

Dr. Supriya R.

Assistant Professor

Postgraduate and Research Department of Botany

SVR NSS College, Theerthapadapuram P O, Vazhoor, 686 505

Email: supriyaradhakrishnan@gmail.com

Phone: +91 9495163733

Academic Background

- **PhD:** Rubber Research Institute of India, 2013
- **M.Sc:** Mahatma Gandhi University, 2003
- **B.Sc. (III rank):** Mahatma Gandhi University, 2001

Qualifications

- Qualified UGC-CSIR JRF NET
- Qualified GATE 2004 in Lifesciences with 99.14 percentile (**All India Rank – 40**)
- Certified Food Analyst by FSSAI, 2019
- Various short-term courses in Forensic Biotechnology, Bioinformatics, and HACCP for food manufacturing.

Research Interests

- Plant Biotechnology, Animal Biotechnology, Microbiology, Molecular Biology, Immunology,
- Environmental and Food Microbiology, Industrial Biotechnology, Nanobiotechnology
- Bioinformatics, Genomics and Proteomics, Biodiversity analysis

Professional Experience

- **Assistant Professor, Department of Botany, SVR NSS College:** November 2022 - Present
- **Assistant Professor (Contract), Department of Biotechnology, University of Kerala:** January 2014 - November 2022
- **Facilitator, Young Innovators Programme (YIP), Kerala Development and Innovation Strategic Council (K-DISC):** February 2019 - Present

Key Projects

- Molecular mechanism of disease tolerance in plants
- Green synthesis of nanoparticles, their characterization and bioactivity studies
- Phytochemical and anti-cancer activity studies of medicinal plants
- Characterization of bioactive compounds from various medicinal plants
- Screening of enzyme producing microbes from environmental sources and their characterization
- Vaccine production research from Marek's disease virus

Awards and Honors

- State level I prize winner for quiz competition by Zoological Society of Kerala, 2001
- University level third rank for B.Sc, 2001
- Qualified NET for lectureship in life sciences, 2003
- UGC-CSIR junior and senior research fellowships, 2004
- GATE with a percentile score of 99.14, All India rank 40

Skills and Expertise

- Experienced in operating advanced lab instruments like FLASH chromatography, HPLC, FPLC, PCR, RT PCR, ELISA Plate Reader etc.
- Proficient in molecular biology techniques such as DNA sequencing, cloning, and tissue culture
- Skilled in various bioinformatic tools and microbiology experiments

Orientation programmes attended:

Orientation programme offered by UGC – HRDC, University of Kerala during March 2023

Faculty Development Programmes (FDP) attended:

1. Five-day National Level Online Faculty Development Programme on 'Recent Trends and Development in Food Technology' during 10th to 14th August, 2020 organized by Department of Food Technology, Saintgits College of Engineering in Association with AFSTI, Cochin Chapter, Kerala.
2. Two-day Faculty Development Programme for Contract Lecturers organized by Internal Quality Assurance Cell (IQAC) on 15th and 22nd July 2017, University of Kerala, Thiruvananthapuram.

LIST OF PUBLICATIONS:

1. Phytoremediation: Harnessing nature's Green Technology for Environmental Contamination. 2023. **Supriya R**, Rani V S. CONTEMPLATIONS ON NATURE. ISBN: 978-81-964931-3-4. Page No. 213.
2. Sustainable Agriculture in Indian Scenario. 2023. Rani V S., **Supriya R**. CONTEMPLATIONS ON NATURE. ISBN: 978-81-964931-3-4. Page No. 165
3. Phytochemical analysis and bioactivity studies with special emphasis on pesticidal properties of *Musa sapientum* L. leaf extract. 2022. Aparna S. J, **Supriya Radhakrishnan**, A. Gangaprasad & A. Jayakumaran Nair." Biotechnology-recent advances, Challenges and Opportunities" (A Gangaprasad et al.,) Department of Biotechnology, University of Kerala, INDIA. pp. 62- 79 ISBN: 978-81-954771-0-4.

