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EDUCATION

2000-2006: Ph.D in Molecular Biology, JNCASR, Bangalore, India.
1998-2000: M.Sc in Biotechnology, Madurai Kamaraj University, Madurai, India.
1995-1998: B.Sc in Botany, Presidency College, University of Calcutta, Kolkata, India.

PROFESSIONAL EXPERIENCE

2014-present: **Research Specialist**

Advisor: Dr. Jerry Workman, Stowers Institute for Medical Research,
Kansas City, USA.

2013-2014: **Senior Research Associate**

Advisor: Dr. Jerry Workman, Stowers Institute for Medical Research,
Kansas City, USA.

2006-2012: **Post-Doctoral Research Associate**

Advisor: Dr. Jerry Workman, Stowers Institute for Medical Research,
Kansas City, USA.

2000-2006: **Ph.D. in Molecular Biology**

Subject: Regulation of Acetylation-dependent Chromatin Transcription by
Human Nucleophosmin, a Histone Chaperone.

Advisor: Prof. Tapas K. Kundu, JNCASR, Bangalore, India

Jan, 2000-May, 2000: **M. Sc. in Biotechnology**

Subject: Differential Gene Expression during *Oryza sativa*, var. *indica*
Callus Regeneration-a random amplified PCR study.

Advisor: Prof. Aditya K. Gupta, Madurai Kamaraj University, Madurai,
India.

May, 1999-July, 1999: **M. Sc. in Biotechnology (Summer Research)**

Subject: Effect of hr1 (homologous region 1) sequence on Baculoviral
PolH promoter activity.

Advisor: Prof. Seyed E. Hasnain, Gene Expression Laboratory, National
Institute of Immunology, New Delhi.

PROFESSIONAL ACHIEVEMENTS

1. **Poster Presentation Award (Notable mention)**, Young Investigators Research Day, Stowers Institute for Medical Research, May 2014.
2. **Best Oral Presentation Award**, Young Investigators Research Day, Stowers Institute for Medical Research, May 2012.
3. **Best Poster Award**, Summer Research Conference on ‘Transcriptional Regulation during Cell Growth, Differentiation and Development’, FASEB, 2010.
4. **Best Thesis in Biological Sciences**, JNCASR, Bangalore, India, 2006.
5. **Senior Research Fellowship** from Council for Scientific and Industrial Research, Govt. of India, 2002-2005.
6. **Junior Research Fellowship** from Council for Scientific and Industrial Research, Govt. of India, 2000-2002.
7. **Gold Medal** in M.Sc. Biotechnology, Madurai Kamaraj University, India, 2000.

SELECTED TALKS

1. **Selected** – ASBMB Special symposia on Evolution and Core Processes in Gene Regulation, St. Louis, June, 2015
2. **Selected** - EMBO meeting on Gene Transcription in Yeast: From regulatory networks to mechanisms, Sant Feliu de Guixols, Spain, June, 2014.
3. **Invited** –Department of Biological Sciences, Tata Institute for Fundamental Research (TIFR), Mumbai, India, December 2013.
4. **Invited** –Genome Biology Unit, European Molecular Biology Laboratory (EMBL), Heidelberg, Germany, November 2013.
5. **Invited** - School of Life Sciences, Jawaharlal Nehru University, November, 2011.
6. **Invited** Molecular Biology and Genetics Unit, Jawaharlal Nehru Center for Advanced Scientific Research, November, 2011.
7. **Selected** FASEB meeting on Epigenetics, Chromatin and Transcription, Snowmass, August 2011.
8. **Invited** - The Stowers Institute for Medical Research in Kansas City, February 2006.
9. **Invited** - DAE-BRNS Life Sciences Symposium in Mumbai, December 2005.

PROFESSIONAL SERVICE

1. Invited Reviewer for:
 - *The Journal of Biological Chemistry* (2013)
 - *The EMBO Journal* (2013)
 - *Results in Immunology* (2013)
 - *Genome Research* (2012)
 - *Nucleic Acids Research* (2015, 2014, 2011)
 - *Subcellular Biochemistry* (2010)
 - *Gene* (2015)
 - *Cancer Research* (2015)

2. Editorial Advisory Board Member, '*Epigenetic Diagnosis and Therapy*', Bentham Publications (2014-2016).

TEACHING EXPERIENCE

October, 2013: Guest Lecturer for the graduate course on 'Transcription and Chromatin' for the Graduate School of the Stowers Institute for Medical Research.

