Dr. Pradeepa Madapura, MSc. PhD. FHEA.

Lecturer, Blizard Institute, Queen Mary University of London Email: <u>p.m.madapura@qmul.ac.uk</u> Website <u>https://tinyurl.com/y9b3zll8</u>

• EDUCATION

2004 – 2009: PhD in Molecular Biology, JNCASR, Bangalore, India.
2001 – 2003: MSc Biochemistry, University of agricultural sciences, Bangalore, India
1997 – 2001: BSc (Agriculture), University of agricultural sciences, Bangalore, India

• CURRENT POSITION

2018 - : Lecturer at the Queen Mary University of London, UK

PREVIOUS POSITIONS AND RESEARCH EXPERIENCE

2016 – 2018: Lecturer at the University of Essex, Colchester, UK

- 2009 2015: Postdoctoral Fellow in the laboratory of Prof Wendy Bickmore
- 2004 2009: PhD Student with Prof. MRS Rao, JNCASR, Bangalore, India.

2001 – 2003: Post graduate research student (MSc Biochem), UAS, Bangalore

• **PROFESIONAL TRAINING**

Supervising PhD students, writing proposals for funding, presentation skills, writing scientific papers and reports, supervising students to completion.

• FELLOWSHIPS / AWARDS

2019 - 2022: MRC New Investigator award £973,000

- 2019 2021: Barts Charity small grant £40,000
- 2016 2018: Wellcome Trust Seed award of £99,980
- 2012 2013: Medical Research Council Centenary award of £50,000
- 2009 : Best PhD thesis medal in biological sciences from JNCASR, Bangalore

• SUPERVISORY EXPERIENCE

2 Postdoctoral fellows, 3 PhDs, 4 Masters/rotation students, 8 undergraduate students and 3 Research assistants

• SELECTED INVITED TALKS

2019 Kings College London (Guys hospital) departmental seminar, UK 2018 Young Investigators in chromatin and epigenetics field, Utrecht, Netherlands 2018 The University of Sheffield, Biomedical Science seminar, Sheffield, UK 2016 BRC genomics seminar series, Imperial College London, UK 2016 University of Bristol, Biomedical Science seminar, Bristol, UK 2016 MBGU seminar at JNCASR Bangalore, India 2014 Wellcome trust centre for cell biology, Edinburgh, UK 2014 Wellcome trust centre for gene regulation and expression, Dundee UK 2014 Faculty of life sciences, University Manchester, UK 2012 The Asian forum of chromosome and chromatin biology, Hyderabad, India

• Oral presentations at international meetings

2017 Epigenomics of common diseases, Cambridge UK

2017 London chromatin club, UK

2017 Non-Coding RNA: Recent Insights into the Mechanisms of Action, Edinburgh, UK 2016 GRC chromatin structure and function, Les Diablerets, Switzerland 2015 ncRNAs: Exploring technologies to uncover new functions, Cambridge, UK 2010 Chromatin Assembly and Inheritance Symposium, Munich, Germany

FULL LIST OF PUBLICATIONS

- 1. Olley G, **Pradeepa M M**, FitzPatrick D R., Bickmore W A., Boumendil C., Cornelia-de Lange syndrome-associated mutations cause a DNA damage signalling and repair defect *BioRxiv* 2019 <u>https://www.biorxiv.org/content/10.1101/632992v1.full</u>
- De Vas M G, Garstang M G, Joshi S S, Khan T, Atla G, Parry D, Moore D, Cebola I, Zhang S, Cu W, Lampe A K, Lam W W, FitzPatrick D R, Pradeepa M M* and Atanur S S* De novo mutations in fetal brain-specific enhancers play a significant role in severe intellectual disability. *BioRxiv* 2019 <u>https://www.biorxiv.org/content/10.1101/621029v1</u>
 *corresponding author
- Olley G, Ansari M, Bengani H, Grimes GR, Rhodes J, Kriegsheim AV, Blatnik A, Stewart F J, Ross A, Bickmore WA*, Pradeepa MM*, and FitzPatrick DR*. BRD4 interacts with NIPBL and is mutated in a Cornelia de Lange-like Syndrome. *Nature Genet*. 2018. doi:10.1038/s41588-018-0042-y * corresponding author
- Marin R#, Cortez D#, Lamanna F#, Pradeepa MM#, Leushkin E, Julien P, Liechti A, Halbert J, Kerver HN, Wade J, Tschopp P and Kaessmann H. Convergent origination of a Drosophilalike dosage compensation mechanism in a reptile lineage *Genome Res* 2017. DOI: <u>10.1101/gr.223727.117</u> #Contributed equally.
- **5. Pradeepa MM*,** Taylor GCA, and Kriegsheim AV. Proteomic analysis of H3K36me3 and PSIP1/p75 (LEDGF) complexes show their wider role in DNA repair 2017, *Wellcome Open Res* 2017 ***corresponding author**
- 6. Pradeepa M M*, McKenna F, Taylor GCA, Bengani H, Grimes GR, Wood A, Bhatia S, and Bickmore W A*. Psip1/p52 regulates distal Hoxa genes through activation of IncRNA Hottip *PLoS Genet* 2017.13, e1006677. *corresponding author

Perspective article highlighting this work is published in PLoS Genet 13(6): e1006797.

