


FacultyProfile

PersonalDetails

Name	Dr. Rahul Lahu Chavhan	
Designation	Assistant Professor, Plant Biotechnology	
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AcademicQualifications

Degree	Specialization	University	Yearof Passing
UG	Agriculture	VNMKV, Parbhani (MS)	2002
PG	Agricultural Biotechnology	VNMKV, Parbhani (MS)	2004
PhD	Biotechnology	SRTMU, Nanded (MS)	2011

Professional Experience

Stream	Years	Stream	Years
Teaching	16	Research	18
Extension	16	Administration	-

Area of Research/Interest

1. Molecular diagnostic 2. Plant genetic transformation 3. Host-pathogen interaction

Research Guidance

Degree	No. of Student Guided
M.Sc./M.Tech	24 As chairman; 70 As Member
Ph.D.	12 As Member

ResearchAccomplishments (Recent Ten Most Important Publications)

Sr. No	Title	Journal	ISSN/ISBN	NAAS Rating
01	GA3 and BAP phytohormone seed priming enhances germination and PEG induced drought stress tolerance in soybean by triggering the expression of osmolytes, antioxidant enzymes and related genes at the early seedling growth stages (2024)	Environmental and Experimental Botany	0098-8472	11.70
02	Molecular elucidation of sigatoka disease resistance in diverse banana (<i>Musa</i> spp.) genotypes using molecular markers and genetic diversity analysis (2024).	Scientia Horticulturae	0304-4238	10.30

04	Multiplex molecular marker-assisted analysis of significant pathogens of cotton (<i>Gossypium</i> sp.) (2023).	Biocatalysis and Agricultural Biotechnology	1878-8181	10.00
05	Assessment of genetic diversity and volatile content of commercially grown banana (<i>Musa</i> spp.) cultivars (2022)	Scientific Reports	2045-2322	10.60
06	Evolution of biotypes within race 18 population of <i>Xanthomonas citri</i> subsp. <i>malvacearum</i> and their predominance in Indian cotton belts (2021).	Physiological and Molecular Plant Pathology	0885-5765	8.70
07	Engineering Resistance against Viruses in Field Crops Using CRISPRCas9 (2021).	Current Genomics	1389-2029	8.60
08	RNAi-mediated down regulation of <i>BADH2</i> gene for expression of 2-acetyl-1-pyrroline in non-scented <i>indica</i> rice IR-64 (<i>Oryza sativa</i> L.) (2020).	Biotech-3	2190-572X	8.80
09	Concerns regarding ‘off-target’ activity of genome editing endonucleases (2018).	Plant Physiology and Biochemistry	0981-9428	12.50
10	Real-time PCR assay for rapid, efficient and accurate detection of <i>Paramyothecium roridum</i> a leaf spot pathogen of <i>Gossypium</i> Species (2018).	J. Plant Biochem. Biotechnol	0971-7811	7.90

Credentials:

Particulars	Numbers	Particulars	Numbers
ResearchArticles	48	PopularArticles	15
Books / Booklets	02	Book Chapters	07
Research/Technology Recommendations	05	Varieties Developed	-
Patents	03	Abstracts Published	50
Technical Publication	20	Awards	34

Significant Achievements (Top Five)

Patent/IP/Technologies/ Varieties/Machineries Developed / Methodologies/ Recommendations	Year
1. Developed ‘XCM-detection kit’ PCR detection of <i>Xanthomonas campestris</i> pv. <i>malvacearum</i> , angular leaf spot pathogen of cotton (Patent No 276751)	2012
2. Developed Fluorescence-based ‘VNMKV XAP-DETECT’ Kit for rapid, reliable, precise, cost effective and easy detection of Oily Spot pathogen (<i>Xanthomonas a. pv. punicae</i>) in Pomegranate (Recommendation)	2016
3. Developed RNAi–silencing 02 gene constructs (RLC-SNV_RNAi-CP (10.8 kb) & RLC-SNV_RNAi-CP-RP(10.920 kb)) downregulating Sunflower Necrosis Virus (SNV) (BT/PR3900/GBD/27/386/2012-16)	2016
4. Developed ‘Molecular Detection Kit’ for <i>Alternaria</i> blight disease detection in Sunflower (Patent No 417750001)	2024
5. Developed ‘ARRAY-Based Banana Bunchy Top Virus detection Kit’ in banana (Patent No 409345001)	2024

Externally Funded Projects: Implemented/Handled/Assisted

Sr No	Title of project	Funding agency	Duration	Project handled as
1.	Development of RNAi mediated resistance in sunflower against sunflower necrosis virus (SNV)	DBT	2012-2015	Project Investigator (PI)
2.	Plant Tissue Culture Programme for Women and Rural Development	DBT	2012-2015	Project Investigator (PI)
3.	M.Sc. Agricultural Biotechnology Teaching Programme (14 th Plan)	DBT	2016-20	Coordinator
4.	DNA fingerprinting of Agriculturally important crop plants	Maharashtra Government	2018-24	Coordinator
5.	Application of Nanotechnology to Elucidate the Molecular Mechanism of Plant Host-Virus Interaction in Pigeonpea Sterility Mosaic Disease	DST-SERB	2016-18	Mentor/PI
6.	Establishment of Bioinformatics infrastructure facility for biology teaching through Bioinformatics (BIF-BTBI) under the BTISnet	DBT	2012- 2020	Co-coordinator
7.	M.Sc. Agricultural Biotechnology Teaching Programme (15 th Plan)	DBT	2021-25	Co-Coordinator
8.	Establishment of Model Genome Club (MGC) for Sustainable Agricultural Development	RKVY	2022-2025	Project Investigator (PI)
9.	Establishment of Modern Biotechnology Laboratory for Sustainable Agricultural Development	Maharashtra Government	2022-2025	Project Investigator (PI)
10.	Establishment of Bt-Referral laboratory for solving problems of transgenic cotton cultivators	Maharashtra Government	2022-2025	Co-Project Investigator (Co-PI)
11.	Deciphering agricultural soil microbes for sustainable management of lingo cellulosic wastes and bioremediation of chlorpyrifos (DT50) contaminated sites	ICAR-NASF	2024-27	Co-Project Investigator (Co-PI)

Awards/Recognitions (Top Five)

1. Best Poster Presentation Award 2023 by 12 th National Seed Congress-2023 on "Innovations and Challenges in Quality Seed Availability under Changing Climate" Organized by VNMKV, Parbhani and Indian Society of Seed Technology, New Delhi during December 11-13, 2023.
2. Springer Nature -IVS Best Research Paper Award 2023 with 200 Euro Gift Voucher by Journal of Virus Disease, Springer Nature & VIROCON 2023.
3. Best Oral Paper Presentation Award 2021 in IPS-National conference held on "Plant Health and Food Security: Challenges and Opportunities" by ICAR-IARI, New Delhi, March 25-27, 2021
4. DBT Incentive Award for Publications -2018 by Department of Biotechnology (DBT), Govt. of India New Delhi.
5. Prof. M.J. Narasimhan Academic Award of West Zone-2007 by Indian Phytopathological Society, New Delhi.