



Divya V. Nair
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Academic Qualification: Ph.D

Positions Held:

January 2020 –till date –**Assistant professor**, Dept. of Plant Sciences, Central University of Himachal Pradesh, Dharamshala, Himachal Pradesh
September 2014- January 2020 – **Assistant Professor**, Dept. of Botany, NSS College for Women, Thiruvananthapuram, (Affiliated to the University of Kerala)
June 2016 - May 2017- **UGC-RAMAN Post Doctoral Fellow** – Department of Biological Sciences, Texas Tech University, Texas, USA
April 2014- September 2014 -**KSCSTE-Young Scientist** - Rajiv Gandhi Centre for Biotechnology, Thiruvananthapuram
August 2013- March 2014 – **Senior Research Fellow** –Rice Research Station, Vyttila, Ernakulam , Kerala
January 2013 –July 2013 – **Project fellow-** Kerala Agricultural University, Mannuthy, Thrissur, Kerala
March 2009 –February 2010- **Junior Research Fellow** – Rubber Research Institute of India, Kottayam, Kerala
June 2008 – February 2009 – **Guest Lecturer**, Dept. of Botany, Bishop Kuriyalassery College for Women, Amalagiri, Kottayam, Kerala

Research Interests:

1. Molecular Phylogenetics of flowering plants
2. Medicinal Plants diversity and conservation

Research Grants/Projects as PI

| Sl. No | Sponsored /Consultancy | Sponsoring Agency | Title of Project | Amount of Grant |
|--------|------------------------|--|--|-----------------|
| 1. | Sponsored | DST-SERB, New Delhi, 2022 | Molecular Authentication of <i>Rauvolfia</i> species from Southern Western Ghats of India using DNA barcoding | Rs. 30,83,520/- |
| 2. | Sponsored | University Grants Commission, New Delhi, 2022 | Molecular Authentication of Endemic Himalayan Medicinal Plant Species <i>Trillium govianum</i> (Wall.ex.D.Don) Kunth using DNA Barcoding | Rs. 10,00,000/- |

Awards/Scholarships/Fellowships

- **Post Doctoral Fellowship** 2020 - Perelman School of Medicine, University of Pennsylvania, USA (Not availed of)
- **Post Doctoral Fellowship - 2017** Institute of Plant Genetics, Polish Academic of Sciences, Poland (Not availed of)
- **Best Paper Award**, International Conference ,2018
- **UGC - RAMAN Post Doctoral Fellowship, 2016**
- **Best Researcher Award 2015** - Annamalai University, Tamil Nadu
- **Kerala State Council for Science, Technology and Environment (KSCSTE) Young Scientist Scheme 2013** Kerala State Council for Science Technology and Environment (KSCSTE),Thiruvananthapuram
- **Post Doctoral Fellowship 2013** Kerala State Council for Science Technology and Environment (KSCSTE),Thiruvananthapuram(Not availed of)
- **Prof. Kadambaran Namboothiri Memorial Prize 1998** for Best out going student

Selected Publications

<https://scholar.google.com/citations?user=zMpeBUAAAAAJ&hl=en>
<https://orcid.org/0000-0003-1269-2836>
<https://www.researchgate.net/profile/Divya-Nair-17>

- Divya, V. N., Panneerselvam, R., Gopi, R., Hong-bo, S. 2013. Elicitation of pharmacologically active phenolic compounds from *Rauvolfia serpentina* Benth.Ex.Kurtz. *Industrial Crops and Products*. 45: 406 - 415.
- Divya, V. N., Dinesh Raj, R., Panneerselvam, R., Gopi, R. 2014. Assessment of diversity among population of *Rauvolfia serpentina* Benth. Ex. Kurtz. from Southern Western Ghats of India, based on chemical profiling, horticultural traits and RAPD analysis. *Fitoterapia*. 92: 46-60.
- Divya, V. N., Panneerselvam, R., Gopi, R. 2013. Flavonoid as chemotaxonomic markers in endemic /endangered species of *Rauvolfia* from Southern Western Ghats of India- A preliminary study. *Plant Biosystems*.143:704-712

