

CV

1. Name: Dr. Kashmir Singh

2. D.O.B: 24.01.1976

3. Designation: Professor

4. Current Positions:

- i. Professor, Department of Biotechnology
- ii. Coordinator, DST-Centre for Policy Research

5. Contact details including e-mail, phone.

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6. Area of Specialization: Plant Biotechnology

7. Education

Degree	Institution	Fields	Year
Ph.D	CSIR-IHBT/GNDU Amritsar	Biotechnology	2007
M.Sc	GNDU, Amritsar	Botany	2000
B.Sc	GNDU, Amritsar	Medical	1998

8. Professional experience (Teaching and Research)

Position	Institution	Field	From	To
Professor	Panjab University	Biotechnology	2020	Onwards
Associate Professor	Panjab university	Biotechnology	2017	2020
Assistant Professor	Panjab university	Biotechnology	2005	2017
Visiting scientist	McGill University, Canada	Plant Sciences	2012	2013



Post-doctoral Research Associate	Missouri State University, USA	Plant pathology	2009	2010
Marie Curie Post Doc fellow	Adam Mickiewicz University, Poland	Gene expression	2007	2008

9. Award/ Honours/ Fellowships/recognitions etc.

- i. Elected as INSA Associate Fellow in 2024.
- ii. Elected as Fellow of the Royal Society of Biology, 2025
- iii. INSA Bilateral Exchange Fellowship 2018
- iv. Visiting scientist, McGill University, Canada. (2012-13)
- v. Post-doctoral research associate, Missouri State University, USA. (2009-10)
- vi. Marie Curie postdoc fellowship, Institute of Molecular Biology and Biotechnology, Adam Mickiewicz University, Poland. (2007-08)
- vii. Scientific Advisers to the office of the Controller General of Patents, Designs, and Trade Marks (2025 onwards).
- viii. Prof KK Nanda memorial lecture award by ISPP at the International conference on Plant Physiology at Tamil Nadu Agriculture University, Coimbatore, TN on 15-18 Dec 2025.
- ix. Member of Executive council of Central University Haryana, Mahendragarh from Jan 2026 onwards for a period of three years.
- x. Punjab Govt appointed Member of Academic Council of CGC university, Jhangheri from 2025 onwards.

10. Administrative experience at Panjab University:

Position	Department/ Centre	From	To
Coordinator	DST Centre for Policy Research	Feb 2022	Continuing
Associate Dean of Student's Welfare	Panjab University	Jan 2026	Continuing
IPR-chair Professor	DPIIT IPR Chair	Sept 2022	July 2023
Secretary to Vice Chancellor	Vice Chancellor Office	May 2022	Jan 2023
Chairperson	Department of Biotechnology	Aug 2019	Aug 2022

11. Research Projects in lab:

Externally funded (Competitive grants): ongoing projects

S. No	Name of project	Funding agency	Duration	Amount (in lac)	Role
1	Developing genomic selection strategy for accelerating breeding program in perennial fruit crops grape, guava and mango	ICAR-NASF	2024-2027	124	CC-PI
2	DST-Centre for Policy Research at Panjab University to Strengthen Science Technology and Innovation led Public private partnerships, and intellectual property ecosystem in India.	DST	20023-2028	485	PI

Consultancy/industry-sponsored projects:

S. No	Name of project	Funding agency	Duration	Amount (in lac)	Role
1	Tissue culture studies on important medicinal plants	CSR	Jan 2023-March 2028	50	PI

Externally funded (Competitive grants): completed projects

S. No	Name of project	Funding agency	Duration	Amount (in lac)	Role
1	CRISPR-Cas9 mediated biofortification of potato	SPARC, MoE	2023-2026	46	PI
2	"Genome Editing Mediated Nutritional Improvement of Potato (<i>Solanum tuberosum</i> L.)"	DBT	2022-2026	118	PI
3	To study the crosstalk between long non-coding RNAs and MYB transcription factors for enhancement of drought tolerance in <i>Brassica sp</i>	SERB	2022-2025	44	PI
4	Functional characterization of <i>TaMSL5-D</i> of bread wheat	SERB	2021-2024	62	Co-PI

5	Exploring the resistance potential of pseudo R-genes to evoke fungal resistance in <i>Vitis vinifera</i> (Grapevine)	SERB	2020-2023	56	PI
6	The Study of Technology Transfer Centers to Increase Commercialization of Innovation	United Nations industrial development organization (UNIDO)	Aug 2022-May 2023	32	PI
7	Targeted editing of Potato Genome for production of true potato seeds (TPS).	NASF-ICAR	2018-2022	206	PI
8	Deep sequencing of small RNAs to identify and characterize microRNAs from <i>Chlorophytum borivillianum</i>	CSIR	2017-2020	9	PI
9	Genome wide identification and characterization of powdery mildew responsive NBS-LRR genes in grapes	SERB	2017-2020	36	PI
10	An integrated approach of molecular breeding for downy and powdery mildew resistance in grapes	DBT	2015-2018	84	PI
11	Silencing of Cap Binding Proteins (cbp20 and cbp80) to study their role in abiotic stress tolerance in plants	UGC	2013-2017	7.9	PI
12	<i>De novo</i> transcriptome sequencing of <i>Chlorophytum borivillianum</i> using RNA-Seq Technology	CSIR	2013-2015	30	PI
13	A study on expression and characterization of lipolytic enzymes in dormant stage of <i>Mycobacterium tuberculosis</i> by transcriptome analysis.	DBT	2013-2016	45	Co-PI
14	Functional Genomics of Saponins biosynthesis in <i>Chlorophytum borivillianum</i>	CSIR	2008-2011	22	PI

15	Flavonoid biosynthesis in <i>Phyllanthus emblica</i> : Gene cloning, functional characterization and regulation	DST	2008-2011	24	PI
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12. List of publications:

Total Number of Publications: 179 (*h-index* 41; *i-10 index* 104)

Books & reports : 6

Research Papers: 131

Review Articles : 20

Book Chapters : 22

Books & reports:

