Curriculum Vitae July 2023

Dr. S. Srivignesh, PhD, N-PDF (Israel)

Assistant Professor

Department of Horticulture
School of Life Sciences
Central University of Tamil Nadu (CUTN)
Neelakudi campus, Thiruvarur-610 005

+91-9578772400

srivignesh@cutn.ac.in

srivignesh.horti@gmail.com

RESEARCH INTEREST

A keen interest in the molecular mechanisms underlying the acquisition of abscission competence and its regulation in horticultural crops through the use of novel approaches such as transcriptome sequencing, proteomics, stable gene transformation, VIGS, RNAi silencing, and bioinformatics to improve production and post-harvest quality.

Area of specialization: Molecular breeding of vegetables, Nano-technological interventions, Transgenics and Plant genomics.

EDUCATIONAL QUALIFICATIONS

Institute/University	Degree/ Profession	Year(s)	Field of study
Tamil Nadu Agricultural University, India	B.Sc. (Horticulture)	2002-2006	Horticulture
Faculty of Agriculture, Hebrew University of Jerusalem, Rehovot, Israel	M.Sc. (Agriculture)	2006-2010	Vegetable Science, Molecular biology
Faculty of Agriculture, Hebrew University of Jerusalem, Rehovot, Israel	Ph.D. (Agriculture)	2010-2016	Vegetable Science, Molecular biology
Department of Nano Science and Technology, Tamil Nadu Agricultural University, India	N-PDF	2018-2019	Nano Technology

https://scholar.google.co.in/citations?user=3Q2TDRgAAAAJ&hl=en

ORCID https://orcid.org/0000-0002-7309-3995

ACADEMIC | RESEARCH POSITIONS

2019 - Till	Assistant Professor, Department of Horticulture, CUTN, Thiruvarur
2018-2019	National Post-Doctoral Fellow, Funded by DST – SERB, GoI.
2017-2018	Teaching Assistant in the Department of Nano Science and Tech., TNAU, CBE
2022 - Till	Member Secretary in the Institutional Biosafety Committee of CUTN (IBSC-CUTN) of DBT, GoI

RESEARCH EXPERIENCE

Master's and Doctoral Research: Regulation of flower abscission in tomato (*Solanum Lycopersicum*) plants: functional and transcriptome analyses.

My master's and doctoral research have significantly contributed to better understanding in the sphere, such as mapping abscission pathway in tomato, creating customized microarray for abscission research, alkalization of cells associated with abscission, and development of new transgenic lines with less abscission. The outcome of my work has enormous implications in agriculture. Pedicel abscission is a critical trait directly affecting crop yields. We had developed transgenic lines by antisense silencing of TPRP and KD genes that exhibited abscission reduction by 70-80%. Further, the complete transcriptome analysis and mapping of genes in the abscission pathway in tomato plants from my research would help breeders worldwide to modulate the abscission process in other crops by including or avoiding abscission response genes during the breeding program based on their selection strategy and target trait. Besides, we developed a customized Microarray chip (AMADID: 043310) comprising dual probes for validated transcripts designed to mine the naturally occurring antisense transcripts (NATs) is more robust than any other commercially available platforms.

Postdoctoral Research: Multi-layered Nanoencapsulation matrix

Developed a multi-layered electrospun nanofiber encapsulated with 1-MCP and Hexanal (volatile compounds) to extend the shelf-life of banana. Through the project, we developed an electrospun fiber (Nano stickers), which can be simply stick on the cartoons/ pouches of banana bags where it slowly releases the ripening inhibitor molecules that will bind on to the fruit receptor and eventually delay the ripening process and in turn extends the shelf life of banana fruits by 14 days. This significant shelf-life extension can result in enormous savings for the farmer and traders by delaying the market clutch of low price during peak season, thereby enhancing the availability of fruits in the region vis-à-vis nutritional security of the country.

HONORS&AWARDS

2006-2009	Recipient of Pear alumni and the Hebrew University of Jerusalem - administered partial scholarship
2007-2010	Recipient of *M.Sc. Research Scholar* fellowship by Hebrew University of Jerusalem, Israel.
2011-2012	Recipient of ISRAEL-ASIA LEADERS fellowship award
2011-2014	Recipient of the *ICAR International Fellowship* (ICAR-IF) award for PhD
2010-2016	Recipient of *Ph.D. Research Scholar fellowship* by Hebrew University of Jerusalem, Israel
2014	Recipient of International Horticultural Congress convener's scholarship by International Horticulture Congress, Secretariat, Brisbane, Australia

2014	Recipient of *The Hebrew university travel award* for the best PhD research scholars HUJI, Israel.
2014	Recipient of Mahatma Gandhi gold medal award, Global economic progress and research association (GEPRA), India
2015	Recipient of Universal achievers gold medal award, Universal Achievers foundation (UAF), India.
2017	Recipient of Prof. M.S.Swaminathan*Best Young Scientist Award*, 2017. Bose science society, TNSRO, Pudukkottai, India.
2017	Recipient of *Best oral presentation* award at third national Agricultural Scientific Tamil Conference, Coimbatore organized by Agricultural Scientific Tamil Society (SciTSA), New Delhi
2017	Recipient of *Best poster presentation* award at National seminar on Nano technology for evergreen revolution, Coimbatore organized by Department of Nano Science and Technology, TNAU, Coimbatore
2017	Second poster presentation award at International conference on Biosciences & Bioinformatics, organized by Bharathiar University, Coimbatore.
2017	Recipient of *Best oral presentation award* at "National conference on New Vistas in Vegetable Research towards Nutritional Security under changing climate scenario" organized by HC&RI, TNAU, Coimbatore.
2018	Recipient of JagarNath Raina Memorial- *All India Best Publication Award* by SADHNA- Dr YS Parmer University of Horticulture and Forestry, HP, India.
2019	Recipient of Prof. T.S. Sadasivan Memorial *NABS-Best Research Paper Award* by National Academy of Biological Sciences, Chennai.