 Pradeepa M M*, Grimes G, Kumar Y, Taylor G, Olley G, Schneider R and Bickmore W A* Histone H3 globular domain acetylation identifies a new class of enhancers. *Nature Genet*. 2016 48, 681–686 doi:10.1038/ng.3550. * corresponding author Two recommendations by F1000 Prime.

- Robertson K, Hsieh W Y, Forster T, Blanc M, Lu H, Crick P J, Yutuc E, Watterson S, Martin K, Griffiths S J, Enright A J, Yamamoto M, Pradeepa M M et al (2016) An interferon regulated MicroRNA provides broad cell-intrinsic antiviral immunity through multihit host-directed targeting of the sterol pathway *PLoS Biol* 2016 DOI:10.1371/journal.pbio.1002364
- 9. Illingworth R S, Moffat M, Mann A R, Read D, Hunter C J, **Pradeepa M M,** Adams I R* & Bickmore W A* The E3 ubiquitin ligase activity of Ring1B is not essential for early mouse development *Genes and Dev* 2015. 29: 1897-1902. *corresponding author
- 10. Gupta N, **Pradeepa M M**, Bhat U A, Rao M R S (2015) Mapping of post-translational modifications of transition Proteins, TP1 and TP2, and identification of protein arginine methyltransferase 4 and lysine Methyltransferase 7 as methyltransferase for TP2. *J Biol Chem.* 290 (19), 12101-22.
- 11. **Pradeepa M M*,** Grimes G, Taylor G, Sutherland H & Bickmore W A*. Psip1/p75 restrains expression of Hox genes by recruiting both trithorax and polycomb proteins. *Nucleic Acid Res.* 2014 DOI: 10.1093/nar/gku647. * corresponding author.
- 12. Taylor G, Eskeland R. Balkan B H, **Pradeepa M M*** & Bickmore W A*. (2013) H4K16 acetylation marks active genes and enhancers of embryonic stem cells, but does not alter chromatin compaction. *Genome Res.* doi: 10.1101/gr.155028.113. * corresponding author
- 13. **Pradeepa, M M**., Sutherland, H. G., Ule, J., Grimes, G. R., & Bickmore, W. A. (2012). Psip1/Ledgf p52 binds methylated histone H3K36 and splicing factors and contributes to the regulation of alternative splicing. *PLoS Genet*, 8(5), e1002717. doi:10.1371
- 14. Ullas K S*, Pradeepa M M*, Nikhil G, Rammohan N, & Rao M R. (2009). Spatiotemporal organization of AT and GC rich DNA and their association with transition proteins TP1 and TP2 in rat condensing spermatids. J Histochem Cytochem. DOI:10.1369/jhc.2009.953414. *Contributed equally
- 15. **Pradeepa M M**, Nikhil G, Hari Kishore A, Bharath G N, Kundu T K, & Rao M R. (2009) Acetylation of transition protein 2 (TP2) by KAT3B (p300) alters its DNA condensation property and interaction with putative histone chaperone NPM3. *J Biol Chem.* 284(43):29956-67.
- 16. **Pradeepa M M,** Manjunatha S, Sathish V, Agrawal S, & Rao M R. (2008). Involvement of importin-4 in the transport of transition protein 2 into the spermatid nucleus. *Mol Cell Biol.* 2008; 28(13):4331-41.

Reviews/Book chapters

- **1.** Garstang M. and **Pradeepa MM***. An enhancer derived RNA muscles its way to regulate myogenin in trans. *Mol Cell* 2018, 71(1), 3-5 Preview article. *** corresponding author**
- **2. Pradeepa M M** Causal role of histone acetylations in enhancer function, *Transcription*, 2017; 8(1): 40–47 Invited review.
- 3. **Pradeepa M M**, & Rao M R. Chromatin remodeling during mammalian spermatogenesis: role of testis specific histone variants and transition proteins. *Soc Reprod Fertl Suppl*. 2007;63:1-10 (Book chapter).