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Name in Full	<b>Ramalingam Sathishkumar</b>
Date of birth	17 May, 1968
Sex	Male
Nationality	Indian
Marital status	Married

## **ACADEMIC QUALIFICATIONS**

### **Ph.D. in Plant Sciences**

**Madurai Kamaraj University**, Madurai, India (Mar. '92 - Jun. '98)

*Studies on the Role of Membrane Lipids in in-vitro Responses and Application of Cell Cultures for DNA Delivery in Rice.*

### **M.Phil. in Botany**

**Pondicherry University**, Pondicherry, India (Aug. '90 – Nov. '91) - 74.38%

*Efficacy of Glyphosate on Photosynthetic Process of Weed Species Associated with Black gram.*

### **M.Sc. in Botany (Madras University, Tamil Nadu)**

**Madras Christian College**, Chennai, India (July '88 - May '90) - 68.38%

### **B.Sc. in Botany (Madras University, Tamil Nadu)**

**Loyola College**, Chennai, India (July '85 - Apr. '88) - OGPA 5.05/6 or 72%.

## **PROFESSIONAL EXPERIENCE**

Since 21.04.2018	<b>Professor</b> Department of Biotechnology, Bharathiar University, India
21.04.2015 – 20.04.2018	<b>Associate Professor</b> Department of Biotechnology, Bharathiar University, India
20.04.2005 – 20.04.2015	<b>Assistant Professor</b> Department of Biotechnology, Bharathiar University, India
01.02.1999 - 15.04.2005	<b>Post-Doctoral Researcher</b> Department of Botany, The University of Hong Kong, Hong Kong

## **TEACHING EXPERIENCE** (Since Apr. 2005)

- Courses handling for the M.Sc. students (Biotechnology) - Plant Biotechnology, Herbal technology, Bioinformatics and Systems Biology

## **RESEARCH FOCUS**

### **Current** (Since May 2005)

- Genetic engineering of plants for novel traits
- DNA barcoding of Indian medicinal plants and herbal products for authentication
- Using plants for large scale production of recombinant proteins/metabolites (Plant Molecular Farming)

### **Post-Doctoral Research** (Feb. 1999 – Apr. 2005)

- Functional Analysis of Membrane-bound *Acyl CoA Binding Protein I (ACBP1)* in *Arabidopsis*: Isolation and Characterization of Mutant Lines that contain T-DNA Tagged Insertion in *ACBP1* (Reverse Genetics)
- Chloroplast Transformation in Tobacco for Two Commercially Important Genes
- Production and Screening of PTGS Lines in Lettuce System and Confirmation of siRNA
- Biochemical and Molecular Analysis of Over-expressed Chitinase in Various Systems like Tobacco, Potato and Yeast and tested its Efficacy against Fungal strains

### **PhD** (Feb. 1992 - Aug. 1998)

- Studies on the Role of Membrane Lipids in *in vitro* Responses and Application of Cell Cultures for DNA Delivery in Rice

### **DAAD Short-Term Fellowship** (Aug. 1996 - Jan. 1997)

- Studies on the Role of of Glucose in Regulating Gene Expression in Higher Plants using Transgenic Potato (Dr. Richard N. Trethewey group headed by Prof. Lothar Willmitzer at Max-Planck Institute for Molecular Plant Physiology, Golm, Germany)

### **M.Phil.** (1990-1991)

- Efficacy of Glyphosate on photosynthetic process of weed species associated with Black gram

## **RESEARCH SUPERVISION**

- Post Doctoral Fellows/Research Associate – 3 completed, ongoing - 3; Ph.D. - 12 Awarded, submitted – 3 and under guidance – 6; M.Phil. – 21 Awarded, under guidance – 1; M.Sc. - 48 completed and under guidance – 3.

## HONORS AND AWARDS

### International

- **Short-term Research Fellowship** - Deutsche Academic Exchange Service (DAAD), Germany (Aug. 1996 – Jan. 1997)
- **Academic Visitor** - St. George's University of London, London, United Kingdom under UK-India Education and Research Initiative (UKIERI), since 2007
- **Animals (Scientific Procedures) Qualified** the course conducted by King's College, London, UK for experimental animal handling procedure (Mar., 2008)
- **Full Travel Award** - "Centre for International Cooperation in Science" to attend and give oral presentation in the 3<sup>rd</sup> International Barcode of Life Conference, held at Mexican Academy of Sciences, Mexico City, Mexico during Nov. 7–13, 2009
- **Full Travel Award** - "Centre for International Cooperation in Science" to attend and give oral presentation in the 5<sup>th</sup> International Barcode of Life Conference, Kunming, China during Nov. 7-13, 2013
- **Top 100 Scientists 2015**, Sponsored & administered by the International biographical centre, Cambridge, England - Nominated for recognition by the International Biographical Centre
- **Full Travel Award**, to attend and to deliver oral presentation in 2<sup>nd</sup> International conference on DNA technology for authentication, quality control and conservation of herbal material, Hong Kong during Dec. 2-5, 2018

### National

- **Qualified**, Graduate Aptitude Test in Engineering – Life science (GATE '91)
- **Awarded the best report** by Central Pollution Control Board, India on "Heavy metal pollution and its effects on human health and remedial measures" on March 4, 1991
- **Awarded, Junior Research Fellowship** sponsored by Department of Science and Technology Government of India, funded project (1992- 1994).
- **Awarded, Senior Research Fellowship** sponsored by Council of Scientific and Industrial Research, Government of India (1994 - 1997)
- **Awarded the best poster** at National level, during the annual meeting of the "Society of Biological Chemists" (India) held at Madurai Kamaraj University, Madurai on Dec 19–22, 1994
- **Awarded the best poster** at National Symposium on "Recent Advances in Biotechnological Applications of Plant tissue culture and Cell culture" held at Central Food Technological Research Institute, Mysore, India during June 22 – 24, 1995
- **Awarded third prize in poster competition** in "National Science Day Celebrations" organized by School of Biotechnology, Madurai Kamaraj University, Madurai on February 28, 1995
- **Awarded, Research Associate** sponsored by Council of Scientific and Industrial Research, Government of India (Dec. 1998)
- **Elected as Fellow** by Academy of Sciences, Chennai, TN, India, Appreciation of the scientific contributions in the field (2015)

- **Awarded the Outstanding Contribution** in reviewing the editors of Journal of Ayurveda and Integrative Medicine (Sep. 2017)
- **Elected Subcommittee member** of Indian Pharmacopeia Commission, Government of India on DNA Barcoding (2019-2021)
- **Internal Expert IPR cell**, Bharathiar University, Coimbatore (2019)

## FUNDED PROJECTS COMPLETED

### International

1. Development of a recombinant vaccine in transgenic plants for Chikungunya viral infection in collaboration with Prof. Julian Ma, St. George's University of London, London sponsored by UK-India Education and Research Initiative (**UKIERI**) from 2009 to 2012. Grant amount Rs. 34.00 Lakh. IND/CONT/E/08-09/132, dt. 24.03.09
2. Purification of the plant-based Chikungunya antigens and evaluation of its vaccine potential in collaboration with Prof. Julian Ma, St. George's University of London, London - UK- India Education and Research Initiative (**UKIERI**) from 2011 to 2014. Grant amount Rs. 34 Lakh. IND/CONT/E/11-12/111, dt. 2011
3. *In vivo* and *in vitro* studies of plant-expressed recombinant antigens and antibodies against Chikungunya virus in collaboration with Prof. Julian Ma, St. George's University of London, London sponsored by **UGC-UKIERI** from 2015 to 2016. Grant amount Rs. 30 Lakh. 184-1/2015 (IC), dt.16.07.15
4. Study of *DcAOX* genes functionality associated with cell reprogramming under abiotic stresses in collaboration with Dr. Helia Cardoso and Prof. Birgit Arnholdt-Schmitt, University of Evora, Evora, Portugal sponsored by **DST, Indo-Portugal** from 2014 to 2017. Grant amount Rs. 5.5 Lakh. INT/PORTUGAL/P-16/2013, dt.28.10.13

### National

5. Genetic engineering of tomato for cold tolerance by expressing carrot antifreeze protein (AFP) supported by Defence Agricultural Research Laboratory (**DARL**) & Defence Research and Development Organisation (**DRDO**), Government of India from 2006 to 2009. Grant amount Rs. 9.98 Lakhs. 0376/DARL, dt. 21.07.06
6. Enrichment of vitamin E in tomato through metabolic engineering sponsored by Defence Research and Development Organisation (**DRDO-BU-CLS**), Government of India from 2008-2011. Grant amount Rs. 17.5 Lakhs. BU-DRDO CLS/TII/review meeting/01, dt. 23.07.08
7. DNA barcoding of Indian medicinal plants (Apocyanaceae) sponsored by **UGC-MRP**, Government of India from 2008 to 2010. Grant amount Rs. 9.35 Lakhs. 34-272/2008 (SR), dt. 03.12.06
8. Study of *FAD7* cold tolerant gene by expressing in tobacco sponsored by Tamil Nadu Science Council for Science and Technology (**TNSCST, Student Project**) on 2010. Grant amount Rs. 0.1 Lakh. TNSCST/SPS/AR/2009-2010, dt. 25.2.2010
9. Development of vitamin E biofortified Indica rice funded by Department of Biotechnology (**DBT**) India from 2012 to 2016. Grant amount Rs. 42.86 Lakhs. BT/PR6135/AGII/106/864/2012, dt. 27.09.12

10. Development of plant-based recombinant vaccine for Staph Super Antigens funded by Defence Research and Development Organisation (**DRDO-BU Centre for Life Sciences**), India from 2014-2017. Rs. 22.00 Lakhs. DLS/86/50071/DRDO-BU CENTRE/Phase II, dt. 20.02.14
11. DNA Barcoding to study the honey biodiversity in Mizoram funded by Department of Biotechnology (**DBT-NER Twining Programme**), India from 2015 to 2018. Grant amount Rs. 70.00 Lakhs. BT/423/NE/TBP/2013, dt.14.08.14
12. Plant molecular farming combined with metabolic engineering approach to produce secondary metabolites in cell suspension culture sponsored by Tamil Nadu Science Council for Science and Technology (**TNSCST, Student Project**) on 2017. Grant amount Rs. 0.1 Lakh. TNSCST/SPS/AR/2016-17/1411, dt. 10.04.17

#### As Co-PI

13. Production of frost resistant transgenic tomato using *LT16/RC12A* gene from *A. thaliana* funded by Defence Research and Development Organisation (**DRDO**) India. Grant amount Rs. 9.88 Lakhs. 0376/DARL dt. 21.07.06

#### Industrial Consultancy Projects

14. DNA Barcoding of 50 Medicinal Plants funded by **The Himalaya Drug Company**, Karnataka. Grant sanctioned Rs. 5.31 Lakhs from 2015-2016. C3/RS/BT/Himalaya/2014/1666-1, dt. 18.12.14
15. DNA Barcoding of Medicinal Plants funded by **Greenchem Herbal Extract and Formulations**, Karnataka (Phase – I). Grant sanctioned Rs. 3.73 Lakhs from 2015-2016. C3/RS/BT/GCC-project/2015/24799-430-1, dt. 02.11.15
16. DNA Barcoding of 25 Medicinal Plants funded by **Arjuna Natural Extracts**, Kerala. Grant sanctioned Rs. 1.26 Lakhs on 2016. C3/009544-2016. dt. 12.05.16
17. DNA Barcoding of 25 Plants funded by **Indus Biotech Pvt. Ltd.**, Maharashtra (Phase – I). Grant sanctioned Rs. 3.86 Lakhs on 2017. C3/28247, dt. 10.01.2017
18. DNA Barcoding of Plants funded by **Indus Biotech Pvt. Ltd.**, Maharashtra (Phase – II). Grant sanctioned Rs. 3.86 Lakhs from 2017 to 2018. C3/8115/2017, dt. 08.05.2017
19. DNA Barcoding of Plants funded by **Indus Biotech Pvt. Ltd.**, Maharashtra (Phase – III). Grant sanctioned Rs.4.73 Lakhs from 2018 to 2019
20. DNA Barcoding of Medicinal Plants funded by **Laila Pharmaceuticals**, Pune. Grant sanctioned Rs. 1.88 Lakhs from 2018 to 2019
21. DNA barcoding of Inter laboratory Consultative project funded by **T. Stanes & Company Limited**, Coimbatore. Grant sanctioned Rs. 0.1 Lakh on 2018
22. DNA barcoding of Inter Laboratory Consultative project funded by **T. Stanes & Company Limited**, Coimbatore. Grant sanctioned Rs. 0.06 Lakh on 2019
23. DNA Barcoding of Medicinal Plants funded by **Green Chem Herbal Extract and Formulations**, Karnataka (Phase-II) from 2018 - 2019. Grant sanctioned Rs. 3.98 Lakhs

## FUNDED PROJECTS ONGOING

### International

1. Cost effective production of engineered antibodies for early differential diagnosis of Dengue and Chikungunya infection funded by **UGC-UKIERI Joint Research Programme** from 2018 to 2020. Grant sanctioned Rs. 30.0 Lakh. 184-9/2018 (IC), dt. 03.10.2018

### National

2. Centre for Potential for Excellence in Particular Area (UGC-CPEPA) on Solar Energy for Development of Bio-Nano Hybrid Protein Sensitized Solar Cells funded by **UGC-CPEPA** from 2017 to 2020. Grant Sanctioned Rs.350 Lakhs. 2-1/2013 (NS/PE) Policy file dt. 16.05.16 (**Coordinator-Biotechnology**)

### Industrial Consultancy Project

3. Allele mining for development of rice with slow and sustained energy release, with Texcity Biosciences, Tamil Nadu & **DBT-BIRAC-BIPP** from 2016 to 2018. Grant sanctioned Rs. 200 Lakhs. BT/BIPP0869/33/14, dt.22.06.16
4. DNA Barcoding of Plants funded by **Indus Biotech Pvt. Ltd.**, Maharashtra (Phase – IV) on 2019. Grant sanctioned Rs. 7.91 Lakhs
5. DNA Barcoding of Medicinal Plants funded by **Arjuna Natural Extracts**, Kerala (Phase – II) on 2019. Grant amount Rs. 4.43 Lakhs

### As Co-PI

6. Cell death induced by combination of photodynamic therapy with phytochemicals isolated from *Vaccinium nilgiriensis* on breast cancer therapy - an *in vitro* approach. Sponsored by **DST - Indo-South Africa** from 2016 to 2019. Grant amount Rs. 30.84 Lakhs

## PATENTS

1. Mee Len Chye, Hong Ye Li, **Sathishkumar Ramalingam**, Leo Lit Man Poon and Joseph Sriyal Malik Peiris. Genetically modified plants comprising SARS-CoV viral nucleotide sequences and methods of use thereof for immunization against SARS (**US patent no. WO2005054473-A1**), **June 2005**
2. **R Sathishkumar**, S Balamurugan, S Bala Murugan, IP Varghese and MC Harish. Detection of fragrant and non-fragrant rice genotypes by simple PCR-RFLP marker system (Application no.: 201741012732) – **Indian patent filed, July 2018**

## PUBLICATIONS

### Book

Advances in Plant Transgenics: Methods and Applications. In **Sathishkumar R**, Kumar SR, Hema J, Bakar V (Eds.). Published by Springer International Publisher (In Press).

