Curriculum Vitae

Dr. Krishnaveni Mishra
Professor
Dept. of Biochemistry
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Date of birth : 30 August 1967

Nationality : Indian

Academic qualifications

B.Sc. (1988) Biochemistry, Chemistry & Human Nutrition
Bharathiar University, Coimbatore, India.

M.Sc. (1990) Biotechnology
Madurai Kamaraj University, Madurai, India.

Ph.D. (1994) Nucleo-Cytoplasmic Transport
Centre for Cellular & Molecular Biology
Hyderabad, India.

Research Experience

Dec 2004 to date: University of Hyderabad, Hyderabad, India
Study of nuclear organization, gene silencing and genome stability in yeast. Investigating the possibility of developing protein SUMOylation as a target of intervention for antifungals.

June 2003 to Nov 2004: Centre for Cellular & Molecular Biology
Hyderabad, India
Study of nuclear organization and telomere structure in yeast

Oct. 2001 to June2003: Centre for Cellular & Molecular Biology
Hyderabad, India
Yeast two hybrid approach to study protein-protein interaction s and isolation of new proteins interacting with chromatin domain boundaries of Drosophila.

Dec. 1996 to Feb. 2001: Department of Molecular Biology
University of Geneva, Geneva, Switzerland

Studies on telomere length regulation and telomere position effect in yeast.

April 1995 to Jan. 1996: Department of Cell Biology & Physiology
Washington University Medical School, Saint Louis, USA

Study of nuclear transport in yeast. Expression of nucleoporins during the cell cycle and their localization in the yeast nuclear pore complex. Intermolecular interactions of nucleoporins in vivo.

Aug. 1990 to Aug. 1994: Centre for Cellular & Molecular Biology
Hyderabad, India

Transport of RNA and proteins across the nuclear membrane. Investigations into the requirements for transport of RNA from the nucleus into the cytoplasm and that of protein from the cytoplasm into the nucleus, the role of nuclear membrane in this process and the cell cycle-dependent changes in the nuclear membrane proteins.

Awards / Fellowships

1) Department of Biotechnology fellowship, 1988-1990.
   (During M.Sc. studies at Madurai Kamaraj University)
2) CSIR junior and senior research fellowships, 1990-1994.
   (During Ph.D. studies at CCMB)
3) Keck fellowship, 1995-1996.
   (A post doctoral fellowship at Washington Univ., St Louis)
4) Roche Foundation Fellowship, 1998- 1999.
   (A post doctoral fellowship at University of Geneva)
5) CSIR scientist pool fellowship, 2003-2006
6) Elected Member of the Guha Research Conferences, 2016 onwards

Number of PhD completed: 8
Number of PhD students currently registered: 5
Master's thesis supervised: over 40

Selected Publications

1) Hita Sony Garapati, Gurranna Male and Krishnaveni Mishra (2020). Predicting subcellular localization of proteins using protein-protein interaction data. Genomics (in press)
2) Neethu Maria Abraham, Kathirvel Ramalingam, Saketh Murthy, Krishnaveni Mishra (2019). Siz2 Prevents Ribosomal DNA Recombination by Modulating levels of Tof2 in *Saccharomyces cerevisiae*. mSphere, November/December 2019 Volume 4 Issue 6 e00713-19.
3) Hita Sony Garapati and Krishnaveni Mishra. Comparative genomics of nuclear envelope proteins. BMC Genomics (2018) 19:823. https://doi.org/10.1186/s12864-018-5218-4
4) Neethu Maria Abraham and Krishanveni Mishra (2018). Elevated dosage of Ulp1 disrupts telomeric silencing in *Saccharomyces cerevisiae.* Molecular Biology Reports, DOI. 10.1007/s11033-018-4415-1
5) Rahul Gujjula# Sangeetha Veeraiah#, Kundan Kumar, Suman S. Thakur, Krishnaveni Mishra* and Rupinder Kaur*. Identification of Components of the SUMOylation Machinery in *Candida glabrata* : Role of the deSUMOylation peptidase *cg*Ulp2 in virulence. J. Biol. Chem. 2016. 291(37): 19573–19589. #equal contribution

