

## CURRICULUM VITAE

**Vinay Kumar** Ph.D. (Biotechnology)

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Department of Biotechnology,  
P.E.S.'s Modern College,  
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### Professional Recognition, Awards and Highlights

- SERB-DST (Government of India) Young Scientist, 2012
- Best Teacher Award, Savitribai Phule Pune University, Pune (2022)
- Indian National Science Academy (INSA) Visiting Scientist Award, 2022
- Best Teacher Award, Progressive Education Society, Pune (2015)
- Member, DBT (Govt. Of India) Expert Committee for Evaluating Star College proposals (2018-21)
- Member, Expert Panel for Evaluating Grant Proposals, National Science Centre, Govt. of Poland
- Member, Reviewer/Expert Panel for Grant Proposals (REPRISE), Government of Italy, Italy
- Coordinator, DBT Star College, DBT-BUILDER, DST-FIST Programs, Modern College, Ganeshkhind, Pune
- Member, Board of Studies, B. Voc., Savitribai Phule Pune University, Pune
- Member, Academic Council, Modern College, Ganeshkhind, Pune
- Member, Internal Quality Assurance Cell, Modern College, Ganeshkhind, Pune
- Member, Board of Studies, Medical Biotechnology, MGM Institute of Health Sciences, Mumbai
- Member, Board of Studies, Bioanalytical Sciences, Ruia College, Mumbai
- Member, Board of Studies, Life Sciences, Sandip University, Nashik
- Member, Board of Studies, Biotechnology, Modern College, Ganeshkhind, Pune
- Member, Board of Studies, Zoology, Modern College, Ganeshkhind, Pune

### Current Position and Job Profile

- Faculty at the Department of Biotechnology, P.E.S.'s Modern College, Ganeshkhind, Pune- 411 016 since 2008 and teaching subjects including Phytochemistry, Natural Products, Metabolic Engineering, Nanotechnology, Environmental Biotechnology, and Plant Biotechnology at Under- and Post- graduate levels.
- Three PhDs awarded under my guidance, guided 58 MSc (Biotech), 4 MSc (Env. Sci.), 2 MSc (Botany), 2 (BTech Agricultural Biotechnology) and 32 BSc (Biotech) students for their research projects

### Research Interests

Plant-Environment Interactions, Environmental Stress Biology; Crop Biotechnology; Environmental Biotechnology; Antimicrobial Resistance; Nanotechnology; Nano-toxicity; Natural Products

### Educational Qualifications

- **Ph.D. (Biotechnology)**  
**Title of the Thesis** : Genetic transformation using P5CS gene for salt stress tolerance in local (Maharashtra) cultivar of rice (*Oryza sativa* L.)  
**Year of Passing** : 2009  
**University/Institute** : University of Pune and Bhabha Atomic Research Centre, Mumbai, India

## Membership of Professional Bodies

- Life Member, the Biotech Research Society, India (BRSI), Trivandrum, India
- Member, Asian Federation of Biotechnology, Incheon, South Korea
- Member, Asian Council of Science Editors, UAE
- Senior Member, Chemical, Biological & Environmental Engineering Society (CBEES), Hong Kong

## Work Experience

S. No.	Institution/Place	Position	From (Date)	To (Date)
1.	Department of Biotechnology, Modern College, Ganeshkhind, Pune	Associate Professor	01/10/2018	Till date
2.	Department of Biotechnology, Modern College, Ganeshkhind, Pune	Assistant Professor	01/12/2008	30/09/2018
3.	Department of Botany, University of Pune, Pune	Senior Research Fellow (DAE-BRNS)	21/05/2007	30/11/2008
4.	Department of Botany, University of Pune, Pune	Junior Research Fellow (DAE-BRNS)	12/05/2005	20/05/2007
5.	Department of Botany, University of Pune, Pune	Project Assistant (DBT)	19/06/2003	30/11/2003

## Research Projects

S. No.	Project Title	Funding Agency	Amount sanctioned (INR)	Duration of the Project	Role (PI/Co-I)
1.	Investigating the individual roles of Na <sup>+</sup> and Cl <sup>-</sup> in exerting the oxidative stress in rice and in activation of antioxidant machinery in-response-to it [OSD/BCUD/230/110]	University of Pune, Pune	2.00 Lakhs	2012-14 (Completed)	PI
2.	Exploration of <i>Helicteres isora</i> L. as a source of diosgenin and enhancement of diosgenin production using plant tissue culture and genetic engineering approaches [F. No. 41-521/2012 (SR)]	UGC, Govt. of India	6.25 Lakhs	2012-15 (Completed)	PI
3.	Investigating the individual roles and relative importance of Na <sup>+</sup> and Cl <sup>-</sup> in NaCl-induced salt stress, and in the activation of antioxidant machinery in-response [SR/FT/LS-93/2011]	SERB Govt. of India	18.37 Lakhs	2012-15 (Completed)	PI
4.	Reviving Indian Rivers: Is nano-remediation the answer?	Australia-India Council	Aus \$ 45,000	2016-17 (Completed)	Co-I
5.	Elicitation of diosgenin production in <i>Helicteres isora</i> suspension cultures [OSD/BCUD/392/132]	University of Pune, Pune	2.40 Lakhs	2016-18 (Completed)	PI
6.	Identification of novel and conserved sodium-responsive miRNAs and their target genes modulating salinity stress during reproductive phase in rice cultivars [EMR/2016/003896]	SERB Govt. of India	26.51 Lakhs	2017-20 (Completed)	PI
7.	Identification and functional characterization of salt responsive conserved and novel miRNAs in soybean [37(1)/14/30/2018-BRNS]	DAE-BRNS Govt. of India	34.63 Lakhs	2018-2021 (Completed)	PI
8.	DBT-BUILDER “Thematic Research Project” [BT/INF/22/SP45363/2022]	DBT, Govt. of India	2.36 Crores	2022-27 (Ongoing)	PI

**Projects As Coordinator**

1.	DBT STAR College Scheme	DBT, Govt. of India	1.18 Crores	2012-15	Coordinator
2.	'STAR STATUS' from DBT [DBT/HRD/11/030/2012]	DBT, Govt. of India	3.07 Crores	2017-20	Coordinator
3.	DST-FIST Project [SR/FST/College-75/2011]	DST, Govt. of India	79 Lakhs	2013-18	Coordinator
4.	DST-FIST Project '2 <sup>nd</sup> Cycle' [SR/FST/College/2019/568]	DST, Govt. of India	75 Lakhs	2020-25	Coordinator

**Research supervision/ guidance****PhDs Completed (Degree Awarded):****3 as guide; 1 as co-guide**

S. No.	Name of the student	Title	Subject	University	Role	Year of award
1.	Ms. Samrin Shaikh	Optimization of <i>in vitro</i> production of diosgenin, a steroidal sapogenin, employing plant cell and hairy root cultures of <i>Helicteres isora</i> L.	Biotechnology	Savitribai Phule Pune University	Guide	2019
2.	Mr. Vikas Nanekar	In-vitro propagation, antioxidant activities and elicitation of secondary metabolites of <i>Eulophia nuda</i> Lindl.	Botany	Savitribai Phule Pune University	Co-Guide	2019
3.	Mr. Braj Mohan	Molecular Epidemiology of Antibiotic Resistance in Clinical Isolates of <i>Vibrio</i> Spp. from India	Biotechnology	Savitribai Phule Pune University	Guide	2021
4.	Mr Tushar Khare	Studies on rice responses and adaptive strategies to sodium toxicity	Environmental Science	Savitribai Phule Pune University	Guide	2021

**PhDs Ongoing:**

S. No.	Name of the student	Title	Subject	University	Role
1.	Shrushti Joshi	Identification and functional analysis of salt-responsive miRNAs in <i>Glycine max</i> L.	Biotechnology	Savitribai Phule Pune University	Guide
2.	Suraj Patil	Epigenomic regulations of rice responses to combined heat and salinity stress	Biotechnology	Savitribai Phule Pune University	Guide
3.	Pramod Dinkar Barathe	Investigating antibiotic-resistance in <i>Enterobacteriaceae</i> members of environmental origin and identifying potent phyto-antimicrobials against them	Biotechnology	Savitribai Phule Pune University	Guide
4.	Kawaljeet Kaur	Studies on antibiotic-resistance in <i>Klebsiella pneumoniae</i> and Nano-strategies for combating it	Biotechnology	Savitribai Phule Pune University	Guide
5.	Alisha Shaikh	Exploring nanomaterials for drought stress alleviation and enhancing crop productivity in mung bean	Biotechnology	Savitribai Phule Pune University	Guide
6.	Mrunal Pardeshi	Evaluation of <i>Acinetobacter</i> as a food borne pathogen	Biotechnology	Savitribai Phule Pune University	Co-Guide
7.	Dhananjaya Randhye	<i>In vitro</i> production and elicitation of Acetoxychavicol acetate from <i>Alpinia galanga</i> (L) Willd. and its bioactivity studies against drug-resistant microbes	Botany	Savitribai Phule Pune University	Co-Guide
8.	Sagar Reddy	Exploring plant essential oils as potent resistance reversal agents against drug resistant <i>Pseudomonas aeruginosa</i> isolates from rivers in Pune city	Botany	Savitribai Phule Pune University	Co-Guide

## Patents

1. **Kumar V**, Khare T, Kharat S. 2022. "A Formulation for Alleviating Rice Salinity Stress, Its Preparation and Application Thereof". Filed Indian Patent [TEMP/E-1/11719/2022-MUM]

