DR. SAHAYA SHIBU B.

Designation: Assistant Professor & Head,
Department Biotechnology
Qualification: Ph.D
Email-ID: shibubt@siasindia.org
Teaching and Research Experience: 11 years

Dr. Sahaya Shibu B holds an undergraduate degree in Biotechnology from Madurai Kamaraj University and a postgraduate degree in Biotechnology from Bharathiar University, Tamil Nadu. He earned his Ph.D. in Biotechnology in 2014 from Karpagam Academy of Higher Education, Tamil Nadu, with a research focus on *"In vitro propagation and screening of biological constituents in orchids endemic to the Western Ghats, Tamil Nadu, India."*

As a dedicated researcher in Plant Biotechnology, Dr. Sahaya Shibu specializes in developing protocols for asymbiotic seed germination and multiple shoot induction in six endemic orchid species of the Western Ghats. His research contributions include 23 peer-reviewed publications**,** one book chapter**,** and two patents in the field of soilless cultivation systems (Hydroponics and Aeroponics).

In addition to his academic pursuits, he serves as a consultant in Plant Tissue Culture and Hydroponics**,** and has been a resource person for several invited lectures. His achievements have been recognized with several prestigious awards, including:

- **Young Scientist Award (2021)**
- **Shri C.V. Jacob Award (2021)**
- **Best Teacher Award (2018–19)**
- **Sadguru Award (2014)**
- **Best Research Paper/Oral Presentation Awards** (2011, 2013, 2014, 2021)

Dr. Sahaya Shibu B is also an active member of the *Society of Biotechnologist (India)*.

AREA OF INTERESTS

- Plant Micropropagation Technology/Plant Biotechnology
- Phytochemical Analysis & Discovery
- Soilless Cultivation Systems
- Vertical Farming & Smart Cultivation

Project Undertaken	***Industry sponsored project***	*2022-2023*

Publications

Amit Sen, Nalini Tomer, Hemlata Srivastava, Manas Mathur, **Sahaya Shibu B**., Sarmad Moin, 2024. The bioactive benefits of *Chenopodium quinoa* crude protein: From antibacterial to anticancer properties. AsPac J. Mol. Biol. Biotechnol. Vol. 32 (4) : 222-230

Amit Sen, Gunjan Sharma, Nalini Tomer, **Sahaya Shibu B**, Sarmad Moin, 2024. Isolation, Purification, and Characterization of Bioactive Peptide from *Chenopodium quinoa* Seeds: Therapeutic and Functional Insights. Journal of Applied Pharmaceutical Research. Volume 12 Issue 6, Page 184 – 191

Sahaya Shibu B, Jasna Ali T.M., Hemlata Srivastava,Servin Wesley P, 2024, Impact of Plant Growth Regulators on Inducing Multiple Shoots In *Chromolaenaodorata*(L.) R.M.King & H.Rob.Afr. J. Biomed. Res. Vol. 27(3s) (October); 2739 -2744

Sahaya Shibu, Agila Gopinath, Sarmad Moin, Servin Wesley, 2024, *In vitro* Propagation of *Eryngium foetidum* L. via Callus Induction and Multiple Shoot Formation, REDVET- Revista electronica de Veterinaria, vol 25, No, 1S,1067-1071

Zoya zaidi, Gunjan Sharma, **Sahaya Shibu B**, Mohammed Asim Khan, Sarmad Moin, G. Sundarajan, 2024, Insilico Prediction of Pharmacological Properties of the 2-(4-Allylpiperazin-1-Y1)-1-(1-(4-Nitophenyl)-1H-Tetrazol-5-Y1) Ethanone, African Journal of Biological Sciences, 6 (Si4), 2522-2540

Ramsheena Payambrot, **Sahaya Shibu**, Auswaf Ahsan, Abdul Majeed Kummangal. 2023. Salivary Marker IL-6 for Detection of Potentially Malignant Oral Disorders: A Pilot Study. Oral and Maxillofacial Pathology Journal: 14 (2), 99-103

Aswathi, **Sahaya Shibu**, Agila Gopinath and Akhila Mohan. 2017. *In vitro* propagation of *Spathoglottis plicata* blume via asymbiotic seed germination. Int. J. Adv. Res. 5(3), 431-438

B Sahaya Shibu, P Servin Wesley, Sarmad Moin, B Chitra Devi. 2014. In vitro regeneration of *Coelogyne nervosa* A.Rich. and *Eria pseudoclavicaulis* Blatt., threatened orchids of Western Ghats, India. Indian journal of Experimental Biology 52: 658-663.

Sarmad Moin, Chitra B. Devi, Servin P. Wesley, **Shibu B. Sahaya** & Zoya Zaidid. 2014. Comparative Phytochemical and Antibacterial Screening of Important Medicinal Plants of Celastraceae. Journal of Biologically Active Products from Nature. 4 (1): 37 – 43

T.P. Ragi and B. **Sahaya Shibu,** 2014. *In vitro* propagation of *Boerhavia diffusa* L. (Nyctaginaceae) via nodal and leaf explants. AsPac J. Mol. Biol. Biotechnol. Vol. 22 (3) : 219-223.

