Department of Biotechnology & Genetics

Faculty Name: Dr. S. A. Sheshadri

Specialization: Plant Molecular Biology

Education

- Ph.D. (Plant Molecular Biology) from SASTRA Deemed University

Work Experience

- Assistant Professor at Department of Life Sciences, Jain (Deemed-to-be University): April 2021 - Present
- Senior Research Fellow at SASTRA Deemed University
  - May 2018 – April 2021
- Junior Research Fellow at SASTRA Deemed University
  - April 2015 – April 2018
- Teaching Assistant at SASTRA Deemed University
  - August 2014 – April 2015
- Scientist-B at Triphase Pharmaceuticals Pvt. Ltd., Mysore
  - August 2013 – July 2014

Key Areas of Research interest

- Plant Genetic Engineering
- Gene editing
- Omics studies
- Pathway engineering for enhanced secondary metabolites production

Publications

- **Sheshadri SA,** Nishanth MJ, and Simon B. Melatonin influences terpenoid indole alkaloids biosynthesis and 5'upstream-mediated regulation of *Cell wall invertase* in *Catharanthus roseus*. ***J. Plant Growth Regul.*** doi: 10.1007/s00344-022-10705-2
- Nishanth MJ*, **Sheshadri SA***, Rathore SS, Srinidhi S, and Simon B. Expression analysis of *Cell wall invertase* under abiotic stress conditions influencing specialized metabolism in *Catharanthus roseus*. ***Sci. Rep.*** 2018; 8: 15059. doi:10.1038/s41598-018-33415-w (*equal first authors)

- **Sheshadri SA**, Nishanth MJ, Yamine V, Simon B. Effect of Melatonin on the stability and expression of reference genes in *Catharanthus roseus*. ***Sci. Rep.*** 2018; 8, 2222. doi: 10.1038/s41598-018-20474-2.
- **Sheshadri SA**, Nishanth MJ, Harita N, Brindha P, Simon B. Comparative genome based *cis*-elements analysis in the 5' upstream and 3' downstream region of *Cell wall invertase* and *Phenylalanine ammonia lyase* in *Nicotiana benthamiana*. ***Comp. Biol. Chem.*** 2018. 72: 181-191. doi: 10.1016/j.compbiolchem.2017.11.004.
- **Sheshadri SA**, Nishanth MJ and Simon B. Stress-Mediated *cis*-Element Transcription Factor Interactions Interconnecting Primary and Specialized Metabolism *in planta*. ***Front. Plant Sci.*** 2016; 7:1725. 2016. doi: 10.3389/fpls.2016.01725.
- **Sheshadri SA**, Sriram S, Balamurugan P, Anupriya R, Princy SA, Brindha P, and Simon B. Melatonin improves bioreductant capacity and silver nanoparticles synthesis using *Catharanthus roseus* leaves. ***RSC Adv.*** 2015; 5(59), 47548. doi: 10.1039/C5RA01848J

Projects (External funded/Internal): Internal - 01