

## List of Publications:

1. Ramanjeet Kaur, Lubna Aslam, Nisha Kapoor and **Ritu Mahajan** (2018) Phytochemical analysis and antioxidant activity of wild pomegranate collected from Patnitop, Jammu & Kashmir. *Biosciences Biotechnology Research Asia*. **15**: 335-341.
2. Ramanjeet Kaur, Nisha Kapoor, Lubna Aslam and **Ritu Mahajan** (2019) Molecular characterization of PgUFGT gene and R2R3-PgMYB transcription factor involved in flavonoid biosynthesis in four tissues of wild pomegranate (*Punica granatum* L.). *Journal of Genetics* **98**:94.
3. Lubna Aslam, Ramanjeet Kaur, Nisha Kapoor and **Ritu Mahajan** (2020) Phytochemical composition and antioxidant activities of leaf extracts of *Viola odorata* from Kishtwar, Jammu and Kashmir. *Journal of Herbs, Spices & Medicinal Plants* **26**: 77-88.
4. Neelam Kumari, **Ritu Mahajan**, Vikas Gupta V et al. (2020) High-resolution genetic mapping of a novel bacterial blight resistance Gene *xa-45(t)* identified from *Oryza glaberrima* and transferred to *Oryza sativa*. *Theoretical and Applied Genetics* **133**: 689–705.
5. Ramanjeet Kaur, Lubna Aslam, Nisha Kapoor and **Ritu Mahajan** (2020) Identification and comparative expression analysis of Chalcone Synthase, Flavanone 3-Hydroxylase and Dihydroflavonol 4-reductase Genes in wild pomegranate (*Punica granatum* L.) organs. *Brazilian Journal of Botany*. **4**: 883-896.
6. Lubna Aslam, Ramanjeet Kaur, Venu Sharma, Nisha Kapoor and **Ritu Mahajan** (2021) Isolation and characterization of cyclotides from the leaves of *Viola odorata* L. using peptidomic and bioinformatic approach. *3 Biotech* **11**: 211.
7. Ramanjeet Kaur, Lubna Aslam, Shajaat Hussain, Nisha Kapoor and **Ritu Mahajan** (2021) Flavonoid biosynthetic pathway: Genetics and biochemistry. *Biosciences Biotechnology BioResearch Asia* **18** (2):271-286.
8. Surbhi Vaid, Surbhi Sharma, Harish Chander Dutt, **Ritu Mahajan** and Bijender Kumar Bajaj (2021) One pot consolidated bioprocess for conversion of *Saccharum spontaneum* biomass to ethanol-biofuel. *Energy Conversion and Management* **250**:114880.
9. Surbhi Vaid, Surbhi Sharma, Harish Chander Dutt, **Ritu Mahajan** and Bijender Kumar Bajaj (2022) An eco-friendly novel approach for bioconversion of *Saccharum spontaneum* biomass to biofuel-ethanol under consolidated bioprocess. *Bioresource Technology* **363**: 127784.
10. Lubna Aslam, Ramanjeet Kaur, Shajaat Hussain, Nisha Kapoor and **Ritu Mahajan** (2022) LC-MS/MS identification and structural characterization of isolated cyclotides from precursor sequences of *Viola odorata* L. petiole tissue using computational approach. *Journal of Biosciences* **47**: 50.

11. **Ritu Mahajan** and Nisha Kapoor (2023) Potential of Molecular Plant Breeding for Sustaining the Global Food Security. *Biosciences Biotechnology Bioresearch Asia* **20(1)**. [doi.org/10.13005/bbra/3072](https://doi.org/10.13005/bbra/3072)
12. Diksha Sawhney, Surbhi Vaid, Ridhika Bangotra, Surbhi Sharma, Harish Chander Dutt, Nisha Kapoor, **Ritu Mahajan** and Bijender Kumar Bajaj (2023) Proficient bioconversion of rice straw biomass to bioethanol using a novel combinatorial pretreatment approach based on deep eutectic solvent, microwave irradiation and laccase. *Bioresource Technology* **375** [doi.org/10.1016/j.biortech.2023.128791](https://doi.org/10.1016/j.biortech.2023.128791).
13. Shajaat Hussain, Nisha Kapoor, **Ritu Mahajan** (2023) High-frequency shoot multiplication and *in vitro* plantlet regeneration from shoot bud explants in *Curcuma zedoaria* Roscoe. *Journal of Herbs, Spices & Medicinal Plants* doi:org/10.1080/10496475.2022.2143463
14. Tania Sagar, Nisha Kapoor, **Ritu Mahajan** (2023) Development of genomic SSR markers for characterization of genetic diversity in wild pomegranate germplasm. *Genetic Resources and Crop Evolution*. DOI: 10.1007/s10722-023-01703-8
15. Vishal Sharma, Parushi Nargotra, Surbhi Sharma, Ridhika Bangotra, Akhlesh P. Singh, Nisha Kapoor, **Ritu Mahajan**, Bijender Kumar Bajaj (2024) Purification and biochemical characterization of an ionic liquid tolerant cellulase from *Aspergillus assiutensis* VS34 for potential biomass conversion applications. *Environmental Sustainability*. <https://doi.org/10.1007/s42398-024-00311-1>
16. Aanchal Bharti, Isar Sharma, **Ritu Mahajan**, Seema Langer, Nisha Kapoor (2024) From Cirrhosis to the Dysbiosis (A Loop of Cure or Complications?). *Indian J Microbiol* <https://doi.org/10.1007/s12088-024-01267-w> .

