

CURRICULUM VITAE

S.RAVICHANDRAN, M.Sc.,

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ACADEMIC QUALIFICATION

- **M.Sc. Biotechnology (2018-2020) First class with distinction (7.9 CGPA)**, Manonmaniam Sundaranar University, Tirunelveli, Tamilnadu, India.
- **B.Sc. Biotechnology (2015-2018) first class (6.3 CGPA)** Kongu Arts and science college, Erode, Tamilnadu, India.

RESEARCH EXPERIENCE:

- **Junior Research Fellow (DST-SHRI 2022-2024)**
Sathyabama Institute of Science and Technology, Chennai, India.
(May 2022 to May 2024)
 - Conducting animal model research with rodents.
- **Junior Research Fellow (DBT-BIRAC project)**
Sathyabama Institute of Science and Technology, Chennai, India.
(November 2020 to March 2022 (1 Year 5 months))
 - Gained a good practical exposure in cell culture assays like Cell migration, MTT, Immunofluorescence assay.
 - Expressed results and gathered knowledge in data interpretation.

AREA OF INTEREST:

Molecular biology, Bioinformatics, Microbiology.

TECHNICAL SKILLS:

Molecular biology: Western blotting, qPCR gene expression, Library preparation for DNA and RNA sequencing (Nanopore sequencer), Molecular cloning, Bacterial transformation, PCR, SDS PAGE, AGE, Histology and staining, Plasmid DNA and genomic DNA isolation from Bacteria, plant, animal cells.

Bioinformatics: Whole genome alignment, Molecular Dynamics (Gromacs) and Molecular docking, Linux terminal, R program (SeqinR), phylogenetic tree construction, GLC genomics workbench.

Animal Cell culture: Cell culture maintenance and passage, MTT assay, Scratch assay, Transfection, Immunofluorescence assay (IHC), Immunocytochemistry (ICC).

Microbiology: Isolation and screening of microorganisms, Anti-bacterial tests (Minimum inhibitory concentration, minimum bactericidal concentration)

Animal handling: Earthworm, Zebrafish, Rat, Mice handling and dissection.

Computer skills: Linux, Microsoft Office, Adobe Photoshop, Computer troubleshooting.

INSTRUMENTAL EXPERTISE:

Nanopore sequencer, Thermocycler, Microtome, Fluorescent microscopy, ChemiDoc imaging system.

PUBLICATIONS

- Research article entitled on “**Profiling microRNAs and finding their targets in the earthworm *Perionyx excavatus* during epimorphosis regeneration**” Manuscript communicated to Journal of Genetics and Genomics. Status: Under review.
- Research article entitled on “**Evaluation of anti-inflammatory potential of Marunthu Ku-lambu, a traditional ethnomedicine from Southern India, on paw and ear edema in Wistar rats**” Manuscript communicated to Current issues in molecular biology. Status: Under review.
- Research article entitled on “**Biochemical characterization of heat inactivated coelomic fluid of earthworm, *Perionyx excavatus* – a potential FBS alternative: Alternative to FBS for culturing cells**” Manuscript communicated to ALTEX - Alternatives to animal experimentation. Status: Under review.

PATENTS

- **Earthworm Coelomic fluid as a Potential blocking agent in Western Blotting Experiments (Patent filed No: 202041055479)**- Dr. S. Johnson Retnaraj Samuel, Dr. S. Jackson Durairaj, S.C. Karthikeyan, Dr. Y. Beryl Vedha, V. Saravanakumar, R. Kamarajan, **S. Ravichandran**, R. Melinda Grace.
- **Formulated heat inactivated coelomic fluid-based serum free media for adherent primary cells and cell lines (Patent filed No: 202341009593)**- Dr. S. Johnson Retnaraj Samuel, Dr. S. Jackson Durairaj, Dr. Y. Beryl Vedha, R. Melinda Grace, **S. Ravichandran**, V. Saravanakumar.

BOOK CHAPTER:

- Book chapter entitled on “**Importance of Vermicomposting and Vermiremediation technology in the current era**” was published in Springer Nature Publication.
- **E-Waste Management - Rising Concern On Existed Problems, Modern Perspectives and Innovative Solution (May-2021)**
- Authored for the book chapter at Computational Methods and Applications in Healthcare Domain (CRC Press, Taylor and Francis). Chapter Title: **Signatures of polyomic technologies**

and precision oncology in cancer therapeutics—strategies, potential and their challenges
accepted for publication.

TRAINING AND WORKSHOP ATTENDED:

- Participated in 7 days workshop on “**Karyashala - High-end workshop on advanced techniques in live confocal microscopy**” organized by Division of Biological Sciences, Indian Institute of Science (IISc), Bangalore, India (April-2022).
- Trained in “**One month Bioinformatics Workshop MULTI-OMIC’S BOX**” second edition (Jan- 2022).
- Attended “**2-days Cloud-based Hands-on Workshop: Computational Structure-based drug design and Molecular dynamics**” co-organized by ICMR-NICPR, Noida.
- Clinical lab training for 15 days at IRT Hospital, Perundurai.
- Undergone National level 3 days’ Workshop On “***Bionanoparticle Synthesis And Characterization***” – A research perspective held in Bharathiar University, Coimbatore.
- Two days of lecture workshop on ‘**Recent developments in Biochemistry**’.
- A two-day workshop on “**Recent Development in Bioinformatics and Biotechnology**” organized by Department of Biotechnology, Manonmaniam Sundaranar University, Tirunelveli.

POSTER PRESENTATION:

- Poster presented on the topic ‘**National science day**’ competition in Manonmaniam Sundaranar University, Tirunelveli.

ADDITIONAL COURSES:

- **Industrial biotechnology-NPTEL (73%)**
- **Basic in Animation and Web Technology** (practical experience)
- **Communicative skills- English,**
- **Organic Terrace Farming** (practical experience)
- **Wildlife ecology-NPTEL (69%)**

EXTRACURRICULAR ACTIVITIES

- Won prizes in **quiz** competitions.
- Won prizes in university level **Photography** competition
- An active volunteer of ‘**DST science camp**’ for consecutive three years.

REFERENCE

1) **Dr. S. Johnson Retnaraj Samuel, M.Sc., Ph.D., (CIMO fellow)**

Scientist 'D' / Associate Professor (Research),
Regeneration and Stem Cell Biology Lab,
Centre for Molecular and Nanomedical Sciences,
International Research Centre,
Sathyabama Institute of Science and Technology,
Chennai, India.
Email: johnnbt@sathyabama.ac.in.

2) **Dr.S.Sudhakar M.Sc., PhD**

Designation: Professor
Research Area: Cell Cycle and Regeneration Biology,
MS University, Tirunelveli
Email: sudhakar@msuniv.ac.in

3) **Manikandan Mohan**

Postdoctoral Associate
The University of Georgia
College of pharmacy (south)250, green street, Athens, USA.
Email; manikandanmohan@uga.edu

DECLARATION

I hereby declare that the particular given above are true to the best of my knowledge.

yours sincerely,

Place: Chennai, India

