**TRESA**

[**TRESA.338618@2freemail.com**](mailto:TRESA.338618@2freemail.com)

#### RESEARCH SCIENTIST

A self initiated bio technology post graduate with a record of achievement providing outstanding research skills, comprehensive knowledge of all standards and regulations and operational dexterity, in fast paced laboratory environments. Able to combine academic knowledge and practical applications to provide solutions – oriented services.

A great motivator who thrives off positive results and seeks opportunity in continuous learning and growth. Demonstrates exceptional problem solving skills by quick response and generating effective solutions.

#### TECHNICAL SKILLS AND KNOWLEDGE

* Proficient in biophysical techniques microscope imaging techniques such as Atomic Force Microscopy (AFM), Bright field microscopy, Dark field microscopy and Bright field microscopy and also UV-Vis Spectroscopy, Fourier transform infrared spectroscopy (FTIR), and protein crystallization.
* Experience in microbial techniques like streak plate procedure, quantification and isolation of pure bacterial colonies, isolation and culturing of various microorganisms from different types of samples, well versed in extracting antimicrobial, antifungal and antiparasitic properties from various plant extracts.
* Well versed in techniques like molecular techniques like DNA isolation PCR, SDS PAGE, ELISA, Cell attachment and maintenance of cell lines, Southern Blotting.
* Hands on experience in biochemical techniques such as isolation and purification of Secondary metabolites from different medicinal plants using Column chromatography, Thin layer chromatography and Gas chromatography.
* Good skills in Plant tissue culture that can be used for high scale secondary metabolite production.

**PROFESSIONAL EXPERIENCE**

* Worked as Research Scholar in Amrita Institute of Biotechnology, in the field of Microbial fuel cells.

Apart from the various alternatives of conventional energy sources, electricity generated by microorganisms can be an important source of renewable energy. The Microbial Fuel Cell (MFC) which harnesses this potential, offers possibilities of extracting energy from a wide range of substrates from complex organic wastes to inorganic carbon dioxide. Hence, electricity generation can be seamlessly coupled with bioremediation and carbon dioxide sequestration. Microbial fuel cell is an electrochemical device that captures the electrons generated by the microbes on utilization of the substrates (say for eg. waste water).

* Worked as Research Scholar in Amrita Biosensor Research Lab, in the area of glucose biosensor.

Diabetes mellitus is a public health problem affecting millions of people worldwide. Commercially available glucose sensors are enzyme based and has numerous drawbacks including high cost and insufficient long-term stability, both of which originate from the intrinsic nature of the enzymes. Keeping this in mind, a metal oxide based nonenzymatic glucose sensor is being explored for mass production and commercial viability.

* Worked as Research Assistant at St. Thomas, College in the area of antimicrobial properties of various plant extracts mainly *Clidemia hirta*.

The knowledge of their healing properties of plants has been transmitted over the centuries within and among human communities. Active compounds produced during secondary vegetal metabolism are usually responsible for the biological properties of some plant species used throughout the globe for various purposes, including treatment of infectious diseases. Products derived from plants may potentially control microbial growth in diverse situations and in the specific case of disease treatment, numerous studies have aimed to describe the chemical composition of these plant antimicrobials and the mechanisms involved in microbial growth inhibition, either separately or associated with conventional antimicrobials.

#### ACHIEVEMENTS

* Secured 4th Position at ABLE BEST 2011, a National Level Biotechnology Entrepreneurship Competition conducted by ABLE (Association of Biotechnology Led Enterprises)in association with DBT (Dept of Biotechnology, Govt. of India).
* Obtained Diploma Certificate in Value Education in the year 2009 from S.B. College.

#### CONFERENCES AND TRAINING

* Attended three days International conference on “NanoBio-NanoSolar” at Amrita Centre for Nano Science and Molecular Medicine, Amrita Institute of Medical Science, from 21st February to 24th February 2012.
* Attended four days workshop on Biotechnology Entrepreurship competition held at Bangalore from July 29th to August 1st organized by Association of Biotechnology Led Enterprises.
* Attended one week certificate course on Analytical Toxicology from 24th to 30th September 2011 at Amrita Institute of Medical Science.
* Attended one week job training on various wet lab techniques from 14th to 20th May 2009 at St Berchman’s College.
* Attended conference on the advantage and disadvantage of BT brinjal held at MACFAST, on December 10th 2009.

# PROJECTS

* Post Graduation Project on “Electrochemical Immobilization of ssDNA for the fabrication of Amperometric disposable DNA sensor” at Amrita Biosensor Lab, Amrita School of Engineering.
* Mini project on “Anti malarial activities of various herbal plants” at St Berchman’s College.

#### EDUCATION

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| --- | --- | --- | --- |
| **Sr. No** | **Exam** | **Year of Passing** | **Result** |
| 1 | Bsc Biotechnology & Botany | 2010 | 83% |
| 2 | Msc Biotechnology | 2012 | 7.05 CGPA |

#### PERSONAL PROFILE

Nationality :    Indian

Date of Birth : 17th April 1989

Visa Status : Visit Visa

Marital status : Married