## Book Chapters

1. Dhivya S, Rajeev Kumar S, Ramachandran VS and **Sathishkumar R** (2010) DNA Barcoding of Indian Medicinal Plants – A Case Study. In Parimelazhagan T., Manian S. and Pugalenthi M (Eds.) “Herbal Perspectives – Present and Future” Published by SSPH, Delhi. pp 280-289. ISBN - 8189304917
2. S Dhivya, S Dhivya S, Rajeev Kumar, M.C. Harish, S. Balamurugan and **R. Sathishkumar** (2012) Authentication of Herbal Products by DNA Barcoding Based PCR-RFLP Technique. In Parimelazhagan Thangaraj (Ed.) “Herbal Drug Research-Recent Trends and Progress” Published by LAP, Lambert Academic Publishing, Germany. pp: 280-289. ISBN-9783846558010
3. S Bala Murugan, R Deepika, A Reshma and **R Sathishkumar** (2013) Screening of Common Leafy Vegetables of Tamil Nadu for its Nutraceutical and Antioxidant Properties. In Parimelazhagan Thangaraj (Ed.) “Turning Plants into Medicines-Novel Approaches” Published by NIPA Publishing, India. pp: 256-260. ISBN-9789381450468
4. Rajeev Kumar S, Dhivya S and **Sathishkumar R** (2014) Plant Antifreeze Proteins: An Overview. In Govil. J.N (Ed.) “Biotechnology: Plant Biotechnology (Volume 2)” Published by Studium Press LLC, USA. pp: 319-336. ISBN: 1626990174
5. Dhivya S, Rajeev Kumar S and **Sathishkumar R** (2014) DNA Barcoding of Indian Medicinal Plants. In Govil. J.N (Ed.) “Recent Progress in Medicinal Plants (Volume 39) Biotechnology and Genetic Engineering II” Published by Studium Press LLC, USA. pp: 43-68. ISBN: 193369999X
6. Rajeev Kumar S and **Sathishkumar R**. (2014) Gene Technology Applied for AOX Functionality Studies. In Arnholdt-Schmitt (Ed.) “Alternative Respiration Pathways in Higher Plants” Published by John Wiley and Sons, USA. pp: 287-297. ISBN: 9781118790465
7. Rajeev Kumar S, Varghese Inchakalody, Hema J and **Sathishkumar R** (2014) Mechanisms and Engineering Plant Metal Accumulation and Transport. In: D. K. Gupta (Ed.) “Heavy Metal Remediation: Transport and Accumulation in Plants” Published by Nova Science Publisher, USA. pp: 73-88. ISBN: 9781633215931
8. Ashwini M and **Sathishkumar R** (2014) Onion (*Allium cepa*) – Ethnomedicinal and therapeutic properties. In: Nidhi Gupta (Ed.) “Handbook of Medicinal Plants and their Bioactive Compounds” Published by Research Signpost 37/661 (2), Fort P.O. Trivandrum, Kerala, India. pp: 27-34. ISBN: 978-81-308-0548-1
9. Rajeev Kumar S, Hema J and **Sathishkumar R** (2015) Transgenic plants and Antioxidant Defense: Present and Future? In D. K. Gupta, J. S. Palma and F. J. Corpas (Eds.) “Reactive Oxygen Species and Oxidative Damage in Plants under Stress” Published by Springer International Publisher, Switzerland. pp: 353-370. ISBN: 9783319204208
10. Dhivya S, Rajeev Kumar S, Dhivya S, Saravanan M and **Sathishkumar R** (2015) Evaluation of DNA Barcodes for the effective Discrimination of *Zingiberaceae* Species. In: Parimelazhagan Thangaraj (Ed.) “Modern Methods in Phytomedicine” Published by Daya Publishing House, India. pp: 155-169. ISBN: 9789351306849

11. Kumar SR, Gowtham I, Hema J and **Sathishkumar R** (2017) Genomics and Genetic Engineering in Phytoremediation of Arsenic. In: DK Gupta, S Chatterjee (Eds.), "Arsenic Contamination in the Environment" Published by Springer International Publishers AG, Germany. Pp: 171-186. ISBN: 10.1007/978-3-319-54356-7-8
12. Kumar SR, Mohanapriya G and **R. Sathishkumar** (2016) Abiotic Stress Induced Redox Changes and Programmed Cell Death in Plants—A Path to Survival or Death? In: "Redox State as a Central Regulator of Plant-Cell Stress Responses" Published by Springer International Publishers AG, Germany. pp: 233-252. ISBN: 978-3-319-44080-4
13. Kumar SR, Safia and **R. Sathishkumar** (2017) Small RNAs: Master Regulators of Epigenetic Silencing in Plants. In: Rajewsky, N., Jurga, S., & Barciszewski, J. (Ed.), "Plant Epigenetic" Published by Springer International Publishers AG, Germany. pp 89-106. ISBN:978-3-319-55519-5
14. P Anunandhini, SR Kumar and **R Sathishkumar** (2017) Factors Affecting Genetic Transformation Efficiency in Sugarcane. In: Chakravarthi Mohan (Ed.), "Sugarcane Biotechnology: Challenges and Prospects" Published by Springer International Publishing AG, Switzerland. Pp: 61-73. ISBN: 978-3-319-58945-9.
15. SR Kumar, P Anunandhini and **R Sathishkumar** (2017) Plastome Engineering: Yesterday, Today and Tomorrow. In: Chakravarthi Mohan (Ed.), "Sugarcane Biotechnology: Challenges and Prospects" Published by Springer International Publishing AG, Switzerland. Pp: 139-154. ISBN: 978-3-319-58945-9.
16. Birgit Arnholdt-Schmitt, Gunasekaran Mohanapriya, **Ramalingam Sathishkumar**, Elisete Santos Macedo, José Hélio Costa (2018). Predicting Biomass Production from Plant Robustness and Germination Efficiency by Calorespirometry. In: A Kumar, S Ogita, F Yau (Eds.), "Biofuels: Greenhouse Gas Mitigation and Global warming Next Generation Biofuels and Role of Biotechnology". Published by Springer International Publishers AG, Germany. Pp: 81-94. ISBN: 978-81-322-3761-7
17. SB Murugan and **R Sathishkumar** (2018). Chikungunya: A Neglected Re-emerging Disease. In: Nathan Baker (Ed.), "Vector-borne Diseases & Treatment". Published by Open access eBooks. Chapter 2. ISBN: 978-93-87500-10-5
18. V Baskar, R Venkatesh, **R. Sathishkumar** (2018) Role of Flavonoids in Plant Stress. In: Dr. D. K. Gupata (Ed.), "Antioxidants and Antioxidant Enzymes in Higher Plants" Published by Springer. pp: 253-268. ISBN: 9783319750880
19. Srinivasan Balamurugan, Shanmugaraj Bala Murugan, Inchakalody P. Varghese, Ashwini Malla, Kantilal V. Wakte, Sarika Mathure, Altafhusain B. Nadaf, and **Ramalingam Sathishkumar** (2018) Assessment of Aromatic Content and in-vitro Responses in Traditional Indian Rice Varieties. In: DK Verma, PP Srivastav, AB Nadaf (Eds.) "Rice Science Biotechnological and Molecular Advancements" Published by Apple Academic Press. Part 2. ISBN: 9781771886925.
20. Ashwini Malla and **Sathishkumar Ramalingam** (2018) Health Perspectives of an Isoflavonoid Genistein and its Quantification in Economically Important Plants. In: A Grumezescy and AM Holban (Eds.), "Role of Materials Science in Food



Bioengineering-A Volume in Handbook of Bioengineering, Volume 19” Published by Academic Press. pp: 353-379. ISBN: 9780128114483

21. V Baskar and **R Sathishkumar** (2018) Reverse Transcription PCR. In: T Yusuf (Ed.), “Essential Technique for Medical and Life Scientists: A Guide to Contemporary Methods and Current Applications with the Protocols: Part 1” Published by Bentham Science Publishers, UAE. pp: 109-117. ISBN: 9781681087108
22. S Bala Murugan, Ashwini Malla and **R Sathishkumar** (2018). Cadmium Stress and Toxicity in Plants: An Overview. In: Mirza Hasanuzzaman, M.N.V. Prasad, Masayuki Fujita (Eds.) “Cadmium Toxicity and Tolerance in Plants: From Physiology to Remediation (1<sup>st</sup>Edition)” published by Academic Press. pp: 1-17. ISBN: 9780128148648
23. Venkidasamy, B., Karthikeyan, M., & **Ramalingam, S.** (2019). Methods/Protocols for Determination of Oxidative Stress in Crop Plants. *Reactive Oxygen, Nitrogen and Sulfur Species in Plants: Production, Metabolism, Signaling and Defense Mechanisms*, 421-435.

### In Journals

1. **Sathishkumar R** and Manoharan K (1996). Lipid changes due to growth factor supplements in callus and plasma membrane - enriched fraction of rice cultures. *Phytochemistry* (UK). 43(6): 1771-1174. [https://doi.org/10.1016/S0031-9422\(96\)00455-4](https://doi.org/10.1016/S0031-9422(96)00455-4). **IF: 2.905**
2. **Sathishkumar R**, Agrawal S and Manoharan K (1997). Particle-mediated DNA delivery and transient expression of GUS gene in plated cells of rice. *Biologia Plantarum* (Prague): 40(2): 305-309. <https://doi.org/10.1023/A:1001044008321>. **IF: 1.384**
3. Alisdair R F, Jorg W R, Annette M, **Sathishkumar R**, Lothar W and Richard N T (2000). Consequences of the expression of a bacterial glucokinase, both in combination with and independently of yeast-derived invertase, in Potato tubers. *Australian Journal of Plant Physiology* (Australia) Special issue : 27(8/9): 827-833. DOI: [10.1071/PP99152](https://doi.org/10.1071/PP99152) **IF: 2.327**
4. Ouyang, S. W., Zhao, K. J., Feng, L. X., Chye, M. L., and **Ram, S.** (2002). BjCHI1 from *Brassica juncea* displays both chitinase and agglutination activity. *Chinese Journal of Biotechnology (Sheng Wu Gong Cheng XueBao)* (China). 18(5), 572-577. [PMID:12561201](https://pubmed.ncbi.nlm.nih.gov/12561201/)
5. Tang, C. M., Chye, M. L., **Ramalingam, S.**, Ouyang, S. W., Zhao, K. J., Ubhayasekera, W., and Mowbray, S. L. (2004). Functional analyses of the chitin-binding domains and the catalytic domain of *Brassica juncea* chitinase BjCHI1. *Plant Molecular Biology* (USA), 56(2), 285-298. <https://doi.org/10.1007/s11103-004-3382-1>. **IF: 3.928**
6. Chye, M. L., Zhao, K. J., He, Z. M., **Ramalingam, S.**, and Fung, K. L. (2005). An agglutinating chitinase with two chitin-binding domains confers fungal protection in transgenic potato. *Planta* (Germany). 220(5), 717-730. <https://doi.org/10.1007/s00425-004-1391-6>. **IF: 3.060**

7. Nagegowda, D. A., **Ramalingam, S.**, Hemmerlin, A., Bach, T. J., and Chye, M. L. (2005). *Brassica juncea* HMG-CoA synthase: localization of mRNA and protein. *Planta* (Germany). <https://doi.org/10.1007/s00425-005-1497-5>. 221(6), 844-856. **IF: 3.060**
8. Li, H. Y., **Ramalingam, S.**, and Chye, M. L. (2006). Accumulation of recombinant SARS - CoV spike protein in plant cytosol and chloroplasts indicate potential for development of plant-derived oral vaccines. *Experimental Biology and Medicine* (USA). 231(8), 1346-1352. <https://doi.org/10.1177/153537020623100808>. **IF: 3.005**
9. Xiao, S., Gao, W., Chen, Q. F., **Ramalingam, S.**, and Chye, M. L. (2008). Overexpression of membrane-associated acyl-CoA-binding protein ACBP1 enhances lead tolerance in *Arabidopsis*. *The Plant Journal* (UK). 54(1), 141-151. <https://doi.org/10.1111/j.1365-313X.2008.03402.x> **IF : 5.726**
10. Guan, Y., **Ramalingam, S.**, Nagegowda, D., Taylor, P. W., and Chye, M. L. (2008). *Brassica juncea* chitinase BjCHI1 inhibits growth of fungal phytopathogens and agglutinates Gram-negative bacteria. *The Journal of Experimental Botany* (UK). 59(12), 3475-3484. <https://doi.org/10.1093/jxb/ern197> **IF: 5.36**
11. Selvaraj, D., Sarma, R. K., and **Sathishkumar, R.** (2008). Phylogenetic analysis of chloroplast *matK* gene from Zingiberaceae for plant DNA barcoding. *Bioinformatics (India)*. 3(1), 24-27. [PMID: 19052662](https://pubmed.ncbi.nlm.nih.gov/19052662/)
12. Harish, M. C., Rajeevkumar, S., and **Sathishkumar, R.** (2010). Efficient *in vitro* callus induction and regeneration of different tomato cultivars of India. *Asian Journal of Biotechnology* (Malaysia). 2(3), 178-184. DOI: [10.3923/ajbkr.2010.178.184](https://doi.org/10.3923/ajbkr.2010.178.184)
13. Selvaraj D, Loganathan A and **Sathishkumar R** (2010) Molecular characterization and phylogenetic analysis of BZIP protein in plants. *Journal of Proteomics and Bioinformatics* (USA) 3: 230-233. DOI: [10.4172/jpb.1000144](https://doi.org/10.4172/jpb.1000144) **IF: 1.57**
14. Sangeetha, N., Mercy, S., Kavitha, M., Selvaraj, D., **Sathishkumar, R.**, and Ganesh, D. (2010). Morphological variation in the Indian gooseberries (*Phyllanthus emblica* and *Phyllanthus indofischeri*) and the chloroplast *trnL* (UAA) intron as candidate gene for their identification. *Plant Genetic Resources* (UK), 8(3), 191-197. <https://doi.org/10.1017/S1479262110000171> **IF: 0.717**
15. Yadava, S. A., Hakkim, L. F., and **Sathishkumar, R.** (2011). Antioxidant activity of *Withania somnifera* (L.) Dunal by different solvent extraction methods. *Journal of Pharmacy Research*. 4(5), 1428-1430. <http://doi.org/10.1.1.734.7808>.
16. Chandra, H. M., Shanmugaraj, B. M., Srinivasan, B., & **Ramalingam, S.** (2012). Influence of genotypic variations on antioxidant properties in different fractions of tomato. *Journal of Food Science*. 77(11), C1174-C1178. <https://doi.org/10.1111/j.1750-3841.2012.02962.x>. **IF: 2.018**
17. Yadav, S. A., Raj, A. J., and **Sathishkumar, R** (2012). Active Mechanism against free radical using *Tragia involucrata* L. leaves and root E\extract by *in-vitro* antioxidant models. *Journal of Pharmacy Research*. 5(8), 4299-4302.
18. Yadav, S. A., Raj, A. J., and **Sathishkumar, R.** (2012). *In-vitro* antioxidant activity of *Barleria noctiflora* L. f. *Asian Pacific Journal of Tropical Biomedicine*, 2(2), S716-S722. [https://doi.org/10.1016/S2221-1691\(12\)60302-5](https://doi.org/10.1016/S2221-1691(12)60302-5)

