosclerosis, Thrombosis and Vascular Biology*; 38(8):1806-1820.
11. Kaypee S, Sahadevan SA, Sudarshan D, Halder Sinha S, Patil S, **Senapati P**, Kodaganur GS, Mohiyuddin A, Dasgupta D, Kundu TK. (2018) Oligomers of human histone chaperone NPM1 alter p300/KAT3B folding to induce autoacetylation. *Biochimica et Biophysica Acta (BBA) - General Subjects*; 1862(8):1729-1741.

12. Das S, **Senapati P**, Chen Z, Reddy MA, Ganguly R, Lanting LL, Mandi V, Bansal A, Leung A, Zhang S, Jia Y, Wu X, Schones, DE, Natarajan R. (2017) Regulation of Angiotensin II Actions by Enhancers and Super-enhancers in Vascular Smooth Muscle Cells. *Nature Communications*; 13;8(1):1467.
13. Mukhopadhyay A, Sehgal L, Bose A, Gulvady A, **Senapati P**, Thorat R, Basu S, Bhatt K, Hosing AS, Balyan R, Borde L, Kundu TK, Dalal SN. (2016) 14-3-3γ Prevents Centrosome Amplification and Neoplastic Progression. *Scientific Reports*; 6:26580.
14. Shandilya J*, **Senapati P***, Dhanasekaran K, Kumar M, Bangalore SS, Hari Kishore AH, Bhat A, Kodaganur GS, Kundu TK. (2014) Phosphorylation of multifunctional nucleolar protein Nucleophosmin (NPM1) by Aurora kinase B is critical for mitotic progression. *FEBS Letters*; 588(14):2198-205.
*Equal contributing first authors
15. Shandilya J*, **Senapati P***, Hans F, Menoni H, Bouvet P, Dimitrov S, Angelov D, Kundu TK. (2014) Centromeric histone variant CENP-A represses acetylation-dependent chromatin transcription that is relieved by histone chaperone NPM1. *Journal of Biochemistry*; 156(4):221-7.
*Equal contributing first authors
Paper of the year 2014
16. Sethi G, Chatterjee S, Rajendran P, Li F, Shanmugam MK, Wong KF, Kumar AP, **Senapati P**, Behera AK, Hui KM, Basha J, Natesh N, Luk JM, Kundu TK. (2014) Inhibition of STAT3 dimerization and acetylation by garcinol suppresses the growth of human hepatocellular carcinoma in vitro and in vivo. *Molecular Cancer*; 13(1):66.
17. Majumder P, Banerjee A, Shandilya J, **Senapati P**, Chatterjee S, Kundu TK, Dasgupta D. (2013) Minor groove binder distamycin remodels chromatin but inhibits transcription. *PLoS One*; 8(2):e57693.
18. Das S, Cong R, Shandilya J, **Senapati P**, Moindrot B, Monier K, Delage H, Mongelard F, Kumar S, Kundu TK, Bouvet P. (2013) Characterization of Nucleolin K88 acetylation defines a new pool of Nucleolin colocalizing with pre-mRNA splicing factors. *FEBS Letters*; 587(5):417-24.
19. Gadad SS, Rajan RE, **Senapati P**, Chatterjee S, Shandilya J, Dash PK, Ranga U, Kundu TK. (2011) HIV-1 infection induces acetylation of NPM1 that facilitates Tat localization and enhances viral transactivation. *Journal of Molecular Biology*; 410(5): 997-1007.
20. Gadad SS, **Senapati P**, Syed SH, Rajan RE, Shandilya J, Swaminathan V, Chatterjee S, Colombo E, Dimitrov S, Pelicci PG, Ranga U, Kundu TK. (2011). The multifunctional protein nucleophosmin (NPM1) is a human linker histone H1 chaperone. *Biochemistry*; 50(14): 2780-9.

REVIEW ARTICLES

1. Chatterjee S*, **Senapati P***, Kundu TK. (2012) Post-translational modifications of lysine in DNA damage repair. *Essays in Biochemistry*; 52:93–111.
*Equal contributing first authors
2. Selvi B R, **Senapati P**, Kundu TK. (2012) Small molecule modulators of epigenetic modifications: Implications in therapeutics. *Current Science*; 102(1):29-36.

3. Arif M, **Senapati P**, Shandilya J, and Kundu TK (2010). Protein lysine acetylation in cellular function and its role in cancer manifestation. *Biochimica et Biophysica Acta (BBA) - Gene Regulatory Mechanisms*; 1799(10-12):702-16.