4. Isolation and Characterization of potential strains of bacteriocinogenic strains of lactic acid bacteria from fermented cucumber.2022. **Supriya R**, Prakash M Halami. In: "Advances in Industrial Biotechnology" (A Gangaprasad et al.,) Department of Biotechnology, University of Kerala, INDIA.pp 304-326, ISBN: 978-81-956771-4-2, 2022
5. Nanodrug formulation using egg albumin carrier and Annonacin with reference to Breast and colon cancer. 2022. Athira P, Anagha U Nair, **Supriya Radhakrishnan**, Neethu Hari, Gangaprasad A, Jayakumaran Nair A. In: "Advances in Industrial Biotechnology" (A Gangaprasad et al.,) Department of Biotechnology, University of Kerala, INDIA. pp 61-80, ISBN: 978-81-956771-4-2.
6. Development of novel markers for yield in *Hevea brasiliensis* Muell.Arg. based on candidate genes from biosynthetic pathways associated with latex production, Bini K, Thakurdas Saha, **Supriya Radhakrishnan**, Minimol Ranvindran, Thomas Kadamapanattu Uthup, 2022. Biochem Genet. Dec;60(6):2171-2199. doi: 10.1007/s10528-022-10211-w. Epub 2022 Mar 16. PMID: 35296963.
7. New Insights into the Novel and Functional Promoter sequences of β -1,3-glucanase Gene from *Hevea brasiliensis*, **Supriya Radhakrishnan**, Suni Mathew, Alikunju Saleena, Arjunan Thulaseedharan, 2021, Journal of Plant Protection Research, Vol 61 (1), 28-40. ISSN 1427-4345
8. Cancer Diagnostics and Therapeutics: Recent Advances in Nanomedicine. Neethu Hari, **Supriya Radhakrishnan** and Ananthakrishnan Jayakumaran Nair. Research Journal of Biotechnology. 2021. Vol. 16 (2). ISSN 22784535, 09736263.
9. Chlorophyll a/b Binding Protein (Cab) Gene Expression in Hevea Signifying Clone Rejuvenation through Somatic Embryogenesis. RG Kala, **R Supriya**, R Jayashree and A Thulaseedharan. Indian Journal of Agricultural Biochemistry. December, 2020 Vol 33 (2) 0974-4479, 0970-6399.
10. Innovative and Emerging Technologies for Detection of Food Adulterants. **Supriya Radhakrishnan**, Neethu Hari, A. Jayakumaran Nair, in 'Biotechnological Approaches in Food Adulterants, CRC Press, Taylor & Francis Group, 2020 .102-134. ISBN: -13: 978-0-3673-6986-6
11. Hairy Root Culture: Secondary Metabolite production in a Biotechnological perspective. **Supriya R.**, Kala R.G and Thulaseedharan A. in Plant Metabolites, Methods, Applications and Prospects. Springer Nature Publishers, 2020. 89-110, ISBN:978-981-15-5135-2.
12. 14.Nanosensors as Potential Multisensor systems to Ensure safe and Quality Food. Neethu Hari, **Supriya Radhakrishnan** and Ananthakrishnan Jayakumaran Nair, In: Biotechnological Approaches in Food Adulterants, CRC Press, Taylor & Francis Group, 2020.ISBN: 13: 978-0-3673-6986-6
13. 15.Genomic Technologies for Hevea Breeding. **Supriya R.**, and P.M.

Priyadarshan. in 'Advances in Genetics'. ELSEVIER Publishers, 2019. ISBN: 978-0-12-817161-5 ISSN: 0065-2660.

