SARAH JAISON

Designation: Assistant Professor, Department of Botany, PSGR Krishnammmal College, Coimbatore, Tamil Nadu.
Research Experience: 15 Years
Teaching Experience: 08 Years
Area of Specialization: Environmental Biotechnology, Root and Soil Biology
Email: sarah@psgrkcw.ac.in; sarahjaison@gmail.com

Education

2002-2005: Bangalore University
BSc (Chemistry, Botany, Zoology)
2005-2007: Bangalore University
MSc Biotechnology
2012-2014: Bharathiar University (Distance Education)
MSc Botany
2009-2014: **Bharathiar University**
PhD Botany

Professional Experience

2015-2016: Research Associate, Bharathiar University, Coimbatore
DBT Indo-Swiss Collaborative Project- Biofertilization and Bioirrigation for sustainable mixed cropping of pigeon pea and finger millet
2018-Till now: Assistant Professor, Department of Botany, PSGR Krishnammal College, Coimbatore

Selected Research Publications

1. Patterns of endorhizal fungal associations in fruit crops of southern India. Journal of Plant Nutrition and Soil Science. 2012 Aug;175(4):572-81.
2. Sathiyadash K, Muthukumar T, Bala Murugan S, Sathishkumar R, Uma E, Jaison S, Priyadharsini P. Asymbiotic Seed Germination, Mycorrhization and Seedling Development of *Acampae Praemorsa* (Roxb.) Blatt. & Mc Cann, A Common South Indian Orchid.
3. Assessment of metal accumulation capacity of *Brachiaria ramosa* collected from cement waste dumping area for the remediation of metal contaminated soil. Ecological engineering. 2013 Nov 1; 60:96-8.
4. Chromium accumulation in medicinal plants growing naturally on tannery contaminated and non-contaminated soils. Biological Trace Element Research. 2017 Jan;175(1):223-35.
5. Zinc Influences Regeneration of *Talinum portulacifolium* Stem Cuttings in Nutrient Solution. Notulae Scientia Biologicae. 2018 Dec 21;10(4):530-9.

6. Epigenetics for Combating Chromium Stress in Plants. In Epigenetics for Climate-Smart and Sustainable Agriculture 2025 Jul 29 (pp. 210-222).
7. High-throughput Metabolomics for Plant Ecology and Biodiversity Research. In High-Throughput Plant Metabolomics 2025 Jun 30 (pp. 405-426).
8. Technological Advancements in Plant High-throughput Metabolomics. In High-Throughput Plant Metabolomics 2025 Jun 30 (pp. 67-95). GB:
9. Dissecting Plant-Pathogen Interactions by High-Throughput Metabolomics for Developing Biotic Stress-Resilient Crops. In Plant High-Throughput Phenotyping and Functional Phenomics 2025 (pp. 345-362).
10. High-Throughput Metabolomics for Agricultural Research. In Plant High-Throughput Phenotyping and Functional Phenomics 2025 (pp. 323-344).

Projects

Ongoing:

1. DBT Project (2025-2028)- Role of Biofilms in Chromium Reduction and Microplastic Degradation in Tannery Contaminated Soils-₹ 26.43 L **(Principal Investigator)**
2. DBT BUILDER Project (2022–2027): 1.2 Crore **(Co-PI)**
3. BIRAC EYUVA Grant (2024–2025): Ecofriendly Sanitary Pads from Fibres - ₹2.5 L **(Mentor)**

Completed:

1. GRG TRUST Major Project (2018–2020): Microplastic and Heavy Metal pollution in the Wetlands of Coimbatore- ₹2.5 L **(Principal Investigator)**
2. TNSCST Student Project (2021–2022)- Microplastic contamination in the Wetlands of Coimbatote-₹ 7,500 **(Mentor)**
3. NCSTC Project (2020–2021): Awareness of Organic Farming-₹2.5 L **(Team Member)**
4. BIRAC EYUVA Grant (2023–2024): Dehydrated Vegetable Flakes-₹2.5 L **(Mentor)**

Patents: 2 (Filed)

GenBank Submissions: 7

Research Guidance

PhD:1 (Ongoing)

Honours And Awards

i. Awarded the NSF Outstanding best research paper award: 2018
ii. Awardee of Women's Day by the Lions club of Coimbatore Sidco Industrial Estate: 2024 for Outstanding Contributions

Reviewer

Journal of Bioremediation

Institutional Responsibilities

BIRAC EYUVA SCHEME: Co-Investigator
NIRF Ranking
IDA Ranking
Venoms and Toxins Course Co-Ordinator