Sahaya Shibu B, Chitra Devi B, Sarmad Moin, Servin Wesley P, 2013. Evaluation of Bioactive potential of *Coelogyne nervosa* A.Rich. - An endemic medicinal orchid of Western Ghats. Asian Journal of Pharmaceutical and Clinical Research. 6(1): 114-118.

Sahaya Shibu B, Servin Wesley P, Sarmad Moin, Chitra Devi B, 2012. *Ex situ* conservation of endemic orchids of Western Ghats, Tamilnadu, India via asymbiotic seed germination. Advances in Applied Science Research 3(5): 3339-3343.

Sarmad Moin, **Sahaya Shibu B**, Servin Wesley P, Chitra Devi B, 2012. Bioactive potential of *Coelogyne stricta* (D.Don) Schltr: An ornamental and medicinally important orchid. Journal of Pharmacy Research 5(4): 2191-2196.

Sarmad Moin, **Sahaya Shibu**, Servin Wesley, Chitra Devi B. 2012. Antimicrobial activity of *in vitro* raised Acmella calva (DC.) R.K.Jansen. International Journal of Pharmacy and Pharmaceutical Sciences 4 (5) 124-127.

Sarmad Moin, **Sahaya Shibu B**, Servin Wesley P, Chitra Devi B. 2012. In vitro Screening of Antibacterial Protein Activity from Medicinal and Economically Important Plants Seed. Drug Invention Today. 4(10) 533-536.

Sarmad Moin, **Sahaya Shibu B**, Servin Wesley P, Chitra Devi B. 2012. Comparative evaluation of the antimicrobial activity of protein from medicinal and economically important plants. International Journal of Pharmaceutical Sciences Review and Research. 17(1) 81-85.

Chitra Devi B, Mahendran P, Servin Wesley P, **Sahaya Shibu B**, Vetrivel P, Mallagivathi D, 2012. Micropropagation of *Acmella calva* using encapsulated *invitro* nodal explants. Journal of Tropical Medicinal Plants.13(1): 33-41.

Chitra Devi B, **Sahaya Shibu B**, Servin Wesley P. 2012. In vitro regeneration of Coelogyne stricta Direct somatic embryogenesis. Journal of Tropical Medicinal Plants.13(2): 153-161

Servin Wesley P, Chitra Devi B, Sarmad Moin, **Sahaya Shibu B**. *In Vitro* Phytochemical Screening, Free Radical Scavenging Activity And Anticancer Activity Of *Abutilon hirtum* (Lam.) Sweet (Malvaceae), 2013. International Journal of PharmTech Research. 5 (1): 155-161.

Servin Wesley P, Chitra Devi B, **Sahaya Shibu B**, Sarmad Moin. 2013. Determination of trace elements and functional groups analysis of *Abutilon hirtum* (Lam.) Sweet with energy dispersive X-ray and FT-IR Spectroscopy Research J. Pharm. and Tech. 6(3): 264-266

Servin Wesley P, Chitra Devi B, **Sahaya Shibu B** and Sarmad Moin. 2013. *In vitro* propagation of *Coelogyne breviscapa* Lindl., *Dendrobium aqueum Lindl*., and *Flickingeria nodosa* (Dalz.) Seidenf. via asymbiotic seed germination. As Pac J. Mol. Biol. Biotechnol. 21(1): 26-32

Sahaya Shibu B, Servin Wesley P, Sarmad Moin, Chitra Devi B, 2012. Preliminary phytochemical screening, antibacterial and antioxidant activity of *Eria pseudoclavicaulis* Blatt. -An endemic orchid of Western Ghats. American journal of Pharmtech Research 2(6): 518-525

Sarmad Moin, **Sahaya Shibu Babu**, Arumugam Mahalakshmipriya, 2012. In vitro callus production and antibacterial activity of *Barleria lupulina* Lindl. As. Pac J. Mol. Biol. Biotechnology 20 (2): 59-64

Patent

- Aeroponic Device for Home Gardening 451950-001, Date: 19/03/2025
- Portable Hydroponics System (409969-001), Date: 10/03/2024

Book Chapter: *In-vitro* conservation of Orchidaceae- A review, Taxonomy of Angiosperms, Field to Laboratory, pg-117-130

Presentations

Ex situ conservation of endangered medicinal orchid *Coelogyne nervosa* A.rich. *Via* asymbiotic seed germination and pseudobulb culture in a UGC sponsored Online National Conference on Recent Trends in Biology organized by NEWMAN COLLEGE, Sep 28 and 29, 2021

In vitro Conservation of Endangered Medicinal orchid *Coelogyne nervosa* via pseudobulb culture in an International Virtual Conference on Environment, Agriculture, Human and Animal Health organized by Voice of Indian Concern for Environment (VOICE), June 5th and 6th 2021

In vitro conservation of *Eria pseudoclavicaulis* Blatt., threatened orchid of Western Ghats, India via asymbiotic seed germination and callus induction in a National Virtual conference on recent breakthrough in biotechnology (NCRBB 2021)organized by Department of Human Genetics and Molecular Biology, Bharathiyar University Coimbatore & Society for Biotechnologist India (SBTI), 22-23 Jan 2021

In vitro propagation of *Spathoglottis plicate* in a Two day National Symbosium on Modern Biological Sciences held on 20th and 21st Feb 2017 organized by Department of Bioscience and Research, SNMV CAS, Coimbatore