

SANGEETHA HARISH

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OBJECTIVE

To pursue a career in biotechnology with full dedication and perseverance so that my research can benefit the society.

ACADEMIC QUALIFICATIONS

Year	Course	Institute	University/Board	Performance
2015-17	Post Graduation M.Sc Biotechnology	Union Christian College, Aluva, Ernakulam	Mahatma Gandhi University	63%
2012-15	Graduation B.Sc Biotechnology	Amrita School Of Biotechnology, Amritapuri, Kollam	Amrita University	77%
2012	HSS	Presentation Higher Secondary School, Chevayur, Calicut	Kerala State Board	75%
2010	SSLC	Presentation Higher Secondary School, Chevayur, Calicut	Kerala State Board	83%

PROJECTS UNDERTAKEN

1) RIBOTYPING OF CULTURABLE EUBACTERIA PRESENT IN DOMESTIC WASTE WATER

Ribotyping is a high throughput method that enables rapid identification of microorganisms. Involves isolation of genomic DNA, amplification of the 16SrRNA sequence and finally sequencing of the variable region to establish the identity of the bacteria. In the current project, Waste water samples were collected

aseptically and the organisms isolated were subjected further to ribotyping and identification employing sequencing.

2) **RAPID IMMUNOCHROMATOGRAPHIC ASSAY FOR THE DETECTION OF BRUCELLA ABORTUS ANTIBODIES FROM BLOOD SERUM OF BOVINE.**

Bovine brucellosis, caused by the bacterium *Brucella abortus*, is an economically important cause of abortions in cattle. Lateral flow immunoassay is a diagnostic method that enables rapid identification of the captured antibody developed during the infection. It does not require expensive equipments, highly trained laboratory personnel, stable reagents, and multistep sample handling or preparation. In the current project, I developed a rapid lateral flow assay to detect the captured antibody which is easy to use and can be utilized on the farm to reduce the time required for transport and laboratory diagnosis. The assay may be used to diagnose bovine brucella at an early stage of infection and could be an effective tool in controlling brucella infection.

ACHIEVEMENTS & EXTRACURRICULAR ACTIVITIES

- Participated in the '**Workshop on Hydroponics**' as part of National Level Multifest (VIDYUT) held on 1-3rd March 2013 at Amrita School of Biotechnology, Kollam, Kerala.
- Participated in the '**International Conference on Biotechnology for Innovative Applications**' held during 11-14th August 2013 at Amrita Vishwa Vidhyapeetam, Amritapuri Campus, Kerala.
- Participated in national seminar "**The Immune System: In Health and Disease**" organized by the post graduate department of zoology of Union Christian college, Aluva, Ernakulam on 22nd September 2016.
- Participated in "**VIT BIOSUMMIT**" on topic "**Bridging Industry and Academia**" held at VIT university, Vellore, Tamil Nadu on 17th and 18th October 2016.
- Successfully completed "**ISO 22000:2005, Food Safety Management Systems - Requirements for any organization in the Food Chain**", Awareness Training Programme conducted by INDOCERT on 22nd and 23rd February 2017 at U.C. College, Aluva, Ernakulam.
- Participated in the one day workshop on "**An insight to Intellectual Property Rights**" jointly organized by St. Peter's College, Kolenchery, Ernakulam & Patent Information Centre – Kerala/KSCSTE, held at St. Peter's College, Kolenchery, Ernakulam on 21st March 2017.
- Junior Red Cross Volunteer

PRACTICAL SKILLS

- **MICROBIOLOGY:** Sterilization techniques, Microscopy, Pure culture techniques (streak plate, spread plate and pour plate), Staining techniques, Enumeration of microorganisms, Preparation of various media, Operation and maintenance of autoclaves and laminar air flow hood, Maintenance and storage of aerobic and anaerobic microbial cultures, Antibiotic sensitivity assay, Biochemical tests (IMVIC, Carbohydrate fermentation, catalase, oxidase).
- **BIOCHEMISTRY, ENZYMOLOGY, CELL & MOLECULAR BIOLOGY:** Preparation of various stock solutions, reagents and buffers, Basic operation and maintenance of spectrophotometers, pH meter, Colorimeter, Quantitative analysis of biomolecules, Chromatographic techniques (TLC, Gel filtration, Paper chromatography, Column chromatography), AGE, SDS-PAGE, Determination of specific activity of enzymes, Isolation and purification of enzymes, Determination of enzyme kinetics, Isolation of genomic and plasmid DNA, RNA, Transformation, Conjugation, Ligation, Restriction digestion, PCR, Western Blotting.
- **IMMUNOLOGY, PLANT BIOTECHNOLOGY, INDUSTRIAL & ENVIRONMENTAL BIOTECHNOLOGY:** Blood grouping, Rapid immunodiffusion, Ouchterlony double diffusion, Widal test, Lateral flow immunoassay, Plant tissue culture techniques-Preparation of medium, Callus culture, Anther culture, Embryo culture, Isolation of protoplast, Water quality analysis, Determination of COD, BOD, DO, Fermentative production and immobilization of enzymes.
- **IT:** MS office

SKILLS & STRENGTHS

- Good oral and written communication skills
- Confident and determined
- Good learning capability and easily adaptable to any kind of working environment
- Ability to work in teams as well as independently

PERSONAL DETAILS

Date of Birth : 22nd September 1994
Gender : Female
Father's Name : K.R. Harish
Mother's Name : Sreevidhya Harish
Languages Known : English, Hindi, Malayalam and Tamil
Nationality : Indian
Hobbies : Reading, Cooking and Travelling

DECLARATION

I hereby declare that the information furnished above is true to the best of my knowledge.

Date:

Place: Ernakulam

Your's Sincerely,

Sangeetha Harish