September, 2014: Guest Lecturer for the graduate course on 'Transcription and Chromatin' for the Graduate School of the Stowers Institute for Medical Research.

September, 2015: Guest Lecturer for the graduate course on 'Transcription and Chromatin' for the Graduate School of the Stowers Institute for Medical Research.

PUBLICATIONS

1. Senapati P, Sudarshan D, Gadad SS, Shandilya J, **Swaminathan V** and Kundu TK. Methods to study histone chaperone function in Nucleosome Assembly and chromatin transcription. *Methods Mol. Bio.* **2015**, 1288: 375-394. doi:10.1007/978-1-4939-2474-5_22. Pubmed PMID: 25827892.
2. **Venkatesh S*** and Workman JL*. Histone exchange, chromatin structure and transcription. *Nat Rev Mol Cell Biol.* **2015**, 16: 178-189. doi:10.1038/nrm3941. [*- Co-Corresponding Author]. Pubmed PMID: 25650798.
3. Huang F, Paulson A, Dutta A, **Venkatesh S**, Smolle M, Abmayr SM and Workman JL. Histone acetyltransferase Enok regulates oocyte polarization by promoting expression of the actin nucleation factor *spire*. *Genes Dev.* **2014**, 28 (24): 2750-2763. doi: 10.1101/gad.249730.114. Pubmed PMID: 25512562.
4. Dutta A, Gogol M, Kim JH, Smolle M, **Venkatesh S**, Gilmore J, Florens L, Washburn MP and Workman JL. Swi/Snf dynamics on stress responsive genes is governed by competitive bromodomain interactions. *Genes Dev.* **2014**, 28 (20): 2314-2330. doi:10.1101/gad.243584.114. Pubmed PMID: 25319830.
5. Hewawasam GS, Mattingly M, **Venkatesh S**, Zhang Y, Florens L, Workman JL, and Gerton JL. Phosphorylation by Casein Kinase 2 Facilitates Psh1 Assisted Degradation of Cse4. *J. Biol. Chem.*, **2014**, 289(42): 29297-309. doi:10.1074/jbc.M114.580589. PubMed PMID: 25183013.
6. **Venkatesh S** and Workman JL. Recognizing methylated histone variant H3.3 to prevent tumors. *Cell Res.* **2014**. 24: 649-650. doi: 10.1038/cr.2014.50. PubMed PMID: 24732008.

7. **Venkatesh S** and Workman JL. Set2 mediated H3 lysine 36 methylation: Regulation of transcription elongation and implications in organismal development. *WIREs Dev Bio.* **2013**. 2:685-700. DOI:10.1002/wdev.109. PubMed PMID: 24014454.
8. **Venkatesh S**, Workman JL, Wahlgren M, Bejarano MT. Malaria: Molecular secrets of a parasite. *Nature.* **2013**. 499(7457):156-7.doi: 10.1038/nature12407. PubMed PMID: 23823720.
9. **Venkatesh S**, Workman JL, Smolle M. UpSETting chromatin during non-coding RNA transcription. *Epigenetics and Chromatin.* **2013** 6:16; doi: 10.1186/1756-8935-6-16. PubMed PMID: 23738864
 - ❖ *Featured article on Biome and Highly Accessed on Epigenetics and Chromatin website.*
10. Smolle M, Workman JL, **Venkatesh S***. reSETting chromatin during transcription elongation. *Epigenetics.* **2013** ;8(1):10-5; doi:10.4161/epi.23333. PubMed PMID:23257840. [*- Corresponding Author].
11. **Venkatesh S** and Workman JL. Non-coding transcription SETs up regulation. *Cell Res.* **2012**. 23(3):311-3. doi: 10.1038/cr.2012.147. PubMed PMID:23147798.
12. **Venkatesh S**, Smolle M, Li H, Gogol MM, Saint M, Kumar S, Natarajan K, Workman JL. Set2 methylation of histone H3 lysine 36 suppresses histone exchange on transcribed genes. *Nature.* **2012**; 489(7416): 452-5. doi: 10.1038/nature11326. PubMed PMID: 22914091.
 - ❖ *News and Views in Nature Structure and Molecular Biology*
 - ❖ *Research Highlight in Nature Reviews Molecular Cell Biology*
13. Smolle M, **Venkatesh S**, Gogol MM, Li H, Zhang Y, Florens L, Washburn MP, Workman JL. Chromatin remodelers Isw1 and Chd1 maintain chromatin structure during transcription by preventing histone exchange. *Nat Struct Mol Biol.* **2012**:19(9):884-92. PubMed PMID: 22922743.
 - ❖ *News and Views in Nature Structure and Molecular Biology*
 - ❖ *Research Highlight in Nature Reviews Molecular Cell Biology*
 - ❖ *News and Newsworthy on the Saccharomyces Genome Database*
14. Kuryan BG, Kim J, Tran NN, Lombardo SR, **Venkatesh S**, Workman JL, Carey M. Histone density is maintained during transcription mediated by the chromatin remodeler RSC and histone chaperone NAP1 in vitro. *Proc Natl Acad Sci U S A.* **2012**;109(6):1931-6. PubMed PMID: 22308335; PubMed Central PMCID: PMC3277555.

