

**Name : Dr.B.S. Chithra Devi**

**Designation : Assistant Professor**

**Department :Botany**

**Qualification : M.Sc.; M.Phil.; Ph.D. Botany**

**Experience :Teaching -16 Years**

**Research:20Years**

**AreaofSpecialization(s) :Biotech-Driven Conservation & Drug Discovery for Sustainable Medicine,  
Agriculture, & Environment**

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#### **AcademicQualifications**

<b>Degree</b>	<b>Branch</b>	<b>Institution/UniversityName</b>	<b>YearofGraduation</b>
Ph.D.	Botany	Bharathiar University	2009
			2007
M.Phil.	Botany	Bharathiar University	2005
M. Sc.	Botany	PSGR Krishnammal College for Women	2003
B.Sc.	Botany	PSGR Krishnammal College for Women	2001

#### **AdditionalQualifications**

<b>Diploma/ Vocational/ Certification</b>	<b>Area of Specialization</b>	<b>Institution/University/AgencyName</b>	<b>Year</b>
PG Diploma	Bioinformatics	Bharathiar University	2007

## Research Guidance

Programme	No.ofScholars	
	Completed	Pursuing
M.Phil.	03	Completed
Ph.D.	04	03

## Research Publications (Indexed)

### International

1. **Chitra Devi, B.** and Kamalam, M.(2007). “*In vitro* propagation of an endangered medicinal plant - *Nilgirianthus ciliatus* (Nees.)Bremek.” *Phytomorphology*. **57** (3 & 4): 123-128.
2. Mahendran, G.; **Chitra Devi. B.**; Banu Chitra, N. and Narmatha Bai, V. (2007). Micropropagation of *Swertia angustifolia*. *J. Trop. Med. Plants*. **8**(2): 214-218.
3. **Chitra Devi, B.** and Narmathabai, V. (2011) Somatic embryogenesis in the medicinal legume *Desmodium motorium* (Houtt.)Merr. *Plant Cell Tiss Organ Cult* **106**:409-418.
4. **Chitra Devi, B.**, Mahendran, P., Servin Wesley, P., Sahaya Shibu,B., Vetrivel, P., Malligavathi, D. (2012) Micropropagation of *Acmella calva* using encapsulated *in vitro* nodal explants. *J. Trop. Med. Plants*. **13**(1): 33-41.
5. **Chitra Devi, B.**, Sahaya Shibu,B., Servin Wesley, P. (2012) *In vitro* regeneration of *Coelogyne stricta* (D.Don) Schltr. (Orchidaceae) via direct somatic embryogenesis, direct and callus-mediated protocorm-like body formation. *J. Trop. Med. Plants*. **13**(2):153-161
6. 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.
7. 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.
8. 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.
9. Sarmad Moin, Sahaya Shibu,B., Servin Wesley,P., **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.
10. Sahaya Shibu,B., **Chitra Devi, B.**, Servin Wesley, P., Sarmad Moin (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.
11. Sahaya Shibu, B., Sarmad Moin, Servin Wesley, P., **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.