1. **Kashmir Singh**, Nishika, Ravneet Kaur, Aditi Chauhan (2025) A handbook on Technology Transfer. NIPA Publisher New Delhi. ISBN: 978-93-72192-17-9
2. **Kashmir Singh** • Nirmala Chongtham • Radhika Trikha • Mamta Bhardwaj • Sukhdeep Kaur (2024) Science, Technology and Innovation Ecosystem: An Indian and Global Perspective. Springer Nature Singapore. ISBN 978-981-97-2815-2 (eBook) <https://doi.org/10.1007/978-981-97-2815-2>
3. **Kashmir Singh**, Ravneet Kaur, Rupesh Deshmukh (2024) Biotechnological Advances for Disease Tolerance in Plants. Springer Singapore. DOI : 10.1007/978-981-99-8874-7.
4. Rupesh Deshmukh, Altafhusain Nadaf, Waquar Akhter Ansari, **Kashmir Singh**, Humira Sonah (2023) Biofortification in Cereals. Progress and Prospects. Springer Singapore. <https://doi.org/10.1007/978-981-19-4308-9>.
5. Report on "Technology Transfer Centres to increase commercialization of innovations in India" study by DST-CPR at Panjab University in association with UNIDO under Mentorship of Prof **Kashmir Singh**. <https://www.low-carbon-innovation.org/technology-transfer.html>
6. Report on "A Comprehensive Analysis of India's Innovation Ecosystem by Mapping the Patent Landscape of Higher Educational Institutions and Research Organisations" study by DST-CPR at Panjab University under Mentorship of Prof **Kashmir Singh**. https://drive.google.com/file/d/1wYd5ApPh1ZM_GEAjnmBdmtsHlcvnsKCO/view

Research Papers:

1. Naina Garewal, Neetu Goyal, Monika Bhuria, Nandni Goyal, Hanny Chauhan, **Kashmir Singh** (2026) Expression of VvNLRs in Arabidopsis thaliana activates defense-responsive pathways to counter biotic stress. **Functional Plant biology**. 53 (4): FP25385. <https://doi.org/10.1071/FP25385>. (IF 2.7)
2. Garima Kakkar, Tanvi Mongia, Santosh Kumar Upadhyay, **Kashmir Singh** (2026) Genome-Wide Identification and Characterization of Thaumatin-Like Proteins in Potato (*Solanum tuberosum* L.) and Their Role in Stress Tolerance. **Molecular Biotechnology**. <https://doi.org/10.1007/s12033-026-01569-y>. (IF 2.5).
3. Aditi Chauhan, **Kashmir Singh** (2026) Higher education trends in India: a comprehensive analysis of NIRF university rankings (2016–2024). **Quality & Quantity** <https://doi.org/10.1007/s11135-026-02685-2>.

4. Kamaldeep Joshi, Varun Kumar, Sumit Kumar, Kriti Katyal, Rainu Nandal, Ashima Nehra, **Kashmir Singh***, Narendra Tuteja, Ritu Gill, Sarvajeet Singh Gill (2026) A deep learning mobile application for tomato leaf nutrition deficiency identification with YOLOv8 and enhanced augmentation. **Plant Science**. 364: 112973 .<https://doi.org/10.1016/j.plantsci.2026.112973>. (IF 4.1) (* joint corresponding authors). (IF 4.5)
5. Kamaldeep Joshi, Yashasvi Yadav, Sahil Hooda, Rainu Nandal, Baljinder Singh, **Kashmir Singh***, Narendra Tuteja, Ritu Gill*, Sarvajeet Singh Gill* (2025) Classification of cotton leaf disease using YOLOv8 based k-fold cross validation deep learning method for precision agriculture. **Scientific reports**. DOI:m 10.1038/s41598-025-13147-4 (IF 4.37) (* joint corresponding authors).
6. Ayan Adhikari, Rinku Balhara, Zahed Hossain, **Kashmir Singh** (2025) Mechanistic insights into polystyrene nanoplastics (PSNPs) mediated imbalance of redox homeostasis and disruption of antioxidant defense system leading to oxidative stress in black mustard (*Brassica nigra* L.). **Plant Physiology and Biochemistry**. Vol. 229: 10480, <https://doi.org/10.1016/j.plaphy.2025.110480>. (IF 5.7)
7. Muskan Bokolia, Tanu Singh, Nandni Goyal, Avneesh Kumar, **Kashmir Singh**, Baljinder Singh (2025) Genome-wide identification and characterization of GATA transcription factors in *Avena sativa* L. and expression profiling under salinity stress. **Journal of Applied Genetics**. <https://doi.org/10.1007/s13353-025-01007-w> (IF 1.9)
8. Madhu, Deepika, Alok Sharma, Ishu, **Kashmir Singh**, Santosh Kumar Upadhyay (2025) Expression of *Glutathione Reductase 2-D (TaGR2-D)* From *Triticum aestivum* Facilitates Arsenic Tolerance by Modulating GSH Pool and Arsenic Transporters in Transgenic Arabidopsis. *Physiologia Plantarum*. Vol. 177: e70439 <https://doi.org/10.1111/ppl.70439> (IF 3.6)
9. Aditi Chauhan, Ravneet Kaur, **Kashmir Singh** (2025) Unmet Data Needs: Barriers to Policy Making and National Growth. **Current science**. Vol 5: 3795. DOI <https://doi.org/10.52845/CS/2025-5-4-38> (IF 1.1)
10. Ashima Nehra, Gopal Kalwan, Diksha Taneja, Radha Jangra, Kamaldeep Joshi, Ajit Kumar, P.K. Jain, Kiran Nehra, Mohammad Wahid Ansari, **Kashmir Singh**, Narendra Tuteja, Ritu Gill, Sarvajeet Singh Gill, (2025) Comprehensive structural, evolutionary and functional analysis of superoxide dismutase gene family revealed critical role in salinity and drought stress responses in chickpea (*Cicer arietinum* L.). **Plant Physiology and Biochemistry**. 226: 110042, <https://doi.org/10.1016/j.plaphy.2025.110042>. (IF. 5.7)
11. Anshu Alok, Hanny Chauhan, Biswaranjan Rout, Ashutosh Pandey, **Kashmir Singh**, (2025) CRISPR/dCas9-KRAB mediated transcriptional suppression of NtbHLH47 enhances tolerance to iron stress and modulates iron content in tobacco. **Plant Science**, 354: 112449, <https://doi.org/10.1016/j.plantsci.2025.112449>. IF 4.2)
12. Rinku Balhara, Deepika Verma, Ravneet Kaur, **Kashmir Singh** (2024). MYB transcription factors, their regulation and interactions with non-coding RNAs during drought stress in *Brassica juncea*. **BMC Plant Biol** 24, 999 . <https://doi.org/10.1186/s12870-024-05736-8>. (If 4.3)
13. Sukhdeep Kaur, **Kashmir Singh** (2024) Private sectors's interventions in Disaster Risk Management. **International Journal of Disaster Risk Management** · Vol. 6, No. 2 · <https://doi.org/10.18485/ijdrm.2024.6.2.7>