19. Selvaraj, D., Shanmughanandhan, D., Sarma, R. K., Joseph, J. C., Srinivasan, R. V., and **Ramalingam, S.** (2012). DNA barcode *ITS* effectively distinguishes the medicinal plant *Boerhavia diffusa* from its adulterants. *Genomics, Proteomics & Bioinformatics*, 10(6), 364-367. <https://doi.org/10.1016/j.gpb.2012.03.002>. **IF: 6.597**
20. Kumar, S. R., Anandhan, S., Dhivya, S., Zakwan, A., and **Sathishkumar, R.** (2013). Isolation and characterization of cold inducible genes in carrot by suppression subtractive hybridization. *Biologia Plantarum*. 57(1),97-104. <https://doi.org/10.1007/s10535-012-0250-8> **IF: 1.384**
21. Shanmugaraj, B. M., Chandra, H. M., Srinivasan, B., and **Ramalingam, S.** (2013). Cadmium induced physio-biochemical and molecular response in *Brassica juncea*. *International Journal of Phytoremediation*, 15(3),206-218. <https://doi.org/10.1080/15226514.2012.687020>. **IF: 1.886**
22. Harish, M. C., Dachinamoorthy, P., Balamurugan, S., Murugan, S. B., and **Sathishkumar, R.** (2013). Enhancement of  $\alpha$ -tocopherol content through transgenic and cell suspension culture systems in tobacco. *Acta Physiologiae Plantarum*, 35(4), 1121-1130. <https://doi.org/10.1007/s11738-012-1149-x> **IF: 1.608**
23. Harish, M. C., Dachinamoorthy, P., Balamurugan, S., Murugan, S.B., and **Sathishkumar, R.** (2013). Overexpression of *homogentisate phytyltransferase* (HPT) and *tocopherol cyclase* (TC) enhances  $\alpha$ -tocopherol content in transgenic tobacco. *Biologia Plantarum*, 57(2), 395-400. <https://doi.org/10.1007/s10535-012-0298-5> **IF: 1.384**
24. Newmaster, S. G., Ragupathy, S., Dhivya, S., Jijo, C. J., **Sathishkumar, R.**, and Patel, K. (2013). Genomic valorization of the fine scale classification of small millet landraces in Southern India. *Genome*, 56(2), 123-127. <https://doi.org/10.1139/gen-2012-0183> **IF: 1.89**
25. Ashwini, M., Balaganesh, J., Balamurugan, S., Murugan, S. B., and **Sathishkumar, R.** (2013). Antioxidant activity in *in vivo* and *in vitro* cultures of onion varieties (Bellary and CO<sub>3</sub>). *Food and Nutrition Sciences*, 4(9), 918-923. <http://dx.doi.org/10.4236/fns.2013.49119>. **IF: 1.28**
26. Murugan, S. B., Reshma, A., Deepika, R., Balamurugan, S., and **Sathishkumar, R.** (2013). Antioxidant capacities of *Amaranthus tristis* and *Alternanthera sessilis*: A comparative study. *Journal of Medicinal Plants Research*, 7(30), 2230-2235. <https://doi.org/10.5897/JMPR2013.2567>
27. Sathiyadash, K., Muthukumar, T., Murugan, S. B., **Sathishkumar, R.**, Uma, E., Jaison, S., and Priyadharsini, P. (2013). *In vitro* asymbiotic seed germination, mycorrhization and seedling development of *Acampae praemorsa* (Roxb.) Blatt. & Mc Cann, a common South Indian orchid. *Asian Pacific Journal of Reproduction*, 2(2), 114-118. [https://doi.org/10.1016/S2305-0500\(13\)60130-X](https://doi.org/10.1016/S2305-0500(13)60130-X)
28. Murugan, S. B., Deepika, R., Reshma, A., and **Sathishkumar, R.** (2013). Antioxidant perspective of selected medicinal herbs in India: A probable source for natural antioxidants. *Journal of pharmacy research*, 7(4), 271-274. <https://doi.org/10.1016/j.jopr.2013.04.023>

29. Ma, J. K. C., Christou, P., Chikwamba, R., Haydon, H., Paul, M., Ferrer, M. P., **Sathishkumar, R.** Rech E, Rybicki E, Wigdorowitz A, Thangaraj H and Yang, D. C. (2013). Realising the value of plant molecular pharming to benefit the poor in developing countries and emerging economies. *Plant Biotechnology Journal*, 11(9), 1029-1033. <https://doi.org/10.1111/pbi.12127>. **IF: 6.840**
30. Newmaster, S. G., Grguric, M., Shanmughanandhan, D., **Ramalingam, S.**, and Ragupathy, S. (2013). DNA barcoding detects contamination and substitution in North American herbal products. *BMC Medicine*, 11(1), 222. <https://doi.org/10.1186/1741-7015-11-222>. **IF: 8.285**
31. Yadav, S. A., Raj, A. J., Vasantha, P. B., and **Ramalingam, S.** (2013). Synthesis of silver nanoparticles using rhizome extract of *Gloriosa superba* (Linn.) show antibacterial activity. *Indo-American Journal of Pharmaceutical Research*, 3(12), 1740-46.
32. Selvaraj, D., Park, J. I., Chung, M. Y., Cho, Y. G., **Ramalingam, S.**, and Nou, I. S. (2013). Utility of DNA barcoding for plant biodiversity conservation. *Plant Breeding and Biotechnology*, 1(4), 320-332. <https://doi.org/10.9787/PBB.2013.1.4.320>.
33. Sathiyadash, K., Muthukumar, T., Murugan, S. B., **Sathishkumar, R.**, and Pandey, R. R. (2014). *In vitro* symbiotic seed germination of South Indian endemic orchid *Coelogyne nervosa*. *Mycoscience*, 55(3), 183-189. <https://doi.org/10.1016/j.myc.2013.08.005>. **IF: 1.380**
34. Kumar, S. R., Kiruba, R., Balamurugan, S., Cardoso, H. G., Birgit, A. S., Zakwan, A., and **Sathishkumar, R.** (2014). Carrot antifreeze protein enhances chilling tolerance in transgenic tomato. *Acta Physiologiae Plantarum*, 36(1), 21-27. <https://doi.org/10.1007/s11738-013-1383-x>. **IF: 1.608**
35. Xie, W. H., Zhu, C. C., Zhang, N. S., Li, D. W., Yang, W. D., Liu, J. S., **Sathishkumar, R.** and Li, H. Y. (2014). Construction of novel chloroplast expression vector and development of an efficient transformation system for the diatom *Phaeodactylum tricornutum*. *Marine Biotechnology*, 16(5), 538-546. <https://doi.org/10.1007/s10126-014-9570-3>. **IF: 2.798**
36. Shanmugaraj B M and **Ramalingam S** (2014) Plants as an alternate system for the large scale production of recombinant therapeutic proteins. *Biochemistry and Analytical Biochemistry*, 3(2) <http://dx.doi.org/10.4172/2161-1009.1000i101>. **IF: 2.63**
37. Shanmugaraj, B. M., and **Ramalingam, S.** (2014). Plant expression platform for the production of recombinant pharmaceutical proteins. *Austin Journal of Biotechnology and Bioengineering*, 1(6): 4-7.
38. Murugan, S. B., Deepika, R., Reshma, A., Ashwini, M., and **Sathishkumar, R.** (2014). Assessment of free radical scavenging activities of leaves and stem fractions of green leafy vegetables. *African Journal of Pharmacy and Pharmacology*, 8(45), 1138-1145. <http://doi.org/10.5897/AJPP2014.4127>.
39. Selvaraj, D., Sarma, R. K., Shanmughanandhan, D., Srinivasan, R., and **Ramalingam, S.** (2015). Evaluation of DNA barcode candidates for the discrimination of the large plant family Apocynaceae. *Plant Systematics and Evolution*, 301(4), 1263-1273. <https://doi.org/10.1007/s00606-014-1149-y>. **IF: 1.585**

40. Malla, A., Srinivasan, B., Shanmugaraj, B. M., and **Ramalingam, S.** (2015). Micropropagation and DNA delivery studies in onion cultivars of Bellary, CO<sub>3</sub>. *Journal of Crop Science and Biotechnology*, 18(1), 37-43. <https://doi.org/10.1007/s12892-014-0101-6>.
41. Murali, K. S., Sivasubramanian, S., Vincent, S., Murugan, S. B., Giridaran, B., Dinesh, S., Gunasekaran, P., Krishnasamy, K and **Sathishkumar, R.** (2015). Anti-chikungunya activity of luteolin and apigenin rich fraction from *Cynodon dactylon*. *Asian Pacific Journal of Tropical Medicine*, 8(5), 352-358. [https://doi.org/10.1016/S1995-7645\(14\)60343-6](https://doi.org/10.1016/S1995-7645(14)60343-6) . **IF: 1.772**
42. Yadav, S. A., **Ramalingam, S.**, Raj, A. J., and Subban, R. (2015). Antihistamine from *Tragia involucrata* L. leaves. *Journal of Complementary and Integrative Medicine*, 12(3), 217-226. <https://doi.org/10.1515/jcim-2015-0015>
43. Rajeev Kumar, S., Anunanthini, P., and **Ramalingam, S.** (2015). Epigenetic silencing in transgenic plants. *Frontiers in Plant Science*, 6, 693. <https://doi.org/10.3389/fpls.2015.006933> . **IF: 4.106**
44. Balachandran KRS, Mohanasundaram S and Ramalingam S (2015). DNA barcoding: a genomic-based tool for authentication of phytomedicinals and its products. *Botanics: Targets and Therapy*, 2015(5), 77-84. <https://doi.org/10.2147/BTAT.S61121>
45. Ashwini M, S. BalaMurugan, S. Balamurugan and **R. Sathishkumar** (2016). Advances in Molecular Cloning. *Molecular Biology*, 50(1), 1-6. <http://doi.org/10.1134/S0026893316010131>. **IF: 0.977**
46. Campos, M. D., Nogales, A., Cardoso, H. G., Kumar, S. R., Nobre, T., **Sathishkumar, R.**, and Arnholdt-Schmitt, B. (2016). Stress-induced accumulation of *DcAOX1* and *DcAOX2a* transcripts coincides with critical time point for structural biomass prediction in carrot primary cultures (*Daucus carota* L.). *Frontiers in Genetics*, 7, 1. <https://doi.org/10.3389/fgene.2016.00001> **IF: 3.517**
47. Ragupathy, S., Dhivya, S., Patel, K., Sritharan, A., Sambandan, K., Gartaula, H., **Sathishkumar, R.**, Khadka, K., Nirmal, B C., Kumari, A N., and Newmaster, S. G. (2016). DNA record of some traditional small millet landraces in India and Nepal. *3 Biotech*, 6(2), 133. <https://doi.org/10.1007/s13205-016-0450-6>. **IF: 1.786**
48. Murugan, S. B., and **Sathishkumar, R.** (2016). Chikungunya infection: A potential re-emerging global threat. *Asian Pacific Journal of Tropical Medicine*, 9(10), 933-937. <https://doi.org/10.1016/j.apjtm.2016.07.020>. **IF: 1.772**
49. Yadav, S. A., **Ramalingam, S.**, Jebamalairaj, A., Subban, R., and Sundaram, K. M. (2016). Biochemical fingerprint and pharmacological applications of *Barleria noctiflora* Lf leaves. *Journal of Complementary and Integrative Medicine*, 13(4), 365-376. <https://doi.org/10.1515/jcim-2015-0106>.
50. Shanmughanandhan, D., Ragupathy, S., Newmaster, S. G., Mohanasundaram, S., and **Sathishkumar, R.** (2016). Estimating herbal product authentication and adulteration in India using a vouchered, DNA-based biological reference material library. *Drug Safety*, 39(12), 1211-1227. <https://doi.org/10.1007/s40264-016-0459-0>. **IF: 3.526**



51. Nalina, L., Rajamani, K., Joel, A. J., Dhivya, S., Jijo, C. J., Ramachandran, S., and **Sathishkumar, R.** (2017). Confirmation of black nightshade species through DNA barcoding. *Medicinal Plants-International Journal of Phytomedicines and Related Industries*, 9(1), 41-47. <http://doi.org/10.5958/0975-6892.2017.00006.5>.
52. G Iyappan, S Hari Priya, K Kadirvelu, J Kingston, N Gopalan, RK Sharma and **R Sathishkumar** (2017). Rapid production of therapeutic proteins using plant system. *Defence Life Science Journal*, 2(2), 95-102. <https://doi.org/10.14429/dlsj.2.11372>.
53. Laha, R. C., De Mandal, S., Ralte, L., Ralte, L., Kumar, N. S., Gurusubramanian, G., **Sathishkumar, R.**, Mugasimangalam, R and Kuravadi, N. A. (2017). Meta-barcoding in combination with palynological inference is a potent diagnostic marker for honey floral composition. *AMB Express*, 7(1), 132. <https://doi.org/10.1186/s13568-017-0429-7>. **IF: 1.719**
54. Sundararajan, S., Sivaraman, B., Rajendran, V., and **Ramalingam, S.** (2017). Tissue culture and Agrobacterium-mediated genetic transformation studies in four commercially important Indica rice cultivars. *Journal of Crop Science and Biotechnology*, 20(3), 175-183. <https://doi.org/10.1007/s12892-017-0045-0>.
55. Balamurugan, S., Ann, J. S., Varghese, I. P., Murugan, S. B., Harish, M. C., Kumar, S. R., and **Sathishkumar, R.** (2018). Heterologous expression of *Lolium perenne* antifreeze protein confers chilling tolerance in tomato. *Journal of Integrative Agriculture*, 17(5), 1128-1136. [https://doi.org/10.1016/S2095-3119\(17\)61735-0](https://doi.org/10.1016/S2095-3119(17)61735-0). **IF: 1.337**
56. Nile, S. H., Nile, A. S., Keum, Y. S., Baskar, V., and **Ramalingam, S.** (2017). *In vitro* and *in planta* nematicidal activity of black pepper (*Piper nigrum* L.) leaf extracts. *Crop Protection*, 100, 1-7. <https://doi.org/10.1016/j.cropro.2017.05.027>. **IF: 2.172**
57. Dhivya, S., Baskar, V., Kumar, S. R., and **Sathishkumar, R.** (2018). An immunoinformatics approach to define T cell epitopes from polyketide and non-ribosomal peptide synthesis proteins of *Mycobacterium tuberculosis* as potential vaccine candidates. *Journal of Molecular Recognition*, 31(2), e2685. <https://doi.org/10.1002/jmr.2685> **IF: 1.919**
58. Sathish, S., Venkatesh, R., Safia, N., and **Sathishkumar, R.** (2018). Studies on growth dynamics of embryogenic cell suspension cultures of commercially important Indica rice cultivars ASD16 and Pusa basmati. *3 Biotech*, 8(4), 194. <https://doi.org/10.1007/s13205-018-1213-3>. **IF: 1.786**
59. Rajendran, V., Sivakumar, H. P., Marichamy, I., Sundararajan, S., and **Ramalingam, S.** (2018). Phytonutrients analysis in ten popular traditional Indian rice landraces (*Oryza sativa* L.). *Journal of Food Measurement and Characterization*, 12(4), 2598-2606. <https://doi.org/10.1007/s11694-018-9877-2>. **IF : 1.415**
60. Mayakannan, K., Sureka, C. S., Venkatesh, R., **Ramalingam, S** and Jeevanram, R. K. (2018). Construction of dose response curves up to 6 Gy for micronucleus and dicentric chromosome aberration assay with 6 MV X-ray beam. *Radiation Measurements*, 115, 60-68. <https://doi.org/10.1016/j.radmeas.2018.05.012>. **IF : 1.435**