## Publications: Journal Articles

No. of Articles:	71
Books Edited:	06 (4 Springer-Nature, 1 Wiley, 1 Elsevier)
Book Chapters:	27 (Taylor and Francis, Springer, Elsevier)
Cumulative Impact Factor:	278 [©JCR, 2022]

<b>Total citations</b>	3684
<b>h-index</b>	30
<b>i<sub>10</sub> index</b>	56
<a href="https://scholar.google.co.in/citations?user=QWhTh3YAAAAJ&amp;hl=en">https://scholar.google.co.in/citations?user=QWhTh3YAAAAJ&amp;hl=en</a>	

S. No.	Details	Impact Factor
	Joshi S, Sahoo SA, Khare T, Srivastava AK, Kumar*. 2022. \Genome-wide identification of BONZAI (BON) genes in <i>Glycine max</i> L and their regulated expression patterns under saline environment. Manuscript submitted to <i>Journal of Plant Growth Regulation</i>	
	Khare T, Kumar V*. 2022. Sodium Toxicity Responses in Indica Rice During Grain Filling. Manuscript submitted to <i>3 Biotech</i>	
	Joshi S, Patil S, Jamla M, Dey A, P. Suprasanna, Kumar V*. 2022. Systems Biology for Bioengineering Smart Crops. Manuscript submitted to <i>Bioengineered (under revision)</i>	
71	Kavi Kishor PB, Ganie SA, Wani SH, Guddimalli R, Karumanchi AR, Edupuganti S, Jalaja N, Kumar V, Polavarapu R, Suravajhala P, Suprasanna P. 2022. Nuclear Factor-Y (NF-Y): Developmental and Stress-Responsive Roles in the Plant Lineage. Accepted in <i>Journal of Plant Growth Regulation</i> .	4.64
70	Reddy S, Kaur K, Barathe P, Shriram V, Govarathanan M, <b>Kumar V*</b> . 2022. Antimicrobial resistance in urban river ecosystems. <i>Microbiological Research</i> 127135 <a href="https://doi.org/10.1016/j.micres.2022.127135">https://doi.org/10.1016/j.micres.2022.127135</a>	5.07
69	Jamla M, Joshi S, Patil S, Tripathi BN, <b>Kumar V*</b> . 2022. MicroRNAs modulating nutrient homeostasis: A sustainable approach for developing biofortified crops. <i>Protoplasma</i> <a href="https://doi.org/10.1007/s00709-022-01775-w">https://doi.org/10.1007/s00709-022-01775-w</a>	3.186
68	Yang X, Patil S, Joshi S, Jamla M, <b>Kumar V*</b> . 2022. Exploring Epitranscriptomics for Crop Improvement and Environmental Stress Tolerance. <i>Plant Physiology and Biochemistry</i> <a href="https://doi.org/10.1016/j.plaphy.2022.04.031">https://doi.org/10.1016/j.plaphy.2022.04.031</a>	5.437
67	Ghorai M, Kumar V, <b>Kumar V</b> , Shekhawat MS, Pandey DK, Batiha GE. Bursal G, Sharifi-Rad J, Dey A. 2022. Beneficial role of Selenium (Se) biofortification in developing resilience against heavy metal and metalloids stress in crops: Recent trends in genetic engineering and omics approaches. <i>Journal of Soil Science and Plant Nutrition</i> <a href="https://doi.org/10.1007/s42729-022-00814-y">https://doi.org/10.1007/s42729-022-00814-y</a>	3.61
66	Sharma A, Mistry V, <b>Kumar V</b> , Tiwari P. 2022. Production of Effective Phyto-Antimicrobials via Metabolic Engineering Strategies. <i>Current Topics in Medicinal Chemistry</i> <a href="https://doi.org/10.2174/1568026622666220310104645">https://doi.org/10.2174/1568026622666220310104645</a>	3.57
65	Anand U, Biswas P, <b>Kumar V</b> , Ray D, Ray P, Loake VIP, Kandimalla R, Chaudhary A, Singh B, Routhu NK, Chen Z-S, Prockow J, Dey A. 2022. <i>Podophyllum hexandrum</i> and its active	7.419

	constituents: Novel radioprotectants. <i>Biomedicine and Pharmacotherapy</i> 146:112555 <a href="https://doi.org/10.1016/j.biopha.2021.112555">https://doi.org/10.1016/j.biopha.2021.112555</a>	
64	Kaur K, Reddy S, Barathe P, Oak, U, Shriram V, Kharat SS, Govarthanan M., <b>Kumar V*</b> . 2022. Microplastic-Associated Antimicrobial Resistance in Environment. <i>Chemosphere</i> 291:133005 <a href="https://doi.org/10.1016/j.chemosphere.2021.133005">https://doi.org/10.1016/j.chemosphere.2021.133005</a>	8.943
63	Khare T, Dange D, Jadhav A, Shriram V, Gosavi S, <b>Kumar V*</b> . 2022. Nano-Boehmite induced oxidative and nitrosative stress responses in <i>Vigna radiata</i> L. <i>Journal of Plant Growth Regulation</i> 41: 327-343. <a href="https://doi.org/10.1007/s00344-021-10303-8">https://doi.org/10.1007/s00344-021-10303-8</a>	4.64
62	Polash SA, Khare T, <b>Kumar V*</b> , Shukla R. 2021. Prospects of exploring metal-organic framework for combating antimicrobial resistance. <i>ACS Applied Bio Materials</i> 4(12): 8060-8079. <a href="https://doi.org/10.1021/acsabm.1c00832">https://doi.org/10.1021/acsabm.1c00832</a>	-
61	<b>Kumar V</b> , Srivastava AK, Wani SH, Shriram V, Suprasanna P. 2021. Transcriptional and post-transcriptional mechanisms regulating salt tolerance in plants. <i>Physiologia Plantarum</i> 173:1291–1294. <a href="https://doi.org/10.1111/ppl.13592">https://doi.org/10.1111/ppl.13592</a>	5.081
60	Patil S, Joshi S, Jamla M, Zhou X, Taherzadeh MJ, Suprasanna P, <b>Kumar V*</b> . 2021. MicroRNA-mediated crop engineering for developing climate-resilient crops. <i>Bioengineered</i> 12: 10430-10456. <a href="https://doi.org/10.1080/21655979.2021.1997244">https://doi.org/10.1080/21655979.2021.1997244</a>	6.832
59	Kaur K, Reddy S, Barathe P, Shriram V, Anand U, Proćków J, <b>Kumar V*</b> . 2021. Combating Drug-Resistant Bacteria Using Photothermally Active Nanomaterials: A Perspective Review. <i>Frontiers in Microbiology</i> 12:659614. <a href="https://doi.org/10.3389/fmicb.2021.659614">https://doi.org/10.3389/fmicb.2021.659614</a>	6.064
58	Verma SK, Das AK, Gantait S, Panwar Y, <b>Kumar V</b> , Marian Brestic. 2021. Green synthesis of carbon-based nanomaterials and their applications in various sectors: A topical review. <i>Carbon Letters</i> <a href="https://doi.org/10.1007/s42823-021-00294-7">https://doi.org/10.1007/s42823-021-00294-7</a>	3.117
57	Tan P, Du X, Shang Y, Zhu K, Joshi S, Kaur K, Khare T, <b>Kumar V*</b> . 2021. Ion transporters and their exploration for conferring abiotic stress tolerance in plants. <i>Plant Growth Regulation</i> 96: 1-23. <a href="https://doi.org/10.1007/s10725-021-00762-0">https://doi.org/10.1007/s10725-021-00762-0</a>	3.242
56	Jamla M, Patil S, Joshi S, Khare T, <b>Kumar V*</b> . 2021. MicroRNAs and their exploration for developing heavy metal tolerant plants. <i>Journal of Plant Growth Regulation</i> <a href="https://doi.org/10.1007/s00344-021-10476-2">https://doi.org/10.1007/s00344-021-10476-2</a>	4.64
55	Malik S, Kaur K, Prasad S, Jha NK, <b>Kumar V*</b> . 2021. A perspective review on medicinal plant resources for their anti-mutagenic potentials. <i>Environmental Science and Pollution Research</i> <a href="https://doi.org/10.1007/s11356-021-16057-w">https://doi.org/10.1007/s11356-021-16057-w</a>	5.19
54	Sarkar S, Dey A, Ray P, <b>Kumar V</b> , Baty RS, Batiha GE. 2021. Fungal endophyte: An interactive endosymbiont with the capability of modulating host physiology in myriad ways. <i>Frontiers in Plant Science</i> 12:701800 <a href="https://doi.org/10.3389/fpls.2021.701800">https://doi.org/10.3389/fpls.2021.701800</a> .	6.627
53	Jamla M, Khare T, Joshi S, Patil S, Suprasanna P, <b>Kumar V*</b> . 2021. Omics Approaches for Understanding Heavy Metal Responses and Tolerance in Plants. <i>Current Plant Biology</i> 27:100213. <a href="https://doi.org/10.1016/j.cpb.2021.100213">https://doi.org/10.1016/j.cpb.2021.100213</a>	
52	Khare T, Anand U, Dey A, Assaraf YG, Chen Z-S, Liu Z, <b>Kumar V*</b> . 2021. Exploring phytochemicals for combating antibiotic resistance in microbial pathogens. <i>Frontiers in Pharmacology</i> 12:720726. <a href="https://doi.org/10.3389/fphar.2021.720726">https://doi.org/10.3389/fphar.2021.720726</a>	5.988
51	Khare T, Mahalunkar S, Shriram V, Gosavi S, <b>Kumar V*</b> . 2021. Embelin-loaded chitosan gold nanoparticles interact synergistically with ciprofloxacin by inhibiting efflux pumps in multidrug-resistant <i>Pseudomonas aeruginosa</i> and <i>Escherichia coli</i> . <i>Environmental Research</i> 199:111321. <a href="https://doi.org/10.1016/j.envres.2021.111321">https://doi.org/10.1016/j.envres.2021.111321</a>	8.431
50	Zhou X, Joshi S, Khare T, Patil S, Shang J, <b>Kumar V*</b> . 2021. Nitric Oxide, Crosstalk with Stress Regulators and Plant Abiotic Stress Tolerance. <i>Plant Cell Reports</i> 40: 1395-1414.	4.964