Divya, V. N., Gopi, R., Mohan Kumar, M., Kavina, J., Panneerselvam R.2012.Effect of triadimefon: a triazole fungicide on oxidative stress defense system and eugenol content in *Ocimum tenuiflorum* L. *Acta Physiologiae Plantarum*. 34:599-605

Divya, V. N., Panneerselvam, R., Gopi, R. 2012. Studies on methanolic extract of *Rauvolfia* species from Southern Western Ghats of India- In vitro antioxidant properties, characterization of nutrients and phytochemicals. *Industrial Crops and Products*.39:17-25

Book

Vadakkemuriyil Divya Nair, Pathania Reeya. 2021. *Molecular Markers: Advancements and Applications in Plant Science Research*. ISBN : 978-93-91342-17-3.

Book Chapters

1. Kajal Choudhari, Diksha Naryal, Dikha, Reeta Devi, Divya Nair.2022. Recent Advancements in *omics* technologies and its applications in Biological Sciences. ISBN;978-93-91342-17-3.
2. Maneesha Katoch, Linda Anurag, Reeya Pathaniya, Divya Nair.2022. Medicinal Plant Resources of Anni Tehsil in Kullu District of North Western Himalayas. ISBN; 978-93-91342-17-3.

Popular article

An article entitled “ചുവർ ചിത്രങ്ങളിലെ സസ്യ ശാസ്ത്രം” in the leading Malayalam daily, Malayala Manorama on 8th July 2022.

Paper Presentations in Conferences/ Seminars (National)

1. Two day national seminar on “Plant and Fungi-Polyphasic Characterization and Bioprospection” organized by the Department of Botany, University of Jammu, from 24-25 March 2022. Presented a paper entitled “DNA barcoding for the discrimination of cryptic species of *Rauvolfia* L. from Southern Western Ghats of India”.
2. National seminar on “Bio prospecting of Biodiversity for Agriculture and Medicine: Current Status and Future Prospective” BBAM-19 organized by the Department of Botany, Bharathiar University, Coimbatore, from 3- 4 October 2019. Presented a paper titled Molecular Authentication of the Ethnomedicinal plant *Rauvolfia serpentina* Benth. Ex. Kurtz. and its Adulterant using DNA Barcoding Technique.
3. National Seminar on “Climate Resilient Agriculture for Abiotic Stress” organized by the Department of Genetics and Plant Breeding, Faculty of Agriculture, Annamalai University, Annamalai Nagar, Tamil Nadu from 12 – 13 March 2019. Presented a Paper titled “Seed priming using SA and its derivatives improve tolerance to salinity in *Vigna unguiculata* (L) Walp.”
4. National seminar on “Patents, Plant Breeding, Biotechnology and Conservation” conducted at Kozhikode, Kerala organized by Malabar Botanical Garden and Institute for Plant Sciences from 3- 5 December 2015. Presented a paper titled “Authentication of endemic/endangered species of *Rauvolfia* from Southern Western Ghats of India.”
5. National seminar on “Recent Trends in Synthetic Methods and Chemistry of Natural Products” organized by the Department of Chemistry, Annamalai University, Tamil Nadu on 14 - 15 October 2011. Presented a paper titled “Antioxidant flavonoids from *Rauvolfia tetraphylla* L. (Apocyanaceae).
6. National conference on “Future Perspective of Botanical Research” organized by the Department of Botany, Annamalai University, from 18 -19 February 2011. Presented a paper titled “Growth and Metabolic characteristics of *Ocimum tenuiflorum* L. under treatment with paclobutrazol a systemic fungicide.”
7. National Seminar cum Workshop on “Recent Trends in Plant Science Research” from 18 - 20 February, 2010, organized by the Department of Botany, Annamalai University.”

Presented a paper titled “Induction of drought stress tolerance by ketoconazole in *Ocimum sanctum* is mediated by enhanced antioxidant potentials and secondary metabolite accumulation.”