14. New Insights into the Pharmaceutical and Food Based Applications of Starch Nanocrystals. Neethu Hari, **Supriya R**, Athira S. Dev, A. Jayakumaran Nair*. Book Chapter published by Taylor & Francis:"Nanotechnology in Biology and Medicine: Research Advancements & Future Perspectives" published with CRC Press | Taylor & Francis Group, 2019.
15. Nano Computing in Medicine. Smrithy S., **Supriya R.**, A. Jayakumaran Nair. Literary Findings- International Journal of Multidisciplinary Research. IF- 4.11. ISSN 2278-2311. Vol IV-1- December 2018.119-121.
16. BIO-ARTIFICIAL LIVER: Current Approach towards liver diseases. Karthika S. Kumar., **Supriya R.**, A. Jayakumaran Nair. Literary Findings - International Journal of Multidisciplinary Research. IF- 4.11. ISSN 2278-2311.Vol IV-1- December 2018.126-130.
17. Recent advances in cancer Therapy. Baby Roshma K., **Supriya R.**, A. Jayakumaran Nair. Literary Findings- International Journal of Multidisciplinary Research. IF- 4.11. ISSN 2278- 2311.Vol IV-1- December 2018. 135-140.
18. Evaluation of CGTase producing Leucobacter sp as a potential candidate for industries.H S Hazeena, **R Supriya** and A. Jayakuamranan Nair. 2018. Trends in Biosciences 11, (150), 2554- 2563.
19. Physico-chemical and Biological Properties of Starch Nanocrystals and Orange Oil Incorporated Chitosan Film. 2017. Hari, Neethu; Shaji, Karthika; **Radhakrishnan, Supriya**; Nair, Ananthakrishnan. Journal of Polymer Materials. 34. 261-274.
20. Cloning and characterization of a Full-Length Cab Gene Encoding the Light Harvesting Chlorophyll a/b Binding Protein in *Hevea brasiliensis* clone RR11 105. R. G. Kala, **R. Supriya**, Suni Anie Mathew, R. Jayashree and A. Thulaseedharan. Rubber Science, 30(1): 25-41, 2017.
21. Molecular Characterization and Expression Analysis of A Somatic Embryogenesis Receptor Kinase (Serk) Gene From *Hevea Brasiliensis*. P. Kumari Jayasree, Soya Mary Jose, **R. Supriya** & Suni Annie Mathew. Rubber Science. 29 (2). Pages 159-167, 2016.
22. In Silico Characterization of a Calcium-Dependent Protein Kinase from *Hevea Brasiliensis* Reveals Prospective Features for Conferring Multiple Stress Tolerance". Suni Anie Mathew, **Supriya R.**, Thulaseedharan A. Rubber Science. 28 (2): 147-158, 2015.
23. Agrobacterium mediated transformation of *Hevea brasiliensis* with apple cDNA encoding sorbitol-6-phosphate dehydrogenase. P. Kumari Jayashree, Divya S., **Supriya R**, A. M. Dandekar, M. P. Asokan, M.S. Sethuraj, A. Thulaseedharan. Rubber Science, 28(1): 31-39, 2015.