	<a href="https://doi.org/10.1007/s00299-021-02705-5">https://doi.org/10.1007/s00299-021-02705-5</a>	
49	Tiwari P, Khare T, Shriram V, Bae H, <b>Kumar V*</b> . 2021. Plant Synthetic Biology for Producing Potent Phyto-Antimicrobials to combat Antimicrobial Resistance. <i>Biotechnology Advances</i> 48:107729. <a href="https://doi.org/10.1016/j.biotechadv.2021.107729">https://doi.org/10.1016/j.biotechadv.2021.107729</a>	17.681
48	Khare T, Joshi S, Kaur K, Srivastav A, Shriram V, Srivastava AK, Suprasanna P, <b>Kumar V*</b> . 2021. Genome-wide in silico Identification and Characterization of Sodium-Proton (Na <sup>+</sup> /H <sup>+</sup> ) Antiporters in Indica Rice. <i>Plant Gene</i> 26:100280. <a href="https://doi.org/10.1016/j.plgene.2021.100280">https://doi.org/10.1016/j.plgene.2021.100280</a>	
47	Zhou X, Joshi S, Patil S, Khare T, <b>Kumar V*</b> . 2021. Reactive Oxygen, Nitrogen, Carbonyl and Sulfur Species and their roles in Plant Abiotic Stress Responses and Tolerance. <i>Journal of Plant Growth Regulation</i> 41: 119-142. <a href="https://doi.org/10.1007/s00344-020-10294-y">https://doi.org/10.1007/s00344-020-10294-y</a>	4.64
46	Joshi S, Kaur K, Khare T, Srivastava AK, Suprasanna P, <b>Kumar V*</b> . 2021. Genome-wide identification, characterization, and gene expression analyses of soybean NHX-type (Na <sup>+</sup> /H <sup>+</sup> ) antiporters. <i>3 Biotech</i> 11:16. <a href="https://doi.org/10.1007/s13205-020-02555-0">https://doi.org/10.1007/s13205-020-02555-0</a>	2.893
45	Khare T, Srivastava AK, Suprasanna P, <b>Kumar V*</b> . 2020. Individual (Na <sup>+</sup> and Cl <sup>-</sup> ) and Additive Stress Impacts of NaCl on Proline Metabolism and Nitrosative Responses of Rice. <i>Plant Physiology and Biochemistry</i> 152:44-52. <a href="https://doi.org/10.1016/j.plaphy.2020.04.028">https://doi.org/10.1016/j.plaphy.2020.04.028</a>	5.437
44	Wani SH, <b>Kumar V</b> , Khare T, Guddimalli R, Parveda M, Solymosi K, Suprasanna P, Kavi Kishor PB. 2020. Engineering Salinity Tolerance in Plants: Progress and Prospects. <i>Planta</i> 251:76. <a href="https://doi.org/10.1007/s00425-020-03366-6">https://doi.org/10.1007/s00425-020-03366-6</a>	4.54
43	Shaikh S, Shriram V, Khare T, <b>Kumar V*</b> . 2020. Biotic elicitors enhance diosgenin production in <i>Helicteres isora</i> L. suspension cultures via up-regulation of CAS and HMGR genes. <i>Physiology and Molecular Biology of Plants</i> 26:593-604. <a href="https://doi.org/10.1007/s12298-020-00774-6">https://doi.org/10.1007/s12298-020-00774-6</a>	3.023
42	Yu Z, Tang J, Khare T, <b>Kumar V*</b> . 2020. The Alarming Antimicrobial Resistance in ESKAPEE pathogens: Can Essential Oils come to the Rescue? <i>Fitoterapia</i> 140:104433. <a href="https://doi.org/10.1016/j.fitote.2019.104433">https://doi.org/10.1016/j.fitote.2019.104433</a>	3.204
41	Zhou X, Khare T, <b>Kumar V*</b> . 2020. Recent trends and advances in identification and functional characterization of plant miRNAs. <i>Acta Physiologiae Plantarum</i> 42:25. <a href="https://doi.org/10.1007/s11738-020-3013-8">https://doi.org/10.1007/s11738-020-3013-8</a>	2.736
40	Wani SH, <b>Kumar V</b> , Khare T, Tripathi P, Shah T, Ramkrishna C, Aglawe S, Mangrauthia SK. 2020. miRNA applications for engineering abiotic stress tolerance in plants. <i>Biologia</i> 75:1063–1081. <a href="https://doi.org/10.2478/s11756-019-00397-7">https://doi.org/10.2478/s11756-019-00397-7</a>	1.653
39	Nanekar V, Shriram V, Khare T, <b>Kumar V*</b> 2020. Nrf2/HO-1 mediated antioxidant activities, cytotoxicity analysis and LC-ESI/MS profiling of <i>Eulophia nuda</i> L. <i>The Natural Products Journal</i> 10:69-79. <a href="https://doi.org/10.2174/2210315509666190215101646">https://doi.org/10.2174/2210315509666190215101646</a>	
38	Verma SK, Das AK, Gantait S, <b>Kumar V</b> , Gurel A. 2019. Applications of carbon nanomaterials in the plant system: A perspective view on the pros and cons. <i>Science of the Total Environment</i> 667:485-499. <a href="https://doi.org/10.1016/j.scitotenv.2019.02.409">https://doi.org/10.1016/j.scitotenv.2019.02.409</a>	10.753
37	Yang B, Tang J, Yu Z, Khare T, Srivastav A, Datir S, <b>Kumar V*</b> . 2019. Light stress responses and prospects for engineering light stress tolerance in crop plants. <i>Journal of Plant Growth Regulation</i> 38:1489-1506. <a href="https://doi.org/10.1007/s00344-019-09951-8">https://doi.org/10.1007/s00344-019-09951-8</a>	4.64
36	<b>Kumar V*</b> , Shriram V, Bhagat R, Khare T, Kapse S, Kadoo N. 2019. Phytochemical profile, antioxidant, anti-inflammatory and antiproliferative activities of <i>Pogostemon deccanensis</i> essential oils. <i>3 Biotech</i> 9:31. <a href="https://doi.org/10.1007/s13205-018-1560-0">https://doi.org/10.1007/s13205-018-1560-0</a>	2.893
35	Xu J, Hou Q-M, Khare T, Verma SK, <b>Kumar V*</b> . 2019. Exploring miRNAs for developing climate-resilient crops: A perspective review. <i>Science of the Total Environment</i> 653:91-104. <a href="https://doi.org/10.1016/j.scitotenv.2018.10.340">https://doi.org/10.1016/j.scitotenv.2018.10.340</a>	10.753
34	Shriram V, Khare T, Bhagwat R, Shukla R, <b>Kumar V*</b> . 2018. Inhibiting bacterial drug efflux	6.064