8. Zonal conference on Recent Trends in Plant Physiology and Crop Improvement at Vellore Institute of Technology organized by the Indian Society for Plant Physiology on 2 October 2010. Presented a paper titled “Influence of growth regulators on antioxidant potential and eugenol content in *Ocimum tenuiflorum* L.”
9. Indian Science Congress organized by Indian Science Congress Association, Calcutta from 3 -7 January, 2007. Presented a paper (poster) titled “Soil applied propiconazole alleviates the impact of salinity on *Dacus carota* L. by improving antioxidant status”.
10. National Seminar on “Recent Advances in Medicinal Plant Research”, organized by the Department of Botany, Annamalai University from 3 - 4 March 2007. Presented a paper (poster) titled “Alteration in osmoregulation, antioxidant enzymes and eugenol level in *Ocimum tenuiflorum* L. exposed to water deficit.”

Paper Presentations in Conferences/ Seminars- international (in India)

1. Young Investigators Meet 2023, organized by the India Bioscience and EMBO at IIT , Gnadhi Nagar, Ahmedabad from 13 -17 February 2023. Presented a paper “Application of DNA barcoding, NGC& “Omics” technologies for diversity assessment, authentication, molecular phylogeny and cryptic species taxonomy studies of flowering plants.
2. International conference on “Physiological and Molecular mechanisms for abiotic stress tolerance in plants” organized by the department of Botany, University of Calicut and the Indian Society for Plant Physiology (South Zone) at the University of Calicut, Thenhijipalam, Malappuram from 26 -28 Oct.2022. Presented a paper entitled “Seed Priming as a Promising Technique to Improve Salinity Stress Tolerance in Selected Vegetable Crops”.
3. International conference on Phytomedicine (ICPM) organized by the Department of Botany, Bharathiyar University, Coimbatore from 29 to 31 August 2018. Presented paper (poster) titled “MiRNA based regulation of Phenyl Propanoid Pathway mechanism and its role in Molecular Phylogeny in Monocotyledons.”
4. International conference on “Recent Scenario in Plant Science Research-Climate Change and its Associated Variations (ICRSPSR -2018) conducted by the Department of Botany, Annamalai University, Annamalai Nagar from 23 - 25 March 2018 . Presented paper titled “miRNA expression data as source of molecular phylogeny elucidation in higher plants.”
5. International conference on “Medicinal Plants and Herbal Drugs for Human Welfare (ICMP-2015)” organized by the Centre for Advanced Studies in Botany, University of Madras from 28 -30 January 2015. Presented a paper (poster) titled “Ethnobotanical investigations of endemic/endangered species of *Rauvolfia* L. from Southern Western Ghats of India.”
6. International conference on Advances in Biological Sciences conducted organized by the Department of Biotechnology and Microbiology and Inter University Center for Biosciences, Kannur University from 15th -17th March 2012. Presented a paper (Poster) titled “Studies on *Rauvolfia* species from Southern Western Ghats of India as source of natural antioxidants”.

Paper Presentations in Conferences/ Seminars -international (Abroad)

Phenome 2017 conducted at Tuscon, Arizona, USA organized by National Plant Science Council and the North America Plant Phenotyping Network on 10th -15th February 2017. Presented a paper (poster) titled “Studies on microRNA in selected species of Zingiberales, Liliales and Arecales: Monocot orders that develop fleshy fruits.”

Conferences/Seminars/Workshops attended

1. National Level Workshop on “CRISPR/Cas System for Genome Engineering” organized by Amity University, Uttar Pradesh, India from 3 - 5 July 2019.
2. National Seminar- Biological Engineering Society of India, Annual Meeting and Conference 2018, conducted at IIT Bombay from 26 - 27 October 2018.
3. National Seminar - Insights into the interdisciplinary perspectives of Chemical and Biosciences, organized by the Department of Chemistry, Botany and Biotechnology, Govt. Arts College, Thiruvananthapuram, Kerala ,February 2018.
4. “Prof. K. S. Sonachalam memorial XX interdisciplinary Research Methodology Workshop” organized by the Department of Botany, Annamalai University from 27 Feb - 2 March 2010