24. Integration and expression of osmotin gene in *Hevea brasiliensis*, via Agrobacterium mediated transformation. K. Rekha, R. Jayasree, S. Sushamakumari, S. Sobha, **R. Supriya**, P.A. Nazeem. Short Scientific Report. Journal of Plantation Crops, 2013, 41(1): 80-85.
25. Factors Promoting Agrobacterium Mediated Genetic Transformation Efficiency in *Hevea brasiliensis*. S. Sobha, S. Sushamakumari, K. Rekha, R. Jayashree, R. G. Kala, **R. Supriya** and A. Thulaseedharan. Rubber Science, 2012, 25(2): 173-182.
26. Over-expression of MnSOD and related drought tolerant traits in MnSOD transgenic *Hevea brasiliensis*. R. Jayashree, S. Sobha, K.Rekha, **R.Supriya**, M. Vineetha, S.I Ancy, S. SushamaKumari, R.G Kala, P.K Jayasree, A. Thulaseedharan, K. Annamalaithan, D.B. Nair, S. Sreelatha, R. Krishnakumar and James Jacob., Journal of Natural Rubber Research, 2011, 24(1): 18-27.
27. Genetic analysis of somatic embryogenesis derived plants of *Hevea brasiliensis* (clone RRIL- 105) through RAPD markers. P. Kumari Jayashree, R. S. Sajeevan, **R. Supriya**, R.G. Kala, R. Jayashree and A. Thulaseedharan. Journal of Natural Rubber Research, 2010, 23 (1&2):20-27.
28. Isolation and characterization of Ribulose 1, 5 – bisphosphate carboxylase small subunit gene from *Hevea brasiliensis*. A. Saleena, **R. Supriya**, K. P. Ranjith, V. S. Soumyarani and A. Thulaseedharan. Journal of Plantation Crops, 2008, 36 (3): 223-227.
29. Isolation and characterization of hevein gene promoter from *Hevea brasiliensis*, A.Saleena,**R. Supriya** and A. Thulaseedharan, Journal of Plantation Crops, 34 (3), 2006, 529-533.
30. Cloning and characterization of β -1,3-glucanase from different clones of *Hevea brasiliensis*. **R. Supriya**, A. Saleena and A. Thulaseedharan, Journal of Plantation Crops, 34 (3), 2006, 572-575.
31. β -1,3-glucanase isoforms in *Hevea brasiliensis* differ in their antifungal activity towards *Phytophthora meadii*. **Supriya Radhakrishnan**, Krishnankutty Chandrika Sivakumar, Suni Anie Mathew, Arjunan Thulaseedharan. (Communicated)
32. Molecular Characterization and Temporal Gene Expression Analysis of Novel Cdpk Isoforms In *Hevea Brasiliensis* Under Cold Stress. Suni Anie Mathew, **Supriya R**, Salitha Kurian, Kala R G & Thulaseedharan A (Communicated).

Books Edited:

- i. Book on “Advances in Industrial Biotechnology” Published by Department of Biotechnology, University of Kerala, February 2022. ISBN: 978-81-956771-4-2.
- ii. Book on “Biotechnology-recent advances, Challenges and Opportunities” Published by Department of Biotechnology, University of Kerala, December 2022. INDIA.pp. 62- 79. ISBN: 978-81-954771-0-4.

Conference papers:

1. **Phytochemical Analysis and Bioactivity Assessment of *Osmunda regalis* L.: Exploring the Larvicidal Potential of the Royal Fern.** Supriya R, Rahul Rajesh, A. Gangaprasad. National Seminar on Plant Biodiversity, Genetics, Breeding and Biotechnology (GMF Seminar 2023), co-organized by the Department of Botany, University of Calicut and the Gregor Mendel Foundation at Department of Botany, University of Calicut, during 7-8 December, 2023.
2. **Isolation and Characterization of potential strains of bacteriocinogenic strains of lactic acid bacteria from fermented cucumber.** Supriya R, Prakash M Halami. National webinar on “Advances in Industrial Biotechnology organized by Department of Biotechnology, University of Kerala during 03-04 February 2022. – **BEST ORAL PRESENTATION AWARD in Food and Fermentation Category.**
3. **Nanodrug formulation using egg albumin carrier and Annonacin with reference to Breast and colon cancer.** Athira P, Anagha U Nair, **Supriya Radhakrishnan**, Neethu Hari, Gangaprasad A, Jayakumaran Nair A. National webinar on “Advances in Industrial Biotechnology organized by Department of Biotechnology, University of Kerala during 03-04 February 2022.
4. **Characterization of the Purified Compound from the Fruit Extracts of *Couroupita guianensis*.** Enrika Joy A., Mina M, **Supriya R**, Jayakumaran Nair A. National webinar on “Advances in Industrial Biotechnology organized by Department of Biotechnology, University of Kerala during 03-04 February 2022.
5. **Nano Drug Formulation using Egg Albumin Carrier and Vinca Alkaloids with Referenceto Breast and Colon Cancer.** Anagha U. N., **Supriya R.**, Neethu H., Gangaprasad A., Jayakumaran Nair A. National webinar on “Advances in Industrial Biotechnology organized by Department of Biotechnology, University of Kerala during 03-04 February 2022.
6. **Water Treatment Using *Shewanella Oneidensis* along With Bioelectricity Production And Metal Regaining.** Anantha Padmanabhan S., **Supriya R** and A Jayakumaran Nair for INSPIRO 2020; a two day National Symposium on Environment, Livelihood and Service on 15-16 January 2020 held at College of Agriculture, Vellayani, Thiruvananthapuram.
7. **Virus Induced Epigenome Alterations.** Athira P., Anagha U Nair., **Supriya R** and A Jayakumaran Nair for INSPIRO 2020; a two day National Symposium on Environment, Livelihood and Service on 15-16 January 2020 held at College of Agriculture, Vellayani, Thiruvananthapuram.