### **Book Chapters**

1. **Ritu Mahajan**, Pallavi Billowaria and Nisha Kapoor (2018) *In Vitro* conservation strategies for *Gloriosa superba* L.: an endangered medicinal plant. In: *Biotechnological Approaches for Medicinal and Aromatic Plants*, Kumar N. (eds). Springer, Singapore.
2. **Ritu Mahajan** and Nisha Kapoor (2019) Molecular breeding strategies for genetic improvement in rice (*Oryza sativa* L.). In: *Advances in Plant Breeding Strategies: Cereals*, J. M. Al-Khayri et al. (eds.), Springer Nature, Switzerland AG.
3. **Ritu Mahajan**, Tania Sagar, Pallavi Billowria and Nisha Kapoor (2022) Elicitation: A biotechnological approach for enhancement of secondary metabolites *in vitro* cultures.

In: Biotechnology and crop improvement : tissue culture and transgenic approaches, Nitish Kumar (ed.), Taylor & Francis Group, CRC Press UK.

4. **Ritu Mahajan**, Nisha Kapoor, and Bijender K. Bajaj (2022) Use of genomics to improve stress tolerance. In: Plant Genomics for Sustainable Agriculture, R. L. Singh et al. (eds.), Springer, Singapore.
5. **Ritu Mahajan**, Tania Sagar, Shajaat Hussain, Nipunta and Nisha Kapoor (2023) Secondary metabolite production in medicinal plants under abiotic stress. In: Medicinal Plants; Husen, A., Iqbal, M. (eds). Springer, Singapore.
6. Tania Sagar, Nisha Kapoor, **Ritu Mahajan** (2023) Microsatellites as potential molecular markers for genetic diversity analysis in plants. In: Molecular Marker Techniques: A Potential Approach of Crop Improvement. N. Kumar (ed.), Springer, Singapore.
7. Shajaat Hussain, Tania Sagar, Sandeep Kaur, Nipunta, Nisha Kapoor, **Ritu Mahajan** (2023) Omics approaches to study the biosynthesis of bioactive compounds in medicinal and aromatic plants. In: Biosynthesis of Bioactive Compounds in Medicinal and Aromatic Plants, Kumar, N., S. Singh, R. (eds), Springer, Cham.
8. Shajaat Hussain, Tania Sagar, Nisha Kapoor, **Ritu Mahajan** (2024) Application of Mutagenesis and Genome Editing in Crop Plants. In: Plant Mutagenesis Sustainable Agriculture and Rural Landscapes, Kumar, N., S. Singh, R. (eds), Springer, Singapore.
9. Surbhi Sharma, Ridhika Bangotra, Bisma Habib, Muskaan Chib, Arpana Thakur, **Ritu Mahajan** and Bijender Kumar Bajaj (2024) Wastewater-Derived Biomass for Energy. In: Sewage and Biomass from Wastewater to Energy: Possibilities and Technology, Inamuddin (Ed.), Scrivener Publishing LLC.
10. Nipunta, Sandeep Kaur, Tania Sagar, Shajaat Hussain, Nisha Kapoor, and **Ritu Mahajan** (2024) Synthetic Biology of Plants-Derived Medicinal Natural Products. In: Biosynthesis of Natural Products in Plants: Bioengineering in Post-genomics Era. N. Kumar (ed.), Springer, Singapore.