	pumps via phyto-therapeutics to combat threatening antimicrobial resistance. <i>Frontiers in Microbiology</i> 9:2990. <a href="https://doi.org/10.3389/fmicb.2018.02990">https://doi.org/10.3389/fmicb.2018.02990</a>	
33	Wani SH, Tripathi P., Zaid A, Challa GS, Kumar A, <b>Kumar V</b> , Upadhyay J, Joshi R, Bhatt M. 2018. Transcriptional regulation of osmotic stress tolerance in wheat ( <i>Triticum aestivum</i> L.). <i>Plant Molecular Biology</i> 97:469-487. <a href="https://doi.org/10.1007/s11103-018-0761-6">https://doi.org/10.1007/s11103-018-0761-6</a>	4.335
32	Shaikh S, Shriram V, Srivastav A, Barve P, <b>Kumar V*</b> . 2018. A critical review on Nepal Dock ( <i>Rumex nepalensis</i> ): A tropical herb with immense medicinal importance. <i>Asian Pacific Journal of Tropical Medicine</i> 11(7): 405-414. <a href="https://doi.org/10.4103/1995-7645.237184">https://doi.org/10.4103/1995-7645.237184</a>	3.041
31	Verma SK, Das AK, Patel MK, Shah A, <b>Kumar V</b> , Gantait S. 2018. Engineered nanomaterials for plant growth and development: A perspective analysis. <i>Science of the Total Environment</i> 630:1413-1435. <a href="https://doi.org/10.1016/j.scitotenv.2018.02.313">https://doi.org/10.1016/j.scitotenv.2018.02.313</a>	10.753
30	Shaikh S, Shriram V, Khare T, <b>Kumar V*</b> . 2018. Establishment of Callus and Cell Suspension Cultures of <i>Helicteres isora</i> L. <i>Research in Plant Biology</i> 8:1-7. <a href="https://doi.org/10.25081/ripb.2018.v8.3366">https://doi.org/10.25081/ripb.2018.v8.3366</a>	
29	<b>Kumar V*</b> , Khare T, Sharma M, Wani SH. 2018. Engineering crops for future: A phosphoproteomics approach. <i>Current Protein and Peptide Science</i> 19:413-426. <a href="https://doi.org/10.2174/1389203718666170209152222">https://doi.org/10.2174/1389203718666170209152222</a>	3.118
28	<b>Kumar V*</b> , Khare T, Shriram V, Wani SH. 2017. Plant small RNAs: the essential epigenetic regulators of gene expression for salinity stress responses and tolerance. <i>Plant Cell Reports</i> 37:61-75. <a href="https://doi.org/10.1007/s00299-017-2210-4">https://doi.org/10.1007/s00299-017-2210-4</a>	4.964
27	Shriram V, <b>Kumar V*</b> , Devarumath RM, Khare T, Wani SH. 2016. MicroRNAs as potent targets for abiotic stress tolerance in plants. <i>Frontiers in Plant Science</i> 7:817. <a href="https://doi.org/10.3389/fpls.2016.00817">https://doi.org/10.3389/fpls.2016.00817</a>	6.627
26	<b>Kumar V*</b> and Khare T. 2016. Differential growth and yield responses of salt-tolerant and susceptible rice cultivars to individual (Na <sup>+</sup> and Cl <sup>-</sup> ) and additive stress effects of NaCl. <i>Acta Physiologiae Plantarum</i> 38(7):170. <a href="https://doi.org/10.1007/s11738-016-2191-x">https://doi.org/10.1007/s11738-016-2191-x</a>	2.736
25	Mapara N, Sharma M, Shriram V, Bharadwaj R, Mohite KC, <b>Kumar V*</b> . 2015. Antimicrobial potentials of <i>Helicteres isora</i> silver nanoparticles against extensively drug resistant (XDR) clinical isolates of <i>Pseudomonas aeruginosa</i> . <i>Applied Microbiology and Biotechnology</i> 99:10655-10667. <a href="https://doi.org/10.1007/s00253-015-6938-x">https://doi.org/10.1007/s00253-015-6938-x</a>	5.56
24	Khare T, <b>Kumar V*</b> , and Kavi Kishor PB. 2015. Na <sup>+</sup> and Cl <sup>-</sup> ions show additive effects under NaCl stress on induction of oxidative stress and the responsive antioxidative defense in rice. <i>Protoplasma</i> 252:1149-1165. <a href="https://doi.org/10.1007/s00709-014-0749-2">https://doi.org/10.1007/s00709-014-0749-2</a>	3.186
23	Wani SH, <b>Kumar V*</b> , Shriram V, Sah SK. 2016. Phytohormones and their metabolic engineering for abiotic stress tolerance in crop plants. <i>The Crop Journal</i> 4(3):162-176. <a href="https://doi.org/10.1016/j.cj.2016.01.010">https://doi.org/10.1016/j.cj.2016.01.010</a>	4.647
22	<b>Kumar V*</b> and Khare T. 2015. Individual and additive effects of Na <sup>+</sup> and Cl <sup>-</sup> ions on rice under salinity stress. <i>Archives of Agronomy and Soil Science</i> 61: 381-395. <a href="https://doi.org/10.1080/03650340.2014.936400">https://doi.org/10.1080/03650340.2014.936400</a>	2.242
21	Wani SH, <b>Kumar V</b> . 2015. Plant Stress Tolerance: Engineering ABA: A Potent Phytohormone. <i>Transcriptomics</i> 3(2):1000113. <a href="https://doi.org/10.4172/2329-8936.1000113">https://doi.org/10.4172/2329-8936.1000113</a>	
20	Shriram V, Nanekar V, <b>Kumar V</b> . 2014. <i>In vitro</i> regeneration and ploidy level analysis of <i>Eulophia ochreatea</i> Lindl. <i>Indian Journal of Experimental Biology</i> 52:1112-1121.	0.944
19	Nanekar V, <b>Shriram V</b> , Kumar V, Kavi Kishor PB. 2014. Asymbiotic seed germination and seedling development of <i>Eulophia nuda</i> L., an endangered medicinal orchid. <i>Proc. Natl. Acad. Sci. India Sec. B. Biol. Sci.</i> 84:837-846. <a href="https://doi.org/10.1007/s40011-014-0353-4">https://doi.org/10.1007/s40011-014-0353-4</a>	0.40
18	<b>Kumar V*</b> , Desai D., Shriram. 2014. Hairy root induction in <i>Helicteres isora</i> and production of	

	diosgenin in hairy roots. <i>Natural Products and Bioprospecting</i> 4:107-112. <a href="https://doi.org/10.1007/s13659-014-0011-9">https://doi.org/10.1007/s13659-014-0011-9</a>	
17	Shriram V, <b>Kumar V</b> , Mulla J, Latha C. 2013. Curing of plasmid-mediated antibiotic resistance in multi-drug resistant human pathogens using <i>Alpinia galanga</i> rhizome extract. <i>Advanced Biotech</i> 13(1): 1-5.	
16	<b>Kumar V*</b> , Lemos M, Sharma M, Shriram V. 2013. Antioxidant and DNA damage protecting activities of <i>Eulophia nuda</i> Lindl. <i>Free Radicals and Antioxidants</i> , 3:55-60. <a href="https://doi.org/10.1016/j.fra.2013.07.001">https://doi.org/10.1016/j.fra.2013.07.001</a>	
15	<b>Kumar V*</b> , Sharma M, Lemos M, Shriram V. 2013. Efficacy of <i>Helicteres isora</i> against free radicals, lipid peroxidation, protein oxidation and DNA damage. <i>Journal of Pharmacy Research</i> , 6(6):620-625. <a href="https://doi.org/10.1016/j.jopr.2013.05.017">https://doi.org/10.1016/j.jopr.2013.05.017</a>	
14	<b>Kumar V*</b> , Shriram V, Mulla J. 2013. Antibiotic resistance reversal of multiple drug resistant bacteria using <i>Piper longum</i> fruit extract. <i>Journal of Applied Pharmaceutical Science</i> 3(3): 112-116. <a href="https://doi.org/10.7324/JAPS.2013.30322">https://doi.org/10.7324/JAPS.2013.30322</a>	
13	Desai D, Khare T, <b>Kumar V*</b> . 2012. Sulfate & chloride salinity induced effects on physiological and biochemical parameters of sorghum. <i>International Journal of Biochemistry and Biotechnology</i> 1(2): 5-10.	
12	Khare T, Desai D, <b>Kumar V*</b> . 2012. Effect of MgCl <sub>2</sub> stress on germination, plant growth, chlorophyll content, proline content and lipid peroxidation in sorghum cultivars. <i>Journal of Stress Physiology and Biochemistry</i> 8(4): 169-178.	
11	Danai-Tambhale S, <b>Kumar V</b> , Shriram V. 2011. Differential Response of Two Scented Indica Rice ( <i>Oryza sativa</i> ) Cultivars under Salt Stress. <i>Journal of Stress Physiology and Biochemistry</i> 7(4): 387-397.	
10	Shriram V, Jahagirdar S, Latha C, <b>Kumar V</b> , Dhakephalkar P, Rojatkar S, Shitole MG. 2010. Antibacterial and antiplasmid activities of <i>Helicteres isora</i> L. <i>Indian Journal of Medical Research</i> 132: 94-99.	5.274
9	Shriram V, <b>Kumar V</b> , Suryawanshi SB, Upadhyay AK, Bhat MK. 2010. Cytotoxic activity of 9,10-dihydro-2,5-dimethoxyphenanthrene-1,7-diol from <i>Eulophia nuda</i> against human cancer cells. <i>Journal of Ethnopharmacology</i> 128: 251-253. <a href="https://doi.org/10.1016/j.jep.2009.12.031">https://doi.org/10.1016/j.jep.2009.12.031</a>	5.195
8	<b>Kumar V</b> , Shriram V, Kavi Kishor PB, Jawali N, Shitole MG. 2010. Enhanced proline accumulation and salt stress tolerance of transgenic indica rice by over expressing P5CSF129A gene. <i>Plant Biotechnology Reports</i> 4(1): 37-48. <a href="https://doi.org/10.1007/S11816-009-0118-3">https://doi.org/10.1007/S11816-009-0118-3</a>	2.496
7	<b>Kumar V</b> , Shriram V, Nikam TD, Jawali N, Shitole MG. 2009. Antioxidant enzyme activities and protein profiling under salt stress in indica rice genotypes differing in salt tolerance. <i>Archives of Agronomy and Soil Sciences</i> 55(4):379-394. <a href="https://doi.org/10.1080/03650340802595543">https://doi.org/10.1080/03650340802595543</a>	2.242
6	<b>Kumar V</b> , Shriram V, Nikam TD, Kavi Kishor PB, Jawali N, Shitole MG. 2008. Assessment of tissue culture and antibiotic selection parameters useful for transformation of indica rice. <i>The Asian &amp; Australasian Journal of Plant Science &amp; Biotechnology</i> 2(2):84-87.	
5	Shriram V, Jahagirdar S, Latha C, <b>Kumar V</b> , Puranik V, Rojatkar S, Dhakephalkar P, Shitole MG. 2008. A potential plasmid curing agent 8-epidiosbulbin E acetate from <i>Dioscorea bulbifera</i> L. against multiple-drug resistant bacteria. <i>International Journal of Antimicrobial Agents</i> 32:405-410. <a href="https://doi.org/10.1016/j.ijantimicag.2008.05.013">https://doi.org/10.1016/j.ijantimicag.2008.05.013</a>	15.441
4	<b>Kumar V</b> , Shriram V, Nikam TD, Jawali N, Shitole MG. 2008. Sodium chloride induced changes in mineral elements in indica rice cultivars differing in salt tolerance. <i>Journal of Plant Nutrition</i> 31(11):1999-2017. <a href="https://doi.org/10.1080/01904160802403466">https://doi.org/10.1080/01904160802403466</a>	2.277
3	Shriram V, <b>Kumar V</b> , Shitole MG. 2008. Indirect organogenesis and plant regeneration in <i>Helicteres isora</i> L., an important medicinal plant. <i>In Vitro Cellular and Developmental Biology-</i>	2.347