8. **Waste Human Hair For Bioelectricity Production.** Dhujana NS., Vidhya D., Kavya P., **Supriya R** and A. Jayakumaran Nair for INSPIRO 2020; a two day National Symposium on Environment, Livelihood and Service on 15-16 January 2020 held at College of Agriculture, Vellayani, Thiruvananthapuram
9. **Bioplastics: A Solution For Pollution Control.** Edwin K Johns, Abhijith S, **Supriya R.**, A. Jayakumaran Nair for INSPIRO 2020; a two day National Symposium on Environment, Livelihood and Service on 15-16 January 2020 held at College of Agriculture, Vellayani, Thiruvananthapuram
10. **Viral Epigenetic Modifications.** Athira P., **Supriya R** and A Jayakumaran Nair. One Day National Seminar on 'Epidemiology of Viral Diseases' on 18th December 2019 at Inter University Center for Genomics and Gene Technology, University of Kerala, Thiruvananthapuram
11. **Immunological Aspects Of Viral Diseases.** Veena Gayathri, **Supriya R.** and A. Jayakumaran Nair. One Day National Seminar on 'Epidemiology of Viral Diseases' on 18th December 2019 at Inter University Center for Genomics and Gene Technology, University of Kerala, Thiruvananthapuram
12. **Nano Computing in Medicine'**. Smrithy S., **Supriya R.**, A. Jayakumaran Nair. SWASH International Conference organized by Swamy Vivekananda Foundation, Thiruvananthapuram on 22nd December, 2018.
13. **Bio-artificial Liver: Current Approach towards Liver Diseases.** Karthika S. Kumar., **Supriya R.**, A. Jayakumaran Nair. SWASH International Conference organized by Swamy Vivekananda Foundation, Thiruvananthapuram on 22nd December, 2018.
14. **Recent Advances in Cancer Therapy.** Baby Roshma K., **Supriya R.**, A. Jayakumaran Nair. SWASH International Conference organized by Swamy Vivekananda Foundation, Thiruvananthapuram on 22nd December, 2018.
15. **DNA as a Platform for Cryptography and Nanocomputing: a Review.** 2017. Smrithi S., **Supriya R.**, A. Jayakumaran Nair. Technysod 2017 (National conference and workshop, 19th- 21st December, 2017) held at Mohandas engineering college, Thiruvananthapuram – **BEST PAPER AWARD**
16. **Nanotechnology Mediated Bioenergy Production: a Review.** 2017. Athira S.D., **Supriya R.**, A. Jayakumaran Nair. Technysod 2017 (National conference and workshop , 19th- 21st December, 2017) held at Mohandas engineering college, Thiruvananthapuram.
17. **In Vitro Cytotoxic Activity of Annona Muricata on HeLa and A549 Cancer Cell Lines'**. Chinthu V Saji, **Supriya R**, Neethu Hari and A. Jayakumaran Nair. National seminar on 'Frontiers in Biotechnology- Molecular, Epigenetic and Genomic Research platforms in health care and Food security', March 1-3, 2017, at IUCGGT, Kariavattom.