12. Sahaya Shibu, B., Sarmad Moin, Servin Wesley, P., **Chitra Devi, B.** (2013) Evaluation of bioactive potential of *Coelogyne nervosa* A.Rich. - an endemic medicinal orchid of Western Ghats, India. *Asian Journal of Pharmaceutical and Clinical Research*. **6(1)**: 114-118.
13. Servin Wesley, P., **Chitra Devi, B.**, Sarmad Moin, Sahaya Shibu, B. (2013) *In vitro* phytochemical screening, free radical scavenging activity and anticancer activity of *Abutilon hirtum* (Lam.) Sweet (Malvaceae). *International Journal of Pharmtech Research*. **5 (1)**: 155-161.
14. 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 Journal of Pharmacy and Technology*. 6(3):264-266
15. Servin Wesley, P., **Chitra Devi, B.**, Sahaya Shibu, B., Sarmad Moin. (2013) *In vitro* propagation of *Coelogyne breviscapa* Lindl., *Dendrobium aqueum* Lindl., and *Flickingeria nodosa* (Dalz.) Seidenf. via aymbiotic seed germination. *Asia Pacific Journal of Molecular Biology and Biotechnology*. 21 (1) : 26-32
16. Sahaya Shibu, B., Servin Wesley, P., Sarmad Moin, **Chitra Devi, B.\*** (2013) *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
17. **Chitra Devi, B.** and Narmathabai, V. (2013). *In vitro* regeneration of plantlets of *Desmodium motorium* and isolation of certain metabolites from them. *J. Trop. Med. Plants*. 14(1&2): 1-12
18. Sarmad Moin, **Chitra Devi, B.**, Sahaya Shibu, B., Servin Wesley, P., Zoya Zaidi (2014). Comparative phytochemical and antibacterial screening of important medicinal plants of Celastraceae. *Journal of Biologically Active Products from Nature* 4(1): 37-43.
19. Chitra Devi, B. and A. Kalaipriya 2018. Micropropagation of *Acmella calva* (DC.) R.K. Jansen (Asteraceae) from in vitro nodal explants *Adv. Appl. Res.* 10 (1) pp 23 – 28
20. Sharone Gladies, E., Krishnaveni, T. and Chithra Devi, B.S. 2019. In vitro regeneration of *Pholidota pallida* Lindl. (Orchidaceae). *Advances in Applied Research*, 11(1):13-18.
21. **Sharone gladies E. and Chithra Devi B. S. 2021.** Bioactivity of Endemic Orchids of Western Ghats; *Pholidota pallida* Lindl And *Arundina graminifolia* (D. Don) Hochr.. *Plant Archives* Volume 21, No 1, 2021 pp. 1214-1220.
22. **Sharone gladies E. and Chithra Devi B. S. 2021.** *In vitro* Regeneration of *Arundina graminifolia* (D. Don) Hochr. *Plant Archives* Volume 21, No 1, 2021 pp. 1851-1855
23. Chithra Devi, B.S., Sangilimuthu, A., Daanya, V. 2021. Slow-growth conservation- cryopreservation and Analysis of genetic stability of in vitro regenerated *Coelogyne Nervosa* A.Rich A endemic orchid. *International Journal of Research in Pharmaceutical Sciences*, **Volume** 12(2), **Year** 2021, **Pages** 1695-1698
24. Maruthamuthu Rathinam Elakkiya, Mohandas Krishnasreya, Sureshkumar Tharani, Muthukrishnan Arun, L. Vijayalakshmi, Jiseok Lim, Ayman A. Ghfar and Balasundaram Saraswathy Chithradevi. 2025. Targeting CDK4/6 in Cancer: Molecular Docking and Cytotoxic Evaluation of *Thottea siliquosa* Root Extract. *Biomedicines-MDPI*, Volume (13):7, 2025, 1-19.

#### Other Publications: International/National

1. Integrated Molecular Strategies for Enhanced Production of Anti-Cancer Compounds from *Abutilon hirtum* (Lam.) Sweet (Malvaceae). Balasundaram Saraswathy Chithra Devi, S. Tharani, M. R. Elakkiya, M. Krishnasreya, P. Servin Wesley. In: *Biotechnology, Multiple Omics, and Precision Breeding in Medicinal Plants*, Editor Jen-Tsung Chen, 1st Edition, 2025, CRC Press, Pages 20

2. Integrated Molecular Strategies for Enhanced Production of Medicinal Plant-Derived Alkaloids. Balasundaram Saraswathy Chithra Devi, M. Krishnasreya, S. Tharani, M. R. Elakkiya. In: Biotechnology, Multiple Omics, and Precision Breeding in Medicinal Plants, Editor Jen-Tsung Chen, 1st Edition, 2025, CRC Press, Pages 16
3. Mutagenesis for Enhanced Secondary Metabolites Production in Medicinal Plants. S. Tharani, V. N. Mutharaian, R. Thirugnanasampandan, Sarmad Moin, Balasundaram Saraswathy Chithra Devi. In: Biotechnology, Multiple Omics, and Precision Breeding in Medicinal Plants, Editor Jen-Tsung Chen, 1st Edition, 2025, CRC Press, Pages 18
4. Stem-Cell Therapy for Anti-Aging. Tharani Sureshkumar, Krishnasreya Mohandas, Elakkiya Maruthamuthu Rathinam, Chitra Devi Balasundaram Saraswathy and Sarmad Moin, In: Drug Discovery and Antiaging Approaches for Human Longevity. 2025 |Pages: 20. ISBN13: 9798369397305|ISBN13 Softcover: 9798369397312|EISBN13: 9798369397329DOI: 10.4018/979-8-3693-9730-5.ch006 Editor: Editor Jen-Tsung Chen. IGI Global Scientific Publishing
5. Biology, Genetics and Molecular Aspects of Aging: An Update. Elakkiya Maruthamuthu Rathinam, Krishnasreya Mohandas, Tharani Sureshkumar and Chithra Devi Balasundaram. In: Drug Discovery and Antiaging Approaches for Human Longevity. 2025 |Pages: 28. DOI: 10.4018/979-8-3693-9730-5.ch002. Editor Jen-Tsung Chen. IGI Global Scientific Publishing

#### Acted as a Resource Person

1. **'Biodiversity'** 2009 Training in Plant Taxonomy, Departments of Botany & Biotechnology, Karpagam University, Coimbatore.
2. **'Propagation of Medicinal Plants through Plant Tissue Culture'** 2010 State Level Workshop on Therapeutic uses and Cultivation of Medicinal Plants. Department of Biochemistry, K.S. Rangasamy College of Arts and Science, Thiruchengode.
3. **'Plant Tissue Culture in Medicinal Plants'** 2010 Special Lecture Department of Botany, Gobi Arts and Science College, Gobichettipalayam.

#### Reviewer in journal

- Frontiers
- Scientia Horticulturae
- Plant Cell Tissue and Organ Culture
- IGI Global Scientific Publishing

#### Paper Presentations in Conference

##### International

1. **Chitra Devi, B.**, Narmatha Bai, V. 2010. *In vitro* propagation and phytochemical studies on *Desmodium motorium* (Houtt.) Merr. – a medicinal legume. International Conference on Medicinal Plants and Herbal Drugs: Challenges and Opportunities in Cultivation, Sustainable Utilization and Conservation (ICMPHD 2010). Department of Botany, Pachaiyappa's College, Chennai, Tamil Nadu, INDIA.
2. Sahaya Shibu, B., **Chitra Devi, B.** 2012. Effect of temperature and storage on encapsulated *in vitro* nodal explants of *Acmella calva* (DC.) R.K.Jansen (Asteraceae). International conference on Blooming Species: A Prosperous Terrain for Posterity. Vellalar College for Women (Autonomous), Erode, Tamil Nadu, INDIA, p. 1
3. Servin Wesley, P., **Chitra Devi, B.** 2012. *In vitro* regeneration of *Dendrobium aqueum* Lindl., - An endemic orchid. International conference on Blooming Species: A Prosperous Terrain for Posterity. Vellalar College for Women (Autonomous), Erode, Tamil Nadu, INDIA, p. 3
4. Sathiyavathi, P., **Chitra Devi, B.** 2012. *In vitro* regeneration studies on *Acmella calva* (DC.) R.K.Jansen (Asteraceae). International conference on Blooming Species: A Prosperous Terrain for Posterity. Vellalar College for Women (Autonomous), Erode, Tamil Nadu, INDIA, p. 4

5. Sarmadmoin, **Chitra Devi, B.** 2012. Evaluation of antibacterial activity and phytochemical screening of *Loesneriella obtusifolia* (Roxb.) A.C.Smith and *Cassine glauca* (Rottb.) Kuntze leaves. International conference on Blooming Species: A Prosperous Terrain for Posterity. Vellalar College for Women (Autonomous), Erode, Tamil Nadu, INDIA, p. 54
6. Sahaya Shibu, B.,\*Servin Wesley, P., **Chitra Devi, B.** 2013. *In vitro* conservation of potentially bioactive orchids endemic to Western Ghats, Tamil Nadu, India. International Conference on Conservation Strategies for Bioresources. P.S.G.R. Krishnammal College for Women, Coimbatore, Tamil Nadu, INDIA. p. 55(\* **Best Oral Presentation**).
7. Servin Wesley, P., Sarmad Moin, Sahaya Shibu, B., **Chitra Devi, B.** 2013. Bioactive potential of *Coelogyne stricta* (D.Don) Schltr: An ornamental and medicinally important orchid. International Conference on Conservation Strategies for Bioresources. P.S.G.R. Krishnammal College for Women, Coimbatore, Tamil Nadu, INDIA. p. 28