61. Baskar, V., Nayeem, S., Kuppuraj, S. P., Muthu, T., and **Ramalingam, S.** (2018). Assessment of the effects of metal oxide nanoparticles on the growth, physiology and metabolic responses in *in vitro* grown eggplant (*Solanum melongena*). *3 Biotech*, 8(8), 362. <https://doi.org/10.1007/s13205-018-1386-9>. **IF: 1.786**
62. Iyappan, G., Shanmugaraj, B. M., Inchakalody, V., Ma, J. C., and **Ramalingam, S.** (2018). Potential of plant biologics to tackle the epidemic like situations - Case studies involving viral and bacterial candidates. *International Journal of Infectious Diseases*, 73, 363. <https://doi.org/10.1016/j.ijid.2018.04.4236> **IF: 3.538**
63. Sathish, S., Preethy, K. S., Venkatesh, R., and **Sathishkumar, R** (2018). Rapid enhancement of  $\alpha$ -tocopherol content in *Nicotiana benthamiana* by transient expression of *Arabidopsis thaliana* Tocopherol cyclase and Homogentisate phytyl transferase genes. *3 Biotech*, 8(12), 485. <https://doi.org/10.1007/s13205-018-1496-4>. **IF: 1.786**
64. Venkidasamy, B., Selvaraj, D., and **Ramalingam, S.** (2019). Genome-wide analysis of purple acid phosphatase (PAP) family proteins in *Jatropha curcas* L. *International Journal of Biological Macromolecules*, 123, 648-656. <https://doi.org/10.1016/j.ijbiomac.2018.11.027> **IF: 4.784**
65. Sivakumar, S., G. Siva, S. Sathish, G. Prem Kumar, M. Vigneswaran, S. Vinoth, T. Senthil Kumar, **R. Sathishkumar**, and N. Jayabalan (2019), Influence of exogenous polyamines and plant growth regulators on high frequency *in vitro* mass propagation of *Gloriosa superba* L. and its colchicine content. *Biocatalysis and Agricultural Biotechnology*. <https://doi.org/10.1016/j.bcab.2019.101030>.
66. Saravanan M, Mohanapriya G, RC Laha and **R Sathishkumar** (2019) DNA Barcoding detects floral origin of Indian honey samples. *Genome*. <https://doi.org/10.1139/gen-2018-0058>. **IF: 1.892**
67. Sathish S, Safia N, Sivakumar S, Venkatesh R and **Sathishkumar Ramalingam** (2019) Optimizing culture conditions for high frequency somatic embryogenesis and plantlet conversion in *Daucus carota* L. *Biologia*. 1-13. **IF:0.728**
68. P. Anunathini , VM. Manoj, TS. Sarath Padmanabhan, S. Dhivya, J. Ashwin Narayan, C. Appunu, and **R. Sathishkumar**. (2019) *In silico* characterisation and functional validation of chilling tolerant divergence 1 (COLD1) gene in monocots during abiotic stress. *Functional Plant Biology*. DOI: [10.1071/FP18189](https://doi.org/10.1071/FP18189). **IF: 2.327**
69. V.M. Manoj, P Anunandhini, P.C. Swathik, S. Dharshini, J Ashwin Narayan, M. Manickavasagam, **R Sathishkumar**, G.S. Suresha, G Hemaprabha, B. Ram and C. Appunu. (2019) Comparative analysis of glyoxalase pathway genes in *Erianthus arundinaceus* and commercial sugarcane hybrid under salinity and drought conditions. *BMC Genomics*. <https://doi.org/10.1186/s12864-018-5349-7>. **IF: 3.501**
70. S. Ragupathy, A. C. Fallar, S. Dhivya, P. Kesanakurti, R. Uma Shaanker, G. Ravikanth, **R. Sathishkumar**, N. Mathivanan, J. Song, J. Han and S. Newmaster. (2019) Exploring DNA quantity and quality from raw materials to botanical extracts. *Heliyon*. 5(6):e01935. <https://doi.org/10.1016/j.heliyon.2019.e01935>.

71. Balamurugan S, Ashwini M and **Sathishkumar R** (2019). Epidemiology, clinical features and transmission of re-emerging arboviral infection chikungunya. *Asian Pacific Journal of Tropical Biomedicine*. 9 (4), 135. doi: 10.4103/2221-1691.256726. IF
72. Baskar V, Dhivya S, Arti S, **Sathishkumar R**, Guoyin Kai, Shivraj N. (2019). Indian pulses: A review on nutritional, functional and biochemical properties with future perspectives. *Trends in Food Science & Technology*. 88: 228-242. <https://doi.org/10.1016/j.tifs.2019.03.012>. **IF: 8.519**
73. Sivakumar Subiramani, Sathish Sundararajan, Hari Priya Sivakumar, Venkatesh Rajendran and **R Sathishkumar** (2019) Sodium nitroprusside enhances callus induction and shoot regeneration in high value medicinal plant *Canscora diffusa*. *Plant Cell, Tissue and Organ Culture (PCTOC)*, 1-11. **IF 2.20**

## POPULAR ARTICLE

- The Hindu: There are no boundaries in research on 27.09.11
- The Hindu: University research on plant-based vaccine for Chikungunya on 03.10.11
- A Case for India-Brazil Cooperation in Generic Drugs in a magazine: Diplomatist Plus. IV (11): 2012)
- Current Science: Plant Molecular Farming. March 2017 Vol. 112(1093-1094)
- South Asia Biosafety Program Newsletter, Genetically Engineered Tomato with Improved Chilling Tolerance, S.R.Kumar, R.Kiruba and R.Sathishkumar. Vol 14, No. 04 Page No. 5. April 2018
- Times of India: A cheap, single test could detect Chikungunya and Dengue - Soon Viral & Bacterial Diagnostic Kits From BU on 27.04.2018

## SEQUENCE SUBMISSIONS

GenBank Submissions (NCBI, USA) - 260

BOLD Submissions (Canada) - 130

## FULL LENGTH PAPERS IN PROCEEDINGS

### International

1. Girish Mishra, **Sathishkumar Ramalingam**, M.S.F. Lie Ken Jie and Mee Len Chye (2004) Characterization of a mutant in Arabidopsis ACBP2. In: Proceedings of Symposium on 16<sup>th</sup> International Plant Lipid Symposium held in Budapest, Hungary, during June 1-4.
2. Shanmugaraj Bala Murugan, Aziz Reshma, Ramamoorthy Deepika & **Ramalingam Sathishkumar** (2014) Appraisal of Antioxidant Properties of Selected Green Leafy Vegetables. In: International Symposium on “Research Innovation for Quality Improvement in Higher Education”, Bharathiar University, Coimbatore during 10-11, Oct, 2014. ISBN 788-19-23306-93-5



3. K. Saravana Murali, I. Varghese, S. Bala Murugan, S. Dinesh, V. Senthilkumar, G. Bupesh, P. Gunasekaran, K. Kaveri, S. Mohan, V. Muthuraj and **R. Sathishkumar** (2014). Assessment of *In Vitro* Anti-Viral Activity of *Cynodon dactylon* Methanolic Extract against Chikunguniya Virus. In: International Symposium on “Research Innovation For Quality Improvement in Higher Education”, Bharathiar University, Coimbatore during 10-11, Oct, 2014. ISBN 788-19-23306-93-5
4. Safia and **Sathishkumar.R** (2017). Metabolic engineering of phenyl propanoid pathway in Rice (*Oryza sativa*), Proceedings of International Conference on Herbs and Natural Components as the Future of Pharmacology, February,2017; ISBN No:978-93-84234-04-1
5. Sree Preethy.K and **Sathishkumar. R** (2017). Pharmaceutical and Cost Benefit Analysis of Commercially Important Pomegranate Varieties, Proceedings of International Conference on Herbs and Natural Components as the Future of Pharmacology, February, 2017; ISBN No:978-93-84234-04-1

### **National**

1. N. Muthu Meenakshi, P. Theriappan, **R. Sathishkumar**, M. Ramesh, K. Manoharan, Aditya K. Gupta and A. Gnanam (1993). *In vitro* Plant Regeneration in *Arachis hypogaea* L. and *Glycine max* L. In: DAE symposium on “Photosynthesis and Molecular Biology” by Department of Atomic Energy, Govt. of India, held at Jawaharlal Nehru University, New Delhi, India, during March 17-19.
2. K. Manoharan, M. Ramesh, **R. Sathishkumar**, Aditya K. Gupta and A. Gnanam (1993). Tissue culture studies on *Oryza sativa* L. for Induction of Callus, Plantlet Regeneration and Cell Suspension Cultures. In: DAE symposium on “Photosynthesis and Molecular Biology” by Department of Atomic Energy, Govt. of India held at Jawaharlal Nehru University, New Delhi, India, during March 17-19.
3. **R. Sathishkumar** and K. Manoharan (1995). A Cell Culture-based Genetic Transformation System for the Rice Cultivar IR 20 by employing Microprojectile Bombardment. In: Proceedings of Symposium on “Recent Advances in Biotechnological Applications of Plant tissue and Cell culture and XVIII Meeting of Plant Tissue Culture Association of India” Published by Oxford - IBH publishing Co. Pvt. Ltd., New Delhi, held at Central Food Technological Research Institute, Mysore, India, during June 22-24.
4. Girish Mishra, **Sathishkumar Ramalingam**, Thirupathi Karuppanapandian, Shipra Agrwal, Venkatraman Jaganathan, Kumariah Manoharan (2004). Induction of Plantlet Regeneration and Embryogenic Callus in Black Gram, *Vigna mungo* (L.) Hepper cv. Co4. In: Proceedings of Symposium on “Biotechnology for Better Future and XXVI Meeting of Plant Tissue Culture Association of India” published by SAC publications, held in Mangalore, India.
5. K. Kiruba and **R. Sathishkumar** (2010). Transgenic Tobacco and Tomato with *Arabidopsis thaliana* FAD7 for Enhancing Cold Tolerance. In Proceedings of DBT Student Research Project Scheme (2009-2010) published by DBT and TNSCST, India.

### **WORKSHOPS/CONFERENCES/SYMPOSIUM/SEMINARS ATTENDED**

## National

1. Participated in the “**State Level Biosafety Capacity Building Workshop**” organized by TNAU, Coimbatore held on 23.03.2018.
2. Participated in the “**Workshop on NAAC Revised Assessment & Accreditation Framework**”, organized by IQAC, Bharathiar University, Coimbatore on 03.02.2018
3. “**Seminar on Developing New Curriculum – 2017**”, organized by State council of Educational Research and Training, Tamil Nadu, Chennai on 20.07.2017 to 22.07.2017.
4. “**National Conference on Computational Biology**”, organized by Computational Biology Division, DRDO-BU CLS, Bharathiar University campus, Coimbatore on 27<sup>th</sup> & 28<sup>th</sup> June, 2016.
5. “**National Workshop on Intellectual Property Rights**”, organized by Department of Botany, Bharathiar University, Coimbatore during 3<sup>rd</sup> & 4<sup>th</sup> March, 2016.
6. “**National Seminar on Frontiers in Biotechnology**”, organized by Department of Biotechnology, Bharathiar University, Coimbatore on 18<sup>th</sup> & 19<sup>th</sup> February, 2016.
7. “**One-day Brainstorming Session on Plant Metabolomics**”, DST sponsored in HCU, Hyderabad on 20<sup>th</sup> Dec 2014.
8. “**Refresher Course in Biotechnology**”, UGC-ASC, Bharathiar University on 6<sup>th</sup> to 26<sup>th</sup> Nov, 2014.
9. “**Applying NGS**”, organized by Genotypic Technology, Bengaluru on 11<sup>th</sup> Oct 2014.
10. “**Interaction Meeting on Bio-threat Agents Detection Technologies**”, organized by DFRL & DRDO-BU-CLS, BU on 28<sup>th</sup> & 29<sup>th</sup> July 2014.
11. “**Achieving Educational Excellence in Digital Age**”, Organized by BU-TCS, Le-Meridian, Coimbatore on 19<sup>th</sup> July 2014.
12. “**National Seminar in Cyber Crime Security**”, sponsored by UGC-SAP held in Department of Biotechnology, Bharathiar University, Coimbatore on 7<sup>th</sup> January, 2014.
13. “**Data Mining Applications in Genomics and Proteomics**”, held at Department of Bioinformatics, Bharathiar University on 24<sup>th</sup> Jan 2014.
14. “**Refresher Course in Life Sciences**”, sponsored by UGC held at Bharathiar University, Coimbatore during Nov.19 to Dec.9, 2013.
15. “**Refresher Course in Life Science**”, UGC-ASC, Bharathiar University on 19<sup>th</sup> Nov to 9<sup>th</sup> Dec, 2013.
16. “**National Seminar on Biodiversity Informatics**”, held at Bharathiar University on 30<sup>th</sup> Aug, 2013.
17. “**A Scientific Symposium on Emerging Trends in Plant Biotechnology**”, held at Fortune Pandian Hotel, Madurai on 12-13 July, 2013.
18. “**Academy-Industry meet**”, held at CDC-Bharathiar University on 6<sup>th</sup> March 2013.
19. “**Orientation and Workshop on Designing and Development of Curriculum**”, held at CDC, Bharathiar University, 25<sup>th</sup> Feb to 5<sup>th</sup> Mar, 2013.

20. **“Connecting UK Alumni: First National Meeting”**, held at The Park Hotel, Hyderabad on 19-20, March 2011.
21. **“Developing Self-instructional Materials for Distance Learners”**, held at SDE-BU on 31<sup>th</sup> March 2010.
22. **“State Level Workshop on Management and Monitoring of Field Trials of Genetically Engineered Crops”**, held at TNAU, Coimbatore on 24 Feb, 2009.
23. **“Orientation Course”** held at UGC-Academic Staff College, Bharathiar University, Coimbatore, during Oct. 30<sup>th</sup> to Nov. 26<sup>th</sup>, 2008.
24. **“Workshop on National Consultation on Safety Assessment of GM Food Crops”**, held at TNAU, Coimbatore on March 27, 2007.
25. **“Hands on Workshop on Advanced Microarray Techniques”** held at Department of Microbiology and Cell Biology, IISC, Bangalore, during Jan. 31 to Feb. 1, 2006.
26. DAE-BRNS workshop on **“Applications of Image Processing in Plant Sciences and Agriculture”** held at Bhaba Atomic Research Centre, Mumbai during Oct. 26-30, 1998.
27. DBT, Government of India sponsored workshop on **“Online Information Access and Retrieval”** held at Madurai Kamaraj University during March 26-27, 1996.
28. Presented poster on **“Plant Tissue Culture”** during National Science Day Celebration organized by School of Biotechnology, Madurai Kamaraj University, held on Feb. 2, 1996.
29. P/ACE seminar on **“Capillary Electrophoresis”** held at Indian Institute of Science, Bangalore. Sponsored by Wipro-Biomed on Dec. 2, 1994.
30. DBT, Govt. of India, sponsored course on **“Computer Applications in Molecular Biology”** held at Pondicherry University during March 29-April 3, 1993.
31. DBT, Govt. of India, sponsored short-term training course on **“Structure, Function and Molecular Biology of Chloroplasts”**, held at Madurai Kamaraj University during May 1-17, 1991.
32. One-day symposium on **“Recent Advances in Basic Phytology”** held at Madras Christian College, Madras on Feb. 16, 1989.

## **International**

1. **Report on Academic Leader’s Program at Tecnologica de Monterrey, Querretarro, Mexico** from 24.09.2018 to 28.09.2018
2. **2<sup>nd</sup> International Conference in Environmental Science and Ecology**, organized by Department of Environmental Science, Bharathiar University, India on March 7-9, 2016.
3. **“Indo-Portugal Workshop at ICAAM”** held at University of Evora, Portugal on 30.06.15.
4. **“International Training Course on DNA Barcoding Informatics and Laboratory Protocols”** held at Kunming, China during Oct. 26 - Nov.08, 2013.
5. **“International Science Symposium on HIV and Infectious Diseases”** held at CSIR

Campus, Taramani, Chennai on Jan 20<sup>th</sup> – 22<sup>nd</sup>, 2012.