18. **Cloning and Characterization of a Cu/Zn Superoxide Dismutase Gene from Rubber Tree (*Hevea brasiliensis*)**. A. Thulaseedharan., A. Saleena., K. P. Ranjith. and **R. Supriya**. PLACROSYM XIX- 2010. pp:77.
19. **Cloning and Molecular Characterization of an intronless *cis*-prenyltransferase – 1 gene from *Hevea brasiliensis***. A. Saleena., **R. Supriya.**, M. Vineetha and A. Thulaseedharan. ." PLACROSYM XIX- 2010. pp :69
20. **Agrobacterium Mediated Genetic Transformation in *Hevea brasiliensis*. Effect of Acetosyringone and pre-culture of the Target Tissue on Transformation Efficiency.**"Sobha. S., Reshma, R.S., SushamaKumari.S., Rekha, K., Jayashree, R., Kala, R. G., Jayasree, P., **Supriya. R** and Thulaseedharan, A. PLACROSYM XIX- 2010. pp: 45.
21. **Genetic Transformation of *Hevea brasiliensis* with the Gene Encoding Osmotin Protein via *Agrobacterium***. K. Rekha, R. Jayashree, S. Sushama Kumari, S. Sobha, T. Jomini, **R. Supriya** and P. A. Nazeem . PLACROSYM XIX-2010. pp: 76
22. **Development of Stress Tolerance in *Hevea brasiliensis* through Transgenic Approaches**. R. Jayashree, S. Sobha, K.Rekha, **R. Supriya**, M. Vineetha, S.I Ancy, S. SushamaKumari, r.G kala, P.K Jayasree, A. Thulaseedharan, K. Annamalaithan, D.B. Nair,S. Sreelatha, R. Krishnakumar and James Jacob. International workshop on climate change and Rubber cultivation: R & D priorities. July 2010. pp:46.
23. ***Agrobacterium* - mediated Transformation with the Laticifer Specific HMGR1 Gene in *Hevea brasiliensis***. R.Jayasree, K.Rekha,P. Venketachalam, S.Sushamakumari, S.Sobha, **R.Supriya**, P.K.Neethu, A.Thulaseedharan and P.A. Nazeem. International Conference on Biotechnology: A Global Scenario.2nd to 4th November,2010 at Kakatiya University, Warangal, Andhra Pradesh. pp: 144. (**BEST POSTER AWARD in genetic transformation category**).
24. **Induction of Zygotic Polyembryony and Production of True-to-type Seedlings of *Hevea brasiliensis***. K.Rekha, R.Jayasree, S.Sushamakumari, S.Sobha, T.Gireesh, **R.Supriya**, A. Anitha, T.Saha and A.Thulaseedharan. Internatonal Conference on Biotechnology:A Global Scenario: 2nd to 4th November,2010 at Kakatiya University, Warangal, Andhra Pradesh.pp: 121 (**BEST POSTER AWARD in tissue culture category**)
25. **Chlorophyll A/B Binding Protein Gene Expression in Juvenile and Mature Leaf Explants and its Relationship with *in vitro* Culture Response in *Hevea brasiliensis***. R. G. Kala., **R. Supriya.**, A. M. Suni, V. Anju., P. K. Jayasree., Sobha and A. Thulaseedharan. International rubber conference organized by International Rubber Research and Development Board IRRDB 2012 held at Thiruvananthapuram on 28th- 31st November 2012.
26. **Functional Characterization of a Novel *Hevea* β -1,3-glucanase Gene Promoter and its Regulatory Role in *Hevea* and Tobacco tissues**. **Supriya R.**, Saleena A., Suni A. M. and Thulaseedharan A. International rubber

conference organized by International Rubber Research and Development Board IRRDB 2012 held at Thiruvananthapuram on 28th- 31st November 2012.