	<i>Plant</i> 44:186-193. <a href="https://doi.org/10.1007/s11627-008-9108-3">https://doi.org/10.1007/s11627-008-9108-3</a>	
2	<b>Kumar V</b> , Shriram V, Jawali N, Shitole MG. 2007. Differential response of indica rice genotypes to NaCl stress in relation to physiological and biochemical parameters. <i>Archives of Agronomy and Soil Sciences</i> 53(5):581-592. <a href="https://doi.org/10.1080/03650340701576800">https://doi.org/10.1080/03650340701576800</a>	2.242
1	Shriram V, <b>Kumar V</b> , Shitole MG. 2007. <i>In vitro</i> propagation through nodal explants in <i>Helicteres isora</i> L., a medicinally important plant. <i>Journal of Plant Biotechnology</i> 34(3):1-7. <a href="https://doi.org/10.5010/JPB.2007.34.3.189">https://doi.org/10.5010/JPB.2007.34.3.189</a>	0.34

\*As Corresponding Author

## Publications: Books

Year	Title	Editors	Publisher	ISBN	DOI
2018	Salinity Responses and Tolerance in Plants: Vol I	<b>Kumar V</b> , Wani SH, Suprasanna P, Tran Lam-Son P.	Springer Nature	978-3-319-75671-4	<a href="https://doi.org/10.1007/978-3-319-75671-4">https://doi.org/10.1007/978-3-319-75671-4</a>
2018	Salinity Responses and Tolerance in Plants: Vol II	<b>Kumar V</b> , Wani SH, Suprasanna P, Tran Lam-Son P.	Springer Nature	978-3-319-90317-0	<a href="https://doi.org/10.1007/978-3-319-90317-7">https://doi.org/10.1007/978-3-319-90317-7</a>
2019	Osmoprotectant-Mediated Abiotic Stress Tolerance in Plants	Hossain MA, <b>Kumar V</b> , Burritt D, Fujita M, Mäkelä P.	Springer Nature	978-3-030-27422-1	<a href="https://doi.org/10.1007/978-3-030-27423-8">https://doi.org/10.1007/978-3-030-27423-8</a>
2020	Heat Stress Tolerance in Plants	Wani SH, <b>Kumar V</b> .	Wiley	978-1-119-43236-4	<a href="https://doi.org/10.1002/9781119432401">https://doi.org/10.1002/9781119432401</a>
2021	Plant Nutrition and Food Security in the Era of Climate Change	<b>Kumar V</b> , Srivastava AK, Suprasanna P	Academic Press (Elsevier)	978-0-12-822916-3	<a href="https://doi.org/10.1016/C2019-0-04692-4">https://doi.org/10.1016/C2019-0-04692-4</a>
2022	Antimicrobial resistance - Underlying mechanisms and therapeutic approaches	<b>Kumar V</b> , Shriram V, Paul T, Thakur M	Springer Nature	978-9-81-163119-1	<a href="https://doi.org/10.1007/978-981-16-3120-7">https://doi.org/10.1007/978-981-16-3120-7</a>
2022	Nano-Strategies for Addressing Antimicrobial Resistance	<b>Kumar V</b> , Shriram V, Shukla R, Gosavi S	Springer Nature	978-3-03-110219-6	<a href="https://link.springer.com/book/9783031102196#affiliations">https://link.springer.com/book/9783031102196#affiliations</a>
2022	Epigenetics for Plant Environmental Stress Tolerance	<b>Kumar V</b> , Ana Paula Santos	Springer Nature		In Process

## Publications: Invited Book Chapters

27

27. Das T, Nandy S, Pandey DK, Radha, Al-Tawaha AR, Swamy MK, **Kumar V**, Nongdam P, Abhijit Dey. 2022. An update on paclitaxel treatment in breast cancer. In: Swamy MK, Pullaiah T, Zhe-Sheng Chen (eds.), *Paclitaxel: Sources, Chemistry, Anticancer Actions, and Current Biotechnology*. Elsevier pp. 287-308. <https://doi.org/10.1016/B978-0-323-90951-8.00013-8>
26. Das T, Ghorai M, Pandey DK, Radha, Thakur M, Rathour S, Al-Tawaha AR, Bursal E, **Kumar V**, Nongdam P, Shekhawat MS, Batiha GE, Ghosh A, Dwivedi P, Kumar M, Abhijit Dey. 2022. CRISPR/Cas Genome Editing in Engineering Plant Secondary Metabolites of Therapeutic Benefits. In: Aftab T, Hakeem KR (eds.), *Metabolic Engineering in Plants*. Springer-Nature. [https://doi.org/10.1007/978-981-16-7262-0\\_8](https://doi.org/10.1007/978-981-16-7262-0_8)
25. Banerjee S, Tudu CK, Nandy S, Pandey DK, Ghorai M, Shekhawat MS, Ghosh A, Nongdam P, Al-Tawaha AR, Bursal E, Batiha G, Ghosh S, **Kumar V**, Dey A. 2022. Herbal remedies against Huntington's disease: Preclinical evidences and future directions. In: *Herbal Medicines: A Boon for Healthy Human Life*. Elsevier. <https://doi.org/10.1016/B978-0-32-390572-5.00010-X>

24. Reddy S, Barathe P, Kaur K, Anand U, Shriram V, **Kumar V\***. 2022. Antimicrobial Resistance and Medicinal Plant Products as Potential Alternatives to Antibiotics in Animal Husbandry. In: Kumar V, Shriram V, Paul T, Thakur M (Eds.) *Antimicrobial resistance - Underlying mechanisms and therapeutic approaches*. Springer Nature Singapore. [https://doi.org/10.1007/978-981-16-3120-7\\_13](https://doi.org/10.1007/978-981-16-3120-7_13)
23. Tiwari P, Srivastava Y, **Kumar V\***. 2022 Antimicrobial Peptides as Effective Agents Against Drug-Resistant Pathogens. In: Kumar V, Shriram V, Paul T, Thakur M (Eds.) *Antimicrobial resistance - Underlying mechanisms and therapeutic approaches*. Springer Nature Singapore. [https://doi.org/10.1007/978-981-16-3120-7\\_11](https://doi.org/10.1007/978-981-16-3120-7_11)
22. **Kumar V**, Shriram S (2021). *Eulophia* spp.: In Vitro Generation, Chemical Constituents and Pharmacological Activities. In: J.-M. Mérillon, H. Kodja (eds.), *Orchids Phytochemistry, Biology and Horticulture, Reference Series in Phytochemistry*, Springer Nature Switzerland. [https://doi.org/10.1007/978-3-030-11257-8\\_31-1](https://doi.org/10.1007/978-3-030-11257-8_31-1)
21. Khare T, Srivastav A, **Kumar V\*** (2020). Calcium/Calmodulin activated protein kinases in stress signaling in plants. In: Pandey GK (Ed.) *Protein Kinases and Stress Signaling in Plants: Functional Genomic Perspective*. John Wiley & Sons Ltd.
20. Penna S, Negi P, **Kumar V**. 2020. Genomics and epigenetics of plant abiotic stress. In: Fink (Ed) *Stress Genetics, Epigenetics and Genomics*, doi 10.1016/B978-0-12-813156-5.00005-4. Elsevier
19. Yadav A, Singh J., Ranjan K, Kumar P, Khanna S, Gupta M, **Kumar V**, Wani SH, Sirohi A. 2020. Heat Shock Proteins: Master Players for Heat-stress Tolerance in Plants during Climate Change. In: Wani SH, Kumar V (Ed), *Heat Stress Tolerance in Plants*, pp189. doi: 10.1002/9781119432401.ch9. Wiley, UK
18. Patil SS, Bhagwat RV, **Kumar V**, Durugkar T. 2019 Megaplastics to Nanoplastics: Emerging Environmental Pollutants and Their Environmental Impacts. In: Bharagava RN (Ed), *Environmental Contaminants: Ecological Implications and Management, Microorganisms for Sustainability* Vol 14, pp205-236. doi: 10.1007/978-981-13-7904-8\_10
17. Khare T, Oak U, Verma SK, Shriram V, **Kumar V\***. 2019. Biologically synthesized nanomaterials and their antimicrobial potentials. In: Verma SK, Das AK (Eds) *Analysis, Fate and Toxicity of Engineered Nanomaterials in Plants*. Comprehensive Analytical Chemistry, Vol 87: 263-289. Elsevier. doi: 10.1016/bs.coac.2019.09.002
16. Oak U, Srivastav A, **Kumar V\***. 2019. Perspectives of Plant Growth-Promoting Rhizobacteria in Conferring Salinity Tolerance in Crops. In: Singh DP, Prabha R (Eds.) *Microbial Interventions in Agriculture and Environment*, Springer Nature, Singapore. doi: 10.1007/978-981-32-9084-6\_14
15. **Kumar V\***, Khare T. 2019. Potent Avenues for Conferring Salinity Tolerance in Rice. In: Verma DK, Nadaf AB (Eds.) *Rice Science- Biotechnological and Molecular Advancements*, pp 29-52. Apple Academic Press Inc., USA, ISBN: 97-8-177-18869-25
14. **Kumar V\***, Datir S, Khare T, Shriram V. 2019. Advances in Biotechnological Tools: Improving Abiotic stress tolerance in rice. In: Hasanuzzaman M., Fujita M, Nahar K, Biswas JK (Eds.) *Advances in Rice Research for Abiotic Stress Tolerance* pp.615-632 Elsevier, doi: 10.1016/B978-0-12-814332-2.00030-7
13. **Kumar V**, Khare T, Srivastav A, Surekha C, Shriram V, Wani SH. 2019. Oxidative stress and leaf senescence: Important Insights. In: Maryam Sarwat (Ed.), *Senescence Signalling and Control in Plants*. Elsevier, doi: 10.1016/B978-0-12-813187-9.00009-3
12. Yahiya N, Wani SH, **Kumar V\*** 2018. CBF-Dependent and CBF-Independent Transcriptional Regulation of Cold Stress Responses in Plants. In: Wani SH, Herath V. (Eds.) *Cold Tolerance in Plants*, Springer, doi: 10.1007/978-3-030-01415-5\_5
11. Srivastav A, Khare T, **Kumar V\***. 2018. Systems biology approach for the elucidation of the plant responses to salinity stress. In: **Kumar V**, Wani SH, Suprasanna P, Son-Tran LP. (Eds.) *Salinity responses and tolerance in plants: Exploring RNAi, Genome Editing and Systems Biology*. Springer, pp. 307-326. doi: 10.1007/978-3-319-90318-7\_13
10. Khare T, Srivastav A, Shaikh S, **Kumar V\***. 2018. Polyamines and their metabolic engineering for plant salinity stress tolerance. In: **Kumar V**, Wani SH, Suprasanna P, Son-Tran LP. (Eds.) *Salinity responses*