RESEARCH GRANTS | PROJECTS

Research Title: Multi-layered encapsulation of 1- MCP and Hexanal as a smart delivery system to enhance the shelf life of Banana. **Role**: Principal Investigator. **Source of funding**: Department of Science and Technology, Science & Engineering Research Board - (DST- SERB-NPDF), GoI. **Field of research**: Nanotechnology in horticulture **Budget**: INR 19,20,000 (2017-19)

Research Title: Smart Nano Graft Matrix- Plant hormone loaded multilayer Nanofiber matrix as a smart delivery vehicle to enhance graft union. **Role**: Principal Investigator. **Source of funding**: University Grants Commission (UGC- Start-Up), GoI. **Field of research**: Nanotechnology in horticulture **Budget**: INR 10,00,000 (2021-23)

Research Title: Uncovering the role of abscission specific SAUR genes in tomato abscission regulation. **Role**: Principal Investigator. **Source of funding**: Department of Science and Technology, Science & Engineering Research Board - (DST- SERB- CRG), GoI. **Field of research**: Biotechnology in Horticulture. **Budget**: INR 59,74,600 (2022-25)

Research Title: Nano Diagnostic Kits for On-Site Detection of Health Status of Soil - Plant - Produce in Agriculture Value Chain using e-nose technology. **Role**: Cooperating Center-Principal Investigator. **Source of funding**: National Agricultural Science fund, GoI. **Field of research**: Nanotechnology in Horticulture **Budget**: INR 3.2 crores (Under consideration).

Patent:

Filed on 22/03/2021, Published on 23.09.2022

Title: A spirulina based microbial culture media composition and method thereof.

Application number: 202141012085

Authors: Vishnu G, Nashath K, Aarcha SM, Arumar N, Eswaran M, **Srivignesh S**, Praveen BN, Kaushik R.

RESEARCH PUBLICATIONS

1. Meir, S., Philosoph-Hadas, S., **Sundaresan, S.,** Selvaraj*, et al*. (2010). Microarray analysis of the abscission-related transcriptome in the tomato flower abscission zone in response to auxin depletion. *Plant Physiol*. 154: 1929-1956. (**Impact factor: 8.01**)

2. Meir, S., Philosoph-Hadas, S., **Sundaresan, S.,**Selvaraj, *et al*. (2011). Identification of defense-related genes newly-associated with tomato flower abscission. *Plant Signal. Be*hav. 6: 590-593. (**Impact factor: 2.73**)

3. **Sundaresan, S**., Philosoph-Hadas, S., Riov, J., Belausov, E., *et al*. (2014). A new aspect of flower abscission: involvement of a specific alkalization of the cytosol in the abscission zone cells. *J. Exp. Bot.*66, 1355–1368. doi: 10.1093/jxb/eru483. (**Impact factor: 7.29**).

4. Meir,S., **Sundaresan, S**., Riov, J., Agarwal, I., and Philosoph-Hadas, S. (2015). Role of auxin depletion in abscission control. *Stewart Posthar. Rev.* 11,1–15.doi: 10.2212/spr.2015.2.2.

5. Kim, J., **Sundaresan, S**., Philosoph-Hadas, S., Yang, R., Meir, S., and Tucker, M.L. (2015). Examination of the abscission-associated transcriptomes for soybean, tomato and Arabidopsis highlights the conserved biosynthesis of an extensible extracellular matrix and boundary layer. *Frontiers Plant Sci.*6. doi: 10.3389/fpls.2015.01109. (**Impact factor: 6.62**)

6. **Sundaresan, S**., Philosoph-Hadas, S., Riov, J., *et al*. (2016). *De novo* transcriptome sequencing and development of abscission zone-specific microarray as a new molecular tool for analysis of tomato organ abscission. *Frontiers Plant Sci.* 6. doi: 10.3389/fpls.2015.01258. (**Impact factor: 6.62**)

7. **Sundaresan, S**., Meir,S., Philosoph-Hadas, S., *et al*. (2018). The Tomato Hybrid Proline-Rich Protein regulates the abscission zone competence to respond to ethylene signals. *Horticultural Research* 5:28, 1-17. https://doi.org/10.1038/s41438-018-0033-2. (**Impact factor: 7.29**)

8. P. Sumitha, K. Sukumar, **S. Srivignesh** (2018). Sequencing and phylogenetic analysis of vlhA gene from *Mycoplasma synoviae* filed isolates associated with Eggshell apex abnormality. Indian J. Anim. Res., B-3342, 1-4. DOI: 10.18805/ijar.B-3442. (**Impact factor: 0.42**)

9. V. Kanmani, I. Muthuvel, **S. Srivignesh**, K.S. Subramanian., *et al.* (2018). Post-harvest dip of enhanced freshness formulation to extend the shelf life of banana (*Musa acuminata* cv. Grand Naine) in India. *Tropical Agriculture* 95:1, 1-13. (**Impact factor: 0.15**)

10. D. Durgadevi, **S. Srivignesh** and A. Sankaralingam (2018). Effect of Consortia Bioformulation of Rhizobacteria on Induction of Systemic Resistance in Tuberose Against Peduncle Blight Disease. *International Journal of Bio-resource and Stress Management*, Vol 4, 510 – 517, DOI: HTTPS://DOI.ORG/10.23910 /IJBSM/2018.9.4.1850b. (NAAS- 4.65)

11. **Sundaresan, S**., Pravin, I.A., Philosoph-Hadas, S. and Meir, S., 2019. Polygalacturonase genes in tomato flower and leaf abscission zones- A novel trait for molecular breeding. Journal of Applied Horticulture, 21(3), pp.171-177. (**Impact factor: 0.29**)

12. M. Surendhiran, K. Raja, R. Jerlin, S. Marimuthu and **S. Srivignesh** (2019). Nano emulsion seed invigouration for improved germination and seedling vigour in maize. *International Journal of Agricultural Science and Research*, 9, no. 3, 333-340. (NAAS- 4.13)

13. I. ArumukaPravin, **S. Srivignesh**, D. Dhakshinamoorthy, K. S. Subramanian and A. S. Krishnamoorthy (2019). Respodip treatment with nano emulsion of hexanal to reduce the anthracnose disease of banana and extend its shelf-life. *Journal of soils & crops*: 29 (1); 32-37. (NAAS- 4.46)

14. Muthuvel, I., **Srivignesh, S.**, Mutharasu, P., Kavino, M. and Subramanian, K.S., 2019. Shelf-Life Extension of Banana (Musa spp.) using Hexanal Formulation as a Post-harvest Dip. Current Journal of Applied Science and Technology, pp.1-12.

