

VOLUNTEER RESEARCH SCIENTIST

Core Qualifications

- Cell Culture: Media and culture preparation, sterilization, plating, total viable cell count (TVC) for mammalian cell, microbial & plant cell culture, batch and continuous bioreactors
- Protein Analyses: Gel Electrophoresis, SDS PAGE, western blotting and ELISA
- Molecular Biology: Plasmid preparation, ligation, transformation, DNA and RNA extraction, flow cytometry, PCR
- Microscope: Compound and Fluorescence microscope
- Chromatography: HPLC, LC-MS, GC-MS, GC-FID, size exclusion and column chromatography
- Bioinformatics Tools: Consend, Cytoscape, HomoloGene Release, KEGG Pathway, BLAST, TCGA, and Bioconductor
- Programming Languages: C, Perl, SQL, SAS, Python and R Bio desulphurization of crude oil
- Prepared *Armoracia rusticana* & *Arabidopsis thaliana* (plant cell) cell culture & *Rhodococcus* IST S8 strain (microbial cell) cell culture for analyzing bio-desulphurization using GC, GC-MS, LC-MS and GC-FID
- Analyzed sugar consumption of the plant and microbial cell culture using HPLC
- Performed routine stability analysis, method development and method validation for GMP/GLP environment.
- Interpreted the obtained results from the analyses and prepared daily and month reports
- Trained and mentored junior assistance in basic laboratory and research techniques
- Gained project management experience by deploying a full project lifecycle

Education

May 2016

Master of Science : Biology St John's University 1/4 City , State Biology

Nov 2009

Master of Science : Biotechnology The University of Manchester UK Biotechnology Master's Thesis: "Bio desulphurization"

May 2008

Bachelor of Technology : Biotechnology Anna University India Biotechnology Undergraduate Thesis: "Modelling and Docking for Renal Carcinoma Antigen 61" at AU-KBC Research Centre, India

Experience

06/2015 to Current

Volunteer Research Scientist Association Of American Medical Colleges 1/4 DC

- Project: Low level light therapy to protect or mitigate ionizing radiation- induced effects in normal cells.
- Carried out induced irradiation and low level light therapy in Human Embryonic Kidney 293 and BJ human foreskin fibroblast cell culture.
- Measured induced irradiation and low level light therapy in enteroids extracted from mice intestine.
- Interpret and present lab data to lab members and project manager.

03/2015 to Current

Graduate Research Assistant Wounded Warrior Project 1/4 TN

- Project: Gene Regulatory network for *Drosophila Melanogaster* Collected genes from literature survey and gene database (NCBI, TCGA, droidb, FlyMine, FlyAtlas, Flybase) Modeled gene regulatory network for *Drosophila melanogaster* to understand and analyze sperm stability Analyzed the pathways for top interacting genes using KEGG pathways.
- Communicated and discussed the research results in lab meeting Awecare Analytical & Research Laboratories, India.

02/2012 to 05/2014

Research Coordinator

- Project: Cell cultures and determine the characteristics of microorganisms for industrial effluent treatment Conducted experiments for mixed bacterial strains of microbes under different physiological conditions for industrial effluent treatment Examined the molecular characterization of *Actinomyces* sp.
- bacteria using DNA & mRNA isolation, PCR techniques and Clustal_X program for sequence mapping Liaised between the project team and funding agencies on raising the research fund Project: Separation and Purification of Secondary metabolite Extracted and purified the secondary metabolites from *Azadirachta indica* plant cell culture using centrifuge, lysis method, column and affinity chromatography and gel electrophoresis Engaged in the development of experimental design, data collection method and strategy for data management ensured that all testing was documented in compliance with SOP and in cGMP environment.

06/2010 to 01/2012

Research Associate Fresenius Kabi Us

Personal Information

Bio desulphurization of crude oil" [professional patent application number: GB1202098.8].

Skills

basic, C, Cell Culture, data collection, data management, database, DNA, ELISA, experimental design, experiments, GC, GMP, GLP, HPLC, materials, Molecular Biology, network, oil, PAGE, Pathway, PCR, Perl, personnel, Programming, project management, Python, quality control, Research, SAS, SOP, SQL, strategy, therapy, validation, western blotting

Additional Information

- PATENTS * "Bio desulphurization of crude oil" [professional patent application number: GB1202098.8].

- CONFERENCE PRESENTATION *"Cancer Proteomics" in Technomelange 2006, a National level technical symposium held at Vellore Institute of Technology, Vellore, India and won the first prize for paper presentation *"Implementation of Nano robots in Medicine" in Biorus '05, a National level technical symposium held at A.R.J College of engineering and technology, India and won the third prize for paper presentation