6) Hannan A, Abraham NM, Goyal S, Jamir I, Priyakumar UD, **Mishra K***. *Sumoylation of Sir2 differentially regulates transcriptional silencing in yeast*. Nucleic Acids Res. 2015. *43 (21): 10213-10226* [*doi: 10.1093/* pii: gkv842. Aug 28. Epub ahead of print]
7) Sreesankar E, Bharathi V, Mishra RK, **Mishra K***. Drosophila Rif1 is an essential gene and controls late developmental events by direct interaction with PP1-87B. Sci Rep. 2015 May 29; 5:10679. doi: 10.1038/srep10679.
8) Tirupataiah, S., Jamir I., Srividya, I., **Mishra, K***. *Yeast Nkp2 is required for accurate chromosome segregation and interacts with several components of the central kinetochore*. Molecular Biology Reports. 2014. Volume 41, Issue 2, pp 787-797.
9) Pathak RU, Mamillapalli A, Rangaraj N, Kumar RP, Vasanthi D, Mishra K, Mishra RK. *AAGAG repeat RNA is an essential component of nuclear matrix in Drosophila*. RNA Biol. 2013 Volume 10, Issue 4, April 2013, pages 564-571.
10) E. Sreesankar, R. Senthilkumar, V. Bharathi, R. K Mishra and K. Mishra*. (2012). *Functional diversification of yeast telomere associated protein, Rif1, in higher eukaryotes.* BMC Genomics 2012, 13:255. doi:10.1186/1471-2164-13-255.
11) P.Nagesh, E.Sreesankar, A.Hannan, D. Shore and K. Mishra* (2012). *The SUMO E3 ligase Siz2 exerts a locus dependent effect on gene silencing in yeast*. Eukaryotic Cell, Apr;11(4):452-62. Epub 2012 Feb 17.
12) Srividya I , Tirupataiah S , **Mishra K*** . (2012). *Yeast transcription termination factor Rtt103 functions in DNA damage response*. PLoS ONE 7(2): e31288. doi:10.1371/journal.pone.0031288
13) **Krishnaveni Mishra** and R.K. Mishra. (2009). *Polycomb and the Epigenetics of aging.* In "Epigenetics of Aging." Ed. T. Tollefsbol. Springer Books.
14) Vivek Sarojkumar Chopra , Arumugam Srinivasan , Ram Parikshan Kumar , **Krishnaveni Mishra**, Denis Basquin c, Mylène Docquier , Carole Seum , Daniel Pauli , Rakesh Kumar Mishra (2008). *Transcriptional activation by GAGA factor is through its direct interaction with dmTAF3*. Developmental Biology. **317**: 660-70.

*indicates corresponding author

Selected papers in conference/symposia

1. Invited talk at the Genome architecture and Cell fate regulation, 2018 at University of Hyderabad, 3rd to 6th December 2018 "Regulating Nuclear Size and Shape in *Saccharomyces cerevisiae*"
2. Invited talk at the Minisymposium on Evolutionary Cell Biology at the International Congress of Cell Biology, held at Hyderabad, India, during 27th-31st January, 2018. Presented a talk on "Evolution of the nucleus"
3. Invited talk at the 10th Conference of Yeast Biologists held at Jawaharlal Nehru University, 8th to 11th February, 2018. Talk titled "Regulation of Nuclear Size and Shape"
4. Invited talk at the 14th FAOBMB Congress and Annual meeting of the SBC(I); 27th to 30th November, 2015. "Sumoylation regulates intranuclear distribution of the histonendeacetylase, Sir2".
5. Sumoylation modulates distribution of proteins between sub-nuclear compartments. Krishnaveni Mishra. The XXXVII All India Cell Biology Conference on Cell Dynamics

and Cell Fate. 22 – 24 December 2013. Organized by NCBS and INSTEM, J.N. Tata Auditorium, IISc, Bangalore.

6. Linking transcription termination and DNA damage response in yeast. Krishnaveni Mishra. International Conference on Yeast Biology 4th to 7th December, 2013. Institute of Microbial Technology, Chandigarh
7. Gordon Research conference on Chromosome Dynamics. 10th to 15th July 2011 at Mount Snow Resort, West Dover, Vermont, USA. **Poster Presented** "Sumoylation exerts a locus dependent effect on gene silencing in yeast" Pasupala Nagesh, E. Sreesankar, Abdul Hannan and Krishnaveni Mishra
8. 7th International Conference on Yeast Biology, IIT Bombay, 10th to 13th December. Lecture on The SUMO E3 ligase Siz2 exerts a locus dependent effect on gene silencing in yeast. Pasupala Nagesh, E. Sreesankar, Abdul Hannan and Krishnaveni Mishra
9. 4th Indo-Korean Conference on Integrative Bioscience Research: Oppurtunities and Challenges. Coimbatore, Tamil Nadu. 10th and 11th February, 2012. Delivered a lecture on "The Importance of being at the Right Place at the Right Time: How Chromosome Positioning Influences Nuclear Transactions"
10. Chromosome/Chromatin Dynamics: Epigenetics and Disease. JNCASR, Bangalore. (2010) Title: Sumoylation regulates Sir2 distribution between nuclear periphery and nucleolous in *Saccharomyces cerevisiae.* Krishnaveni Mishra and Pasupala Nagesh
11. 14th Transcription Assembly Meeting, Leonia Resorts, Hyderabad. (2010). Title: Transcription termination factor(s) regulate responses to genome insults Krishnaveni Mishra and I. Srividya

Teaching and Outreach activities:

I have been teaching in the Department of Biochemistry for the past 14 years. I primarily teach Genetics, Molecular Biology and Cell biology. I have designed and implemented various practical modules for Master's students. Also contribute to outreach activities by teaching to the Refresher Courses organized regularly by our school at the Academic Staff College and Degree colleges in the city and elsewhere. As a University with a significant Research activity, I mentor young students in the lab by providing research training for 2 to 6 months. I have organized several academic conferences including the Young Investigators Meeting in 2010, Refresher Course for College Teachers in 2019, as an active organizing committee member for International Cell Biology Conference, 2018, Chaired sessions in the International Yeast conferences.

Corporate Responsibilities:

Associate Director of the College for Integrated studies (2014 to date)
Coordinator for the Centre for Systems biology (2014 to 2018)
Board of Studies Member, Department of Biochemistry, Bhavan's Vivekananda College, Hyderabad (2016-18)
Member of various University committees including Gender sensitization; Central grievances and disciplinary committee from time to time.
DBT nominee/external member of Biosafety Committee of CDFD, MSN and Vitane biologics
Member of Institutional Ethics Committee of CCMB