## National

1. **Chitra Devi, B.** 2005. *In vitro* propagation of an endangered medicinal plant - *Nilgirianthus ciliatus* (Nees.) Bremek. using internodal explants. National Seminar on Medicinal plants research – an industry oriented perspective. Dr. G. R. Damodaran College of Science, Coimbatore, Tamil Nadu, INDIA. p. 99 (**Best oral presentation**)
2. **Chitra Devi, B.**, Gayathri, M., Rashida Banu, A.M., Narmatha Bai, V. 2007. *In vitro* asymbiotic seed germination of *Coelogyne prolifera* Lindl. and *Vanda testacea* Lindl) Reich. F. National conference on Biotechnology and conservation of endangered species. National Biological Association for Students, Chennai, Tamil Nadu, INDIA. p. 13
3. **Chitra Devi, B.**, Narmatha Bai, V., Indhumathy, S. 2010. *In vitro* micropropagation of *Rhinacanthus nasutus* (L.) Kurz. – a medicinal plant. UGC sponsored National level Seminar on Emerging Trends in Plant Biotechnology. Government Arts College, Coimbatore, Tamil Nadu, INDIA. p. 80
4. Sahaya Shibu, B., **Chitra Devi, B.** 2012. *In vitro* regeneration of *Eria pseudoclavicaulis* Blatt. – A rare orchid of Western Ghats. National level conference on Recent Trends in Exploration, Achievement and Developments in Biological Sciences (READ - 2012). Chikkaiah Naicker College, Erode, Tamil Nadu, INDIA, p. 26
5. Servin Wesley, P., **Chitra Devi, B.** 2012. Effect of plant growth regulators on *in vitro* micropropagation of *Dioscorea oppositifolia* L. (Dioscoreaceae). National level conference on Recent Trends in Exploration, Achievement and Developments in Biological Sciences (READ - 2012). Chikkaiah Naicker College, Erode, Tamil Nadu, INDIA, p. 28
6. Sahaya Shibu, B., Servin Wesley, P., Sarmad Moin, **Chitra Devi, B.** 2012. Role of micropropagation in *ex situ* conservation of orchids. TNFA Centenary National Seminar, Forestry Vision 2023. Tamil Nadu Forest Academy, Coimbatore, Tamil Nadu. INDIA, p. 42
7. Sarmad moin, Sahaya Shibu, B., Servin Wesley, P., **Chitra Devi, B.** 2012. *In vitro* screening of antimicrobial protein activity from medicinal and economically important plants seed. National Conference on Biodiversity Conservation and Sustainable Utilization, Research Department of Botany, Pasumpon Thiru Muthuramalinga Thevar Memorial College (Affiliated to Alagappa University) Kamuthi-623604. p. 55
8. Sahaya Shibu, B., Servin Wesley, P., Sarmad moin, **Chitra Devi, B.** 2012. *Ex situ* conservation of threatened orchids endemic to Western Ghats, Tamilnadu. National Conference on Biodiversity Conservation and Sustainable Utilization, Research Department of Botany, Pasumpon Thiru Muthuramalinga Thevar Memorial College (Affiliated to Alagappa University) Kamuthi-623604. p. 55
9. Servin Wesley, P., **Chitra Devi, B.**, Sahaya Shibu, B. Sarmad moin. 2012. Phytochemical screening, *in vitro* free radical scavenging activity and anticancer activity of *Abutilon hirtum* (Lam.) Sweet. National Conference on Biodiversity Conservation and Sustainable Utilization, Research Department of Botany, Pasumpon Thiru Muthuramalinga Thevar Memorial College (Affiliated to Alagappa University) Kamuthi-623604. p. 80

### Participation in Workshop

1. One day workshop on “**Bonsai – The art of living sculpture**” organized by Department of Botany, Bharathiar University, Coimbatore on 12<sup>th</sup> February, 2007.
2. Seminar on “**Wealth from waste**” organized by Department of Environmental Sciences, School of Life Sciences, Bharathiar University, Coimbatore on 26<sup>th</sup> March, 2008.
3. Two day “**National symposium on Herbal drug research**” organized by Department of Botany, School of Life Sciences, Bharathiar University, Coimbatore on 25<sup>th</sup> and 26<sup>th</sup> September, 2008.
4. Two day Training Programme on **Biodiversity Act, 2002** organized by the Institute of Forest Genetics and Tree Breeding, Coimbatore on 5<sup>th</sup> and 6<sup>th</sup> March, 2014. (Sponsored by National Biodiversity Authority, Chennai)
5. Two day UKIERI (UK-India Education and Research Initiative) sponsored Indo-UK Joint Workshop on **Plant Molecular Farming II** organized by the Department of Biotechnology, Bharathiar University, Coimbatore, on 13<sup>th</sup> & 14<sup>th</sup> March 2014.

### Participation in Faculty Development Programme

#### Conference/Seminar/Workshop Organized

##### Program Co-ordinator:

Training Program in Plant Taxonomy, Dept. of Botany, Karpagam University, Coimbatore on 15-17 July, 2011

##### Organizing Secretary:

Hands on Training in Plant Tissue Culture Techniques (with an introduction to Orchid micropropagation), Dept. of Botany, Karpagam University, Coimbatore on 12-14 August, 2011

##### Organizing Secretary:

One day workshop in Plant Tissue Culture Techniques, Dept. of Microbiology, Karpagam University, Coimbatore on 17<sup>th</sup> October 2014.

### Grants

- UGC - Slow-growth conservation- cryopreservation and Analysis of genetic stability of in vitro regenerated plants of *Coelogyne nervosa* A.Rich: - An endemic medicinal orchid
- BIRAC E-YUVA Centre
- DST CURIE

**Membership in Professional Bodies**

Name of the Professional Body	Nature of membership	Duration
IUCN Species Survival Commission- Orchids Specialist Group	IUCN SSC Orchid Specialist Group	Life

**Indexing and Citations**

**Citations: 124**  
**H Index: 5**