and tolerance in plants: Targeting sensory, ion-transport and signaling mechanisms. Springer, pp. 339-358. doi: 10.1007/978-3-319-75671-4\_13

9. Khare T, Shriram V, **Kumar V\***. 2018. RNAi Technology: Role in development of abiotic stress tolerant crops. In: Wani SH (Ed.) *Biochemical, Physiological and Molecular Avenues for Combating Abiotic Stress Tolerance in Plants*. Elsevier, pp. 117-133. doi:10.1016/B978-0-12-813066-7.00008-5
8. **Kumar V**, Khare T, Shaikh S, Wani SH. 2018. Compatible Solutes and Abiotic Stress Tolerance in Plants. In: Akula Ramakrishna, & Sarvajeet Singh Gill (Eds). *Metabolic Adaptations in Plants during Abiotic Stress*, pp 213-220, Taylor & Francis (CRC Press), USA; ISBN 9781138056381
7. **Kumar V**, Khare T, Arya S, Shriram V, Wani SH. 2017. Effects of toxic gases, ozone, carbon dioxide, and wastes on plant secondary metabolism. In: Mansour Ghorbanpour and Ajit Varma (Eds) *Environmental Challenges and Medicinal Plants*, Springer-Verlag, Germany, doi: 10.1007/978-3-319-68717-9\_5
6. **Kumar V**, Sharma M, Khare T, Wani SH. 2017. Impact of nanoparticles on oxidative stress and responsive antioxidative defense in plants. In: Tripathi et al. (Eds.) *Nanomaterials in Plants, Algae and Micro-organism: Concepts and Controversies*, pp. 393-406. Elsevier, doi: 10.1016/B978-0-12-811487-2-00018-9
5. **Kumar V**, Khare T, Sharma M, Wani SH. 2017. ROS induced signaling and gene-expression in crops under salinity stress. In: Khan MIR, Khan N (Ed.) *Reactive Oxygen Species and Antioxidant Systems: Role and Regulation under Abiotic Stress*. Springer Nature, Switzerland, doi: 10.1007/978-981-10-5254-5\_7
4. **Kumar V**, Shriram V, Hoque TS, Hasan MM, Burritt DJ, Hossain MA. 2017. Glycinebetaine mediated abiotic oxidative-stress tolerance in plants: physiological and biochemical mechanisms. In: Sarwat M et al. (Eds.). *Stress Signaling in Plants: Genomics and Proteomics Perspective, Volume 2* p111-133, Springer International Publishing, Switzerland, doi: 10.1007/978-3-319-42183-4\_5
3. **Kumar V**, Wani SH, Sah SK, Khare T, Shriram V. 2016. Engineering Phytohormones for Abiotic Stress Tolerance in Crop Plants. In: Ahammed GJ, Yu J (Eds.) *Plant hormones under challenging environmental factors*. Springer Science + Business Media, Dordrecht. doi: 10.1007/978-94-017 7758-2\_10
2. Wani SH, Sah SK, Hussain MA, **Kumar V**, Balachandra SM. 2016. Transgenic Approaches for Abiotic Stress Tolerance in Crop Plants. In: Al-Khayri JM, Jain SM, Johnson DV (Eds) *Advances in Plant Breeding Strategies, Vol 2: Agronomic, Abiotic and Biotic Stress Traits*. Springer International Publishing, Switzerland, ISBN 978-3-319-22517-3, doi: 10.1007/978-3-319-22518-0
1. **Kumar V\***, Shriram V, Hussain MA, Kavi Kishor PB. 2015. Engineering proline metabolism for enhanced plant salt stress tolerance. In: Wani SH, Hussain MA (Eds.) *Managing salinity tolerance in plants: molecular and genomic perspectives*. CRC Press, Taylor & Francis Group, pp353-372; ISBN: 978-1-4822-4513-4

### **Sequences submitted to GenBank: 24**

MH685524	MH636868	KR677082	KR677083	KR677084	KR677085	MF040219	MF040227
MF039480	MF039481	MF039714	MF039715	MF040166	MF040188	MF040224	MF040225
MF040170	MF040217	MF00988	MF040220	MF00985	MF00986	MF040223	MF040226

### **Editorial/ Review Work:**

#### **Editor:**

1. Editor, *Journal of Plant Growth Regulation* (Springer)
2. Editor, *Frontiers in Plant Science* (Frontiers Media, Switzerland)
3. Editor, *The Natural Products Journal* (Bentham Science, UAE)
4. Guest Editor, *Physiologia Plantarum* (Wiley, UK)
5. Guest Editor, *Current Topics in Medicinal Chemistry* (Bentham Science, UAE)

## Guest Editor:

**Guest Editor** for Special Issue on “Fighting antimicrobial resistance with natural products- current developments and future prospects” in *Current Topics in Medicinal Chemistry* (Bentham, Impact Factor 3.2). <https://benthamscience.com/journal-files/special-issue-details/CTMC-SII20210204-01.pdf>

**Guest Editor** for Special Issue on “Transcriptional and Post-Transcriptional Mechanisms Regulating Salt Tolerance in Plants” in *Physiologia Plantarum* (Wiley, UK, Impact factor 4.1). <https://physiologiaplantarum.org/2020/06/29/call-for-articles-transcriptional-and-post-transcriptional-mechanisms-regulating-salt-tolerance/>

**Guest Editor** for Special Issue on “Plants for Future Climate: Responses and adaptations to Combined, Multifactorial and Sequential Stresses” in *Frontiers in Plant Science* (Frontiers media, Switzerland, Impact Factor 5.753). <https://www.frontiersin.org/research-topics/27879/plants-for-future-climate-responses-and-adaptations-to-combined-multifactorial-and-sequential-stress>

## Reviewer:

1. <i>Journal of Photochemistry and Photobiology, C: Photochemistry Reviews</i> (Elsevier)	2. <i>Planta</i>
3. <i>Scientific Reports</i> (Nature Publishing Group)	4. <i>Phytotherapy Research</i> (Wiley)
5. <i>Science of the Total Environment</i> (Elsevier)	6. <i>Frontiers in Plant Science</i> (Frontiers, Switzerland)
7. <i>Frontiers in Microbiology</i> (Frontiers Media, Switzerland)	8. <i>Food Chemistry</i> (Elsevier)
9. <i>Environmental Science and Pollution Research</i> (Springer-Verlag)	10. <i>Functional and Integrative Genomics</i> (Springer)
11. <i>Applied Microbiology and Biotechnology</i> (Springer)	12. <i>Future Microbiology</i> (Future Medicine Group)
13. <i>Journal of Food Biochemistry</i> (Wiley-VCH)	14. <i>Pedosphere</i> (Elsevier)
15. <i>Current Protein and Peptide Science</i> (Bentham Science)	16. <i>Biomed Research International</i>
17. <i>Archives of Agronomy and Soil Science</i> (Taylor and Francis)	18. <i>Journal of Rare Earths</i> (Elsevier)
19. <i>Plos One</i> (PLOS)	20. <i>Physiology and Molecular Biology of Plants</i> (Springer)
21. <i>3 Biotech</i> (Springer)	22. <i>Acta Physiologiae Plantarum</i> (Springer)
23. <i>Proc. Natl Acad Sci India B: Biol Sci</i> (Springer)	24. <i>Journal of Herbal Medicine</i> (Elsevier)
25. <i>South African Journal of Botany</i> (Elsevier)	26. <i>Data in Brief</i> (Elsevier)
27. <i>Fitoterapia</i> (Elsevier)	28. <i>Plant Gene</i> (Elsevier)
29. <i>Plant Cell Reports</i> (Springer)	30. <i>Journal of Plant Growth Regulation</i> (Springer)
31. <i>Chemosphere</i> (Elsevier)	32. <i>Protoplasma</i> (Springer)
33. <i>Environmental Pollution</i> (Elsevier)	34. <i>NanoImpact</i> (Elsevier)
35. <i>Phyton</i>	36. <i>Physiologia Plantarum</i>
37. <i>Horticulturae</i> (MDPI)	38. <i>Plants</i> (MDPI)
39. <i>Agronomy</i> (MDPI)	40. <i>Current Plant Biology</i> (Elsevier)