15. Pravin, I.A., Durgadevi, D., **Srivignesh, S.,** Subramanian, K.S., Nakkeeran, S., Amirtham, D. and Krishnamoorthy, A.S., 2020. Antifungal Activity of Chinese Caterpillar Fungus (*Ophiocordyceps sinensis* Berk.) against Anthracnose Disease on Banana. *Int. J. Curr. Microbiol. App. Sci*, 9(3), pp.848-859.

16. Sudhakar, P., Thenmozhi, V., **Srivignesh, S**. and Dhanalakshmi, M., 2020. Colocasiaesculenta (L.) Schott: Pharmacognostic and pharmacological review. *Journal of Pharmacognosy and Phytochemistry*, 9(4), pp.1382-1386.

17. Dhakshinamoorthy, D., **Sundaresan, S.,** Iyadurai, A., Subramanian, K.S., Janavi, G.J., Paliyath, G. and Subramanian, J., 2020. Hexanal Vapor Induced Resistance against Major Postharvest Pathogens of Banana (*Musa acuminata* L.). *The Plant Pathology Journal*, 36(2), p.133. (**Impact factor: 2.30**).

18. **Sundaresan, S.,** Philosoph-Hadas, S., Riov, J., Salim, S. and Meir, S., 2020. Expression Kinetics of Regulatory Genes Involved in the Vesicle Trafficking Processes Operating in Tomato Flower Abscission Zone Cells during Pedicel Abscission. *Life*, 10(11), p.273. (**Impact factor: 3.25**).

19. Sundaresan, S., Philosoph-Hadas, S., Ma, C., Jiang, C.Z., Riov, J., Kochanek, B., Salim, S., Reid, M.S. and Meir, S., 2021. Role of the KNOTTED1-LIKE HOMEOBOX protein (KD1) in regulating abscission of tomato flower pedicels at early and late stages of the process. *Physiologia Plantarum*, 173(4):2103-2118. (**Impact factor: 5.08**)

20. Ponnusamy, R., Pasuvaraji, A., Suppaiah, R., Sundaresan, S. and Sevugapperumal, N., 2021. Molecular characterization of *Fusarium oxysporum* f. sp. *dianthi* and evaluation of fungicides against Fusarium wilt of carnation under protected cultivation. *Indian Journal of Experimental Biology*, 59: 770-775. (**Impact factor: 0.81**)

21. Kumar, R.R., Marimuthu, S., Janaki, P., Moorthy, P.S., Gowtham, G., **Sundaresan, S.** and Lakshmanan, A., 2022. Synthesis of Lignosulfonate based Nanocarriers for the Delivery of Agrochemicals. *International Journal of Plant & Soil Science*, 34(15): 53-60.

22. Kalangadan, N., Mary, A.S., Jyothi, R.H., Punniyakoti, **S., Sundaresan**, S., Alagarsamy, R.K. and Rajaram, K., 2022. Characterization and antimicrobial evaluation of green synthesized silver nanoparticle thin films with reusable applications. *Materials Letters*, 314, p.131923. (**Impact factor: 3.42**)

23. Latha, M., Raja, K., Subramanian, K.S., Govindaraju, K., Karthikeyan, M., Lakshmanan, A., **Srivignesh, S**. and Kumuthan, M.S., 2022. Polyvinyl alcohol (PVA) nanofibre matrix encapsulated with tebuconazole fungicide: a smart delivery system against dry root rot disease of black gram. *Polymer Bulletin*, pp.1-17. (**Impact factor: 2.87**)

24. S Marimuthu., N Swathika., **S Srivignesh.**, and A Lakshmanan., 2023. Scope of nanotechnology in allelopathic weed management. *Allelopathy Journal*, 58(2): 89-108

25. Karthiga P., S Senthilkumar., **S Srivignesh**., and S Manivannan., 2023. Advances in enhancement of nutraceutical values through omics technologies in vegetables. *The Pharma Innovation Journal*, 12(3): 4830-4837.

26. H. Ragulraj, **S. Srivignesh**, K. Ramakrishna and A. Ramesh kumar*. 2022. Bio-stimulants influence on growth and yield of aggregatum onion. Eco. Env. & cons. 28 (4), pp. 2062-2067. ISSN 0971–765x.

27. Bawya, D., kumar, A.R., **Srivignesh, S**. and Krishna, K.R. 2022. Effect of foliar spray of seaweed extract and humic acid on growth and yield of cluster beans [*Cyamopsis tetragonoloba* (L.) Taub.] Var. Pusa navbahar. Legume research. (1-4); Doi: 10.18805/LR-4998.

28. K. Gnanasundari, **S. Srivignesh**, K. Rama krishna, Manish kumar and A. Ramesh kumar*. 2022. Integrated nutrient management in onion-a review. Eco. Env. & cons. 28 (November suppl. Issue) pp. s182-s192.