6. “**Modern Challenges in Therapeutic Protein Production**” held at Bio Park, Welwyn Garden City, and Hertfordshire AL7 3AX, United Kingdom on June 11<sup>th</sup>, 2010.
7. “**International Consultation on DNA Barcoding meeting**” held at National Agriculture Science Complex, Pusa, and New Delhi, India during November 06-07, 2010.
8. **Animals (Scientific Procedures)** - Qualified the course conducted by King’s College, London, UK for experimental animal handling procedures (March 2008).
9. “**Radiation Worker**” held at University of Hong Kong on 3<sup>rd</sup> April, 1999.
10. “**Plant Molecular Farming- Plant Biologicals**” held at Bio Park, Welwyn Garden city, Hertfordshire AL7 3AX, United Kingdom on Jan. 29<sup>th</sup>, 2008.
11. “**Plant Embryogenesis Workshop - From Single Cell to Plant**” held at Centre for Applied Molecular Biology, University of Hamburg, Germany during Sept. 12-14, 1996.

## PRESENTATIONS

### International

1. **Sathishkumar R**, Mahima K, Dhivya Selvaraj an Saravanan M. Intricacies involved in authentication of herbal industry samples by DNA barcoding. In: 8<sup>th</sup> International Barcode of Life Conference at Clarion Hotel and Congress, Trondheim, Norway, 17-20 June 2019.
2. Dhivya S and **Sathishkumar R**. Developing PCR-RFLP and SNP-based markers for determining cytoplasmic male sterile factors in the genus *Amaranthus* (Amaranthaceae). In: 8<sup>th</sup> International Barcode of Life Conference at Clarion Hotel and Congress, Trondheim, Norway, 17-20 June 2019.
3. Mahima K, Sudhakar J.V., and **Sathishkumar R**. Combined multivariate analysis and DNA barcoding studies unravel the species complexity in *Ficus* (Moraceae) endemic to South India. In: 8<sup>th</sup> International Barcode of Life Conference at Clarion Hotel and Congress, Trondheim, Norway, 17-20 June 2019.
4. Parthiban S, Gowtham I, J-K.C. Ma, and **Sathishkumar R**. Cost effective production of engineered antigen antibodies for early differential diagnosis of Dengue and Chikungunya viral infection. In: Plant Based Vaccines, Antibodies and Biologics at University of Latvia, Riga, Latvia during 10-12 June 2019.
5. **Sathishkumar R** and Gowtham I. Plant based biologics to tackle Staphylococcal food poisoning. In: Indian Plant Science Congress at SRM Institute of Science and Technology, Kattankulathur, Chennai during 23-25 January 2019.
6. Safia N, Sathish S and **Sathishkumar R**. Metabolic engineering of the phenylpropanoid pathway using bacterial tyrosine ammonia lyase and soybean isoflavone synthase for biofortification of flavonoids. In: Indian Plant Science Congress at SRM Institute of Science and Technology, Kattankulathur, Chennai during 23-25 January 2019.
7. Sivakumar, Sathish S and **Sathishkumar.R**. Role of silver nitrate on *in vitro* callus induction and regeneration capacities of *Canscora decussate* - a critically endangered medicinal plant. In: Indian Plant Science Congress at SRM Institute of Science and Technology, Kattankulathur, Chennai during 23-25 January 2019.

8. Sathish S, Safia N and **Sathishkumar R**. Enhanced  $\alpha$ -tocopherol (vitamin E) levels in transgenic rice co-expressing *Arabidopsis thaliana TC* and *HPT* genes. In: Indian Plant Science Congress at SRM Institute of Science and Technology, Kattankulathur, Chennai during 23-25 January 2019.
9. Mahima K, Sudhakar J V and **Sathishkuma R**. Molecular and phyto-chemical profiling discriminates the species complex in select endemic south India *Ficus genus*. In: Indian Plant Science Congress at SRM Institute of Science and Technology, Kattankulathur, Chennai during 23-25 January 2019.
10. Dhivya S and **Sathishkumar R**. Developing PCR-RFLP- and SNP-based markers for determining cytoplasmic male sterile factors in *Musa* sp. (Musaceae). In: Indian Plant Science Congress at SRM Institute of Science and Technology, Kattankulathur, Chennai during 23-25 January 2019.
11. **Sathishkumar R** and Saravanan M. Biological authentication of natural Indian honey samples. “2<sup>nd</sup> International Conference on DNA Technology for Authentication, Quality Control and Conservation of Herbal Material”, organized by The Chinese University of Hong Kong on 2-5 December 2018
12. Dhivya S and **Sathishkumar R**. Computational identification of miRNAs from *Mentha piperita L.* predicts its therapeutic potential. In: “2<sup>nd</sup> International Conference on DNA Technology for Authentication, Quality Control and Conservation of Herbal Material”, organized by The Chinese University of Hong Kong on 2-5 December 2018
13. Mahima K and **Sathishkumar R**. Species delimitation of *Ficus krishnae* C.DC. from *Ficus benghalensis* L. complex based on DNA barcoding and HP-TLC. In: “2<sup>nd</sup> International Conference on DNA Technology for Authentication, Quality Control and Conservation of Herbal Material”, organized by The Chinese University of Hong Kong on 2-5 December 2018
14. S. Dhivya, I. Gowtham, A Baala Harini, S. Mukunthamumar and **R. Sathishkumar**. “Molecular identification and evolutionary relationships between the subspecies of *Musa* by DNA barcodes” for Oral presentation at InCoB2018, JNAU, New Delhi Sep, 26-27, 2018.
15. S. Dhivya, K. Mahima, M. Saravanan and **R. Sathishkumar**. *In silico* screening of potent natural anti-inflammatory compounds from Indian medicinal plants to treat skin disease. In International Conference of Phytomedicine (ICPM-2018) held during 28-31 August 2018 at Bharathiar University, Coimbatore
16. Rebecca Oziohu Omosimua, David Macham, Adebola Onanuga, Benjamin Thoha Thomas, Curtis Onoye Ugbomor, Gowtham Iyappan, **Ramalingam Sathishkumar**, Samuel Abolade Afolabi. Antioxidant and antimicrobial activities of flavonoids from the fruit extract of *Dacryodes edulis*. In International Conference of Phytomedicine (ICPM-2018) held during 28-31 August 2018 at Bharathiar University, Coimbatore
17. Safia N, Arun, Sathish S and **R Sathishkumar**. Phytoconstituent and antioxidant profiling of pigmented and non-pigmented traditional rice cultivars of India. In

International Conference of Phytochemistry (ICPM-2018) held during 28-31 August 2018 at Bharathiar University, Coimbatore. **Best Poster Award**

18. Gowtham I, Hari Priya and **Sathishkumar R.** In: International Conference on Biosciences and Bioinformatics, organized by Department of Biochemistry, Biotechnology, Microbial Biotechnology and Bioinformatics, Bharathiar University, Coimbatore held on 14-16 Dec, 2017. **Best Oral**
19. **Sathishkumar R,** Bala Murugan S, Gowtham I and Julian K-C Ma. A potential alternate production platform for plant biologics – Chickungunya vaccine candidates. In: 26<sup>th</sup> Annual Conference of Indian Virological Society, organized by Viruses to Viromes in Health and Disease, Nitte University, Mangaluru held on 7-9, December, 2017.
20. **Sathishkumar R,** Authentication of herbal plants and products using DNA-based biological reference material library. In: 7<sup>th</sup> International Conference on Barcoding of Life, South Africa on Nov 2017. Published by NRC Research Press. 993.
21. Saravanan M and **Sathishkumar R.** DNA barcoding reveals the medicinal value of honey by its floral composition. In: 7<sup>th</sup> International Conference on Barcoding of Life, South Africa on Nov 2017. Published by NRC Research Press 993
22. Dhivya S and **Sathishkumar R.** DNA barcoding resolves the highly complex banana sub-species and synonyms. In: 7<sup>th</sup> International Conference on Barcoding of Life, South Africa on Nov 2017. Published by NRC Research Press. 927
23. Mahima K, Sudhakar JV and **Sathishkumar R.** DNA barcoding of *Ficus virens* Aiton (Moraceae) complex present in biodiversity hotspot of South India and its taxonomical implications. In: 7<sup>th</sup> International Conference on Barcoding of Life, South Africa on Nov 2017. Published by NRC Research Press. 967
24. J.V.Sudhakar, Mahima Karthikeyan and **R Sathishkumar.** Study on morphology and DNA barcoding of four taxonomically complex groups of *Ficus* L. (Moraceae). In: “XXVII Annual Conference of Indian Association for Angiosperm Taxonomy and International Symposium on Plant Systematics: Priorities and Challenges” held at Department of Botany, University of Delhi, Delhi, India during November 10-12, 2017
25. Anunanthini P, Dhivya S and **Sathishkumar R.** Functional characterization of cold inducible promoter from carrot using transient gene expression system in sugarcane. In: International Symposium on ‘Sugarcane Research Since Co 205: 100 Years and Beyond’ held during September 18-21, 2017, Coimbatore (Poster Presentation)
26. Dhivya S, Anunanthini P and **Sathishkumar R.** A Genome wide analysis of the ethylene-responsive element binding factor gene family in *Saccharum officinarum*. In: International Symposium on ‘Sugarcane Research Since Co 205: 100 Years and Beyond’ held during September 18-21, 2017, Coimbatore (Poster Presentation)
27. **Sathishkumar R.** Assessment of commercial Indian herbal products by DNA barcodes. In: International Conference on Herbal and Natural Components as the Future of Pharmacology & 7<sup>th</sup> Annual Meet of the National Society of Ethnopharmacology, organized by Avinashilingam Institute for Home Science and Higher Education for Women held on 27<sup>th</sup> Feb. – 1<sup>st</sup> March, 2017.

28. **Sathishkumar R.** Application of Universal DNA Barcode system – Experience with India Herbal Industries. In: International conference on DNA technology for authentication, quality control and conservation of herbal material, organized by the Chinese University of Hong Kong, Hong Kong held in 12<sup>th</sup> – 14<sup>th</sup> December, 2016.
29. Saravanan M, Krishnaveni C and **Sathishkumar R.** DNA barcoding for authentication of the commercial Indian herbal tea. In: “International Conference on DNA technology for Authentication, Quality Control and Conservation of Herbal Material”, organized by the Chinese University of Hong Kong, Hong Kong held during 12<sup>th</sup> – 14<sup>th</sup> December, 2016.
30. Mahima K, **Sathishkumar R** and Sudhakar J V. Application of DNA barcoding to unravel the taxonomical complexity in *Ficus L.* (Moraceae) of Western Ghats, India. In: International Conference on DNA technology for Authentication, Quality Control and Conservation of Herbal Material, organized by The Chinese University of Hong Kong, Hong Kong held during 12<sup>th</sup> – 14<sup>th</sup> December, 2016.
31. Dhivya S and **Sathishkumar R.** Development of DNA barcode based CHIP for visual detection of adulterants in herbal products. . In: “International Conference on DNA Technology for Authentication, Quality Control and Conservation of Herbal Material”, organized by The Chinese University of Hong Kong, Hong Kong held in 12<sup>th</sup> – 14<sup>th</sup> December, 2016.
32. Mohanapriya G, Rajeev Kumar S and **R. Sathishkumar.** Alternative oxidase (AOX) enhances tolerance against abiotic stress through oxidative defense mechanism in tobacco. In: International Conference on Recent Trend in Biosciences, organized by Alagappa University, Karaikudi held during 7<sup>th</sup> – 9<sup>th</sup> April, 2016. (Poster Presentation).
33. M. Saravanan, R Laldinfeli, R.C. Laha, B. Karpaga Raja Sundari and **R. Sathishkumar.** DNA barcoding of honey samples to study the plant diversity. In: International Conference on Recent Trend in Biosciences, organized by Alagappa University, Karaikudi held in 7<sup>th</sup> – 9<sup>th</sup> April, 2016.
34. Karpaga Raja Sundari and **R. Sathishkumar.** 2<sup>nd</sup> International Conference on Environment and Ecology, organized by Department of Environmental science, Bharathiar University, Coimbatore 7<sup>th</sup> – 9<sup>th</sup> March, 2016.
35. S Dhivya and **R. Sathishkumar.** 2<sup>nd</sup> International Conference on Environment and Ecology, organized by Department of Environmental science, Bharathiar University, Coimbatore 7<sup>th</sup> – 9<sup>th</sup> March, 2016. (**Best oral award**)
36. M. Saravanan, S.G. Newmaster, S. Ragupathy, S. Dhivya, and **R. Sathishkumar.** DNA barcodes for authentication of commercially important Indian spices. In: Sixth International Barcode of Life Conference, Biodiversity Institute of Ontario, Aug 17-21, 2015 organized by University of Guelph, Guelph, Canada. (Poster Presentation).
37. Shanmughanandhan Dhivya, Selvaraj Dhivya and **Ramalingam Sathishkumar.** DNA barcodes in resolving the taxonomic nomenclature of *Pseudoxytenanthera stocksii* endemic to the Western Ghats, India. In: Sixth International Barcode of Life Conference, Biodiversity Institute of Ontario, Aug 17-21, 2015 organized by University of Guelph, Guelph, Canada. (Poster Presentation).

38. S. Dhivya, S.G. Newmaster, S.Ragupathy, M.Saravanan and **R. Sathishkumar**. Authentication of Indian herbal products using DNA barcodes. In: Sixth International Barcode of Life Conference, Biodiversity Institute of Ontario, Aug 17-21, 2015 organized by University of Guelph, Guelph, Canada. (Poster Presentation).
39. S. Dhivya, S.G. Newmaster, S.Ragupathy, M.Saravanan and **R. Sathishkumar**. DNA-based technologies for authentication of herbs and its admixtures - a review. In: Sixth International Barcode of Life Conference, Biodiversity Institute of Ontario, Aug 17-21, 2015 organized by University of Guelph, Guelph, Canada. (Poster Presentation).
40. L.Nalina, T. Nandhini, K.Rajamani, P. Paramaguru, S.Dhivya, C.Jijo, S. Ramachandran and **R. Sathishkumar**. Confirmation of genetic diversity in morphologically distinct accessions of the *Solanum nigrum* L. complex using DNA barcodes. In: Sixth International Barcode of Life Conference, Biodiversity Institute of Ontario, Aug 17-21, 2015 organized by University of Guelph, Guelph, Canada. (Poster Presentation).
41. Baskaran Xavier Ravi, **Ramalingam Sathishkumar**, Selvaraj Dhivya, Shanmughanandhan Dhivya and Shouzhou Zhang. DNA barcoding of *Pteris* species by *psbA-trnH* intergenic spacer: Taxonomically complex and polyploid ferns. In: Sixth International Barcode of Life Conference, Biodiversity Institute of Ontario, Aug 17-21, 2015 organized by University of Guelph, Guelph, Canada. (Poster Presentation).
42. K. Sambandan, S.G. Newmaster, S. Ragupathy, N. Dhatchanamoorthy, R. Saravanan, and **R. Sathishkumar**. Ethnobotany genomics—use of DNA barcoding to explore cryptic diversity in medicinally important plants in the Indian subcontinent. In: Sixth International Barcode of Life Conference, Biodiversity Institute of Ontario, Aug 17-21, 2015 organized by University of Guelph, Guelph, Canada. (Poster Presentation).
43. Rajeev kumar Sarma, Balamurugan Srinivasan, Anunanthini Pushpanathan, Mohanapriya Gunasekaran and **Ramalingam Sathishkumar**. Heterologous expression of antifreeze proteins in transgenic plant. In: International Conference on Recent Trends in Biomedical and Translation Research from Dec 17 to 19, 2014 at IIT, Roorkee.
44. Shanmugaraj Bala Murugan, Aziz Reshma, Ramamoorthy deepika and **R. Sathishkumar**. Appraisal of antioxidant properties of selected green leafy vegetables. In: Two day International Symposium on “Research Innovation for Quality Improvement in Higher Education”, 10<sup>th</sup> and 11<sup>th</sup> October, 2014, organized by Research and Development Centre, Bharathiar University, Coimbatore.
45. Krishnan Saravana Murali, Varghese inchakalody, Bala Murugan Shanmugaraj, sundaram dines, Vijayan senthilkumar, Giridaran Bupesh, Palani Gunasekaran, K. Kaveri, S. Mohana, Muthuraj Velusamy, **Ramalingam Sathishkumar**. In: Two day International Symposium on “Research Innovation for Quality Improvement in Higher Education”, 10<sup>th</sup> and 11<sup>th</sup> October, 2014, organized by Research and Development Centre, Bharathiar University, Coimbatore.
46. S. Balamurugan, J. Susan Ann, I. Gowtham, S. Bala Murugan and **R. Sathishkumar**. Free radical scavenging analysis of highly nutritious fodder *Lolium perenne* under cold and normal conditions. In: SFRR SATCON and International Symposium on Free Radical Damage and Herbal Antioxidants in Health and Disease. Feb 4<sup>th</sup> & 5<sup>th</sup> 2013, Avinashilingam University, Coimbatore, TN. (Poster Presentation).