## Key Research Collaborations

- Dr. Ravi Shukla, RMIT University, Australia
- Dr. Susana Araujo, ITQB, New University of Lisbon, Portugal
- Prof. P. B. Kavi Kishor, Osmania University, Hyderabad, India
- Dr. Ashish Kumar Srivastava, Scientist F, Bhabha Atomic Research Centre, Mumbai, India
- Dr. Atish Paul, Pharmaceutical Sciences, BITS, Pilani, India

### Seminar/Conference/Workshop Organized:

1. Organised workshop (hands-on-training) on “Advanced Techniques in Biotechnology” at the Department of Biotechnology, Modern College of Arts, Science and Commerce, Pune, from 14/10/2010 to 15/10/2010.
2. **Coordinator**, Summer Training on “Gene isolation and amplification” under DBT star college scheme for B. Sc. students from 20-25/06/2016 at Modern College of Arts, Science and Commerce, Ganeshkhind, Pune.
3. **Coordinator**, Research Induction Program for M.Sc. students under DST-FIST program from 06/09/2016 to 07/09/2016 at Modern College of Arts, Science and Commerce, Ganeshkhind, Pune.
4. **Coordinator, Science Academies’ Lecture Workshop** jointly organized by Indian Academy of Sciences, Bangalore; Indian National Science Academy, New Delhi and National Academy of Sciences, Allahabad, themed on “Understanding and Exploring the Interfaces Between Biology and Biotechnology”, from 01/11/2017 to 03/11/2017, held at Modern College of Arts, Science and Commerce, Ganeshkhind, Pune.
5. **Chaired a Session** at One-day National Seminar on Innovative and Best Practices in Higher Education, organized by Modern College, Ganeshkhind in collaboration with NAAC, Bangalore, SPPU, Pune and CEDA, Pune, on 26/07/2019
6. **Coordinator, DBT (Govt. of India)** funded Science Popularization Program “Science Fair” held at Modern College of Arts, Science and Commerce, Ganeshkhind, Pune on 30/08/2019
7. **Member, Organizing Committee**, International E-conference on Biotechnology, Bioinformatics and Biomedicine 2020, Organized by the Faculty of Applied Sciences, AIMST University, Malaysia, 24-26 August 2020.
8. **Coordinator**, National Lecture Series under the aegis of DBT Star College Scheme at Modern College of Arts, Science and Commerce, Ganeshkhind, Pune, 01-02/02/2021.
9. **Coordinator**, Faculty Development Program on “IPR and Patenting” at Modern College of Arts, Science and Commerce, Ganeshkhind, Pune, 29/11/2021 to 01/12/2021.
10. **Coordinator, DBT (Govt. of India)** funded Science Popularization Program “Science Adda” for school students held at Modern College of Arts, Science and Commerce, Ganeshkhind, Pune on 05/01/2022.

### Resource Person/Invited Talks Delivered

1. Worked as Resource Person at UGC Academic Staff College Refresher Course held at the Department of Environmental Science, Savitribai Phule Pune University, Pune and delivered a lecture on ‘Developing Biotech-Crops for Saline Environments’ on 19/10/2015
2. Resource Person at Post-Graduate Research Centre, Department of Zoology, Modern College, Shivajinagar, Pune for Course Work for PhD students and delivered a lecture on ‘Research Methodologies’ on 21/11/2015
3. Resource Person for Two-day Training Workshop Program for Life Science Post-Graduate Students “Research Induction Program” on 06-07/09/2016, Modern College, Ganeshkhind, Pune
4. Resource Person at UGC Academic Staff College Refresher Course held at the Department of Environmental Science, Savitribai Phule Pune University, Pune and delivered a lecture on “Antimicrobial Resistance”, 12/07/2017
5. Resource Person for Faculty Development Program for the IQAC Coordinators/Members for Colleges organized by UGC-HRD Centre, Savitribai Phule Pune University, Pune on 22/03/2018.
6. Delivered an invited talk on “Individual and additive effects of Na and Cl ions on rice cultivars with contrasting salt tolerance” in DAE-BRNS Life Sciences Symposium 2018 on Frontiers in Sustainable Agriculture, Organized by Bhabha Atomic Research Center, Mumbai, on 26-28/04/2018
7. Resource Person for Savitribai Phule Pune University, Pune sponsored Faculty Development Program at Abeda Inamdar College, Pune, and delivered a lecture on ‘Research based Teaching’ on 09/05/2018.
8. Resource Person for Faculty Development Program at Mamasahab Mohol College, Pune and delivered a lecture on ‘Research, Innovation and Extension’, on 19/06/2018.
9. Resource Person for Faculty Development Program at H.V. Desai College, Pune and delivered a lecture on “Research Writing- Research Papers, General Purpose Writing” on 21/06/2018.
10. Resource Person for Faculty Development Program on Demystifying VII criteria of NAAC at Modern Law College, Ganeshkhind, Pune, and delivered a lecture on the topic ‘Criterion III – Research, Innovation and Extension’ on 02/08/2018

11. Resource Person at UGC Academic Staff College Refresher Course held at the Department of Environmental Science, Savitribai Phule Pune University, Pune and delivered a lecture on “Threatening Antimicrobial Resistance and Combating it”, 30/11/2018.
12. Resource Person at ‘National Conference on Innovations and Developments in Computational and Applied Science’ held at MIT Arts, Commerce and Science College, Pune, and delivered a keynote on ‘Research Quality Benchmarks and Publications’, 22/12/2018.
13. Resource Person at the Workshop on “Recent Trends in Laboratory Diagnosis of Infectious Disease” organized by the Moving Academy of Medicine and Biomedicine, Pune for resident doctors and medical faculty, 09/02/2019.
14. Resource Person at the State Level Workshop on “Revised Methodology of Accreditation by NAAC” organized by Institute of Business Management and Research, Pune and delivered a lecture on Criterion III ‘Research and Innovation’, 22/02/2019.
15. Judge/Panel Member at ‘Abhikalp 2019’ (A Design competition for Innovative Projects and Proof-of-Concept development) organized by Design Innovation Centre, Savitribai Phule Pune University, Pune, 6-7 March 2019
16. Delivered an invited ‘Lead Presentation’ on Star College Scheme at Pondicherry University, Pondicherry organized by DBT, Govt. of India, on 19/04/2019.
17. Delivered an Invited Special Talk on Star College Scheme of DBT at Karnataka College, Bidar, Karnataka, 08/06/2019.
18. Delivered an invited talk on “Research – Quality Benchmarks and Publications” under SAGE Summer School Program, at SAGE University, Indore, 21/05/2020.
19. Resource Person at National Webinar on “NAAC Criterion III – Research Innovation and Extension: Its Challenges and Opportunities as per NAAC New Guidelines” organized by Mata Gujri Mahila Mahavidyalaya, Jabalpur, Madhya Pradesh, and delivered a talk on “Research Quality Indicators, Ethics and Publications, 26/05/2020.
20. Resource Person at a Faculty Development Program on “Life Science for Enhancing Human Life” organized by Nirmala College for Women, Coimbatore, Tamil Nadu, and delivered a talk on “Research Quality Indicators, Ethics and Publications, 28/05/2020.
21. Resource Person at National Webinar on “Research Innovation and Extension, Criterion 3 of NAAC Assessment under revised accreditation framework” organized by Government Science College, Jabalpur, Madhya Pradesh, and delivered a talk on “Research – Quality, Ethics and Dissemination”, 24/06/2020.
22. Resource Person at National Webinar on “Documentation useful for IQAC primarily with the focus on NAAC Accreditation” organized by IQAC Cluster, India, and delivered a talk on ‘Quantitative matrices, calculations and terminologies for research publications’ on 20/10/2020.
23. Resource Person at Faculty Development Program organized by School of Biomedical Sciences, MGM Institute of Health Sciences, Mumbai, and delivered a talk on “Research: Documentation, Indices, Calculation and Ethics” on 05/01/2021.
24. Resource Person at National Webinar on “Documentation useful for IQAC primarily with the focus on NAAC Accreditation – 2” organized by IQAC Cluster, India, and delivered a talk on ‘Quantitative matrices, calculations and terminologies for research publications’ on 23/02/2021.
25. Resource Person at “Two-day National Workshop on Interdisciplinary Research: Frontiers and Opportunities in Post-Covid World” organized by MGM University, Aurangabad and delivered a talk on “Research – Dissemination, Quality Benchmarks and Indices’ on 06/04/2021.
26. Resource Person at Four-days Lecture Series on Research, Innovation: Pathways to Success, organized by Pratibha College in association with UGC-HRDC, Savitribai Phule Pune University, Pune, and delivered a talk on Research: Quality Benchmarks, Ethics, Publications and Indices, on 12/10/2021.
27. Resource Person at International Conference on Challenges and Opportunities in Biotechnology organized by Amity University, Jharkhand and delivered a talk on “miRNA Biotechnology for Developing Climate-smart Crops”, 12/11/2021.
28. Resource Person at Faculty Development Program on National Education Policy organized by Modern College of Arts, Science and Commerce, Ganeshkhind, Pune and delivered a talk on “Bio-business” on 08/07/2022.

## Curriculum enrichment duties

- Appointed and worked as Chairman, for developing a Handbook for Practical Examinations of B.Sc. Biotechnology students, Savitribai Phule Pune University.