ABSTRACTS &POSTERS

International Conferences and Symposia

1. Meir, S., **Sundaresan, S.,** Riov, J., Salim, S., and Philosoph-Hadas, S. (2018). Regulation of vesicle trafficking in the tomato flower abscission zone during the phases of execution and formation of a defense layer. Abstracted and poster presentation in the International Plant Molecular Biology-IPMB congress Consortium, **France**.
2. Tucker, M.L., Ronghui, Y., Joonyup, K., Zhong, C.J., Philosoph-Hadas, S., **Sundaresan, S**., and Meir, S (2018). A study of the role of IDA-like gene expression in soybean and tomato abscission – IDA is expressed in abscission but may not be essential. Abstract and oralin the XI International Symposium on the plant Hormone Ethylene, Center of Mediterranean Agronomic Institute of Chania, Crete, **Greece,** p. 93-94.
3. **Srivignesh, S.,**Durgadevi, D., Janavi, G.J., and Subramanian, K, S (2017). Metagenomic profiling of Hexanal treated mango fruits towards food safety. Abstracted and poster presentation in the International Conference on Recent Advances in Food processing Technology- iCRAFPT18, IIFT. **Thanjavur.**
4. **Srivignesh, S.**,Durgadevi, D., ArumukaPravin, I., Philosoph-Hadas, S., and Meir, S(2017). Antisense microarrays and Natural antisense transcripts. Abstract and Posterin the International conference on Biosciences & Bioinformatics.Bharathiar University, **Coimbatore,** p.165-166.
5. Durgadevi, D., **Srivignesh, S.**,ArumukaPravin, I., Harish, S., and Alice, D (2017). Exploitatation of ACC Deaminase synthesizing plant growth promoting bacteria, a useful trait to endophytic colonization of roots of rice under biotic and abiotic stress. Abstract and Oral in the International conference on Biosciences & Bioinformatics. Bharathiar University, **Coimbatore,** p. 31-32.
6. Meir, S., Salim, S., **Sundaresan, S.**, Abebie, B., Chernov, Z., Glick, A., and Philosoph-Hadas, S (2016). Regulation of senescence and abscission in ornamentals by plant hormones: Horticulture use and mode of action. Abstract and key note speakin the III International Symposium on Horticulture in Europe. Chania, **Greece**. p.44.
7. **Sundaresan, S.**, Philosoph-Hadas, S., Ma, C., Riov, J., *et al*. (2016). THyPRP and KD1 regulate flower abscission by affecting the extracellular vesicle cargo of cell wall degradation enzymes. Flash talk, Abstract and Poster presentation in the Extracellular vesicles: friends and foes. Conference. Weizmann Institute of Sciences, Rehovot, **Israel**.
8. **Sundaresan, S**., Philosoph-Hadas, S., Riov, J., *et al*. (2015). Transcriptome profiling of ethylene-related molecular changes occurring in the tomato flower and leaf abscission zones in response to auxin depletion. Abstract and lecture in the 10th International Conference on the Plant Hormone Ethylene, Chongqing, **China**, Session 10-3, P.52
9. **Sundaresan, S**., Philosoph-Hadas, S., Riov, J., *et al*. (2015). Auxin related changes during tomato organ abscission driven by auxin depletion. Abstract and Posterin the 2nd Pears Foundation Alumni Symposium in Plant Sciences, Rehovot, **Israel**. P.40
10. **Sundaresan, S**., Philosoph-Hadas, S., Riov, *et al*. (2015). Abscission of flowers and floral organ is closely associated with alkalization of the cytosol in the abscission zone cells. Abstract and Poster in the Ezra Galun Memorial Symposium- Israeli society of plant sciences (ISPS), Rehovot, **Israel**. P.75
11. **Sundaresan, S**., Philosoph-Hadas, S., Riov, J., *et al.* (2014). Transcriptome analysis of the tomato flower and leaf abscission zones, using a customized abscission zone microarray. Abstract and lecture in the 29th International Horticultural Congress (IHC), Brisbane, **Australia**, SYM9.
12. Meir, S., **Sundaresan, S**., Ma, C., Philosoph-Hadas, S., *et al*. (2014). New insights and approaches for

elucidating regulation of organ abscission. Abstract and lecture in the 29th International Horticultural Congress (IHC), Brisbane, **Australia**, Abstract SYM9.

