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Educational qualification:

1. PhD (2014) in life Sciences Molecular and Human Genetics Unit, CSIR-Indian Institute of Chemical Biology, Kolkata, India
2. MSc (2005) in Human Physiology from Presidency College, University of Calcutta, Kolkata, India

Research experience:

1. Post-doctoral research fellow, National Cancer Institute, National Institutes of Health from May 1st 2014 to present.
 - Delineation of molecular and epigenetic mechanisms of candidate immunotherapy target in osteosarcoma.
 - Identification of novel mutation and their role in progression of neuroendocrine tumors.
 - Studying epigenetic patterns in VHL, MEN1 and sporadic non-functioning pancreatic neuroendocrine tumors
 - Identification of genomic regulatory regions in differentiation of fibroblast and keratinocytes.
 - Studying sperm DNA methylation and inheritance of methylated cytosines in transgenic diabetic mice.
2. CSIR- Senior research fellow / Pre-doctoral fellow, Molecular and Human Genetics Div. Indian Institute of Chemical Biology (IICB) in Dr. Keya Chaudhuri's laboratory from 1st April 2012 to May 2014.
 - Identification of Genetic susceptibility and Molecular mechanism for development of Oral precancerous lesions, and development of specific therapeutic strategies in management of the lesions.
 - Effect of natural antimicrobial agents in host-pathogen interactions.
3. Project Assistant (Level-II) at Indian Institute of Chemical Biology (IICB) in Dr. Keya Chaudhuri's laboratory from 11th July 2008 to 31st March 2012.
4. Project trainee at Saha Institute of Nuclear Physics (Biophysics Division) September 2006 - October 2007.
 - Effect of pesticides on reproductive toxicity in male rat gonads.

Publications:

Original Research Articles:

Manuscripts in Communication & preparation:

1. Germline KMT2D Mutations in Pheochromocytoma and Paraganglioma. **S Mukherjee**, J Lack, S K Gara, N Nilubol, ATirosh, 6, S Wang, R Merkel, M M. Quezado, X Wu, T Truc Huynh, K Pacak, M Cam, S Kumar, E Kebebew. (*Ms under preparation*)

Published:

1. A combinatorial strategy for targeting BRAFV600E mutant thyroid cancer with BRAFV600E inhibitor (PLX4720) and pan-tyrosine kinase inhibitor (ponatinib). Suresh Kumar*, Chandrayee Ghosh*, Yevgeniya Kushchayeva, Kelli Gaskins, Myriem Boufraquech, Darmood Wei, Sudheer Kumar Gara, Lisa Zhang, Ya-Quin Zhang, Min Shen, **Sanjit Mukherjee** and Electron Kebebew. (**Accepted, Clinical Cancer Research**)
2. Distinct Genome-Wide Methylation Patterns in Sporadic and Hereditary Nonfunctioning Pancreatic Neuroendocrine Tumors. A Tirosh*, **S Mukherjee***, J Lack, S K Gara, S Wang, M. M. Quezado, X. M. Keutgen, X Wu, M Cam, S Kumar, D Patel, N Nilubol, M V Tyagi, E Kebebew. (*** First authors**) (DOI: 10.1002/cncr. 31930); Cancer 2019.
3. A Katarkar, C Proadhan, **S Mukherjee**, JG Ray, K Chaudhuri (2018). Role of matrix metalloproteinase-9 polymorphisms in basement membrane degradation and pathogenesis of oral submucous fibrosis. Meta Gene 16, 255-263
4. Sayeed, SK., He, X., Holzberg, T., Wang, J., Rajagopal, D., Upadhyay, S., Durell, S R., **Mukherjee, S.**, Weirauch, MT., Rose, R., Vinson, C. 5-Hydroxymethylcytosine in E- box motifs ACAT|GTG and ACAC|GTG increases DNA-binding of the B-HLH transcription factor TCF4. Integrative Biology, 2016. 8(9): p. 936-945.
5. Tillo, D., **Mukherjee, S.** and Vinson, C. (2016), Inheritance of Cytosine Methylation. J. Cell. Physiol. doi: 10.1002/jcp.25350
6. Telomerase expression in individuals with chronic and aggressive periodontitis. Katarkar A, Saha A, **Mukherjee S**, Kundu D, Bandyopadhyay P, Chaudhuri K. J Periodontol. 2015 May;86(5):656-65.
7. Katarkar, A., Patel, L., **Mukherjee, S.**, Ray, J. G., Haldar, P. K., & Chaudhuri, K. (2014). Association of oral tumor suppressor gene deleted in oral cancer-1 (DOC-1) in progression of oral precancer to cancer. Oral Science International.
8. A Katarkar, **S Mukherjee**, MH Khan, JG Ray, K Chaudhuri. (2014) Comparative evaluation of genotoxicity by micronucleus assay in the buccal mucosa over comet assay in peripheral blood in oral precancer and cancer patients. Mutagenesis 29 (5), 325-334
9. Ray JG, Ganguly M, Rao BS, **Mukherjee S**, Mahato B, Chaudhuri K. Clinico- epidemiological profile of oral potentially malignant and malignant conditions among areca nut, tobacco and alcohol users in Eastern India: A hospital-based study. J Oral Maxillofac Pathol 2013; 17:45-50.

