

Sitara Roy

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Diego

Division of Biological
Sciences

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Research Experience:

6/2018 – Present **Postdoctoral Research** Division of Biological Sciences, Cell and Developmental Biology Section, University of California, San Diego, CA, USA.

2015 – 2018 **Postdoctoral Research** Tata Institute of Fundamental Research, Hyderabad, India.

Education:

2010 – 2015 **Ph.D.** Work carried out at Centre for Cellular & Molecular Biology (CCMB) & Institute of Genetics and Hospital for Genetic Diseases, India

2008 – 2010 **Research Scholar** Indian Council for Medical Research (ICMR)

2006 – 2008 **M.S.** Genetics and Molecular Biology, Osmania University, India

2003 – 2006 **B.S.** Genetics and Molecular Biology, Osmania University, India

Awards, Honors and Fellowships:

2017 **National Post-Doctoral Fellowship** from Science and Engineering Research Board (SERB), India

2013 **Senior Research fellowship from** Indian Council for Medical Research (ICMR)

2010 **Junior Research fellowship from** Indian Council for Medical Research (ICMR)

2007 – 2008 **University topper during M.S.** from Osmania University, India

2003 – 2006 **University topper during B.S.** from Osmania University, India

Publications:

2016 *Association between PDE4D gene and ischemic stroke: recent advancements.*

Das S, **Roy S**, Munshi A. Int J Neurosci. 2016.

2014 *Association of -1382A>G CCL11 gene variant with ischemic stroke, its subtypes and hemorrhagic stroke in a South Indian population.*

- Roy S**, Das S, Munshi A, Kaul S, Jyothy A. *Neurol India*. 2014.
- 2014 **Roy S**, Das S, Danaboina R, Sharma V, Kaul S, Munshi A. *Inflammation*. 2014.
- 2014 **Roy S**, Das S, Munshi A, Kaul S, Jyothy A. *Neurol India*. 2014.
- 2014 **Roy S**, Das S, Danaboina R, Sharma V, Kaul S, Munshi A. *Inflammation*. 2014.
- 2014 **Roy S**, Das S, Munshi A, Kaul S, Jyothy A. *Neurol India*. 2014.
- 2014 **Roy S**, Das S, Danaboina R, Sharma V, Kaul S, Munshi A. *Inflammation*. 2014.
- 2014 **Roy S**, Das S, Munshi A, Kaul S, Jyothy A. *Neurol India*. 2014.
- 2014 **Roy S**, Das S, Danaboina R, Sharma V, Kaul S, Munshi A. *Inflammation*. 2014.
- 2012 **Roy S**, Das S, Munshi A, Kaul S, Jyothy A. *Neurol India*. 2012.
- 2012 **Roy S**, Das S, Munshi A, Kaul S, Jyothy A. *Neurol India*. 2012.

Technical Skills:

Genomics : Genomic and plasmid DNA isolation and quantification, DNA isolation from blood, tissue. Agarose gel Electrophoresis, PCR (Long range, Multiplex, Real time, Colony, ARMS), RAPD, RFLP, Sanger's Sequencing, Gene scan (STR), SEQUENOM , Gene Cloning, Microarray.

Cell Biology: Generation of stable cell lines, Transformation, Transfection, cell counting, Flow cytometry, real time PCR, Fluorescence microscopy, cell cloning, cell proliferation assay, Killing curve and cell culture.

Microscopy and Imaging: Fluorescence microscopy, Live cell imaging, image processing and analysis.

Bioinformatics : Primer design (Primer 3, NCBI primer blast, OligoCalc, DD Finder), Sequence analysis 5.2, Sequence Assembling (Auto Assembler 1.4), Sequence Alignment (BLAST, Clustal W and Codon code aligner), Gene Scan, (Genemapper 3.7), Phylogenetic analysis, Case control association study (Haploview, Open-EPI), Hardy Weinberg equilibrium (Arlequin 3.5.1.2), Graph pad, prism 5.01, NGS data quality check (Fast QC), Genome annotation (Blast Atlas).

Biochemistry : Southern Blot, Northern blot, Western Blot, Native & SDS PAGE, Paper Chromatography, TLC, PAGE, ELISA, biomolecules estimation (glucose, urea, nitrogen, creatinine, glycated haemoglobin, Albumin, LDL, HDL, triglycerides and cholesterol).

Animal Handling: Hands on experience in handling laboratory animal models like mice, rats. (Maintaining & standardizing rat model for study, drug injection through oral & subcutaneous, collection of biological samples like blood and urine, sacrificing the animal, Tissue sectioning and staining).

Microbiology: Preparation of media, Dilution plating, preparation of competent cells, Cloning, transformation, Plaque assay, Gene Cloning and screening of recombinants, knocking out of gene. Plasmid isolation, preparation of plasmid construct, elution from gel and restriction digestion.