14. Akhilesh Kumar, Sudarshan Singh Lakhawat, **Kashmir Singh**, Vikram Kumar, Kumar Sambhav Verma, Umesh Kumar Dwivedi, S.L. Kothari, Naveen Malik, Pushpender Kumar Sharma (2024) Metagenomic analysis of soil from landfill site reveals a diverse microbial community involved in plastic degradation. **Journal of Hazardous Materials**, 480: <https://doi.org/10.1016/j.jhazmat.2024.135804>. (IF 12.2)
15. Sharma, Y., Dixit, S., **Singh, K.**, Upadhyay SK (2024). Vascular plant one-zinc finger transcription factors: exploration of characteristic features, expression, coexpression and interaction suggested their diverse role in bread wheat (*Triticum aestivum* L.). **Plant Growth Regul** . <https://doi.org/10.1007/s10725-024-01264-5> (IF 3.5)
16. Aiana and **Kashmir Singh**. (2024) Glycoside hydrolases reveals their differential role in response to drought and salt stress in potato (*Solanum tuberosum*). **Functional Plant Biology** **51**, FP24114. doi:10.1071/FP24114. (If 2.8).
17. Hanny Chauhan, Anshu Alok, Aiana, Santosh K. Upadhyay, Ashutosh Pandey, **Kashmir Singh** (2024) CRISPR/Cas9 edited StbHLH47 lines exhibit altered expression profiling of iron regulating genes and increased iron content in Solanum tuberosum. **Current Plant Biology**, 38: 100354, <https://doi.org/10.1016/j.cpb.2024.100354>. (If 5.6).
18. Deepika Verma, Ravneet Kaur, Naveen and **Kashmir Singh** (2024) Quantum technology for transforming healthcare in India. **Current Science**. 126:1201. (If 1.6).
19. Aiana; Katwal, A.; Chauhan, H.; Upadhyay, S.K.; **Singh, K.** (2024) Genome-Wide Identification and Expression Analysis of the Broad Complex, Tramtrack, and Bric-a-brac Domain-Containing Protein GeneFamily in Potato. **Agriculture** .14, 771. <https://doi.org/10.3390/agriculture14050771>. (IF 3.6)
20. Ankush Jain, Nishi Sondhi, **Kashmir Singh**, Jagdeep Kaur *(2024) Heterologous expression of nattokinase in E. coli: Biochemical characterization and functional analysis of fibrin binding residues. **Archives of Biochemistry and Biophysics**. 757:110026.<https://doi.org/10.1016/j.abb.2024.110026>. (IF 3.9).
21. Amandeep Kaur, Alok Sharma, **Kashmir Singh**, Santosh Kumar Upadhyay (2024) Investigation of two-pore K⁺ (TPK) channels in Triticum aestivum L. suggests their role in stress response. **Heliyon**. 10: e27814. <https://doi.org/10.1016/j.heliyon.2024.e27814> (If 4.0)
22. Yashraaj Sharma, Ishu, Shumayla, Sameer Dixit, **Kashmir Singh**, Santosh Kumar Upadhyay (2024) Decoding the features and potential roles of respiratory burst oxidase homologs in bread wheat. **Current Plant Biology**, 37:100315, <https://doi.org/10.1016/j.cpb.2023.100315>. (I.F. 5.34).
23. Madhu, Kaur, A., **Singh, K.** et al. Ascorbate oxidases in bread wheat: gene regulatory network, transcripts profiling, and interaction analyses provide insight into their role in plant development and stress response. **Plant Growth Regul** (2023). <https://doi.org/10.1007/s10725-023-01103-z>. (I.F. 4.00)
24. Chauhan H, Aiana, **Singh K.** 2023. Genome-wide identification of 2-oxoglutarate and Fe (II)-dependent dioxygenase family genes and their expression profiling under drought and salt stress in potato. **PeerJ** 11:e16449 DOI 10.7717/peerj.16449 (I.F. 3.06)
25. Naeem M., Gill Ritu, Gill Sarvajeet Singh, **Singh Kashmir**, Sofo Adriano, Tuteja Narendra (2023) Editorial: Emerging contaminants and their effect on agricultural crops. **Frontiers in Plant Science**; 14, DOI: 10.3389/fpls.2023.1296252 . (I.F. 6.627)
26. Muskan Bokolia , Baljinder Singh , Avneesh Kumar , Nandni Goyal , **Kashmir Singh** Ravindresh Chhabra (2023) Genome-wide identification of NAC transcription factors in Avena sativa under salinity stress., **Plant Stress**, doi: <https://doi.org/10.1016/j.stress.2023.100276>. (I.F. 5.1)
27. Madhu, Alok Sharma, Amandeep Kaur, **Kashmir Singh** and Santosh Kumar Upadhyay (2023) Modulation in gene expression and enzyme activity suggested the roles of