27. **Identification and Molecular Characterization of Multiple forms of β -1,3-Glucanase Gene Promoter from *Hevea brasiliensis* through Inverse PCR.** Supriya R., Saleena A. and Thulaseedharan A. International rubber conference organized by International Rubber Research and Development Board IRRDB 2012 held at Thiruvananthapuram on 28th- 31st November 2012.
28. **Isolation and Molecular Characterization of a novel form of β -1,3-glucanase gene from *Hevea brasiliensis*.** R, Supriya., A. M, Suni., M, Vineetha and A, Thulaseedharan. International workshop seminar and exhibition on *Phytophthora* diseases of plantation crops and their management, Rubber Research Institute of India, Kottayam, Kerala, 2011 (poster presentation).
29. **Isolation and characterization of bacteriocinogenic strains of lactic acid bacteria,** R. Supriya, P. Halami and A. Chandrasekhar. International Food Convention, Central Food Technological Research Institute, Mysore, December, 2003 (poster presentation).

International conference proceeding (Overseas)

1. **“Molecular characterization of CDPK gene from *Hevea* clone RRIL 105 and identification of its potential role in abiotic stress tolerance”.** Suni Anie Mathew, Supriya R., Kala R.G. and Thulaseedharan A. XI Finnish Plant Science Days, May 25-26, 2016, University of Turku, Turku, Finland.

Invited talk

1. Developing disease tolerance in plants through Biotechnological approaches. UGC sponsored seminar at B.C.M College, Kottayam on June 2nd, 2011.

Seminars, workshops and other events organized:

1. National webinar on Advances in Industrial Biotechnology organized by Department of Biotechnology, University of Kerala during 03-04 February 2022.
2. Webinar on ‘Opportunities in Life Sciences with special reference to Biotechnology, Biopharmaceuticals and Entrepreneurship’ on 29th March 2021, by Department of Biotechnology in collaboration with Placement Cell & School of Life Sciences, University of Kerala.
3. Webinar on ‘Ecosystem Restoration’ on World Environment Day, 05th June 2021, by Department of Biotechnology and Centre for Biodiversity and Conservation, University of Kerala.
4. National Workshop on DNA Sequencing and Analysis, Focused on DNA Sequencing by Sangers/NGS methods and Data analysis, 2-7th December, 2019 at University of Kerala.

5. National Seminar on Epidemiology of Viral Diseases, 18th December, 2019 at University of Kerala, Thiruvananthapuram.
6. One day National workshop on Intellectual property rights on 26th March, 2019 at Dept. of Biotechnology, University of Kerala
7. One day National Seminar on 'Molecular Therapeutics from Bench to Bed- the Techniques in an Industrial Perspective' & Science Day Celebrations on 27th February 2018, at Dept. of Biotechnology, University of Kerala.
8. One Day National Seminar on 'Transcriptome – The Genome Read Out' organized by IUCGGT and Dept. of Biotechnology, University of Kerala on November 2018.
9. National Seminar and workshop on 'Techniques in Animal Cell Culture and Molecular Biology' on October 12- 16, 2015 at Dept. of Biotechnology, University of Kerala.
10. 'Nanoscience and Nanotechnology', a two day national seminar organized by Centre for Nanoscience and Nanotechnology and Department of Biotechnology, University of Kerala on March 19-20, 2015.
11. 'Integrative Biology and Microbiology', a national seminar organized by Department of Biotechnology and Centre for Evolutionary and Integrative Biology, University of Kerala, on 19th December 2014.

Other seminars and workshops attended:

1. International Webinar Series on 'Current Prospects in Biotechnology' on July-August 2020, organized by Department of Botany and Biotechnology, AJ College of Science and Technology, Thonnakkal, Thiruvananthapuram, Kerala.
2. Online webinar on 'Battle against Novel Corona Virus' jointly organized by Promega Biotech India Ltd and Biotechnika Infolabs Pvt Ltd, INDIA on 05th August 2020.
3. Webinar Series on 'Genomics of COVID- 19 - Hurdles in developing vaccines and drugs', organized by Inter University Centre for Genomics and Gene Technology, Department of Biotechnology, University of Kerala, during June - July 2020.
4. Webinar on Kerala Experience on COVID 19 organized by Kerala State Council for Science Technology and Environment on May 28, 2020.
5. National Seminar on Epidemiology of Viral Diseases, 18th December, 2019 at Dept. of Biotechnology, University of Kerala.
6. Two day Young Innovators Programme – Facilitator workshop on "Design for Kerala" conducted by ICT Academy of Kerala (ICTAK) in association with Kerala Development and Innovation Strategic council from 07-11-2019 to 08-11-2019 at Thiruvananthapuram.