47. Reshma. A, S. Bala Murugan, S. Balamurugan, Deepika. R and **Sathishkumar. R.** Assessment of antioxidant activity of *Amaranthus tristis* and *Alternanthera sessilis* and their importance in human diet. In: SFRR SATCON and International Symposium on Free Radical Damage and Herbal Antioxidants in Health and Disease. Feb 4<sup>th</sup>& 5<sup>th</sup> 2013, Avinashilingam University, Coimbatore, TN. (Poster Presentation).
48. Deepika. R, S. Bala Murugan, S. Balamurugan, Reshma. A and **Sathishkumar. R.** Appraisal of green leafy vegetables, as a source for natural antioxidants. In: SFRR SATCON and International Symposium on Free Radical Damage and Herbal Antioxidants in Health and Disease. Feb 4<sup>th</sup>& 5<sup>th</sup> 2013, Avinashilingam University, Coimbatore, TN. (Poster Presentation).
49. Ashwini. M, Balaganesh. J, S. Balamurugan, S. BalaMurugan and **Sathishkumar. R.** *In vitro* and *in vivo* antioxidant activity in onion varieties of Bellary and CO3. In: SFRR SATCON and International Symposium on Free Radical Damage and Herbal Antioxidants in Health and Disease. Feb 4<sup>th</sup>& 5<sup>th</sup> '2013, Avinashilingam University, Coimbatore, TN. **Awarded best poster.** (Poster Presentation).
50. Dhivya. S, Dhivya. S, Rajeev. K. S, **Sathishkumar. R.** DNA barcoding to identify the morphologically similar medicinal plants for pharmacovigilance and to resolve the taxonomical disputes. In: 4<sup>th</sup> International Barcode of Life Conference, held at Adelaide, Australia, 28<sup>th</sup> November – 4<sup>th</sup> December 2011 (Poster Presentation).
51. Dhivya. S, Dhivya. S, Rajeev. K. S, **Sathishkumar. R.** DNA barcode-based PCR-RFLP tool to authenticate the herbal products. In: 4<sup>th</sup> International Barcode of Life Conference, held at Adelaide, Australia, 28<sup>th</sup> November – 4<sup>th</sup> December 2011 (Poster Presentation).
52. Varghese Inchakalody, Craig van Dolleweerd, Rajko Reljic, Mathew Paul, **Sathishkumar Ramalingam** and Julian Ma (2011). Developing a plant based vaccine against Chikungunya virus. In: International Conference on “Plant-based Vaccines and Antibodies” held at Tiara Park Atlantica Hotel, Porta, Portugal during June 8-10. (Poster Presentation)
53. Inchakalody VP, van Dolleweerd CJ, Reljic R, Paul M, **Ramalingam S** and Ma JKC (2010). Developing vaccines against Chikungunya virus. In: “St. George’s Research Day” held at St. George’s University of London, London, UK on December 1. **Awarded Best poster.**
54. Dhivya S and **Sathishkumar R** (2010). DNA barcoding of Indian medicinal plants. In: “International Consultation on DNA Barcoding” held at National Agriculture Science Complex, Pusa, and New Delhi, India during November 06-07.
55. Dhivya. S, Rajeev Kumar. S, Dhivya. S, Ramachandran. VS and **Sathishkumar. R** (2010).”Modern Trends in Plant Taxonomy. XX Annual Conference of Indian Association for Angiosperm Taxonomy (IAAT) & International Symposium on Taxonomy, Plant Diversity and Conservation” held at Bharathiar University, Coimbatore, India, during November 26-28.
56. Balamurugan S, BalaMurugan S, Varghese P I and **Sathishkumar R** (2010). PCR-based RFLP marker for fragrance genotyping of Indian rice varieties. In: International Conference on Genomic Sciences held at Madurai Kamaraj University, Madurai, Tamil Nadu, India, during November 12-14. (**Best Poster award**)

57. Rajeev Kumar Sarma, Anandhan Sivalingam, Mani Chandra Harish, Dhivya Selvaraj, Varghese Philipose Inchakalody, Zakwan Ahmed and **Ramalingam Sathishkumar** (2010). Isolation of cold responsive genes in carrot by suppression subtractive hybridisation. In: 34<sup>th</sup> International Carrot Conference, Washington, USA, held during July 26-28.
58. **Ramalingam S**, Selvaraj D, Sarma R and Ramachandran VS (2009). Conventional and novel DNA barcoding for Apocyanaceae. In: 3<sup>rd</sup> International Barcode of Life Conference, Mexico City, Mexico during November 7-13, 2009.
59. S. Balamurugan, P. Varghese, S. Rajeev Kumar, M.C.Harish, SarikaMathure, K.V. Wakte, A.B. Nadaf and **R. Sathishkumar** (2009). Extraction and quantification of food flavouring compound 2-Acetyl-1-pyrroline from traditional land rice varieties of Kerala. In: "International conference on Food Technology 2009" held at Indian Institute of Crop Processing Technology, Thanjavur during August 28-39.
60. Rajeev Kumar Sarma, Varghese PI, Dhivya S and **Ramalingam Sathishkumar** (2008). Tissue culture and biochemical studies in high altitude and temperate tomato varieties for elucidating cold tolerance mechanism. In First Congress of Asia-Pacific Society for Mountain Medicine at New Delhi during November 28- 30.
61. M.C. Harish, N. Sowmiya Devi and **R. Sathishkumar** (2008). Enhancing the  $\alpha$ - tocopherol (vitamin E) content in high altitude tomato cell suspension culture. In first Congress of Asia-Pacific Society for Mountain Medicine at New Delhi from November 28- 30.
62. Rajeev Kumar. S, S.Dhivya, S. Girija and **Ramalingam Sathishkumar** (2008). Genetic transformation of *chitinase* and *glucanase* to *Dianthus caryophyllus* L. (carnation) for pathogen resistance. In: "International Conference in Biotechnology" held at Vellore Institute of Technology, Vellore during February 4-6
63. Dhivya S, Rajeev Kumar Sarma, Varghese PI and **Ramalingam Sathishkumar** (2008). *In silico* approach to define DNA barcodes for traditional medicinal plants - A new tool to conserve biodiversity. In: "International Conference in Biotechnology" held at Vellore Institute of Technology, Vellore during February 4-6
64. Varghese PI, Dhivya S, Rajeev Kumar Sarma, and **Ramalingam Sathishkumar** (2008). Rapid high frequency plant regeneration, genetic transformation and antimicrobial activity of wild medicinal rice Njavara. In: "International Conference in Biotechnology" held at Vellore Institute of Technology, Vellore during February 4-6
65. M.C.Harish and **Ramalingam Sathishkumar** (2007). Tissue culture studies and quantification of the  $\alpha$ -tocopherol in the high altitude tomato cultivars. In: International Conference on New Horizons in Biotechnology, held at National Institute for Interdisciplinary Science and Technology, Trivandrum, during November 26-29.
66. Girish Mishra, **Sathishkumar Ramalingam**, M.S.F. Lie Ken Jie and Mee Len Chye (2004) Characterization of a mutant in *Arabidopsis* ACBP2. 16<sup>th</sup> International Plant lipid Symposium held in Budapest, Hungary during June 1-4.
67. Mee-Len Chye, Kai-Jun Zhao, Zhu-Mei He, King-Leung Fung, **Sathishkumar Ramalingam** (2003). Expression of a novel chitinase with two chitin-binding domains confers fungal protection in transgenic potato. ISPMB held in Barcelona, Spain during June 23-28.

68. Girish Mishra, **Sathishkumar Ramalingam**, M.S.F. Lie Ken Jie and Mee Len Chye (2003) Isolation and characterization of an *Arabidopsis* T-DNA tagged mutant in ACBP2. National Plant Lipid Cooperative (NPLC), Biochemistry and Molecular Biology of Plant fatty acids and Glycerolipids held in California, USA during June 4-8.
69. **R. Sathishkumar**, A. Blau, R.N. Trethewey, K.Manoharan and L. Willmitzer (1998). Application of cell cultures for DNA delivery in rice. "IX International Congress on Plant tissue and Cell Culture", held in Jerusalem, Israel during June 14-19.
70. K. Manoharan and **R. Sathishkumar** (1997). Application of plated cell cultures of rice in raising transgenics. In: International Symposium on "Trends in Life Sciences", held in Jawaharlal Nehru University, New Delhi, India during Dec. 17-19.
71. K. Manoharan and **R. Sathishkumar** (1997). Growth factor supplements and membrane lipid changes in rice cultures. In: International Symposium on "Trends in Life Sciences", held in Jawaharlal Nehru University, New Delhi, India during Dec. 17-19
72. **R. Sathishkumar** and K. Manoharan (1997). Changes in the composition of membrane lipids during *in vitro* regeneration of rice. In: International Conference on "Frontiers in Biotechnology" held in Trivandrum, India during Nov. 26-29.
73. **R. Sathishkumar**, A. Blau, R. N. Trethewey, L. Willmitzer and K. Manoharan (1997). Transient gene expression in Indica rice cultures following Particle bombardment and Agrobacterium-mediated DNA delivery. In: "5<sup>th</sup> International Congress of Plant Molecular Biology", held in Singapore during Sept. 21-27.

#### National

1. Mahima K, Sudhakar J and **Sathishkumar R**. DNA barcoding of *Ficus virens* Aiton (Moraceae) complex present in biodiversity hotspot of South India and its taxonomical implication. In: Three day National Seminar on Insights into the Interdisciplinary Perspectives of Chemical and Biosciences, organized by Government Arts College, Thiruvananthapuram, Kerala from 26.02.2018 to 28.02.2018
2. Hari Priya S and **Sathishkumar R**. Single step metabolic engineering strategy to reduce nicotine content and to enhance the pharmaceutically important Anatabine in *Nicotiana tabacum* using CRISPR-Cas 9 Genome Editing Tool" in ANVESHAN Student Research Competition (South zone), jointly organized by the Association of All Indian Universities (AIU), New Delhi and School of Commerce, Bharathiar University, Coimbatore. 21.02.2018 to 22.02.2018.
3. Saravanan M, Yedukrishnan M and **Sathishkumar R**. Authentication of coffee by DNA barcode-based PCR-RFLP method. In: National Seminar on Bioprocess Engineering organized by Kasturba Gandhi Degree and PG College for Women, Secunderabad, Telungana, on 24<sup>th</sup> – 25<sup>th</sup> November, 2016.
4. Sree Preethy K and **Sathishkumar R**. Optimized condition for the production of cellulose for bio-textiles. In: National Seminar on Bioprocess Engineering organized by Kasturba Gandhi Degree and PG College for Women, Secunderabad, Telungana, on 24<sup>th</sup> – 25<sup>th</sup> November, 2016.
5. Harish M C, Dachinamoorthy P, Bala Murugan S, Balamurugan S, Ashwini M and **Sathishkumar R**. Enhancement of tocopherol content through precursor/elicitor

supplementation in cell suspension cultures of tobacco and tomato. In: National Seminar on Bioprocess Engineering organized by Kasturba Gandhi Degree and PG College for Women, Secunderabad, Telungana, on 24<sup>th</sup> – 25<sup>th</sup> November, 2016.

6. Bala Murugan S and **Sathishkumar R.** Recombinant protein purification by affinity chromatography. In: National Seminar on Bioprocess Engineering organized by Kasturba Gandhi Degree and PG College for Women, Secunderabad, Telungana, on 24<sup>th</sup> – 25<sup>th</sup> November, 2016.
7. **Ramalingam Sathishkumar** presented “Application of plant DNA barcoding”. In: 14<sup>th</sup> FAOBMV Congress and 84<sup>th</sup> Annual Meeting of SBC(I) from November 25 to December 1, 2015 organized by CCMB, Hyderabad, India.
8. Muthulakshmi S, Ashwini M, BalaMurugan S, Balamurugan S and **Sathishkumar. R.** Antioxidant potential of common tropical Indian fruits. In: Bioconcorrenza’14, ‘Symposium on Recent Advances in Molecular Biology’ organized by CPMB, TNAU, Coimbatore on 4<sup>th</sup>-5<sup>th</sup> March, 2014. (Poster Presentation).
9. S. Dhivya and **R. Sathishkumar.** DNA barcoding: A promising tool for authenticating Indian herbal plants and products. In: II National Conference on Collaborative Research and in Ayurveda and Modern Biology. Feb. 3<sup>rd</sup>-4<sup>th</sup>, 2014, organized by AVP Research Foundation and Sri Krishna Institutions at The Ayurvedic Trust Campus, Coimbatore, TN.
10. Saranya Rathinasabapathi, Jothibasu Karuppaiyan, Saravanan Mohanasundaram, Varghese .P. Inchakalody and **Sathishkumar Ramalingam.** High throughput construction of intron containing hairpin RNA for functional studies. In: National Seminar on ‘Data Mining Applications in Genomics & Proteomics’ 24<sup>th</sup> Jan, 2014 at Dept. of Bioinformatics, Bharathiar University, Coimbatore, TN. (**Poster Presentation**).
11. Rajeev Kumar S, Mohanapriya G, Prabhu B, Varghese P Inchakalody, Swaminathan K and **Sathishkumar R.** Expression analysis of gene modulated by alternative oxidase pathway during low temperature stress in tobacco. In: National Conference on Recent Trends in Plant Biotechnology, Feb 27<sup>th</sup> & 28<sup>th</sup>, 2013 at Bharathidasan University, Tiruchirappalli, TN (Poster Presentation).
12. Bala Murugan S, Deepika R, Reshma A, Dhivya S, **Sathishkumar R .** Screening of common leafy vegetables of Tamil Nadu for its nutraceutical and antioxidant properties. In: National Conference on “Phytomedicine”. 4<sup>th</sup> and 5<sup>th</sup> October, 2012 at Bharathiar University, Coimbatore, TN.
13. Bala Murugan S, Reshma A, Deepika R, Balamurugan S, **Sathishkumar R.** Antioxidant capacities of *Amaranthus tristis* and *Altenanthera sessilis*: A comparative study”. In: National Conference on “Phytomedicine”. 4<sup>th</sup> and 5<sup>th</sup> October, 2012 at Bharathiar University, Coimbatore, TN. **Awarded Best Poster.**
14. Dhivya.S, Rajeev Kumar. S and **Sathishkumar R.** Establishing *in-silico* ayurvedic medication towards molecular interaction of mutated TP53 gene with solasonine from *Solanum nigrum*. In: National Conference on Phtyomedicine, held at Bharathiar University, Coimbatore, from 4<sup>th</sup> October to 5<sup>th</sup> October, 2012. (Oral presentation)
15. S. BalaMurugan, S. Raja Lakshmi, M.C. Harish, **R. Sathishkumar.** Antioxidant-mediated protective mechanism for cadmium induced phytotoxicity. In National Seminar

on “Enzymes and Biocatalysis, the Versatile Actors. 5<sup>th</sup> and 6<sup>th</sup> Jan 2012, Periyar University, Salem, TN.

