

Full list of publications

1. Gani U, Vishwakrama RA, **Misra P*** (2020) Membrane transporters: the key drivers of transport of secondary metabolites in plants. **Plant Cell Reports**. (doi.org/10.1007/s00299-020-02599-9) **(Corresponding author) IF: 3.825**
2. Sharma A, Rana S, Rather GA, **Misra P**, Dhar MK, Lattoo SK (2020) Characterization and overexpression of sterol Δ 22-desaturase, a key enzyme modulates the biosyntheses of stigmasterol and withanolides in *Withania somnifera* (L.) Dunal. **Plant Science**, 301:110642.
3. Nautiyal AK, Gani U, Sharma P, Kundan M, Fayaz M, Lattoo SK, **Misra P*** (2020) Comprehensive Transcriptome Analysis Provides Insights Into Metabolic and Gene Regulatory Networks in Trichomes of *Nicotiana Tabacum*. **Plant Mol Biol**. 102(6):625-644. **(Corresponding author) IF: 3.928**
4. Manzoor MM, Goyal P, Gupta AP, Khan S, Jaswal P, **Misra P**, Pandotra P, Ahuja A, Vishwakarma RA, Gupta S (2020) Chemical and real-time based analysis revealed active gene machinery of glycyrrhizin biosynthesis and its accumulation in the aerial tissues of in-vitro regenerated *Glycyrrhiza glabra* L. **Plant Growth Regulation** doi.org/10.1007/s10725-020-00635-y **IF: 2.473**
5. Rather GA, Sharma A, **Misra P**, Kumar A, Kaul V, Lattoo SK. (2020) Rather GA, Sharma A, Misra P, Kumar A, Kaul V, Lattoo SK. (2020) Molecular characterization and overexpression analyses of secologanin synthase to understand the regulation of camptothecin biosynthesis in *Nothapodytes nimmoniana* (Graham.) Mabb. **Protoplasma** 257(2):391-405 **IF: 2.633**
6. Sharma A, Rather GA, **Misra P**, Dhar MK, Lattoo SK. (2019) Gene Silencing and Over-Expression Studies in Concurrence With Promoter Specific Elicitations Reveal the Central Role of *WsCYP85A69* in Biosynthesis of Triterpenoids in *Withania somnifera* (L.) Dunal. **Front Plant Sci**. 2019 Jul 5;10:842. doi: 10.3389/fpls.2019.00842. eCollection 2019. **IF:4.106**
7. Rather GA, Sharma A, Jeelani SM, **Misra P**, Kaul V, Lattoo SK. (2019) Metabolic and transcriptional analyses in response to potent inhibitors establish MEP pathway as major route for camptothecin biosynthesis in *Nothapodytes nimmoniana* (Graham) Mabb. **BMC Plant Biol**. 2019 Jul 10;19(1):301. doi: 10.1186/s12870-019-1912-x. **IF:3.670**
8. Sharma A, Rather GA, **Misra P**, Dhar MK, Lattoo SK (2019) Jasmonate responsive transcription factor *WsMYC2* regulates the biosynthesis of triterpenoid withanolides and phytosterol via key pathway genes in *Withania somnifera* (L.) Dunal. **Plant Mol Biol**. 100(4-5):543-560. doi: 10.1007/s11103-019-00880-4. Epub 2019 **IF: 3.928**
9. Rather GA, