

# SAVITHA SWAMINATHAN


## Molecular Biology, Research & Development, Life Science Applications

A dedicated & knowledgeable administrator, targeting for middle level assignments in Teaching & Development with an organization of high repute

Preferred Location: Chennai

Preferred Industry: Education, Research

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 09500046581

## Personal Details

**Date of Birth:** 20th November 1983

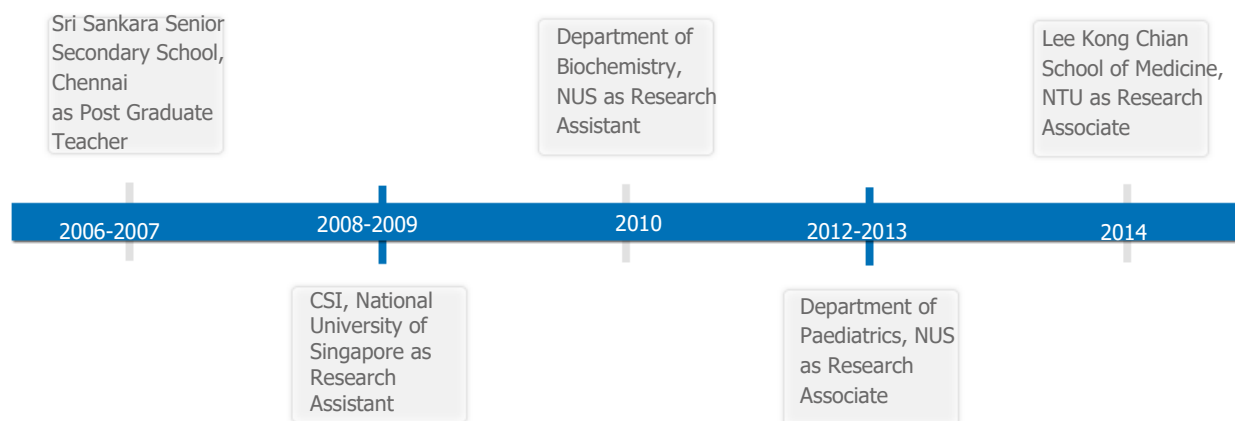
**Languages Known:** Tamil & English

**Address :** No.12, Balambigai Nagar, Villivakkam, Chennai-600049

## Profile Summary

- R&D professional with **6.5 years** of experience in editing journal articles, reviews, analysis in the field of **Animal Cell Culture, Molecular Biology, Genetic Engineering**
- Last worked with **Lee Kong Chian School of Medicine, NTU as Research Associate**
- Proficient in training the students by using interactive discussions and "hands-on" approaches to help students learn and get a better understanding of the concerned subject
- Substantial experience and high-proficiency in development and implementation of molecular assays and various techniques including **Western Blot, Immunostaining, DNA & RNA Extraction, Drug Treatment and Assays on Cell Lines and analysis through SDS-PAGE**
- Knowledge of characterizing all lab prepared compounds, documentation of data, state-of-the-art research techniques, setting-up, calibrating, operating & maintaining a variety of laboratory equipment & resolving procedural problems and issues
- The wealth of expertise entails **Biochemistry, Molecular Cell Biology, Enzyme Technology, Molecular Genetics and Microbial Bioprocess Technology**
- Possess qualitative experience in biological /clinical trial monitoring, writing protocols / manuscripts, data validation plan and designing case report form
- An enterprising and helpful leader with strong analytical, problem solving and interpersonal skills

## Career Timeline



## Core Competencies

Research & Development

Medical Devices Research

Biological Data Management

Regulatory Inspections

Biotechnology

Laboratory Management

## Organizational Experience

**Jan'14-Sep'14 with Lee Kong Chian School of Medicine, NTU as Research Associate**

**Mar'12- Dec'13 with Department of Paediatrics, NUS as Research Associate**

**Jan'10- Dec'10 with Department of Biochemistry, NUS as Research Assistant**

**Jul'08- Dec'09 with CSI, National University of Singapore as Research Assistant**

**Jun'06 – Oct'07 with Sri Sankara Senior Secondary School, Chennai as Post Graduate Teacher, Head – Biotechnology Department**