16. M. C. Hairsh, P. Dachinamoorthy, S. Balamurugan, Rajeev Kumar and **R. Sathishkumar** (2011). Manipulation of vitamin E biosynthetic pathway - Transgenic and cell culture approach in tobacco. In: Metabolic Pathway Modulations - Application in Health and Agriculture - 80<sup>th</sup> Annual Meeting of the Society of Biological Chemists (India) held at Central Institute of Medicinal and Aromatic Plants, Lucknow, November 12<sup>th</sup> - 15<sup>th</sup>, 2011 (Oral presentation)
17. Dhivya S. And **Sathishkumar. R.** (2010). Authentication of Indian medicinal herbal product – Triphala Churna using PCR - RFLP analysis. National Conference on Herbal Medicine, held at Bharathiar University, Coimbatore during September 8<sup>th</sup> -9<sup>th</sup>, 2010.
18. A. Sangilimuthu, L. Hakkim, S. Rajeev Kumar, M.C. Harish and **R. Sathishkumar** (2009). Studies on *in vitro* plant regeneration and anti-oxidant activity of *Withania somnifera* (L). In: “National Seminar on Frontiers in Biotechnology” at Bharathiar University, Coimbatore during July 22-24.
19. Narmada J, Rajeev Kumar S, Varghese P. Inchakalody, Harish M.C, Dhivya S and **Sathishkumar R** (2009). Biochemical and physiological studies on high altitude and temperate tomato varieties during cold stress. In: “National Seminar on Frontiers in Biotechnology” at Bharathiar University, Coimbatore during July 22-24.
20. Bala Krishnan S, Narmada. J, Rajeev Kumar Sarma and **R. Sathishkumar** (2009). Optimisation of transformation parameters in Tomato variety PKM 1 using GUS reporter gene. In: “National Science Day Seminar” held at Tamil Nadu Agricultural University, Coimbatore on February 28.
21. Rajasekaran S, Varghese PI, Balamurugan S and **Sathishkumar R** (2009). Screening of salinity fitness in wild Indian rice varieties. In “National Science Day Seminar” held at Tamil Nadu Agricultural University, Coimbatore during February 28. **Awarded best Poster**
22. Kayalvizhi M, Dhivya S, Rajeev Kumar S, Ramachandran VS and **Sathishkumar R** (2009). Taxonomical dispute in the genus *Tribulus* - Solution through DNA barcoding. In “National Science Day Seminar” held at Tamil Nadu Agricultural University, Coimbatore on February 28
23. Varghese PI, Rajeev KS and **Sathishkumar R** (2009). Antimicrobial activity of wild medicinal rice – Njavara. In: “National Symposium on Man and Microbes” held at Bharathiar University, Coimbatore on January 27.
24. Dhivya Selvaraj, Rajeev Kumar Sarma and **Sathishkumar R** (2008). *matK* – A barcode for the plant family Zingiberaceae. In: “National Seminar on Plants and Herbal Medicine” held at Bharathiar University, Coimbatore during September 27-28.
25. Saravanan R and **Sathishkumar R** (2007). Analysis of genes upregulated in *Brassica juncea* during exposure to cadmium. In: Seminar on “Frontiers in Biotechnology” held at Bharathiar University, Coimbatore during February 8-9.
26. M. Chitra Devi and **R. Sathishkumar** (2007). Amelioration of salt stress using precursors in *in vitro* systems of tomato. In: Seminar on “Frontiers in Biotechnology” held at Bharathiar University, Coimbatore during February 8-9.

27. N. R. Natarajasivam, **R. Sathishkumar** and B. Nagarajan (2007). Red tamarind - the magnificence of India. In: Seminar on "Frontiers in Biotechnology" held at Bharathiar University, Coimbatore during February 8-9.
28. Silpi Banerjee and **R. Sathishkumar** (2007). Effect of precursors on tocopherol production in *in vitro* systems of tomato. In: Seminar on "Frontiers in Biotechnology" held at Bharathiar University, Coimbatore during February 8-9.
29. M. Srilakshmi and **R. Sathishkumar** (2007). Stimulation of gymnemic acid in the callus of *Gymnema sylvestre* R. by osmotic stress and analysing its antioxidant activity. In: Seminar on "Frontiers in Biotechnology" held at Bharathiar University, Coimbatore during February 8-9.
30. Varghese. P Inchakalody and **R. Sathishkumar** (2007). Tissue culture and protein profiling of medicinal rice Njavara. In: Seminar on "Frontiers in Biotechnology" held at Bharathiar University, Coimbatore during February 8-9.
31. **R. Sathishkumar**, S. Scaria and K. Manoharan (1997). Optimization of biolistic parameters for the transformation of Indica rice using transient GUS expression. In: Seminar on "Molecular Approaches to Crop Improvement" held at CMS College, Kottayam, during Dec. 29-31.
32. **R. Sathishkumar** and K. Manoharan (1995). A cell culture based genetic transformation system for the rice cultivar IR 20 by employing micro projectile bombardment. In: Symposium on "Recent Advances in Biotechnological Applications of Plant Tissue and Cell Culture and XVIII Meeting of Plant Tissue Culture Association of India" held at Central Food Technological Research Institute, Mysore during June 22-24.
33. **R. Sathishkumar** and K. Manoharan (1994). Regulatory role of membrane lipids in growth and differentiation responses of rice cultures. In: "Annual Meeting of the Society of Biological Chemists" held at Madurai Kamaraj University, Madurai, during December 19-22.
34. **R. Sathishkumar** and K. Manoharan (1993). Growth responses of callus cultures of rice in relation to membrane lipid composition. In: Symposium on "Recent Developments in Molecular Biology and Genetic Engineering", held at Tamil Nadu Agricultural University, Coimbatore, during December 29-31.

## INVITED TALKS

1. **Human Genome Project and its Implications** - Refresher Course in Bioinformatics and Biotechnology, Academic Staff College, Bharathiar University, Coimbatore held during November 1-21, 2006.
2. **Green Factories** - Refresher Course in Biological Sciences, Academic Staff College, Bharathiar University, Coimbatore, held during November 10-30, 2006.
3. **Plant Biotechnology** - For M.Phil. Distance Education, Alagappa University, Karaikudi on 24 November 2006.
4. **DNA Barcoding** - National Seminar on New Frontiers in Biological Sciences, Department of Botany, Holy Cross College, Tiruchirappalli, held on January 19 – 20, 2007.

5. **Development of a Recombinant Vaccine in Transgenic Plants** - One day in-house Seminar Series in Microbial Technology, Department of Microbiology, Dr. G. R. Damodaran College of Science, Coimbatore, held on 16 September, 2008.
6. **Vaccine Producing Plant Factories** - National Symposium on Herbal Drug Research, Department of Botany, Bharathiar University, Coimbatore, held on September 26 - 28, 2008.
7. **Plant DNA Barcoding - Problems and Prospects.** National Conference on Advance Trends in Biotechnology, Department of Biotechnology, Dr. NGP Arts and Sciences College, Coimbatore, held on December 19 - 20, 2008.
8. **Plant DNA Barcoding: A Case Study** - Staff Development Programme on Role of Biomarker in Environment and Biodiversity Maintenance, Department of Biotechnology, Periyar Maniammai University, Thanjavur, held during June 9- 23, 2009.
9. **Genetic Engineering for Cold Tolerance** – National Conference on Advancement in Transgenic Technology, Vivekananda College of Arts and Sciences for Women, Tiruchengode, Tamil Nadu, held on September 23 - 25, 2009.
10. **DNA Barcoding- International Effort** - Refresher Course in Zoology, Academic Staff College, Bharathiar University, Coimbatore, held during November 8 – 29, 2010.
11. **Plant DNA Barcoding** - Refresher Course in Botany, Academic Staff College, Bharathiar University, Coimbatore, held during November 8 – 29, 2010.
12. **Plant Molecular Farming: Advantages and challenges** - Alumni Meet and Seminar, Loyola College, Chennai, held on Feb. 14<sup>th</sup>, 2011.
13. **Plant Molecular Farming** - Dr. NGP College, Coimbatore, held on March 4, 2011.
14. **Plant DNA Barcodes** - M.Sc. Refresher Course, Avinashilingam University, Coimbatore held on May 18<sup>th</sup>, 2011.
15. **Plant DNA Barcoding: An overview** - Refresher course in Botany, Bharathiar University, Coimbatore, held on May 20<sup>th</sup>, 2011.
16. **Agrobacterium-mediated Gene Transfer** – In DBT sponsored short term training course Saraswathi Narayanan College, Madurai held on 30<sup>th</sup> Nov, 2011.
17. **Metabolic engineering of vitamin E Biosynthetic Pathway: Transgenic and Non-transgenic approach** - In: National Seminar of Enzymes and Biocatalysis, The Versatile Actors: Current Trends and Future Perspectives held at Periyar University, Salem, January 5<sup>th</sup>- 6<sup>th</sup>, 2012.
18. **Genetic Engineering of Plants for Cold Tolerance** – In Two day National conference on "Recent Advances in Plant Biotechnology: Towards Next Green Revolution", Bharathidasan University, Trichirappalli during 9-10<sup>th</sup> February, 2012.
19. **Plant Biotechnology** - VHNSN College, Virudhunagar held on Feb 21<sup>st</sup>, 2012.
20. **Plant Molecular Farming: A Production Platform for High Value Proteins** - In One Day Seminar on Structural and Functional Genomics, School of Biotechnology, Madurai Kamaraj University, Madurai- 625 021, held on 27<sup>th</sup> March, 2012.

21. **Plant Genetic Engineering** – In Winter School on Plant Genetic Engineering, MKU held on 3<sup>rd</sup> Sep, 2012.
22. **DNA Barcoding of Indigenous Medicinal Plants** – In Indo-South Africa workshop on Traditional Medicine System: Sharing Knowledge and Experience, held at JSS College of Pharmacy, Udhagamandalam, 29-31 October, 2012
23. **Plant Made Pharmaceuticals - In** DBT sponsored short-term training course, Department of Plant Biology and Biotechnology, Loyola College, Chennai held on July, 26<sup>th</sup>, 2013.
24. **Recent Advances in Plant Molecular Pharming** - In National Seminar on Frontiers in Biotechnology, held at Nehru Memorial College, Puthanampatti, Tiruchiappalli on 8-9<sup>th</sup>, August, 2013.
25. **Development of a Standard Reference Material (SRM) DNA Barcode Library for Herbal Product Authentication** – In 5th International Barcode of Life Conference, Kunming, China during November 7-13, 2013.
26. **Gene Transfer Methods in Plants** - Training Programme in Research Methodology, Department of Zoology, Bharathiar University, Coimbatore held during January 21-24, 2014.
27. **GM Crops for Future** - In One day Symposium on “Biotechnological Innovations Towards Global Development”, Vellalar College for Women, Erode held during February 27<sup>th</sup>, 2014.
28. **DNA Barcoding: A Tool for the Conservation of Biodiversity** - In National Seminar on Biodiversity – Status, Conservation and Management, Kongu Nadu Arts and Science College, Coimbatore held during March, 7-8, 2014.
29. **Principles, Techniques and Application of Gene Modifications** - In PSG college of Technology, Coimbatore held on 12<sup>th</sup> July, 2014.
30. **Plant Metabolic Engineering** – held at Department of Biochemistry, PSG College of Arts and Science, Coimbatore held on 15<sup>th</sup> Sep, 2014.
31. **DNA Barcoding and its Application** - In Science Academies Lecture Workshop on Biological Sciences; Research Prospects and Application held at Department of Biotechnology, Karpagam University, Coimbatore on 25<sup>th</sup> Sep, 2014.
32. **Science Academies Lecture Workshop on Recent Trends in Biological Sciences** - held at Department of Biochemistry, Dr.NGP College of Arts and Sciences. Coimbatore on 6<sup>th</sup> Oct, 2014.
33. **Metabolic Engineering of Vitamin E pathway in Plants** - In PSGR Krishnammal College for Women held on 31<sup>st</sup> Dec 2014.
34. **Plant Molecular Farming** – held at TNAU, Coimbatore held on 26<sup>th</sup> Feb, 2015.
35. **Plant Molecular Farming: A Case Study** – In Science Academies Lecture Workshop on Emerging Trends in Bioprospecting, Department of Microbiology, Hindustan College of Arts and Science, Coimbatore on 19<sup>th</sup> March, 2015.
36. **8th Medical Arthropodology National Conference on Vector – borne Diseases: Burden, Surveillance and Control**, Department of Biotechnology, Manomaniam Sundaranar University, Tirunelveli on March 26<sup>th</sup> 2015.