- monodehydroascorbate reductase in development and stress response in bread wheat, **Plant Science**. doi:<https://doi.org/10.1016/j.plantsci.2023.111902>. (I.F. 5.363)
28. Shivi Tyagi, Shumayla, Yashraaj Sharma, Madhu, Alok Sharma, Ashutosh Pandey, **Kashmir Singh**, Santosh Kumar Upadhyay (2023) TaGPX1-D overexpression provides salinity and osmotic stress tolerance in Arabidopsis. **Plant Science**. 337: 111881. <https://doi.org/10.1016/j.plantsci.2023.111881>. (I.F. 5.363)
 29. Singh Parul, Kumar Arbind, Chhabra Ravindresh, **Singh Kashmir**, Kaur, Jagdeep (2023) MSMEG_5850, a stress-induced TetR protein, involved in global transcription regulation in Mycobacterium smegmatis. **Future Microbiology**. doi: 10.2217/fmb-2022-0238. (I.F. 3.55)
 30. Siddappa S, Sharma N, Salaria N, Thakur K, Pathania S, Singh B, Sharma H, Sood S, Bhardwaj V, Thakur AK, Mangal V, Kumar V, Muruthachallam R, **Singh K**, Tuli R. (2023) CRISPR/Cas9-mediated editing of phytoene desaturase (*PDS*) gene in an important staple crop, potato. **3 Biotech**. 13(5):129. doi:10.1007/s13205-023-03543-w. (I.F. 2.893)
 31. Shumayla, Shivi Tyagi, Yashraaj Sharma, Madhu, Alok Sharma, Ashutosh Pandey, **Kashmir Singh**, Santosh Kumar Upadhyay (2023) Expression of TaNCL2-A ameliorates cadmium toxicity by increasing calcium and enzymatic antioxidants activities in Arabidopsis. **Chemosphere**. 329, 138636. DOI: [10.1016/j.chemosphere.2023.138636](https://doi.org/10.1016/j.chemosphere.2023.138636). (I.F. 8.943)
 32. Ravneet Kaur, Shivalika Pathania, Monika Kajal, Vasundhara Thakur, Jagdeep Kaur, **Kashmir Singh** (2023) Integrated analysis of smRNAome, transcriptome, and degradome data to decipher microRNAs regulating costunolide biosynthesis in Saussurea lappa. **Plant Science**. 111689. <https://doi.org/10.1016/j.plantsci.2023.111689>. (I.F. 5.363)
 33. Kaur, A.; Madhu; Sharma, A.; **Singh, K**; Upadhyay, S.K. Exploration of Piezo Channels in Bread Wheat (*Triticum aestivum* L.). **Agriculture** 2023, 13, 783. <https://doi.org/10.3390/agriculture13040783>. (IF 3.50)
 34. Nishant Kaushal, Deepika Verma, Anshu Alok, Ashutosh Pandey, **Kashmir Singh** (2023). Heterologous expression of *Chlorophytum borivillianum* Squalene epoxidase in tobacco modulates stigmaterol production and alters vegetative and reproductive growth. **Plant Cell Reports**. <https://doi.org/10.1007/s00299-023-03000-1> (I.F. 6.2)
 35. Deepika Verma, Nishant Kaushal, Rinku Balhara, **Kashmir Singh** (2023) Genome-wide analysis of Catalase gene family reveal insights into abiotic stress response mechanism in *Brassica juncea* and B. rapa. **Plant Science** 330 (2023) 111620. <https://doi.org/10.1016/j.plantsci.2023.111620>. (I.F. 5.363)
 36. Nandini Goyal, Monika Bhuria, Deepika Verma, Naina Garewal, **Kashmir Singh** (2023) Genome-Wide Identification of BTB Domain-Containing Gene Family in Grapevine (*Vitis vinifera* L.). **Agriculture** 13, 252. <https://doi.org/10.3390/agriculture13020252>. (I.F. 3.5)
 37. Alok, A., Kaushal, N., Chauhan, H., Aiana and **Singh, K**. (2022) Rapid and efficient CRISPR/Cas9-mediated genome editing in potato via hairy root induction. **In Vitro Cell. Dev. Biol.** doi : 10.1007/s11627-022-10318-0. (IF - 2.72)
 38. Kaur, A., Sharma, A., Madhu, Dixit, S., **Singh, K**. and Upadhyay, S.K. (2022) OSCA genes in bread wheat: Molecular characterization, expression profiling, and interaction analyses indicated their diverse roles during development and stress response. **Int. J. Mol. Sci.**, 23, 14867. doi: doi.org/10.3390/xxxxx. (IF - 6.208)
 39. Garewal, N., Pathania, S., Bhatia, G. and **Singh, K**. (2022) Identification of Pseudo-R genes in *Vitis vinifera* and characterization of their role as immunomodulators in host-pathogen interactions. **J. Adv. Res.** 42, 17-28. doi: 10.1016/j.jare.2022.07.014. (IF – 12.822)
 40. Smoczynska, A., Pacak, A., Grabowska, A., Bielewicz, D., Zadworny, M., **Singh, K**, Jakub, D., Mateusz, B., Przemysław, N., Jacek, K., Magdalena, W., Izabela, R., Harwood, W., Wojciech, K.M., Jarmolowski, A. and Szweykowska-Kulińska, Z. (2022) Excess

- nitrogen responsive HvMADS27 transcription factor controls barley root architecture by regulating abscisic acid level. **Front. Plant Sci.** 13, 950796. doi: 10.3389/fpls.2022.950796. (IF – 6.627)
41. Singh, B. and **Singh, K.** (2022) Microplastics contamination in soil affects growth and root nodulation of fenugreek (*Trigonella foenum-graecum* L.) and 16S rRNA sequencing of rhizosphere soil. **J. Hazard. Mater. Advan.** 7, 100146. doi: 10.1016/j.hazadv.2022.100146.
 42. Kapoor, R., Kumar, G., Pawar, L., Salvi, P., Devanna, B.N., **Singh, K.** and Sharma T.R. (2022) Stress responsive *OsHyPRP16* promoter driven early expression of resistance gene Pi54 potentiate the resistance against *Magnaporthe oryzae* in transgenic rice. **Plant Sci.** 10.1016/j.plantsci.2022.111413. (IF - 5.363)
 43. Jogam, P., Sandhya, D., Alok, A., Shekhawat, M.S., Peddaboina, V., **Singh, K.** and Allini, V.R. (2022) *Agrobacterium*-mediated genetic transformation and cloning of candidate reference genes in suspension cells of *Artemisia pallens* Wall. ex DC. **3 Biotech** 12, 194. doi: 10.1007/s13205-022-03251-x. (IF – 2.893)
 44. Shumayla, Mendu, V., **Singh, K.** and Upadhyay, S.K. (2022) Insight into the roles of proline-rich extensin-like receptor protein kinases of bread wheat (*Triticum aestivum* L.)" **Life** 12, 7: 941. doi: 10.3390/life12070941. (IF – 3.253)
 45. Goyal, N., Nag, A., Samarth, R.R., Upadhyay, A. and **Singh, K.** (2021) Identification and characterization of Simple Sequence repeats (SSR) markers associated with downy mildew resistance locus "RPV1 " in grapes. **Adv. Biosci. Biotechnol.** 12, 371-387. doi: 10.4236/abb.2021.1211024.
 46. Goyal, N., Bhatia, G., Garewal, N., Upadhyay A. and **Singh, K.** (2021) Identification of defense related gene families and their response against powdery and downy mildew infections in *Vitis vinifera*. **BMC Genom.** 22, 776. doi: 10.1186/s12864-021-08081-4. (IF – 4.547)
 47. Verma, D. and **Singh, K.** (2021) Understanding role of Glutathione Reductase gene family in drought and heat stresses in *Brassica juncea* and *B. rapa*, **Environ. Exp. Bot.** 190: 104595, doi: 10.1016/j.envexpbot.2021.104595. (IF -6.028)
 48. Shumayla, Madhu, **Singh, K.** and Upadhyay, S.K. (2021) LysM domain-containing proteins modulate stress response and signalling in *Triticum aestivum* L.. **Environ. Exp. Bot.** 189, 104558. doi: 10.1016/j.envexpbot.2021.104558. (IF - 6.028)
 49. Bhatia, G., Upadhyay, S.K., Upadhyay, A. and **Singh, K.** (2021) Investigation of long non-coding RNAs as regulatory players of grapevine response to powdery and downy mildew infection. **BMC Plant Biol.** 21, 265. doi: 10.1186/s12870-021-03059-6. (IF - 5.26)
 50. Verma, D., Upadhyay, S.K., and **Singh, K.** (2021) Characterization of APX and APX-R gene family in *Brassica juncea* and *B. rapa* for tolerance against abiotic stresses. **Plant Cell Rep.** doi: 10.1007/s00299-021-02726-0. (IF - 4.964)
 51. Madhu, Kaur, A., Tyagi, S., Shumayla, **Singh, K.** and Upadhyay, S.K. (2021) Exploration of glutathione reductase for abiotic stress response in bread wheat (*Triticum aestivum* L) **Plant Cell Rep.** 41, 639-654. doi: 10.1007/s00299-021-02717-1. (IF - 4.964)
 52. Alok, A., Tyagi, S., **Singh, K.** and Pandey, A. (2021) Targeted metabolite profiling of five cultivars of *Vitis vinifera* L. fruits. **ACS Food Sci. Technol.** 1, 653-659. doi: https://10.1021/acsfoodscitech.0c00065
 53. Kaushal, N., Alok, A., Kajal, M. and **Singh, K.** (2021) Regeneration and genetic fidelity analysis of *Chlorophytum borivillanum* using flower stalk as explant source. **Adv. Biosci. Biotechnol.** 12, 95-107. doi: 10.4236/abb.2021.124007