BOOK CHAPTERS

1. Singh S*, **Senapati P***, Kundu TK (2022) Metabolic Regulation of Lysine Acetylation: Implications in Cancer. *Subcellular Biochemistry*; Metabolism and Epigenetic Regulation: Implications in Cancer (Springer) 100:393-426.
*Equal contributing first authors
2. **Senapati P**, Sudarshan D, Gadad SS, Shandilya J, Swaminathan V, Kundu TK (2015) Methods to study Histone chaperone function in Nucleosome Assembly and Chromatin Transcription. *Methods in Molecular Biology*; 1288:375-94.
3. Kumari S, Swaminathan A, Chatterjee S, **Senapati P**, Boopathi R, Kundu TK. (2013) Chromatin Organization, Epigenetics, and Differentiation: An evolutionary perspective. *Subcellular Biochemistry*; Epigenetics Development and Disease (Springer) 61:3-35.

PREPRINTS AND MANUSCRIPTS IN COMMUNICATION

1. Sayaman RW*, Miyano M*, **Senapati P**, Zirbes A, Shalabi S, Todhunter ME, Seewaldt VL, Neuhausen S, Stampfer MR, Schones DE, LaBarge MA. (2022) Luminal epithelial cells integrate variable responses to aging into stereotypical changes that underly breast cancer susceptibility. *bioRxiv*. Available from: <https://www.biorxiv.org/content/10.1101/2022.09.22.509091> DOI: <https://doi.org/10.1101/2022.09.22.509091>. Under review in eLife.
2. Sayaman RW*, Miyano M*, **Senapati P**, Shalabi S, Zirbes A, Todhunter ME, Seewaldt VL, Neuhausen S, Stampfer MR, Schones DE, LaBarge MA. (2021) Epigenetic changes with age prime mammary luminal epithelia for cancer initiation. *bioRxiv*. Available from: <https://www.biorxiv.org/content/10.1101/2021.02.12.430777> DOI: <https://doi.org/10.1101/2021.02.12.430777>. Under review in Breast Cancer Research.

CONFERENCE PROCEEDINGS

1. Kundu TK, **Senapati P**, Bhattacharya A, Das S, Dey S, Sudarshan D, Shyla G, Vishwakarma J, Sudevan S, Ramachandran R, Maleikal TT. (2022) Histone chaperone Nucleophosmin regulates transcription of key genes involved in oral tumorigenesis. *The FASEB Journal*. Experimental Biology, 2022. ASBMB annual meeting. DOI: 10.1096/fasebj.2022.36.S1.R4402
2. Dey S, **Senapati P**, Bhattacharya A, Sudarshan D, Das S, Kumar M, Kodaganur GS, Maleikal TT, Kundu TK. (2019) Role of histone chaperone Nucleophosmin-mediated transcriptional regulation in oral tumorigenesis. *The FASEB Journal*. Experimental Biology, 2019. ASBMB annual meeting. DOI: 10.1096/fasebj.2019.33.1_supplement.458.7
3. **Senapati P**, Cordova J, Ann DK, Seewaldt V, Schones DE. (2018) Hyperinsulinemia-Induced Changes In Chromatin Acetylation In Triple Negative Breast Cancer. *The FASEB Journal*. Experimental Biology, 2018. ASBMB annual meeting. DOI: 10.1096/fasebj.2018.32.1_supplement.lb12
4. Zhang E, Das S, Amaram V, Reddy MA, Leung L, Chen Z, **Senapati P**, Stapleton P, Oh H, Kato M, Wang M, Lanting L, Guo Q, Zhang X, Zhang B, Zhang H, Zhao Q, Wang W, Wu Y, Natarajan R. (2018) A Novel Angiotensin II Induced Long Non-coding RNA *GIVER* Regulates Oxidative Stress, Inflammation, and Proliferation in Vascular Smooth Muscle Cells. *The*

FASEB Journal. Experimental Biology, 2018. ASBMB annual meeting. DOI: 10.1096/fasebj.2018.32.1_supplement.525.6

5. **Senapati P**, Ann DK, Seewaldt V, Schones DE. (2017) Hyperinsulinemia Induced Changes in Chromatin Acetylation and Gene Expression in Triple Negative Breast Cancer. *The FASEB Journal*. Experimental Biology, 2017. ASBMB annual meeting. DOI: 10.1096/fasebj.31.1_supplement.lb61
6. Das S, Reddy MA, **Senapati P**, Wang M, Lanting L, Oh H, Devaraj S, Natarajan R. (2017) Functional Characterization of Diabetes-Induced long noncoding RNA *Dnm3os* in macrophages. *The FASEB Journal*. Experimental Biology, 2017. ASBMB annual meeting. DOI: 10.1096/fasebj.31.1_supplement.757.6
7. Shanmugam MK, Chatterjee S, Peramaiyan R, Li F, **Senapati P**, Wong KF, Kumar AP, Luk JM, Hui KM, Sethi G, Kundu TK. (2013) Targeted inhibition of STAT3 dimerization by garcinol suppresses the growth of human hepatocellular carcinoma in vitro and in vivo. *Cancer Research*. Proceedings of the AACR 104th Annual Meeting 2013; Apr 6-10, 2013; Washington, DC DOI: 10.1158/1538-7445.AM2013-4711