13. Lers, A., Bar-Dror, T., Dermastia, M., Kladnik, A., **Sundaresan, S**., Meir, S., *et al*. (2014). Asymmetry between the distal and proximal sides of the abscission zone: characterization, functional significance and the involvement of programmed cell death. Abstract and lecture in the 29th International Horticultural Congress (IHC), Brisbane, **Australia**, Abstract SYM9.
14. **Sundaresan, S**., Philosoph-Hadas, S., Riov, J., *et al*. (2014). Abscission regulatory networks: a transcriptomic analysis using NGS and a novel tomato flower and leaf abscission zone customized microarray. Abstract and poster in the 7th Congress of the Federation of the Israel Societies of Experimental Biology (FISEB, ILANIT), Eilat, **Israel**, Abstract PB-71, p. 36.
15. **Sundaresan, S**., Philosoph-Hadas, S., Kochanek, B., *et al*. (2013). Ethylene-enhanced flower abscission is associated with specific increased pH of the cytosol in abscission zone cells of Arabidopsis, wild rocket and tomato flowers. Abstract and lecture in the 21st Conference of the International Plant Growth Substances Association (IPGSA), Shanghai, **China**, Abstract C-16, p. 177.
16. **Sundaresan, S.,** Philosoph-Hadas, S., Kochanek, B., *et al*. (2012). Ethylene-enhanced flower abscission is associated with specific increased pH of the cytosol in abscission zone cells of Arabidopsis, wild rocket and tomato plants. Abstract and lecture in The IX International Conference on the Plant Hormone Ethylene, Rotorua, **New Zealand**, p. 89.
17. **Sundaresan, S.,** Philosoph-Hadas, S., Lers, A., *et al*. (2011). Flower and leaf abscission: Molecular analysis of the regulation of the interaction between auxin and ethylene. Abstract and poster in the 6TH Congress of the Federation of the Israel Societies for Experimental Biology (ILANIT), Eilat, **Israel**, p. 54.
18. Jiang, C-Z., Meir, S., Lers, A., Philosoph-Hadas, S., *et al.* (2010). Molecular analysis of the interaction of auxin and ethylene during flower abscission. Abstract and poster in the 28th International Horticultural Congress, Lisbon, **Portugal**. Abstract S04.054, p. 244.
19. **Sundaresan, S.,** Lers, A., Philosoph-Hadas, S., *et al*. (2010). Regulation of the interaction between auxin and ethylene during flower and leaf abscission: A molecular study. Abstract and poster in the 20th International Conference on Plant Growth Substances (IPGSA), Tarragona, **Spain**. Abstract PS13-04, p. 97.
20. Meir, S., Lers, A., Philosoph-Hadas, S., Burd, S., **Sundaresan, S.,** Selvaraj,V.K.S., *et al*. (2010). Molecular analysis of changes in the flower and leaf abscission zone transcriptome role of auxin depletion. The XVIII Congress of the Federation of European Societies of Plant Biology (FESPB), Valencia, **Spain**. Abstract P10-023, p. 142.
21. Meir, S., Jiang, C-Z., Lers, A., Philosoph-Hadas, S., Burd, S., **Sundaresan, S.,**Selvaraj, V.K.S.,*et al*. (2009). Molecular analysis of the interaction of ethylene and auxin during flower abscission. **Abstract and lecture** in the 8th International Symposium on the Plant Hormone Ethylene.Cornell University, NY, **USA**.
22. Meir, S., Jiang, C-Z., Lers, A., Philosoph-Hadas, S., Burd, S., **Sundaresan, S.,**Selvaraj, V.K.S.,*et al*. (2009). Molecular and functional analyses of changes in the pedicel abscission zone transcriptome following auxin depletion. Abstract and poster in the International Symposium on Auxins and Cytokinins in Plant Development (ACPD),Prague, **Czech Republic**. Abstract O6-6, p.92.

National Conferences and Symposia

1. Priyadarsini, L., Subbiah, A., Ramesh Kumar, A., **Srivignesh, S**., Rama Krishna, K., Kaushik Rajaram, S. Kathiresan and A. Ramesh Kumar*. 2022. Studies on yield and quality analysis of Grape var. muscat hamburg grafted on dog ridge rootstock and own rooted. 5th Plant Science Research Meet, 2022 (PSRM) - National Conference on Agriculture, Applied and Life Sciences: Current Research, organized by Association of Plant Science Researchers and Indian Academy of Rural Development and held at Uttarakhand Open University, Nainital, India from 18-19, November, 2022. Pp:146-147.
2. H. Ragul Raj, **S. Srivignesh**, K. Ramakrishna and A. Ramesh Kumar*. 2022. Managing the post-harvest loss of aggregatum onion through pre-harvest spray of bio-stimulants. National virtual conference on Post-harvest Management: Concepts, challenges and prospects", organized by National Institute of Food technology, Entrepreneurship and Management, Thanjavur, TN and held on 18.05.22 to 19.05.22.
3. M. Deena Dayalan, **S. Srivignesh**, S. Manivannan, K. Rama Krishna, Kaushik Rajaram, S. Kathiresan and A. Ramesh Kumar*. 2023. Studies on flowering and fruiting behaviour of Water apple. ICBCSAFS, 2023. Organized by Centre for Natural Farming and Sustainable Agriculture, Faculty of Agriculture, Annamalai University, Annamalai Nagar- 608 002 from 09-10, March, 2023. P: 113. ISBN: 978-81-960905-5-5.
4. Manish Kumar, **S. Srivignesh**, S. Manivannan, Dinakar Challabathula and A. Ramesh Kumar*. 2023. Effect of different pruning intensities and chemicals on pod characteristics of perennial moringa (Moringa oleifera Lam.) cv. Kappalpatti local during off-season. ICBCSAFS, 2023 organized by Centre for Natural Farming and Sustainable Agriculture, Faculty of Agriculture, Annamalai University, Annamalai Nagar- 608 002 from 09-10, March, 2023. P: 114. ISBN: 978-81-960905-5-5.
5. I. Arumuka pravin, A. S. Krishnamoorthy, D. Durgadevi, P. Karthiga, K. S. Subramanian and **S. Srivignesh**. Metagenomic analysis for the detection of the quiescent presence of anthracnose causing *Colletotrichum gloeosporioides* in mango var. Alphonso fruits. Abstract in the National symposium on Current and Prospective methods for detection and Management of plant diseases organized by SRM college of Agricultural sciences, Chengalpattu- September 19th, 2022. Abstract P-14, p.39
6. **Srivignesh, S.**, Durgadevi, D., Janavi, G.J., and Subramaniyan K.S. (2018). Metagenomic profiling of hexanal treated mango fruits towards food safety. Abstract and Poster in the International Conference on Recent Advances in Food Processing Technology (iCRAFPT'18), Indian Institute of Food Processing Technology, Thanjavur.
7. ArumukaPravin, I., Durgadevi, D., **Srivignesh, S.**, Subramaniyan K.S., and Krishnamoorthy A.S. (2018). Dip Treatment with Nano Emulsion Hexanal Reduces the Post- Harvest Disease and Extends the Shelf life of Mango var. Alphonso**.** Abstract in the Challenges and Advances in Microbiology (CAM-2018), Department of Microbiology, Annamalai University, Annamalainagar. AbstractCAM-99, p. 77.
8. Durgadevi, D., **Srivignesh, S.**, ArumukaPravin, I., Subramaniyan K.S., and Janavi, G. J (2018). Biosafety of hexanal as nanoemulsion on fungal bio control agents. Abstract intheChallenges and Advances in Microbiology (CAM-2018), Department of Microbiology, Annamalai University, Annamalainagar. Abstract CAM-105, p.81.