54. Thakur, V., Bains, S., Kaur, R., and **Singh, K.** (2021) Identification and characterization of SlbHLH, SlDof and SlWRKY transcription factors interacting with *SIDPD* gene involved in costunolide biosynthesis in *Saussurea lappa*. **Int. J. Biol. Macromol.** 173, 146-159. doi: 10.1016/j.ijbiomac.2021.01.114. (IF – 8.025)
55. Bhatia, B., Upadhyay, S.K. and **Singh, K.** (2020) *Vitis vinifera* (grapevine) lncRNAs are potential regulators of response to necrotrophic fungus, *Botrytis cinerea* infection. **Physiol. Mol. Plant Pathol.** 112, 101553. doi: 10.1016/j.pmpp.2020.101553. (IF – 2.741)
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10. Mandhan, Vibha, and **Kashmir Singh**. 2022. "Recent Advances in Molecular Diagnostics of Stevia Rebaudiana Bertoni: A Review". *International Journal of Plant & Soil Science* 34 (24):647-60. <https://doi.org/10.9734/ijpss/2022/v34i242686>.
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Book Chapters:

1. Radhika Trikha and **Kashmir Singh** (2024) Science, Technology and Innovation (STI) Policy Framework for Socio-economic Growth of the Nations. K. Singh et al. (eds.), *Science, Technology and Innovation Ecosystem: An Indian and Global Perspective*, https://doi.org/10.1007/978-981-97-2815-2_1.
2. Monika Kajal, Radhika Trikha, and **Kashmir Singh** (2024) A Comprehensive Study of the Governance of India's Scientific, Technological, and Innovative Endeavors. K. Singh et al. (eds.), *Science, Technology and Innovation Ecosystem: An Indian and Global Perspective*, https://doi.org/10.1007/978-981-97-2815-2_3.
3. Aditi Chauhan, Radhika Trikha, and **Kashmir Singh** (2024) Reinvigorating Science, Technology, and Innovation in the Country by Factoring Components of the Innovation System. K. Singh et al. (eds.), *Science, Technology and Innovation Ecosystem: An Indian and Global Perspective*, https://doi.org/10.1007/978-981-97-2815-2_4.
4. Aditi Chauhan, Mamta Bhardwaj, and **Kashmir Singh** (2024) Navigating the Legal Landscape of Intellectual Property Rights in India: Protection, Enforcement, and Innovation. K. Singh et al. (eds.), *Science, Technology and Innovation Ecosystem: An Indian and Global Perspective*, https://doi.org/10.1007/978-981-97-2815-2_10.
5. Ruchi Verma, Sukhdeep Kaur, and **Kashmir Singh** (2024) Fostering Inclusive Development with Citizen Science and Geospatial Technologies. K. Singh et al. (eds.), *Science, Technology and Innovation Ecosystem: An Indian and Global Perspective*, https://doi.org/10.1007/978-981-97-2815-2_14.
6. Anuradha Upadhyay, Roshni R. Samarth, Nandni Goyal, **Kashmir Singh** (2024) Allele Mining for Complex Traits in Grapevine. In Allele Mining for Genomic Designing of Fruit Crops. Eds Chittaranjan Kole, Kenta Shirasawa, Anil Kumar Singh. CRC Press Boca Raton. <https://doi.org/10.1201/9781003386490>
7. Shivani, Hanny Chauhan, **Kashmir Singh** (2024) Genome-Editing Advances for Disease Resistance in Plants in Biotechnological Advances for Disease Tolerance in Plants. Eds. Kashmir Singh, Ravneet Kaur, Rupesh Deshmukh. pp 293-316. Publisher Springer Nature Singapore.
8. Nandni, Monika Bhuria, Ravneet Kaur, **Kashmir Singh** (2024) Role of Non-coding RNAs in Disease Resistance in Plants in Biotechnological Advances for Disease Tolerance in Plants. Eds. Kashmir Singh, Ravneet Kaur, Rupesh Deshmukh pp 167-190. Publisher Springer Nature Singapore
9. Jaishree, Naina Garewal, Ravneet Kaur, **Kashmir Singh** (2024) Transgenic Plants for Bacterial and Fungal Disease Tolerance in Plants in Biotechnological

Advances for Disease Tolerance in Plants. Eds. Kashmir Singh, Ravneet Kaur, Rupesh Deshmukh pp 269-292. Publisher Springer Nature Singapore