10. Chaudhuri SR, **Mukherjee S**, Paul RR, Haldar A, Chaudhuri K (2013) CYP1A1 and CYP2E1 gene polymorphisms may increase susceptibility to Oral Submucous Fibrosis among betel quid chewers of Eastern India. *Gene* 513: 268-271
11. Mondal S, **Mukherjee S**, Chaudhuri K, Kabir SN, Kumar Mukhopadhyay P (2013) Prevention of arsenic-mediated reproductive toxicity in adult female rats by high protein diet. *Pharm Biol. Nov*;51(11):1363-71.
12. Chatterjee, A., Dutta, S., **Mukherjee, S.**, Mukherjee, N., Dutta, A., Mukherjee, A., & Mukhopadhyay, K. (2013). Potential contribution of SIM2 and ETS2 functional polymorphisms in Down syndrome associated malignancies. *BMC Med Genet*, 14(1), 12
13. **Mukherjee S**, Bhowmik AD, Roychoudhury P, Mukhopadhyay K, Ray JG, et al. (2012) Association of XRCC1, XRCC3, and NAT2 polymorphisms with the risk of oral submucous fibrosis among eastern Indian population. *J Oral Pathol Med* 41: 292- 302
14. **Mukherjee S**, Ray JG, Chaudhuri K (2012) Zinc and vitamin A as a low-cost management of oral submucous fibrosis: comment on Chole RH et al. "Review of drug treatment of oral submucous fibrosis. *Oral Oncol* 2012; 48(5):393-398". *Oral Oncol* 48: e27-28.
15. Das T, **Mukherjee S**, Chaudhuri K (2012) Effect of quercetin on Vibrio cholerae induced nuclear factor-kappaB activation and interleukin-8 expression in intestinal epithelial cells. *Microbes Infect* 14: 690-695.
16. Bhandary S, Chaki S, **Mukherjee S**, Das S, Mukherjee S, et al. (2012) Degradation of bacterial DNA by a natural antimicrobial agent with the help of biomimetic membrane system. *Indian J Experimental Biol* 50: 491-496.
17. Mitra A, Chakraborty B, Mukhopadhyay D, Pal M, **Mukherjee S**, et al. (2012) Effect of smoking on semen quality, FSH, testosterone level, and CAG repeat length in androgen receptor gene of infertile men in an Indian city. *Syst Biol Reprod Med* 58: 255-262
18. **Mukherjee S**, Chaudhuri K (2011) NQO1 C 609 T polymorphisms analyzed in a population from Kolkata, West Bengal. *Indian J Hum Genet* 17: 244.
19. **Mukherjee S**, Ray JG, Chaudhuri K (2011) Evaluation of DNA damage in oral precancerous and squamous cell carcinoma patients by single cell gel electrophoresis. *Indian J Dent Res* 22: 735-736
20. Chatterjee A, Dutta S, **Mukherjee S**, Mukherjee N, Chandra S, et al. (2011) Differential allelic distribution of V-ets erythroblastosis virus E26 oncogene homolog2 (ETS2) functional polymorphisms in different group of patients. *Gene Expression* 15: 61-73.
21. **Mukherjee, S.**, & Mukhopadhyay, P. (2009). Studies on arsenic toxicity in male rat gonads and its protection by high dietary protein. *Al Ameen J Med Sci* 2 (1), 73-77.