9. **Srivignesh, S.**, Durgadevi, D., ArumukaPravin, I., Janavi, G.J., and Subramaniyan K.S. (2018). Metagenomic profiling of Nano emulsion treated mango fruits using Nano pore sequencer. Abstract in theChallenges and Advances in Microbiology (CAM-2018), Department of Microbiology, Annamalai University, Annamalainagar. Abstract CAM-167, p.109.
10. **Srivignesh, S.**,Durgadevi, D., ArumukaPravin, I., Philosoph-Hadas, S., and Meir, S(2017). Polygalacturonase genes in tomato flower and leaf abscission- a novel trait for molecular breeding.Abstract and Oral intheNational conference on New Vistas in Vegetable Research towards Nutritional Security under changing climate scenario (NCVR-2017), Department of vegetable crops, TNAU, Coimbatore. Abstract TIV-OP-3, p.50.
11. Durgadevi, D., Harish, S., **Srivignesh, S.**, and Arumugam, T (2017). Impact of planting dates on population dynamics and seasonal incidence of foliar diseases on onion (*Allium cepa*varaggrregatum). Abstract and OralintheNational conference on New Vistas in Vegetable Research towards Nutritional Security under changing climate scenario (NCVR-2017), Department of vegetable crops, TNAU, Coimbatore. Abstract TIV-OP-9, p.130.
12. **Srivignesh, S.**, Durgadevi, D., ArumukaPravin, I., Janavi, G.J., and Subramaniyan K.S. (2017). Metagenomic profiling of Enhanced Freshness Formulation (EFF) Treated Fruits of mango var. Alphonso.Abstract and Poster in the National seminar on Nano technology for evergreen revolution, Department of Nano Science and Technology, TNAU, Coimbatore.Abstract BIO 1, p.127-128.
13. Sangeetha, V., Ponni, P., **Srivignesh, S.**, Subramaniyan, K.S., and Janavi, G.J (2017). Enhanced Freshness Formulation (EFF) Dip technology to extend the Shelf-life of mango.Abstract and PosterintheNational seminar on Nano technology for evergreen revolution, Department of Nano Science and Technology, TNAU, Coimbatore. Abstract PH 8, p.102-103.
14. Durgadevi, D., ArumukaPravin, I., **Srivignesh, S.**, Subramaniyan K.S., Janavi, G.J., Paliyath, G., and Subramaniyan, J., (2017). Hexanal Vapour to Reduce Major Post-Harvest Pathogens of Banana (Musa sp.). Abstract and PosterintheNational seminar on Nano technology for evergreen revolution, Department of Nano Science and Technology, TNAU, Coimbatore. Abstract PRO 3, p.194-195.
15. ArumukaPravin, I., Durgadevi, D., **Srivignesh, S.**, Subramaniyan K.S., and Krishnamoorthy A.S. (2017). Hexanal Vapour Treatment for the Reduction of Post-harvest Diseases of Mango.Abstract and Poster in the National seminar on Nano technology for evergreen revolution, Department of Nano Science and Technology, TNAU, Coimbatore. Abstract PRO 5, p.198-199.
16. **Srivignesh, S.**, Durgadevi, D., ArumukaPravin, I., Philosoph-Hadas, S., and Meir, S (2017). Potential role of auxin and ethylene in tomato flower and leaf abscission.Oral intheThird National Agri-Scientific Tamil Research conference, TNAU, Coimbatore,p.21-27.

BOOKS

1. **Sundaresan, S.** Tomato Leaf and Flower Abscission: Study of the regulation of genes associated with flower and leaf abscission in tomato (*Solanum lycopersicum*). 2013 LAP LAMBERT Academic Publishing, (ISBN-10: 3659390801, ISBN-13: 978-3659390807).
2. Yasin, J.K., **Sundaresan, S.,**Pratima P.T., Nanjundan, J., and Pillai M.A., (2013). Merging Plant Breeding with Crop Biotechnology. New India Publishing Agency, (ISBN-10: 9381450595, ISBN-13: 978-9381450598).

3. **S. Srivignesh**, P. Rajesh Kumar, I. ArumukaPravin, and V. Ramamoorthi (2019). Nutritional Disorders in Agricultural and Horticultural Crops. SreeKumaran Publishers, Coimbatore, Pages 217 (ISBN- 978-9388570022).
4. A. Ramesh Kumar, **S. Srivignesh** and B. Gopu (2022). Flower Biology and Hybridization Techniques in Horticultural Crops. Jaya Publishing House, New Delhi, Pages 145 (ISBN978-9392851568)
5. A. Ramesh Kumar, **S. Srivignesh**, K. Rama Krishna and I. Arumukapravin. 2022. Improved production techniques and value addition in cashew. Guru Xerox and Color Park, Tiruchirappalli- 620001, TN.