10. Savita Bains, Vasundhara Thakur, **Kashmir Singh**, Ravneet Kaur (2023) Production of Sesquiterpene Lactones in Family Asteraceae: Structure, Biosynthesis, and Applications. Sobti, R., & Sobti, A. (Eds.). Biomedical Research, Medicine, and Disease (1st ed.). CRC Press. <https://doi.org/10.1201/9781003220404>
11. **Singh, K.** (2022). CRISPR: Genome Editing and Beyond. In: Sobti, R., Sobti, A. (eds) *Biomedical Translational Research*. (pp. 167-180). Springer, Singapore. doi: 10.1007/978-981-16-4345-3_12
12. Garewal, N., Joon, R., Kaur, R., & **Singh, K.** (2022). Genomic Selection: Advances, Applicability, and Challenges. In: Sonah, H., Goyal, V., Shivaraj, S.M., Deshmukh, R.K. (eds) *Genotyping by Sequencing for Crop Improvement*, (pp. 141-160). John Wiley & Sons, Inc.
13. Bhardwaj, P.K. & **Singh, K.** (2021). Technologies for Production of Nutraceuticals and Functional Food Products. In: Rai, A. K., Singh, S. P., Pandey, A., Larroche, C., & Soccol, C. R. (Eds.). *Current Developments in Biotechnology and Bioengineering*. Elsevier.
14. Alok, A., Nag, A., Kumar, J., Jogam, P., **Singh, K.** & Singh, S. P. (2021). Improvement of Abiotic Stress Tolerance by Modulating Polyamine Pathway in Crop Plants. In: Wani, S.H., Gangola, M.P., Ramadoss, B.R. (eds) *Compatible Solutes Engineering for Crop Plants Facing Climate Change* (pp. 129-143). Springer, Cham. doi: 10.1007/978-3-030-80674-3_5
15. Bhatia, G., Goyal, N., Upadhyay, S. K., & **Singh, K.** (2021). Revisiting plant response to fungal stress in view of long noncoding RNAs. In: Upadhyay, S.K. (eds) *Long Noncoding RNAs in Plants* (pp. 293-311). Academic Press. doi: 10.1016/B978-0-12-821452-7.00019-2.
16. Kaur, R., Kaur, G., **Singh, K.** & Singh, B. (2020). Plant growth and development under suboptimal light conditions. In Kumar, M., Kumar, V., Prasad, R. (eds) *Phyto-Microbiome in Stress Regulation* (pp. 205-217). Springer, Singapore. doi: 10.1007/978-981-15-2576-6_10.
17. Nag, A., Alok, A. & **Singh, K.** (2019). Applications of Landscape Genetics to Study the Effect of Varying Landscapes and Environmental Challenges in Plant Populations. In: Singh, S., Upadhyay, S., Pandey, A., Kumar, S. (eds) *Molecular Approaches in Plant Biology and Environmental Challenges* (pp. 171-187). Springer, Singapore. doi: 10.1007/978-981-15-0690-1_9.
18. Singh, B. & **Singh, K.** (2016). Bacillus: as bioremediator agent of major environmental pollutants. In: Islam, M., Rahman, M., Pandey, P., Jha, C., Aeron, A. (eds) *Bacilli and Agrobiotechnology* (pp. 35-55). Springer, Cham. doi: 10.1007/978-3-319-44409-3_2.
19. Singh, B. & **Singh, K.** (2017). Microbial Remediation of Trace Metals from Aquatic System: An Overview. In: Anjum N. A. (eds) *Chemical Pollution Control with Microorganisms*. Nova Science Publishers, Inc.
20. Singh, B., Kaur, J. & **Singh, K.** (2014). Degradation of TNP, RDX, and CL-20 Explosives by Microbes. In: Singh, S. (eds) *Biological remediation of explosive residues* (pp. 87-111). Springer, Cham. doi: 10.1007/978-3-319-01083-0_5.
21. **Singh, K.**, Kaur, R. & Qiu, W. (2012). New virus discovery by deep sequencing of small RNAs. In: Jin, H., Gassmann, W. (eds) *RNA Abundance Analysis* (pp. 177-191). Humana Press, Totowa, NJ. doi: 10.1007/978-1-61779-839-9_14.
22. Kaur, H., Kumar, S., Kaur, I., **Singh, K.** & Bharadwaj, L. M. (2009). *In-vitro* transportation of drug molecule by actin myosin motor system. In: Lim, C.T., Goh, J.C.H. (eds) *13th International Conference on Biomedical Engineering* (pp. 902-905). Springer, Berlin, Heidelberg. doi: 10.1007/978-3-540-92841-6_223.

13. List of Patents

List of Patents Applied/filed:

1. Synthetic peptide and method of preparing the same. Indian Patent Application No. 202511054408
2. Process for bulblet production and plant propagation of *Narcissus poeticus*. Indian Patent Application No. 202511018742 (Feb 2025)
3. Method for preparing bio-stimulant from hair waste. Provisional Patent Application No. 202511055243 (June 2025).
4. Synthesis and x-ray characterization of (e)-4-methyl-2-(((1-(prop-2-yn-1-yl)-1h-indol-3yl)methylene)amino)phenol as a plant growth promoter for reviving rootless *Narcissus poeticus* BULBS" Patent filed in IPO in Oct 2025. Application number 202511097668.
5. IoT-based plant tissue culture apparatus. Design Application No. 419920-001 (Aug 2024)

ii) Granted:

S. No	Patent Title	Patent Grant No.	Country of patent Release
1	A method for rapid isolation of RNA and kit thereof. (Patent granted in Multiple countries)	259562	India
		WO2007113614A1	PCT
		EP2004822	European Patent Office
		2006341291	Australia
		ZL20068005561.3	New Zealand
		PI0621562	Brazil
		20110184162	USA
		101437941	China
2	Method of cloning stable stress tolerant superoxide dismutase using degenerate primers	WO/2009/122441	PCT
		09212350	US
		2268661	European Patent Office
3	A method for cloning functional gene of copper/zinc superoxide dismutases using oligonucleotide primers	307703	India

14. Technology transfer: Transferred technology of the kit for isolation of RNA to M/s Bangalore Genei, Chennai on 10/10/2007 Rs. 3.25 lakhs @ 5.0% on the Ex works sale price (net of all levies and statutory duties)of the PRODUCT for a period of first five years and @ 3% for subsequent period of five years for the sales

15. Other Academic activities:

- I. Member of board of studies in Biotechnology, PU, Chandigarh
- II. Member of board of control in Biotechnology, PU, Chandigarh
- III. Member of Board of Studies in Bioinformatics, PU, Chandigarh.
- IV. Chairman of board of control in Biotechnology, at MRSPT University, Bathinda, Punjab.
- V. Member of research monitoring committee in Botany, PU, Chandigarh.
- VI. Reviewer of US-Israel BARD and MARD Grants.
- VII. Editorial Board member and Reviewer of journals of international repute such as Scientific reports, BMC Plant Biology, Frontiers in Genetics etc.

16. List of Ph.D students (Degree awarded)

Guidance as supervisor:

S. No	Student's Name	Title of thesis
1	Aiana	Characterization of genes regulating meiosis and acrylamide formation in potato
2	Hanny Chauhan	Genetic improvement of potato by modulating iron and solanine contents
3	Naina Garewal	Fungal responsive <i>NBS-LRR</i> genes in grapevine: Functional characterization and genomic profiling to identify their pseudogene counterparts
4	Nishant Kaushal	Functional Characterization of <i>Squalene epoxidase</i> (SE) gene isolated from <i>Chlorophytum borivillianum</i> .
5	Deepika Verma	Identification, Characterization and Comparative Analysis of Multigene family encoding major Reactive Oxygen Species (ROS) scavenging enzymes in <i>Brassica</i> sp.
6	Vasundhara Thakur	Identification and analysis of regulatory elements and associated transcription factors of costunolide biosynthetic pathway genes in <i>saussurea lappa</i> .
7	Garima Bhatia	Genome-wide identification and functional analysis of long non-coding RNAs in <i>Vitis vinifera</i> (grapevine)
8	Neetu Goyal	Identification and Characterization of Nucleotide Binding Sites Leucine Rich Repeats (<i>NBS-LRR</i>) genes and simple sequence repeats (SSR) markers associated with fungal resistance in grapes (<i>Vitis Vinifera</i>).
9	Ritu Kapoor	Molecular cloning and characterization of <i>Magnaporthe oryzae</i> inducible promoter from rice
10	Shumayla	Identification and molecular characterization of receptor like kinases (RLK) protein family in <i>Triticum aestivum</i>
11	Savita Bains	Functional genomics studies of costunolide biosynthesis in <i>Saussurea lappa</i>
12	Monika Kajal	Identification and characterization of RNA mediated gene silencing components in the plant, <i>Chlorophytum borivillianum</i>
13	Neha Lakhanpal	Characterization of stress responsive genes, <i>Uncoupling protein1</i> (<i>UCP1</i>) and <i>Cap binding proteins</i> (<i>cbp20</i> and <i>cbp80</i>), from <i>Brassica juncea</i>

14	Vibha Mandhan	Mining the <i>Stevia rebaudiana</i> smRNAome for identification and characterization of microRNAs
15	Sunil Kumar	Functional genomics of saponins biosynthesis in <i>Chlorophytum borivillianum</i>
16	Avneesh Kumar	Cloning and Functional Characterization of Early Genes Involved in Flavonoid Biosynthesis in <i>Phyllanthus emblica</i> (L.)
17	Arun Rana	Bioprospecting thermostable superoxide dismutase from the flora of western Himalayas
18	Shikha Kalra	Cloning and Characterization of Early Genes Involved in Saponin Biosynthesis in <i>Chlorophytum borivillianum</i>
19	Hitesh Kumar	Molecular basis of stevioside biosynthesis in <i>stevia rebaudiana</i> bertonii, a source of non-calorific sweetener
20	Baljinder Singh	Microbial degradation of organophosphate pesticides and nitro-aromatic compounds

Guidance as Co-supervisor

S. No	Student's Name	Title of thesis
1	Nandita Dogra	A study on gene expression of lipolytic enzymes of <i>mycobacterium tuberculosis</i> h37ra, under <i>in-vitro</i> hypoxic stress simulation of wayne model: revelations by transcriptome analysis
2	Rohit Sharma	Allelic diversity of puroindolines in Indian wheat cultivars and their association with grain hardness and starch granules properties
3	Yogesh Gupta	Gene discovery for seedlessness in Annona fruits
4	Gurpreet Singh	Cloning and Characterization of lipase Lip V (Rv3203) and Lip L (Rv1497) from <i>Mycobacterium tuberculosis</i> H37Rv
5	Chalo Richard Mouki	Identification and Evaluation of Dehydration Responsive Transcriptome in <i>Camellia sinensis</i> (L.) O. Kuntze
6	Rajvinder Singh	Cloning of thermostable pectinase from metagenomic DNA: purification and biochemical characterization
7	Harsimran Kaur	Study of actomyosin based biomolecular motors for nanorobotics

17. Invited Lectures:

National

- 1) Delivered talk on **Counterfeiting & Piracy Unveiled: A deep dive into IPR during Workshop on "Fortifying IPR: Combating Counterfeiting and Piracy"** at CGC Mohali on Feb 21, 2024.
- 2) Delivered an expert talk on "Intellectual Property Rights" at the one-day national workshop on "Research Methodology in Science", organized by PGGC, Chandigarh held on 28th February, 2024.

- 3) An expert lecture was delivered on "Importance of IPR in research and innovation" at the workshop on IPR organized by GGDSD College, Chandigarh, under the PM-USHA scheme on 16th February, 2024.
- 4) Delivered a keynote lecture on Supporting innovation and entrepreneurship in academics during a Seminar on Industry-Academia Collaboration: IP Management and Technology Transfer" at Central University of Punjab Bathinda (February 14th, 2025).
- 5) Symposium on Innovation, Technology Transfer, and Entrepreneurship at CSIR-IGIB, New Delhi. Delivered talk on Entrepreneurship in Academia on Jan 28, 2025.
- 6) Role of IP protection for Viksit Bharat@2047 during DST PURSE sponsored one day workshop on Science Research and Innovation Protection at Amity University, Jaipur. March 22, 2024.
- 7) Genome Editing Technologies: Principle and Applications during 7 day SERB sponsored Karyshala on "Advances in Plant Metabolic Engineering" from March 11-17, 2024 at Central University of Punjab Bathinda.
- 8) Disaster Risk Management & Technological Innovations during Short-Term Course on Disaster Management and Environmental Awareness from 04-01-2024 to 10-01-2024 being conducted by the UGC-Malaviya Mission Teacher Training Centre(MMTTC), Guru Nanak Dev University, Amritsar.
- 9) Intellectual Property Rights: A key aspect of economic development at National Seminar on " MOOCs and Intellectual Property Rights at Guru Nanak National College Doraha, Ludhiana, March 4, 2023.
- 10)** Decoding fungal resistance mechanism in grapes by exploring R gene, non-coding RNAs and pseudo R gene counterparts at International Conference on Food and Nutritional Security & 5th International Plant Physiology Congress & 44th Annual Meeting of Plant Tissue Culture Association (India) January 6-9, 2023 NABI-CIAB, Mohali, India
- 11) Applications of Biotechnology in Biodiversity Conservation during One-Week online Short Term Course/workshop in Disaster Management and Environmental Awareness conducted by the UGC-Human Resource Development Centre (HRDC), Guru Nanak Dev University, Amritsar from October 29 to November 4, 2022.
- 12) Discovery and analysis of long non-coding RNAs from transcriptome analysis during Hands on Training course on "RNA sequencing and Metagenome data analysis" at CSIR-IIIM Jammu, Aug 22-25, 2022.
- 13) Metabolic engineering of biochemical pathways of medicinally important plants. International Student Symposium on Basic Sciences, Akal University, Talwandi Sabo, Punjab. May 19-21, 2022.
- 14) Deciphering the molecular pathways in plants using multi-omics approach. One-Day Virtual Symposium on "Informatics-Driven Advances in Biological Sciences" Organised By Department of Biological Sciences, BITS Pilani, Pilani Campus and Asia Pacific Bioinformatics Interaction and Networking Society (APBians) (March 2nd, 2022)

