Dr. Smitha Bhasi
Assistant Professor
Department of Molecular Biology and Biotechnology
CoA, Vellayani

Address:
Viswanikethanam, Murunthal, Perinad. P.O., Kollam, 691601
Phone:
+91 9446317614
Email:
smitha.bhasi@kau.in

Summary
My research interest is on early flowering trait and adoption of physiological/biotechnological interventions for inducing early flowering in commercially important crops. My Ph.D thesis was on 'Isolation, evaluation and characterisation of *PIN1* and *BP* genes in relation to inflorescence architecture in black pepper, *Piper Nigrum* L and bagged the best research scholar award during the Indian Plant Science Congress 2019. Also interested on studies for inducing tolerence towards viral infections in major vegetable crops of Kerala using in-vitro chemotherapy.

Research Highlights
- Reported flowering of saffron (Crocus sativus) under controlled conditions for the first time from Kerala/South India on December 2022
- Standardised *in-vitro* chemotherapy in bittergourd for inducing tolerance towards yellow mosaic virus

Experience
- Joined Kerala Agricultural University as Assistant Professor (Biotechnology) in the year 2021
- Worked as Sr. Field Officer at Spices Board, Ministry of Commerce & Industry, Govt of India (2009-2021)

Education
- Graduated in Agricultural Science from Kerala Agricultural University (2004)
- Post Graduation in Agricultural Biotechnology from Kerala Agricultural University (2008)
- Ph.D in Agricultural Biotechnology from Kerala Agricultural University (2019)

Area of Specialization
Plant Molecular Biology, Plant Tissue Culture

Awards & Recognitions
Best Research Scholar Award, Indian Plant Science Congress 2019

Research Projects
Ongoing
- Development of technology for protected cultivation of saffron in Kerala- RKVY-2023 (Rs 33.00 Lakhs)
- Network project on 'Standardisation of *in-vitro* protocol for the production of elite plantlets and variants of high value indoor ornamentals- Annual State Plan 23-24, Govt of Kerala (15.00 Lakhs)

Publications
Journal Articles
1. Smitha Bhasi, Swapna Alex, Soni. K.B. and Roy Stephen. (2017). Potential of auxin in inducing spike branching trait in black pepper **.** *Int.J.Curr.Microbiol.App.Sci*. 6(8): 372-378
2. Smitha Bhasi, Swapna Alex, Soni. K.B. and Roy Stephen. (2010). Morphological and genetic variability among black pepper *Piper nigrum L.* variety Panniyur-1 clones. *Int.J.Tropical Agriculture. 28(11):137-141*

Abstracts/Conference papers

1. Vijeth S.S. and Smitha Bhasi. Molecular detection and identification of begomovirus infecting chilli pepper in Vellayani region of Kerala. 9th Indian Horticultural Congress.18-21 November 2021
2. Smitha Bhasi, Swapna Alex, Soni. K.B. and Roy Stephen. 2017. Auxin mediated PIN1 gene regulation-Possible role in inflorescence branching of black pepper. Conference: European Molecular Biology Association Conference on 'Micro and Metabolic Regulators in Plants': Feb 1-4, 2017
3. Arpitha Y R, Smitha Bhasi, Jadhav Pritam Ramesh, Swapna Alex, Soni. K.B. and Rajmohan K. Effect of green leaves used in traditional food preparations on DNA repair: International conference on Neutraceuticals and functional foods-The challenges and Opportunities: December 6-8, 2016
4. Smitha Bhasi, Swapna Alex, Soni. K.B. and Roy Stephen.2019. Role of hormones and inflorescence architectural genes in inducing spike branching trait in black pepper (*Piper nigrum* L.). The Indian Plant Science Congress 2019. January 23-25, 2019

Popular Articles

1. Smitha Bhasi and Viji. M.M. (2017) Genes deciding virus spread in plants. *Trends in Biosciences*. 10(10): 1873-1876.
2. Smitha Bhasi (2017) Protein zip coding towards pharmaceuticals. *Trends in Biosciences*, 10 (19): 3698-3699.
3. Nisha. S.K., Smitha Bhasi and Vijeth S.S. (2017) Vegetables as nutraceuticals. *Trends in Biosciences*. 10(3): 997-1002
4. Smitha Bhasi (2017) Centromere Engineering for haploid production. *Trends in Biosciences*. 10 (28): 5924-5925.
5. Smitha Bhasi (2011) The massacre for nutmeg: A dwell into the history. *Spice India*. 8:18-19
6. Pramod A. Pimpale, Swapna Alex, Soni K. B., Sindura K.P. and Smitha Bhasi (2023) Artificial Intelligence in Agriculture. *Bio. Res. Today*. 5(3):255-257

Student Guidance (**Major Advisor/ Advisory Committee member**)

M. Sc.

- Within KAU: Completed: 3, Ongoing: 2
- Outside KAU: Completed : 1

Ph. D.

- Ongoing : 5 (Advisory committee member)

Other Institutional Responsibilities

1. Acting as Academic Officer of B.Sc- M. Sc. (Integrated) Biotechnology course
2. Currently acting as student Advisor/faculty mentor to 10 Undergraduate students.