Training /Courses Attended

1. **Short Term Course on “ICT-enabled learning”** organized by the **UGC-HRDC , Kauman University**, Nainital, from 20 -27 June 2022.
2. **Refresher course on Biotechnology** organized by the **UGC-HRDC, University of Calicut** from 16 to 29 September 2021.
3. **U.G.C. Sponsored Refresher course on Biosciences (Botany)** organized by the Human Resource Development Centre, **Sardar Patel University, Vallabh Nagar, Gujarat** from 28 January– 17 February 2019.
4. **U.G.C Sponsored orientation course** organized by Human Resource Development Centre, **Jawaharlal Nehru University**, New Delhi, India from 9 October – 3 November 2017.
5. **U.G.C Sponsored National Level Workshop on “Earn While You Learn” workshop on Mushroom Cultivation**, organized by the Department of Botany, HHMSPBNS College for Women, Trivandrum, from 2 – 3 March 2015.
6. Workshop on ‘**Techniques in Molecular Biology**’ conducted by Life Tech Research Centre, Chennai from 10 –20 May 2010.

Conference Papers/Abstracts publications: 9

Research guidance:

Ph.D – 4 ongoing

M.Sc.

Completed – 24 students

Ongoing – 13 students

UG.

Completed- 34 students

Conferences/Seminars/Workshops Organized

University level - international webinar -2; national webinar-1; invited talk-1.

Peer Recognition

Reviewer of many leading international reputed journals-

Genetic Resources and Crop Evolution

Plant Science Today, Fitoterapia, BMC Research Notes

Pesticide Biochemistry and Physiology,

Editorial Board Member

Trends in Horticulture, (International journal) (eISSN 2578-1812)

Invited Talks

1. Delivered a talk on “Environmental Sustainability” as chief guest and resource person at the inauguration of Eco-club at Vigyaan College of Applied Sciences, Kattakkada, Thiruvananthapuram, on 12 January 2023.
2. Participated as resource person and delivered a lecture on “Authentication of Medicinal Plants: Techniques and Advancements” in the webinar organized by the Department of Botany, Nirmala College, Coimbatore, Tamil Nadu on 5 March 2022.
3. In the webinar organized by St.George College, Aruvithura, Kerala, participated as resource person and delivered a lecture on “Crafting Your Career ? Science is right choice?” on 11 Septemeber 2021.
4. Delivered Inaugural address for Bhoomitra sena club at Bishop Kurialasserry College for Women, Amalagiri, Kottayam on 8 June 2021. The talk was on “Wet Lands Nature’s Kidney”.
5. Delivered an invited talk on “Can Life Sciences Career be Life-Changing?” organised by the department of Botany, St.George College Kanjirappalli, Kerala on 18 January 2021.
6. At St.Xavier’s College, Aluva delivered a talk on “Is Life Science a Good Career Choice”.at a webinar on 18 August 2020
7. Delivered a lecture on “Authentication of Medicinal Plants: Techniques and Advancements” in a webinar organized by the department of Botany, Assumption College, Changanasserry, Kerala on 14 August 2020.
8. On 25 May 2020, delivered a lecture on “Career in Science” at a webinar organized by the Department of Botany, Nirmala College, Muvattupuzha, Kerala.
9. At a two day seminar “Sasthrathe ariyan, Saasthra Rangam, Saasthra Jaalakam” organized by the Higher Education Department of Kerala and the State Institute of Education Technology at St.Berchman’s college, Changanasserry on 30th November 2018, delivered a talk on “Opportunities of Science in India and Abroad”.
10. At SVRNSS College, Vazhoor, Kerala on 4 February 2016 attended a two day national seminar as session chair and delivered a lecture “Rauvolfia species from Southern Western Ghats of India, Diversity Assessment and Conservation Implications”.

Membership of Learned Societies/Professional Bodies:

1. Executive member - Himalayan Life Science Society, Central University of Himachal Pradesh, Dharamshala
2. Life Member - Society for Plant Biochemistry and Biotechnology, New Delhi
3. Life Member - Society for Biotechnologists India, CUSAT, Kochi, India

Teaching Interests:

Advances in Molecular Biology; Modern Trends in Plant Systematics; Fundamentals of Bioinformatics; “Omics” Approaches –Technologies and Applications.

Curricular Development:

1. Board of Studies member - Department. of Plant Sciences, Central University of Himachal Pradesh, Dharamshala
2. School Board Member – School of Life Sciences, Central University of Himachal Pradesh, Dharamshala