## University Assignments

- Worked as Chairman/Member of S. P. Pune University's Local Inquiry Committees for PhD (Biotechnology) and MSc (Biotechnology) courses permission for new affiliation/continuation
- Worked as Chairman, Practical Examinations, MSc Biotechnology
- Worked as Chairman, Practical Examinations, BSc Biotechnology
- Worked as Chairman, Paper Settings and Paper Checking for MSc Biotechnology
- Worked as Chairman, Paper Settings and Paper Checking for BSc Biotechnology
- Worked as Chairman, Skeleton for TYBSc Practical Examination of Savitribai Phule Pune University

## Participated in Refresher/ Orientation Course/Workshops

1. Attended a Ministry of Earth Sciences sponsored Brain Storming Session on “*Renewing the tradition of natural product research in India*” held at CSIR- Central Drug Research Institute, Lucknow from 21 – 23 January 2016.
2. Attended Academies’ Refresher Course on “*Advances in Biotechnology*” organised jointly by Indian Academy of Sciences, Bangalore; Indian National Science Academy, New Delhi and National Academy of Sciences, Allahabad at National Institute of Research in Reproductive Health, Mumbai from 1 – 16 March 2011.
3. Participated in a DBT Sponsored workshop entitled “*Modern Techniques in Studies of Abiotic Stress Response and Stress-inducible Genes in Plants*” held at the Institute of Life Sciences Bhubaneswar, 21-24 March 2006.
4. Attended a workshop entitled “*Environmental protection, challenges and issues*” held at A. M. College, Hadapsar, Pune, 7<sup>th</sup> January 2004.

## Paper presented in International Symposia / Seminars:

10

1. Barathe P, Sharma M, Kumar V (2018). Antibiotic-potential activity of *Cassia surattensis* against multi-drug resistant (MDR) bacteria. Presented at International Conference on Frontiers in Life Sciences and Earth Sciences, organized by Prof. Ramkrishna More College, Akurdi, Pune, from 18-19 January 2018.
2. Iqbal G, Bhagwat R, Kumar V (2018). Microbial diversity and physico-chemical analyses of leachate collected from a municipal waste disposal site in Pune. Presented at International Conference on Recent Trends in Life Sciences, held at Modern College, Ganeshkhind, Pune from 2-3 February 2018.
3. **Kumar V**, Desai D, Shriram V (2013). Exploration of *Helicteres isora* L. as a source of diosgenin and its enhancement using biotechnological tools. Presented at International Conference on Advances in Biotechnology and Bioinformatics, held at Dr. D Y Patil Vidyapeeth, Pune, from 25-27 December 2013.
4. Khare T, **Kumar V**. (2013). Individual and additive effects of sodium and chloride ion stress on rice. Presented at International Conference on Advances in Biotechnology and Bioinformatics, held at Dr. D Y Patil Vidyapeeth, Pune, from 25-27 December 2013.
5. **Kumar V**, Mulla J (2013). Effect of salt tolerant bacterial priming on growth and biochemical parameters of sorghum under salt stress. Presented at International Conference on Advances in Biotechnology and Bioinformatics, held at Dr. D Y Patil Vidyapeeth, Pune, from 25-27 December 2013.
6. **Kumar V**, Mapara N (2013). Green synthesis of silver nanoparticles from aqueous extracts of *Helicteres isora* and their evaluation for antibiotic resistance reversal. Presented at International Conference on Advances in Biotechnology and Bioinformatics, held at Dr. D Y Patil Vidyapeeth, Pune, from 25-27 December 2013.

7. Shriram V, Nanekar V, **Kumar V** (2013). In vitro plant regeneration via PLB derived callus in medicinal orchid *Eulophia ochreatea* Lindl. Presented at International Conference on Advances in Biotechnology and Bioinformatics, held at Dr. D Y Patil Vidyapeeth, Pune, from 25-27 December 2013.
8. Kadam A., **Kumar V**, Shriram V (2012). Hairy root induction in *Helicteres isora* for production of diosgenin-a steroidal sapogenin. Presented at International Conference on Current Trends in Medicinal Plant Research, held at Department of Botany, University of Pune, Pune from 10-12 January 2012.
9. **Vinay Kumar**, A. Vaze, N. Jawali and M. G. Shitole (2006). Comparative antioxidant enzyme activities and protein profiling in rice cultivars under salt stress. Presented at “2<sup>nd</sup> International Rice Congress” held at National Academy of Agricultural Sciences, IARI Campus, New Delhi, 9-13 October 2006.
10. **Vinay Kumar** and M. G. Shitole (2006). Biochemical analyses and protein profiling under NaCl stress in rice (*Oryza sativa* L.). Presented at “International Symposium on frontiers in genetics and biotechnology-retrospect and prospect” held at the Department of Genetics, Osmania University, Hyderabad, 8-10 January 2006.

### Paper presented in National/Regional Symposium / Seminar:

15

- 1) Mapara N and **Kumar V\***. (2013). *Helicteres isora* Fruit Extract Mediated Green Synthesis of Silver Nanoparticles. Presented at National Conference on Nanomaterials: Applications and properties, held at Arts, Science and Commerce College, Sonai, Ahmednagar from 22-23 February 2013.
- 2) Desai D, Kumar V\*, Shriram V (2013). Ecogeographical variations in diosgenin content isolated from *Helicteres isora* L. Presented at National Conference on Current Prospects and Challenges in Life Sciences, held at New Arts, Commerce and Science College, Ahmednagar, from 26-27 July 2013.
- 3) Khare T, Desai D and **Kumar V\***. (2012). Comparative effects of three different salts on seed germination, seedling growth and biochemical parameters of sorghum genotypes. Presented at National seminar on Physiological and Molecular Approaches for Development of Climate Resilient Crops, held at Acharya N G Ranga Agricultural University, Hyderabad, from 12-14 December 2012.
- 4) Nanekar V, **Kumar V**. and Varsha Shriram (2012). Micropropagation of *Eulophia nuda* L., a medicinally important endangered orchid. Presented at National seminar on Physiological and Molecular Approaches for Development of Climate Resilient Crops, held at Acharya N G Ranga Agricultural University, Hyderabad, from 12-14 December 2012
- 5) Mulla J, Kadam A, **Kumar V** and Shriram V. (2012). Evaluation of *Helicteres isora* L. from different localities of Western Ghats for diosgenin content and its enhancement using hairy root cultures. Presented at National seminar on Physiological and Molecular Approaches for Development of Climate Resilient Crops, held at Acharya N G Ranga Agri University, Hyderabad, from 12-14 December 2012
- 6) Mulla J, **Kumar V\*** and V. Shriram (2011). Genetic transformation in *Helicteres isora* L. to enhance diosgenin content. Presented at State Level Seminar on ‘Recent Trends in Life Sciences’ held at Arts, Commerce and Science College, Pirangut, Pune from 11-12 February 2011.
- 7) Sirdeshmukh V and **V. Kumar\*** (2011). In vitro shoot multiplication and direct regeneration in medicinally important plant *Phyllanthus niruri*. Presented at State Level Seminar on ‘Recent Trends in Life Sciences’ held at Arts, Commerce and Science College, Pirangut, Pune from 11-12 February 2011.
- 8) Desai D. and **V. Kumar** (2011). Direct in vitro plant regeneration of *Rauwolfia serpentine* L.: an important medicinal plant. Presented at State Level Seminar on ‘Recent Trends in Life Sciences’ held at Arts, Commerce and Science College, Pirangut, Pune from 11-12 February 2011.
- 9) Khare T. and **V. Kumar** (2011). In vitro callus cultures of *Rauwolfia serpentine* L. Benth: an important medicinal plant. Presented at State Level Seminar on ‘Recent Trends in Life Sciences’ held at Arts, Commerce and Science College, Pirangut, Pune from 11-12 February 2011.
- 10) **Vinay Kumar**, V. Shriram and M. G. Shitole (2009). NaCl-induced mineral deficiency and nutrient imbalances in *indica* rice genotype ‘Kalarata’. Presented at National Conference on ‘Recent Trends in Life Sciences’, held at A. M. College, Hadapsar, Pune – 411 028, 18-19 December 2009.



- 11) **Vinay Kumar**, V. Shriram, N. Jawali, T. D. Nikam and M. G. Shitole (2008). Embryogenic callus induction and plant regeneration of indica rice. Presented at National Seminar on ‘In the Role of Care-Takers of Biosphere’, held at Vidya Pratisthan, Baramati, 14-16 February 2008. [Won Best Paper Prize.](#)
- 12) **Vinay Kumar**, V. Shriram and M G Shitole (2007). Optimisation of Callus cultures in rice (*Oryza sativa* L. cv. Karjat-3). Presented at National Seminar on Utilization of Plant Resources. Held at the Department of Botany, University of Pune, February 2007.
- 13) **Vinay Kumar** and M. G. Shitole (2006). Effect of NaCl stress on lipid peroxidation, proline accumulation and antioxidant enzyme activities in rice cultivars. Presented at “*National Seminar on Plant Physiology*” held at Kerala Agricultural University, Thrissur, Kerala, October, 2006.
- 14) **Vinay Kumar** and M. G. Shitole (2005). Germination and biochemical studies in relation to salinity stress in rice (*Oryza sativa* L.). Presented at “*National Seminar on Plant Physiology*” held at Navsari Agricultural University, Gujarat, November 2005.
- 15) **Kondetti P., Vinay Kumar**, N. K. Jawali, S. K. Apte and M. G. Shitole (2004). Biodiversity and its Importance with special reference to genetic diversity and its evaluation by molecular methods” at the “*National Seminar on Assessment, Conservation and Utilization of Biodiversity*” at Dept. of Botany, University of Pune, Pune, 26 – 27 March 2004.

## Personal Details

Date of Birth:	01 / 07 / 1978
Gender:	Male
Languages known:	Hindi, English, and Marathi
Nationality:	Indian

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### Declaration:

I hereby declare that the information given above is true as per my knowledge.

Place: Pune  
Date: 01/08/2022

Vinay Kumar