BOOK CHAPTERS

1. **S. Srivignesh**. Biotechnology and Genetic Engineering in General Agriculture Q & A (Thannambikkai Publications, Coimbatore, 2017), (ISBN: 9789387314245), p. 215-232.
2. I. ArumukaPravin, D. Durgadevi, **S. Srivignesh.,** S. Nakkeeran, A.S.Krishnamoorthy Enterprising Mushroom Biotechnology (Tamil Nadu Agricultural Univ, and UGC-SAP-DRS1, Coimbatore, 2017), (ISBN: 9789384909109),p. 186-196.
3. **S. Srivignesh**, D. Durgadevi, I. ArumukaPravin in Vegetable production (Laser Publishing House, Coimbatore, 2017), (ISBN: 9789387314030), p. 21-27.
4. I. ArumukaPravin, D. Durgadevi, **S.Srivignesh**, D. John christopher in Pathology (Laser Publishing House, Coimbatore, 2017), (ISBN: 9789387314078),p. 20-22.
5. D. Durgadevi, A.Sanakara lingam **S.Srivignesh** in Pathology (Laser Publishing House, Coimbatore, 2017), (ISBN: 9789387314078), p. 64-67.
6. N. Natarajan, **S. Srivignesh** and K. Raja. Nano invigouration techiniques to improve shelf life of seeds. In New Vistas in Seed Production, Processing, Seed Enhancement and Marketing. 2018. TNAU offset press, Coimbatore
7. I. ArumukaPravin, D. Durgadevi, **S. Srivignesh** and John Christopher. Integrated disease management in Groundnut against late leaf spot and rust diseases. In Fungal Pathogens of Crop Plants and Their Management, 2017. A.E. Publications, Coimbatore (ISBN-9381972974).
8. **Sundaresan, S.,** and Yasin, J.K. Role of Genetic Engineering and Biotechnology in Crop Improvement in Merging Plant Breeding with Crop Biotechnology. (New India Publishing Agency, 2012) ISBN-10: 9381450595, ISBN-13: 978-9381450598.
9. V. Ramamoorthi, **S. Srivignesh**, S. Marimuthu and K.S. Subramanian. Bio and Nanosensors: Theory and Applications in Agriculture in Nanotechnology in Agriculture Energy and Environment (Daya Publishing House, New Delhi, 2020) (ISBN: 9789389719338), p.421-439.
10. Senthilkumar, S., **S. Srivignesh**, A. Ramesh Kumar and S. Manivannan. Sapota (*Manilkaraachras* (Mill.) Fosberg) in TROPICAL fruit crops- Theory to Practical (Jaya Publishing house, New Delhi, 2021) (ISBN: 9789390611683), P 576-609

11. Chandrabose Selvaraj, Dhurvas Chandrasekaran Dinesh, Kaushik Rajaram, **Srivignesh Sundaresan**, and Sanjeev Kumar Singh. Macromolecular chemistry: An introduction in In-Silico Approaches to Macromolecular Chemistry, 2023. Elsevier, P 71-128, (ISBN 9780323909952). https://doi.org/10.1016/B978-0-323-90995-2.00007-2.
12. K. Gnanasundari, K. Rama krishna, **S. Srivignesh**, Manish kumar, A. Harish and A. Ramesh kumar. Processing and Value Addition in Onion in PLANTA, 2023. Association of Plant Science Researchers (APSR), Dehradun, Uttarakhand, Vol 6, P 1097– 1103. (ISBN: 978-81-953419-1-7)
13. Gnanasundari, K., Ramesh Kumar, A., Senthilkumar, S., **Srivignesh, S** and Manivannan, S. 2021. Transgenics in vegetable crops and its impact on the environment. In: Interdisciplinary approaches in agriculture and forestry. Eds. Sandeep Rout, Udit Nandan Mishra and Rupak Jena. Taran Publication, New Delhi., ISBN: 978-93-92313-22-6. Pp:29-38.

POPULAR ARTICLES

1. in Magazines – 26 (languages- English and Tamil)
2. in Newspapers – 1

TRAINING PROGRAMMES

1. Participated in the hands-on training on "Nanopore Sequencing" organized by Genotypic technology PVT Ltd. Bangalore, India on 5th to 10th May 2017.
2. Participated in the hands-on training on "Next Generation Sequencing" organized by Genotypic technology PVT Ltd. Bangalore, India on 19th to 23rd December 2016.
3. Participated in the hands-on training on "Microarray service" organized by Genotypic technology PVT Ltd. Bangalore, India on 10th to 12thFebruary 2016.
4. Participated in the hands-on training on "AmpiSeq Rapid Exome Capture using Ion proton" organized by Genotypic technology PVT Ltd. Bangalore, India on 12th to 15th September 2014.
5. Participated in the training on "Tea Production and Processing" organized by KVK, UPASI, Conoor, Nilgiris on 16th February to 2nd March 2005.
6. Participated in the training on "Coffee Production and Processing" organized by HRS, TNAU, Thadiyankudisai on 7th to 21st October 2004.

WORKSHOPS

1. Attended the workshop on "Application of Proteomics-Current status and Future prospects" organized by Department of Biotechnology, AC&RI, Madurai on 29th August 2017.
2. Attended the International workshop on "Advanced Functional Nano materials- 4th Edition" organized by Center for Nano Science and Technology, Anna University, Chennai on 22nd to 24th March 2017.
3. Attended the International workshop on "ARO 90" organized by Agricultural Research Organization, Bet Dagan, Israel on 2nd to 4th December 2012.

4. Attended the Pears Foundation Alumni workshop in Plant Sciences organized by The Robert H. Smith Faculty of Agriculture, Food and Environment, Rehovot, Israel on 6th to12thSeptember2009.
5. Attended the workshop on "Organic Vegetable Production" organized by Department of vegetable crops, HC&RI, Coimbatore on 8th December 2017.
6. Attended the workshop on "Grafting Techniques in Vegetable Crops" organized by Department of vegetable crops, HC&RI, Coimbatore on 8th December 2017.
7. Attended the workshop on "Real-time PCR Analysis" organized by Department of vegetable crops, HC&RI, Coimbatore on 7th December 2017.
8. Attended the workshop on "Vertical Gardening in Vegetable crops" organized by Department of vegetable crops, HC&RI, Coimbatore on 7th December 2017.