- 15) Long non-coding RNA landscape in *Vitis vinifera* reveals new layers of regulation of plant response to fungal stress. International Conference on Biotechnological Interventions to Overcome the Challenges of Covid/Post-Covid Era BIOCoPE-2022 [ONLINE] March 24-25, 2022.
- 16) Investigating the Pharmacologically important biochemical pathways in medicinal plants. Amity Institute of Biotechnology, Amity University Jaipur on 16.02.2022.
- 17) Role of modern sequencing technologies in crop improvement. Distinguished talk at department of Botany, DAV University, Jalandhar, Punjab, India on June 7, 2021.
- 18) Elucidating candidate genes and transcription factors of costunolide biosynthetic pathway in *Saussurea lappa* by Comparative Transcriptomics. 42nd PTCA(I) meeting and International Symposium on Advances in Plant Biotechnology and Genome Editing APBGE-2021 during April 8-10, 2021 at ICAR-Indian Institute of Agricultural Biotechnology, Ranchi, Jharkhand.
- 19) Biotechnology and Future of Mankind. Webinar on Plant Biotechnology Applications, Challenges and Prospects, March 18, 2021 organized by Department of Biotechnology, Dr YSP University of Horticulture & Forestry Nauni, Solan (Himachal Pradesh) 173 230 INDIA.
- 20) Combating Viral Infections with Nutraceutical and Medicinal Plants. International Webinar on 'Combating viral infections with Botanicals' on 14th December, 2020". The Botanical Society and P.G. Department of Botany, Khalsa College Amritsar, Punjab, India.
- 21) Phytotherapies for Tackling Covid-19. Student seminar series-2020, CSIR-IHBT, Palampur on Sept 5, 2020.
- 22) Modern sequencing technologies and their applications in crop improvement at Sri Guru Granth Sahib World University, Fatehgarh Sahib. Sept 20, 2019
- 23) Role of modern sequencing technologies in improvement of crop plants, at BBK DAV College, Lawrence Road , Amritsar, March 14, 2019.
- 24) Genetically modified crops: their production and biosafety issues " at Govt College Mohali, Nov 13, 2018.
- 25) "Junkomics: mining the long non-coding RNAs, emerging players of gene regulation" at CSIR, IHBT Palampur, Sept 5 2018.
- 26) Long Non-coding RNAs: new players in gene regulation at Dr GS Khush, department of agricultural biotechnology, Punjab Agriculture university, Ludhiana, Feb 2nd, 2018
- 27) Biotechnology: future of Mankind at Zonal institute of education and training, Chandigarh, July 26, 2017.
- 28) Long Non-Coding RNAs and their Impact on Plant Development and Stress Response at Agrigenomics India, 2017 held on July 20-21, 2017 at Chandigarh.

- 29) Transgenic crops: From hype to hope and reality, at Akal University, Talwandi Sabo, Punjab India on Nov 23, 2016
- 30) Genetic engineering: What we have achieved and where we are going on. PGGC, Sector 11, Chandigarh. Science day, Feb 28, 2016.
- 31) Role of Next generation sequencing technologies in accelerating research in plant sciences at National conference NCSTPB-2016. LKC, Jalandhar, India Feb 11-12, 2016.
- 32) Functional Genomics Studies in *Chlorophytum borivillianum*, A Plant with High Medicinal Value at Agrigenomics India, Chandigarh. Aug 20-21, 2015.

International

- 1) Invited lecture on "identification and characterization of long non coding RNAs involved in fungal infections in grapes" at Institute of molecular biology nad Biotechnology, Faculty of Biology, Adam Mickiewicz University, Poznan, Poland on Sept 5, 2025.
- 2) Delivered an expert lecture entitled Gene editing mediated nutritional improvement of crops in the International Conference on Translational Trends in Natural and Health Sciences (TTNHS-2024), from 4th-6th December 2024, organized by the Central University of Punjab, Bathinda.
- 3) Comprehending the DNA debris: excavation and analysis of pseudo-R genes from the non-coding genome of *Vitis vinifera* at EMBO | EMBL Symposium: The non-coding genome, 11 October 2023 to 14 October 2023 at EMBL, Heidelberg, Germany
- 4) Gene editing mediated nutritional and genetic improvement of potato. International Conference on Plant Biotechnology and Genome Editing. Kakatiya University, Warangal, Telangana. 27th - 29th June- 2023
- 5) Corporate Social Responsibility and Disaster Risk Management. International Conference on Industrial Roadmap of Uttarakhand: Vision 2025. Doon University, Dehradun, Uttarakhand. March 16-18, 2023
- 6) Decoding fungal resistance mechanism in grapes by exploring R genes and long non coding RNAs. International Conference on Biotechnology: Perspective and Challenges, ICBT-2020. Modern College of Arts, Science, and Commerce, Ganeshkhind, Pune-16, India. Feb 14-15, 2020.
- 7) Molecular characterization of structural and regulatory aspects of saponin biosynthesis in *Chlorophytum borivillianum* at 9th Annual Conference of the American Council for Medicinally Active Plants, International conference on medicinal, aromatic and nutraceutical plants, from mountainous areas, February 14-16, 2019, Dehradun, India

- 8) Decoding fungal resistance mechanism in grapes and genome editing for production of true potato seeds" at Department of Gene expression, UAM, Poznan, Poland on 19 July 2018.
- 9) Functional genomics of saponins biosynthesis in *Chlorophytum borivillianum*. EPS Montreal International Gene Conference, Montreal, Canada. Nov 3-4 2011.
- 10) Deep sequencing and analysis of small RNAs to detect new viruses infecting grapevines. Virology Retreat. Noble Foundation, Oklahoma USA. April 30th –May 2nd, 2010.