7. One day national seminar on Viral genomics: Its implications in Viral diagnosis and disease control on 14th March 2019, at Dept. of Biotechnology, University of Kerala.
8. National panel discussion on food safety related issues and lifestyle diseases, a contemporary perspective. June 4th 2019 organized by Food Safety Department, Govt. of Kerala at Thiruvananthapuram.
9. DNA sequencing and data analysis – Workshop conducted by SICC, IUCGGT and Department of Biotechnology, University of Kerala from Jan 28th 2019-1st Feb, 2019 at SICC, University of Kerala.
10. One day seminar on ‘Nipah virus outbreak in Kerala- The Lessons Learned’ held at Dr. M.R. Das Convention Centre, RGCB, Thiruvananthapuram, on 31st July, 2018.
11. Five day workshop on ‘Flow Cytometry’ – Mar 12th- 16th, 2018, organized by IUCGGT, Department of Biotechnology, University of Kerala.
12. Symposium on "Development of Advanced Biologics for the Treatment of Human Diseases. 2018. Jointly organized by KSIDC and Scigenome on 02/02/2018 at Thiruvananthapuram, INDIA.
13. Lecture series on ‘Gene technology’ on Feb 19th -23rd, 2018, Organized by Inter University Centre for Genomics and Gene Technology (IUCGGT), Department of Biotechnology, University of Kerala.
14. One day National Seminar on ‘Molecular Therapeutics from Bench to Bed – the Techniques in an Industrial Perspective’ & Science Day Celebrations on 27th February, 2018, Tuesday at University of Kerala, Thiruvananthapuram.
15. Workshop on ‘Laboratory Animal Handling’, 25-27 September, 2018, organized by Dept. of Biochemistry, University of Kerala.
16. Frontiers in Biotechnology-Molecular Epigenetic and Genomic Research Platforms in Healthcare and Food Security”, at University of Kerala, Trivandrum, India, 2017.
17. One day national Seminar on ‘Transcriptome: The Genome Read Out’ organized by Inter University Centre for Genomics and Gene Technology (IUCGGT) and Department of Biotechnology, University of Kerala, Thiruvananthapuram on 29th November, 2017.
18. National Conference on Genomics and Society-Prospects, Challenges and Concerns, at University of Kerala, Trivandrum, India, 2016.
19. International Seminar on “Attracting Research Funding: Opportunities & Approaches”, Trivandrum, India, 2016.

20. 'Integrative Biology and Microbiology', a national seminar organized by Centre for Evolutionary and Integrative Biology, University of Kerala, on 19th December 2014.
21. 'Recent advances in plant science', a national seminar organized by Department of Botany, University of Kerala, on February 27, 2015.
22. 'Nanoscience and Nanotechnology', a national seminar organized by Centre for Nanoscience and Nanotechnology and Department of Biotechnology, University of Kerala on March 19-20, 2015.
23. 'New Perspectives in Proteomics', a national seminar seminar organized by Interuniversity Center for Geneomics and Gene Technology, University of Kerala, on March 27, 2015.
24. 'Transgenics and crop improvement', a national seminar organized by Interuniversity Center for Genomics and Gene Technology, University of Kerala, on July 24, 2014.
25. 'Rnai Technology & Biomarkers', a national seminar organized by Inter-university Center for Genomics and Gene Technology, University of Kerala, on Nov 10, 2014.

- **Gen Bank accessions: 26**

