

Resume: Sumithra R Weerasooriya

Department of Electrical and Computer Engineering
Roy G. Perry College of Engineering
Prairie View A&M University
Prairie View, TX 77446

PROFESSIONAL SUMMARY

Sri Lankan born American citizen, life science professional with over 20 years of research experience in the areas of biotechnology, molecular biology, microbiology, agricultural biology and clinical sciences. Performs cutting edge research complying with all laboratory biosafety protocols and standards. Offers knowledge of laboratory management, equipment maintenance, protocol development, data management, analysis and progress reporting.

EDUCATION

M.Sc. in Biology, Postgraduate Institute of Agriculture, University of Peradeniya, Sri Lanka, 2005
(Specializing in Biotechnology & Molecular Biology)

B.Sc. in Biology with second class honors, University of Peradeniya, Sri Lanka, 1992

BOARD CERTIFICATION

ASCP (American Society for Clinical Pathology) - Molecular Biology, 2016 – to date

SPECIAL TRAINING

Successfully completed all (1-4) WHO biosafety level training

PROFESSIONAL EXPERIENCE

1. Research Associate: Prairie View A&M University (at present)

Center for Computational Systems Biology:

Duties included: Designing, planning, conducting and coordinating experiments in support of basic and translational genomics research including sequencing library preparation, DNA/RNA sequencing, data processing/analysis and wet lab validation of hypothesis generated by bioinformatics analysis of high throughput genomics data; Evaluating and applying standard techniques of genomics research, focusing on short read Illumina sequencing and single cell studies; data management; Use of computers and laboratory or technical equipment to analyze and interpret RNAseq, single cell RNAseq, whole genome sequencing and epigenetics experiments by performing statistical analysis, and technical evaluation of research experiments and results; Supervision of undergraduate and/or graduate students and other laboratory, technical or field staff involved in research; Inventory management and ordering laboratory supplies.

2. Molecular Technologist: Access Dx LLC, Houston, Texas (2016 – 2017)

Department of Pharmacogenomics:

Duties included: Biological sample preparation (buccal swabs), Drug-gene testing, Genomic quality controlling, Data analysis and clinical reporting

Instruments used: Qiasymphony SP: Automated purification of nucleic acids and proteins; NanoQuant Plate: Quantification of nucleic acids; Tecan® Freedom EVO

System: Optimized robotic microplate handling; ABS ViiA 7 Real-Time PCR System: Conduct CYP450 2D6 copy number assays; QuantStudio 3D Digital PCR System: 12K Conduct flex open array assays.

Department of Toxicology:

Duties included: Toxicological sample preparation, Legal and illegal drug testing, Data analysis and toxicological reporting

Instruments used: Mindray-BS-480 Clinical Chemistry Analyzer (MedTest): Screening of biological samples; SHIMADZU 8050 LC/MS–MS: Quantitative and Qualitative analysis of biological samples.

3. Molecular Technologist: Companion Dx LLC, Houston, Texas (2014 - 2016)

Department of Toxicology:

Duties included: Toxicological screening, analysis and confirmation of legal and illegal substances in clinical samples, Toxicological reporting

Instruments used: Tecan® Freedom EVO System: Optimized robotic microplate handling; Mindray-BS-480 Clinical Chemistry Analyzer (MedTest): Screening of biological samples); SHIMADZU 8050 LC/MS – MS: Quantitative and Qualitative analysis of biological samples.

Department of Histology:

Duties included: Preparation of tissue specimens including microtome cutting and staining for histological/pathological examinations, perform manual microdissection and laser microdissection (LMD), prepare frozen tissue sections using cryostat, maintain all records and updates standard operating procedures. Histological reporting

Instruments used: Leica CM1860 UV-Cryostat; frozen tissue sectioning, Leica LMD 6500 Laser Microdissection Systems; isolating contamination free specific single cells or entire areas of tissue.

Department of Quality Control:

Duties included: Quality control testing on pharmacogenomics results of patients for personalized medication, Clinical reporting.

4. Research and Development Biologist: The University of Mississippi (2009–2012)

National Center for Natural Products Research:

Duties included: Conducted mosquito bioassays on plant natural products, Managed, analyzed and quality controlled large data sets by using specially designed software, Managed the laboratory, junior staff and student workers, Made presentations and progress reports quarterly.

5. Senior Research Assistant: The University of Hong Kong, Hong Kong (1999- 2001)

Department of Biology:

Duties included: Researched on economically important plants to improve the yield and nutritional value using biotechnological and molecular methods, Optimized the experimental methods and developed new protocols, Managed data and analyzed using statistical software, Managed the laboratory and student workers, Compiled monthly and annual progress reports.

6. Research Officer: Department of Agriculture, Sri Lanka (1998-1999)

The Horticultural Research & Development Institute

Duties included: Researched on the development of root and tuber crops using breeding and tissue culture, Managed the laboratory and junior staff, Made annual

progress reports.

7. **Research Assistant:** Department of Agricultural Biology, Faculty of Agriculture, University of Peradeniya, Sri Lanka (1996- 1997)
Duties included: Conducted experiments on biological controlling of insects and pests in vegetable crops, Micro-propagation of medicinally important plants in Sri Lanka, Management of tissue culture laboratory and management of explant collection.
8. **Assistant Lecturer:** Department of Agricultural Biology, Faculty of Agriculture, University of Peradeniya (1994- 1995)
Duties included: Undergraduate teaching in Agricultural Biology & Entomology
9. **Assistant Lecturer:** Department of Food Science & Technology, Faculty of Agriculture, University of Peradeniya (1992- 1993)
Duties included: Undergraduate teaching in Food Science & Nutrition

OTHER SKILLS

- Use of both windows and apple platforms of common scientific software used in academic and industrial research.
- Experimental designing and development of SOPs
- Light and electronic microscopy
- Database management and big data handling
- Experimental protocol evaluation and development
- Ordering and purchasing of laboratory reagents and supplies
- Inventory and log management

Department of Electrical and Computer Engineering Roy G. Perry College of Engineering Prairie View A&M University Prairie View, TX 77446