15. Gilmore JM, Sardi ME, **Venkatesh S**, Stutzman B, Peak A, Seidel CW, Workman JL, Florens L, Washburn MP. Characterization of a highly conserved histone related protein, Ydl156w, and its functional associations using quantitative proteomic analyses. *Mol Cell Proteomics*. **2012**; 11(4):M111.011544. PubMed PMID: 22199229; PubMed Central PMCID: PMC3322567.
16. Gadad SS, Senapati P, Syed SH, Rajan RE, Shandilya J, **Swaminathan V**, Chatterjee S, Colombo E, Dimitrov S, Pelicci PG, Ranga U, Kundu TK. The multifunctional protein nucleophosmin (NPM1) is a human linker histone H1 chaperone. *Biochemistry*. **2011**;50(14):2780-9. PubMed PMID: 21425800.
17. Hewawasam G, Shivaraju M, Mattingly M, **Venkatesh S**, Martin-Brown S, Florens L, Workman JL, Gerton JL. Psh1 is an E3 ubiquitin ligase that targets the centromeric histone variant Cse4. *Mol Cell*. **2010**;40(3):444-54. PubMed PMID: 21070970.
18. Govind CK, Qiu H, Ginsburg DS, Ruan C, Hofmeyer K, Hu C, **Swaminathan V**, Workman JL, Li B, Hinnebusch AG. Phosphorylated Pol II CTD recruits multiple HDACs, including Rpd3C(S), for methylation-dependent deacetylation of ORF nucleosomes. *Mol Cell*. **2010**;39(2):234-46. Pubmed PMID: 20670892
19. Shandilya J, **Swaminathan V**, Gadad SS, Choudhari R, Kodaganur GS and Kundu TK. Acetylated NPM1 localizes in the Nucleoplasm and Regulates Transcriptional Activation of Genes Implicated in Oral Cancer Manifestation *Mol Cell Biol*. **2009**;29(18):5115-27. Pubmed PMID: 19581289
20. Mosley AL, Pattenden SG, Carey M, **Venkatesh S**, Gilmore JM, Florens L, Workman JL, Washburn MP. Rtr1 is a CTD phosphatase that regulates RNA polymerase II during the transition from serine 5 to serine 2 phosphorylation. *Mol Cell*. **2009**;34(2):168-78. PubMed PMID: 19394294.
21. Gadad SS, Shandilya J, **Swaminathan V**, Kundu TK. Histone chaperone as coactivator of chromatin transcription: role of acetylation. *Methods Mol Biol*. **2009**;523:263-78. PubMed PMID: 19381933.
22. Polley S, Guha S, Roy NS, Kar S, Sakaguchi K, Chuman Y, **Swaminathan V**, Kundu T, Roy S. Differential recognition of phosphorylated transactivation domains of p53 by different p300 domains. *J Mol Biol*. **2008**;376(1):8-12. PubMed PMID: 18155245.
23. Mantelingu K, Reddy BA, **Swaminathan V**, Kishore AH, Siddappa NB, Kumar GV, Nagashankar G, Natesh N, Roy S, Sadhale PP, Ranga U, Narayana C, Kundu TK. Specific inhibition of p300-HAT alters global gene expression and represses HIV replication. *Chem Biol*. **2007**;14(6):645-57.