### **Role:**

- Integrated output data to biological database from scientific journal articles, patents, posters and letters by custom curation, indexing and abstraction
- Linked comprehensive terms to publicly available ontologies, which includes clinical terms, genes, proteins, motifs, organisms
- Participated in Implementing ISO for Lab practices in the field of Microbiology, Molecular Cell Biology, Enzyme Technology, Molecular Genetics and Microbial Bioprocess technology and so on
- Managed research laboratory functions as In-charge of Laboratory Maintenance System and In-charge of Liquid Nitrogen Tank in department of microbiology supervising and training a team of numerous students
- Conducted classes, seminars & practicals on microbiology including laboratory activities like routine microbiological testing & reporting, preservation & maintenance of bacterial & fungal cultures, evaluated quality control, led upcoming research projects & trials for students
- Proofread & edit records, including visual proofreading, electronic spell-check, grammar check, check for medical inconsistencies and inaccuracies
- Comprehensive review of microbial history and biological data to gather/abstract relevant information in accordance with provided guidelines
- Assisted in accepting new pharmaceutical research project paperwork and getting the project logged into the organisation system
- Provided technical expertise and helped as task lead in support of internal programs in Biology, Biotechnology and Chemistry domains for 'O' level and 'N' level students in India
- Followed regulatory requirements to develop daily reports and document findings into laboratory information systems
- Designed and performed standard molecular biology assays
- Performed bioinformatic analysis of nucleic acid and protein sequence data
- Contributed to the amplification and quantification of several samples using the PCR system

### **Significant Accomplishments:**

- Established a molecular laboratory at Lee Kong Chian School of Medicine, NTU in 2014; executed tasks from concept to management of productive department without any assistance; implemented all procedures, technologies and chose appropriate equipment
- Participated in many National & International technology events and product strategy workshops to understand future technology & product needs, some of these included Microarray Technology, FACS, Confocal Microscopy and so on

## Part-time Assignments

**Aug'05 – Dec'06 with D.G.Vaishnav College, Chennai as Undergraduate and Postgraduate Lecturer – Biotechnology Department**

## Thesis

**Title:** Acrylic Polymer Degradation (*Pseudomonas alcaligenes* and *Pseudomonas pseudoalcaligenes*)

**Organisation:** Central Leather Research Institute (Tannery Division)

**Responsibilities:**

Measured the extent of degradation of Acrylic Polymer, which forms a major component of the tannery effluents by *Pseudomonas* (*Pseudomonas alcaligenes* and *Pseudomonas pseudoalcaligenes*). The work was performed by finding the tolerance level of the bacterium towards the syntan followed by measuring the Chemical Oxygen Demand (COD) and then further analysis by automated UV-Visible Spectrophotometry followed by Infrared Spectroscopy

## Knowledge Purview

- Mammalian Tissue Culture (C2C12, Mouse Primary Culture- Myoblasts)
- Western Blot, Immunostaining, DNA and RNA Extraction
- Cryosectioning to perform immunofluorescence experiments
- Molecular Cloning, PCR, Mammalian Tissue Culture and Maintenance of Cell Lines
- Production and Purification of Recombinant Proteins
- Drug Treatment and Assays on Cell Lines; Analysis through SDS-PAGE

## Summer Training

**Organisation:** G.S. Hospital, Indira Nagar, Chennai

**Duration:** 2 months

**Work Profile:** Routine laboratory practices in Biochemistry and Microbiology

## Academic Details

- M.S. in Biotechnology from University of Madras in 2006
- B.S. in Biochemistry from University of Madras in 2004
- Recognised as College Gold Medalist in B.Sc. Biochemistry
- Won South Indian Paper Presentation on Neuroscience (Parkinson's Disease and Schizophrenia)
- Bagged First Prize in Inter-Collegiate Debate on the Genetic Aspects of Diabetes mellitus
- Attended National Symposium on Biotechnological Tools in Preserving the Biodiversity of Rare Medicinal Plants

## Academic Achievements

## Soft Skills