Case Reports:

22. Ray JG, **Mukherjee S**, Pattanayak S, Chaudhuri K (2011) Oral verrucous carcinoma - a misnomer? Immunohistochemistry based comparative study of two cases. *BMJ Case Rep* 2011.
23. Ray JG, Bhattacharya S, Mahato B, **Mukherjee S**, Chaudhuri K (2011) A large swelling of the tongue. *BMJ Case Rep* 2011.
24. Pattanayak Mohanty S, Ray JG, Richa, **Mukherjee S**, Mandal C, et al. (2010) Melanotic neuroectodermal tumour of infancy. *BMJ Case Rep* 2010.

25. Dhariwal R, **Mukherjee S**, Mohanty SP, Chakraborty A, Ray JG, et al. (2010) Zinc and vitamin A can minimise the severity of oral submucous fibrosis. *BMJ Case Rep* 2010.

Book Chapter:

26. **Mukherjee S**, Katarkar A, Ray JG, Chaudhuri K (2012) Immunohistochemical markers to differentiate oral precancerous and cancerous lesion: an integrated tissue-based microscopic analysis. In: (Eds.) AM-VaJD, editor. "Current microscopy contributions to advances in science and technology". Badajoz, Spain.
27. **Mukherjee S**, Ray JG, Chaudhuri K (2010) Microscopic analysis of histological and immunohistochemical sections to differentiate normal, precancer and cancerous oral squamous epithelial tissues. In: (Eds.) AM-VaJD, editor. " Microscopy: Science Technology, Applications and Education (2010). Badajoz, Spain: FORMATEX pp. 993-1000

Poster Presentations:

1. Association of lysyl oxidase (arginine 158 glycine) polymorphism with zinc-vitamin a supplementation in oral submucous fibrosis *International Journal of Oral and Maxillofacial Surgery*. **S. Mukherjee**, A.K. Katarkar, J.G. Ray, K. Chaudhuri. Volume 40, Issue 10, October 2011, Page e28. *20th International Conference on Oral and Maxillofacial Surgery, Santiago, Chile.*

Invited lectures/Oral presentation:

1. *Role of LRRC15, a candidate immunotherapy target, in cell adhesion, migration and spheroid formation in osteosarcoma cells.* Mechanobiology Across Length Scales, ASCB Symposium, NIH, Bethesda, Nov 22nd 2019.
2. *Next generation sequencing techniques in identification of mutation in Neuroendocrine Tumors.* Biomedical Engineering Dept. McCormick School of Engineering, Northwestern University, May 27th 2019.
3. *Role of Histone Methyltransferases in Neuroendocrine Tumors.* CSIR - Central Food Technological Research Institute, Mysore, India. March 28th, 2018.
4. *Role of Histone Methyltransferases in Neuroendocrine Tumors.* CSIR – Centre for Cellular & Molecular Biology, Hyderabad, India. March 26th, 2018
5. *Integrated analysis of whole exome sequencing and different Affymetrix platforms to identify pathways in Neuroendocrine tumors.* IEEE EMBS Student Branch, School of Medical Science and Technology, Indian Institute of Technology Kharagpur, India. April 4th, 2018.

Awards:

1. **'Young Scientist Award'** at the 99th Indian Science Congress Association, in the New Biology (including Biochemistry, Biophysics & Molecular Biology and Biotechnology) Bhubaneswar, Odhisa, 3-7th January 2012.