24. **Swaminathan, V.#**, Ashok Reddy, B.A.#, Ruthrotha Selvi, B.#, and Kundu, T. K. Small Molecular Modulators in Epigenetics: Implications in gene expression and therapeutics. *Subcellular Biochemistry* **2007**;41:397-428. (# - Equal Contribution)
25. Shandilya, J.#, Gadad, S.#, **Swaminathan, V.#**, and Kundu, T. K. Histone Chaperones in Chromatin Dynamics: Implications in disease manifestation. *Subcellular Biochemistry* **2007**;41:111-124. (# - Equal Contribution)
26. **Swaminathan, V**, Hari Kishore A, Febitha K. K., and Tapas K. Kundu. The histone chaperone Nucleophosmin/B23 activates chromatin transcription in an acetylation dependent manner. *Mol. Cell Biol.*, **2005**, 25, 7534-7545.
27. Balasubramanyam, K., Radhika A. Varier, M. Altaf, **Swaminathan, V.** Nagadenahalli B Siddappa., Udaykumar Ranga, and Tapas K. Kundu. A p300 specific histone acetyltransferase inhibitor, Curcumin represses HIV multiplication. *J. Biol. Chem.*, **2004**, 279, 51163-51171
28. Varier, R.A., **Swaminathan, V.**, Balasubramanyam, K., and Kundu, T.K. Implications of small molecule activator and inhibitors of histone acetyltransferases in chromatin therapy. *Biochem. Pharmacol.* **2004**, 68, 1215-1220. Balasubramanyam, K., Altaf M, Varier, R.A., **Swaminathan, V.**, Ravindran, A., Sadhale, P.P., and Kundu, T.K. Polyisoprenylated benzophenone, Garcinol, a natural HAT inhibitor represses chromatin transcription and alters global gene expression. *J. Biol. Chem.* **2004**, 279, 33716-33725.
30. Karanam Balasubramanyam#, **Swaminathan, V.#**, Anupama Ranganathan, and Tapas K. Kundu (2003). Small Molecule Modulators of Histone Acetyltransferase p300. *J. Biol. Chem.* **2003**, 278, 19134-19140. (# - Equal Contribution) Kar S, Sakaguchi K, Shimohigashi Y, Samaddar S, Banerjee R, Basu G, **Swaminathan V**, Kundu T.K and Roy S. Effect of Phosphorylation on the Structure and Fold of Transactivation domain of p53. *J. Biol. Chem.* **2002**, 277, 15579-15585.
32. Kumar, P. B. R., **Swaminathan, V.**, Banerjee, S., and Kundu, T. K. p300-Mediated acetylation of human transcriptional coactivator is inhibited by phosphorylation. *J. Biol. Chem.* **2001**, 276, 16804-16809.

Book Chapters

1. Smolle, M. # and **Venkatesh, S. #** (2014) Transcription through Chromatin. In *Fundamentals of Chromatin*, J. L. Workman and S. E. Abmayr Eds. (Springer) (# - Equal Contribution, Co-corresponding Author).

PATENTS

1. Balasubramanyam, K., **Swaminathan, V.**, Kundu, T.K. Modulators (inhibitors/activators) of histone acetyltransferases (**US 7,332,629 B2**).

2. Karanam Balasubramanyam, Altaf, M., Lingu M, Radhika, A.V., **Swaminathan, V** and Kundu T.K. (2003). Polyisoprenylated benzophenones and their isomers as inhibitors of Histone acetyltransferases and uses thereof. No: 929/CHE/2003.
3. Balasubramanyam, K., **Swaminathan, V**, Altaf M, Radhika. A. V and Kundu,T.K. Use of curcumanoids as Histone acetyltransferases (HATs) inhibitors. IPN: 544/CHE/2004.