EXTENSION ACTIVITIES

1. Resource person for a demonstration on "Spray technology for fruit preservation" at Village Knowledge and Resource center, HC&RI, Periyakulam, organized by MYRADA, Erode on 10.08.2017.
2. Resource person for a demonstration on "Dip technology for fruit preservation" at Chinnamanur, Theni, organized by MYRADA, Erode on 22.09.2017.
3. Served as organizing committee member and conducted demos in the "Banana festival - 2017" at Madurai, organized by AC&RI Madurai and Govt of Tamil Nadu, TNAU on 21st to 23rd July 2017.
4. Served as organizing committee member and conducted demos in the "One-day workshop on Pack-house technology" at Krishnagiri, organized by TNAU and IDRC Canada, on 12.03.2018.
5. Served as organizing committee member in the "Final dissemination workshop" at TNAU, organized by TNAU and IDRC Canada, on 15.03.2018.
6. Served as organizing committee member in the "Nano Stake holder meet-2019" at TNAU, organized by Department of Nano Science and Technology, TNAU, Coimbatore on 13.08.2019.
7. Served as Conveners in the workshop entitled "IMPACT OF CLIMATE CHANGE ON AGRO BIODIVERSITY" at CUTN, organized by Dept of Horticulture and UGC-STRIDE, Central University of Tamil Nadu on 29-30.11.2022.
8. Resource person for a demonstration on "High density planting, canopy and input management in cashew" at State Horticulture farm, Vallathirakottai, Pudukottai organized by GOI-DCCD, KOCHI, KERALA and Central University of Tamil Nadu on 10-12 .02.2023.
9. Served as organizing committee member in the Training Programme entitled "IMPROVED PRODUCTION TECHNOLOGY AND VALUE-ADDITION IN CASHEW" at State Horticulture farm, Vallathirakottai, Pudukottai, organized by GOI-DCCD, KOCHI, KERALA and Central University of Tamil Nadu on 10-12 .02.2023.

INVITED LECTURES

1. Invited lecture at 5th Annual Agricultural graduate students Conference (AAGSC) organized by Directorate of Students welfare, TNAU, Coimbatore on 4th& 5th of May 2017.
2. Invited lecture at Indo-Israel cross cluster seminar on agricultural structure organized by The Department of Horticulture and plantation crops, Govt. of Tamil Nadu & Embassy of Israel, New Delhi on 28th and 29th of Nov 2017.
3. Invited lecture at National symposium on "Horticulture in the Vanguard of Climate change and Urban Environment organized by Department of Horticulture, Annamalai University, Chidambaram on 7th and 8th of Feb 2019.
4. Invited lecture at National Seminar on Current Trends and Challenges in Sustainable Agriculture organized by Faculty Centre for Agricultural Education and Research, Ramakrishna Mission Vivekananda Educational and Research Institute, Coimbatore on 21st and 22nd of Feb 2019.
5. Invited lecture at Protected cultivation in Horticultural crops organized by ICAR- KVK Needamangalam, Tamil Nadu Agricultural University on 25th June 2021.
6. Invited lecture at Online Refresher Course in Life Sciences (from 20 10 2021 to 02 11 2021 sponsored by UGC Human Resource Development Centre, Madurai Kamaraj University, Madurai on 27th Oct 2021.
7. Invited lecture at Innovative trends in horticultural production (ITHP-21) organized by Department of Horticulture, Faculty of Agriculture, Annamalai University, Annamalai Nagar on 29th October 2021.
8. Invited lecture at TWO-DAY SEMINAR ON THE CLIMATE CHANGE: IMPACTS, THREATS, ADAPTATION AND MITIGATION STRATEGIES Organized by UGC-STRIDE and Department of Geology, School of Earth Sciences, Central University of Tamil Nadu on 9th Nov 2022
9. Invited lecture at Two-day National conference on Biotechnology for Sustainable Agriculture and Health Care (NCBSAH-2023) Organized by School of Biotechnology, Madurai Kamaraj University on 23rd and 24th March 2023.

SCIENTIFIC AND PROFESSIONAL SOCIETY MEMBERSHIPS

1. Life member in Horticultural Society of India (**HSI**), India
2. Life member in Indian Society of Vegetable Science (**ISVS**), India
3. Life member Indian Society for Plant Physiology (**ISPP)**, India
4. Life member in National Academy of Biological Science (**NABS**), India
5. Life member in Agricultural Scientific Tamil Society **(SciTSA**), India
6. Life member in Bose Science Society, TNSRO, India
7. Member of the International Society for Horticultural Science (**ISHS),** Belgium (2014-17)
8. Member of the American Society of Plant Biologists (**ASPB),** USA (2014-2015)
9. Life member in current horticulture, Society for Horticultural and Development, India
10. Life member in the Society for Advancement of Human and Nature (**SADHNA**), Dr YS Parmar University of Horticulture and Forestry, India

JOURNAL REVIEWER / EDITORIAL BOARD

1. Reviewer for Plant Cell, Tissue and Organ Culture (PCTOC), Springer Nature`s Group , USA
2. Reviewer for Environmental Sustainability (Springer Nature`s), Germany
3. Reviewer for Frontiers in Genetics (Frontiers Media), Switzerland
4. Reviewer for Frontiers in Plant Sciences (Frontiers Media), Switzerland
5. Reviewer for Horticultural Plant Journal (Elsevier B.V.), Netherlands
6. Reviewer for Journal of Agricultural Science (Canadian Centre of Science and Education), Canada
7. Reviewer for American Journal of Agriculture Science (The American Association for Science and Technology), USA
8. Reviewer for International Journal of Agricultural Research, Innovation and Technology (IJARIT Research Foundation), Bangladesh
9. Reviewer for Vegetos Journal (Society for plant research), India
10. Associate-Editor for International Journal of Agriculture Sciences (Bio info publications), India
11. Reviewer for Journal of Horticultural Sciences (Society for Promotion of Horticulture), India
12. Reviewer for Current Agriculture Research Journal, India.
13. Reviewer in the International Journal of Horticulture (IJH) (Biopublisher), Canada
14. Reviewer in Agricultural Research & Technology (ARTOAJ) (Juniper publisher), USA
15. Reviewer in Indian Journal of Agricultural Research, Agricultural Reviews (ARCC Journals), Haryana, India. (June, 2023)

Dr. Srivignesh Sundaresan
Thiruvarur

"Agriculturists are the linchpin of mankind since they support all others who cannot till the soil" - Thirukkural (1032) - Thiruvalluvar