37. **What is Systems Biology** - In: National Seminar on “Insight to Futuristic Bioscience, Hindusthan College of Arts and Science, Coimbatore on Jan, 29<sup>th</sup> 2016.
38. **National Seminar on Paradigms of Plant Microbe Interactions** - Department of Biotechnology, Mepco Schlenk Engineering College, Sivakasi on Feb, 26<sup>th</sup> 2016
39. **Metabolic Engineering** - In: Science Academies Lecture Workshop on New Frontiers in Plant Sciences and Biotechnology, Nehru Memorial College, Puthanampatti, Coimbatore on March 4<sup>th</sup> 2016.
40. **Herbal Product Authentication by DNA Barcodes** - In: PG Botany Club, Madras Christian College, Chennai held on 2<sup>nd</sup> April, 2016.
41. **Plant Expression System for the Production of Recombinant Pharmaceutical Proteins** - In: International conference on Recent Trend in Biosciences, organized by Alagappa University, Karaikudi held in 7<sup>th</sup> – 9<sup>th</sup> April, 2016.
42. **DBT & ICMR Sponsored National Conference on Transitional and Translational Scenarios in Biological Sciences**, organized by Department of Microbiology, Dr.N.G.P. Arts and Science College, Coimbatore on 9<sup>th</sup> – 10<sup>th</sup> September, 2016.
43. Resource Person, Plants Club –Palmyra by UGC-XII Plan, Dept. of Plant Science, Manonmaniam Sundaranar University, Tirunelveli on 18.02.2017 (Topic: **Plant Metabolic Engineering**)
44. Resource Person in UGC-HRDC, Refresher Course Life Sciences Department of Botany, Bharathiar University, Coimbatore on 06.07.2017. (Topic: **Molecular Pharming & DNA Barcoding**)
45. **Science Academic Lecture Workshop on DNA Technologies in Revisiting Biology**, organized by Dr.N.G.P Arts and Science College, Coimbatore on 28.07.2017.
46. Keynote lecture on **Rapid Production of Therapeutic Proteins from Plant System** at Symposium on “**Cross-talk in Omics**” organized by Dept. of Bioinformatics, Pondicherry University on 09.08.2017
47. **Manipulation of Vitamin E Biosynthetic Pathway – Use of Transgenic and Cell Cultures**, In : National Conference on Plant-based Drug – Biotechnological Implications, Dept. of Biotech, Karpagam University, Coimbatore on 10.08.2017
48. Resource Person of **DBT sponsored Workshop on “Crop Genome Editing using CRISPR/Cas9”**, organized by Department of Plant Biology and Biotechnology, Loyola College, Chennai on 08.09.2017
49. Resource Person in Refresher Course in Bio-Sciences organized by UGC-HMRD, Bharathidasan University, Trichy on 30.10.2017. (Topic: **DNA Barcoding in Plants**)
50. Resource Person in **DBT Sponsored short-term training course on Basic Techniques in Plant and Animal Tissue culture** for Mid-career Scientists and Teaching Faculty organized by Dept. of Biotechnology, Hindusthan College Arts and Science, Coimbatore on 13.11.2017 (Topic: **Agrobacterium mediated gene transfer methods**)
51. Resource Person in **DBT –short term training course on Analytical Techniques in Bio-prospecting of Medicinal Plants** organized by Dept. of Botany, Bharathiar University (23.10.2017 to 08.11.2017)

52. Resource Person in **UGC-HRDC, Refresher Course in Biotechnology**, Bharathiar University on 17.11.2017 (Topic: **DNA Barcoding-a technology revolution**)
53. Resource Person in **National Skill Enhancement Workshop on ‘DNA to Phylogeny’** held at Department of Biosciences & Technology, Karunya Institute of Technology and Sciences, Coimbatore during 8-10 January, 2018
54. Resource Person in the **UGC sponsored refresher course in Biosciences** organized by Bharathiar University, Coimbatore on 29.01.2018. (Topic “DNA barcoding”).
55. Invited Lecture in “**National Seminar on Recent Innovations in Plant Science for Sustainable Agricultural Development**” held at Kongu Nadu Arts and Science College, Coimbatore on 21.02.2018. (Topic: Plant Metabolic Engineering)
56. Resource Person in two days’ workshop cum hands-on training in ‘**Immuno techniques**’ conducted by Department of Human Genetics and Molecular Biology, Bharathiar University, Coimbatore on 5-6 March, 2018
57. Invited Lecture in the Indian Science Academy Refresher course on ‘**Biotechnology techniques in Biodiversity conservation**’ organized by Department of Botany, Bharathiar University, Coimbatore on 17.09.2018 (Topic: Plant DNA Barcoding)
58. Invited Lecture in Science academies’ Refresher course on “**Known to unknown techniques in biology**” held at PG & Research Department of Botany, St. Joseph’s college, Tiruchirappalli on 14.11.2018 (Topic : DNA Barcoding for authentication of herbal plants and products)

#### **SESSION CHAIR IN CONFERENCES**

1. **Structure, Function and Design of Biomolecules** - Organized by Structural Biology Lab, Department of Bioinformatics, School of Life Sciences, Bharathiar University, Coimbatore, Tamil Nadu, held on January 28 - 29, 2010.
2. **National Conference on Herbal Medicine** - Organized by Department of Botany, School of Life Sciences, Bharathiar University, Coimbatore, Tamil Nadu, held on September 8 - 9, 2010.
3. **National seminar on Frontiers in Biotechnology** - Organized by Department of Biotechnology, Bharathiar University, Coimbatore, held on Feb, 18<sup>th</sup> & 19<sup>th</sup>, 2016.
4. **2<sup>nd</sup> International Conference on Environment and Ecology** - Organized by Department of Environmental Science, Bharathiar University, Coimbatore on 7<sup>th</sup> - 9<sup>th</sup> March, 2016.
5. **One day National Level Symposium, Biogalaxia** – Organized by Department of Microbial Biotechnology, Bharathiar University, Coimbatore on 6<sup>th</sup> Oct, 2016.
6. **8<sup>th</sup> Annual Research Congress (KUARC)**, Organized by Karpagam University, Coimbatore held on 3<sup>rd</sup> December 2016.
7. **Judge for Oral Presentation in One day National Symposium**, Dept. of Microbial Biotechnology, Bharathiar University on 06.10.2016
8. **Chaired a Scientific Session in the International Conference on Phytomedicine**, organized by Department of Botany, Bharathiar University, Coimbatore during 29-31 August 2018.
9. **Guest Lecturer in Phrastafest** – 2019, Department of Botany, St. Joseph’s College, Tiruchirappalli on 12.02.2019

## **ORGANIZING SECRETARY**

1. One day workshop on “Towards Success in Biotechnology” sponsored by Bharathiar University, Coimbatore
2. One-day workshop on “Project Preparation” held in March 2011 sponsored by Bharathiar University, Coimbatore
3. Two days’ UKIERI sponsored Indo-UK workshop on “Plant Molecular Farming” held in April 2011.
4. Five days’ UKIERI sponsored Indo-UK workshop on “Autumn School in Biotechnology for College Teachers” held in September 2011.
5. Meeting on “Project funding opportunities - UKIERI” held in September 2013 for Bharathiar University faculty.
6. Two days’ UKIERI sponsored Indo-UK joint workshop on “Plant Molecular Farming II” held in 13<sup>th</sup> & 14<sup>th</sup> March, 2014.
7. Two days’ UKIERI sponsored Indo-UK joint workshop on “Plant Molecular Farming III” held in 27<sup>th</sup> & 28<sup>th</sup> July, 2016
8. One day Biosafety Awareness Seminar held on 27<sup>th</sup> September, 2017 sponsored by Bharathiar University, Coimbatore.
9. Organizing member of “International Conference on Biosciences and Bioinformatics”, organized by Department of Biochemistry, Biotechnology, Microbial Biotechnology and Bioinformatics, Bharathiar University, Coimbatore from 14<sup>th</sup> to 16<sup>th</sup> Dec, 2017

## **ACADEMIC RESPONSIBILITIES**

### **Professional Bodies**

1. Academy of Sciences, Chennai, India - 2015
2. Society of Biochemists, Life Member, India -2008
3. New York Academy of Sciences, USA
4. International Association of Plant Biotechnology, USA - 2008
5. Barcode of Life Community Network, USA - 2009
6. Centre for Plant Health, Australia - 2009
7. Asian Council of Science Editors, UAE-2015
8. Strategic member, NHP Research Alliance, University of Guelph, Canada-2018

### **Editorial Board**

- International Journal of Biology, Canada
- Research Journal of Biology, UK
- Pharmacologia, UK
- American Journal of Current Biology, USA
- Austin Journal of Biotechnology & Bioengineering, USA
- Journal of Plant Science and Research, India
- Angewandten Biologie Forschung, India
- Journal of Research in Biology, India

## **Reviewer**

- BMC Plant Biology
- Biotechnology for Biofuels
- International Journal of Biology
- African Journal of Biotechnology
- Preparative Biochemistry and Biotechnology
- International Journal of Molecular Sciences
- Indian Journal of Biotechnology
- Industrial Crops and Products
- Physiology and Molecular Biology of Plants
- Journal of Ayurveda and Integrative Medicine

## **Question paper setter/Scrutinizer/Examiner**

- Centre for Research, Anna University, Chennai, Tamil Nadu
- Madras University, Chennai, Tamil Nadu
- Periyar University, Salem, Tamil Nadu
- Bharathidasan University, Trichy, Tamil Nadu
- Alagappa University, Karaikudi, Tamil Nadu
- Karunya University, Coimbatore, Tamil Nadu
- PSG College of Technology, Coimbatore, Tamil Nadu
- Vinayaga Mission University, Salem, Tamil Nadu
- NGM College, Pollachi, Tamil Nadu
- Mahatma Gandhi University, Kottayam, Kerala
- Tamil Nadu Agricultural University, Coimbatore, Tamil Nadu
- Pondicherry University, Pondicherry
- SNR Sons college, Coimbatore, Tamil Nadu
- Gitam University, Andhra Pradesh
- Annamalai University, Thanjavur, Tamil Nadu
- Manonmaniam Sundaranar University, Tirunelveli, Tamil Nadu
- Hindustan Arts and Science College, Coimbatore, Tamil Nadu

## **Doctoral Committee Member**

- Category – B Programme in Biotechnology, Bharathiar University, Coimbatore
- Karunya University, Coimbatore, Tamil Nadu
- Karpagam University, Coimbatore, Tamil Nadu
- Periyar University, Salem, Tamil Nadu
- ICAR-Sugarcane Breeding Institute, Coimbatore
- Manonmaniam Sundaranar University, Coimbatore

## **Result Passing Board / Academic council Member / Governing body**

- Sri Krishna Arts and Science College, Coimbatore (2017)
- S.R.M.V college of Arts and Science, Coimbatore (2017)

- Kovai Kalaimagal College of Arts and Science, Coimbatore (2017-18)
- Erode Arts and Science, Erode (2016-18)
- University nominee for result passing board of NGM College, Pollachi 2018

### **Board of Studies**

- Chairperson of BOS in University Departments from 01.01.2018 to 31.12.2020
- Member of BOS in Research, Bharathiar University (2017-19)
- Member of BOS in Biotechnology Department, Bharathiar University (2017-18)
- Member of BOS, Erode Arts and Science College, Coimbatore (2017-18)
- Member of BOS, Kongu Arts and Science College, Erode (2018-19)
- Madurai Kamaraj University, Madurai, Tamil Nadu (Current)
- Standard Fireworks Rajarathinam College for Women, Sivakasi, Tamil Nadu
- CMS College, Coimbatore, Tamil Nadu
- R.V.S college, Coimbatore, Tamil Nadu (Current)
- Karpagam University, Coimbatore, Tamil Nadu (Current)
- PSG College of Arts and Science, Coimbatore, Tamil Nadu (2017-19)
- Kongu Nadu Arts and Science College, Coimbatore, Tamil Nadu (2016-19)
- Kovai Kalaimagal College of Arts and Sciences, Coimbatore, Tamil Nadu (Current)
- Alagappa University, Karaikudi
- GRD College of Arts and Science, Coimbatore
- Hindusthan College of Arts and Science, Coimbatore
- Rathinavel Subramaniam College of Arts and Science, Coimbatore
- Nehru Arts and Science College, Coimbatore
- S.N.R Sons College, Coimbatore

### **Academic Audit**

- Karunya University, Department of Biotechnology, Coimbatore, Tamil Nadu
- Member, P.S.G College of Arts and Science, Coimbatore, Tamil Nadu
- Jamal Mohammed College, Trichy, Tamil Nadu

### **Experts Committee Member**

- University member for the committee to printing application and prospectus for various PG/PG Diploma courses offered in the University for the academic year 2018-19 (01.02.2018)
- Member of Guidelines for availing on-duty permission of Bharathiar University on 16.03.2018
- University nominee of Convenor – Inspection commission, RVS college, Coimbatore (22.11.2017)
- Member of Annual Report Preparation on Teaching Learning Process for NAAC, Bharathiar University, Coimbatore
- Distance Education New Centre Scrutiny, Bharathiar University, Coimbatore

- Technical Expert for the Purchase Committee, Seed Certification Centre, TNAU, Coimbatore
- DBT nominee for the IBSC Committee, PSG College of Technology, Coimbatore
- Member secretary, IBSC, Bharathiar University, Coimbatore (Current)
- Faculty Advisor, Project Preparation Club (Student), Bharathiar University (Current)
- Polling Officer – Lok Sabha Elections (2009)
- Convenor – Inspection Commission for Maharaja Co-Education Arts and Science College, Perundurai
- NAAC Interaction Committee Member, Bharathiar University (2012)
- Member, Inspection Commission, SNR College of Arts and Science, Coimbatore (2012)
- Member, Formation Day Celebration Committee, Bharathiar University (2013)
- UGC-SAP Deputy Co-ordinator, Department of Biotechnology, Bharathiar University (Current)
- Member, Inspection Commission, PSG College of Arts and Science, Coimbatore
- Member, Inspection Commission, Nehru Arts and Science College, Coimbatore
- Member of One Man Commission, Nehru Arts and Science College, Coimbatore
- Member for NAAC Preparation – TLP, Bharathiar University
- External Expert IBSC, Cellzyme Biotech, Coimbatore (Current)
- Member, Convocation Committee, Bharathiar University (2014)
- University Nominee for Inspection Commission, CMS College, Coimbatore (2014)
- University Nominee for Inspection Commission, SMS College, Coimbatore (Current)
- Member, UGC 12th Plan Coordinating Committee, Bharathiar University (Current)
- Member, Coordinating Committee, Science Congress Feasibility Analysis, Bharathiar University, Coimbatore
- Member, College Committee, PSG IMSR, Coimbatore (2014)
- Member –UPE Proposal Preparation, Bharathiar University (2015)
- University Nominee for Inspection Commission, PSG College of Arts and Science, Coimbatore (2015)
- Subject Expert, Ethical and Grievance Redressal Committee, Bharathiar University (2015)
- Member, Convocation Committee, Bharathiar University (2015)
- Member, Inspection Commission, Annai Teresa Community College, Vallam (Current)
- Member, 12<sup>th</sup> Plan Purchase and Appointments, Bharathiar University (Current)
- Convenor, College Inspection Commission, Dr. NGP Arts and Science College, Coimbatore (Current)
- Member of NAAC Presentation, Bharathiar University (2016)
- University Observer of Tamil Nadu Open University Exam, Chennai, Tamil Nadu
- University One Man Inspection Commission, K.S.G College of Arts and Science, Coimbatore
- Committee Member of Project Institutional Overhead Charges, Bharathiar University, Coimbatore (2016)
- University Nominee: Result Passing Board – Kovai Kalaimagal College of Arts and Science, Coimbatore
- University Nominee: Academic Council – Sri Ramakrishna Mission Vidyalaya College, Coimbatore

- Member of the Expert Committee – Spot Admission cum Learning Centre of the School of Distance Education, Bharathiar University
- University Governing Body – Erode Arts and Science College, Erode (Current)
- University Member of MHRD-NIRF Committee, Bharathiar University (Current)
- Outside Expert for IBSC, Bannari Amman Institute of Technology, Sathyamangalam.
- University Nominee for Academic Council to Autonomous College, Bharathiar University (2014-16)
- Member of the Assessment Committee for Assessment Promotion, ICAR – Sugarcane Breeding Institute, Coimbatore (2017)
- Member of 33<sup>rd</sup> Convocation Committee, Bharathiar University (2017)
- Member of Autonomy in various Projects, Bharathiar University, Coimbatore (2017)
- Convenor, National Science Day, Bharathiar University, Coimbatore (2017)
- Editorial Member, IPR Newsletter, IPR Cell, Bharathiar University, Coimbatore (2017)
- Member, NIRF PEER RATING 2018, Bharathiar University
- DBT Nominee, IBSC, Government of India (2017-2019)
- One Man Commission, KSG Arts and Science College, Coimbatore (2016-17)
- Co-ordinator of DST, PURSE Phase II, Bharathiar University (2016-2020)
- Member of the 34<sup>th</sup> Convocation committee, Bharathiar University (27.10.2017)
- Member in applying for Institute Eminence, Bharathiar University (14.11.2017)
- Member of Constitution of Committee, Bharathiar University (2017)
- Local Coordinator of BU, MHRD-GIAN Course
- VC Nominee Subject Expert for Ethical and Grievance Redressal Committee, BU (21.09.2017)
- Convenor of the Inspection Commission, Dr. N.G.P Arts and Science College, Coimbatore (2016-17)
- University Nominee for Governing Body for Autonomous College Bharathiar University (2016-19)
- Result Passing Board, Autonomous College, Bharathiar University (2017-2019)

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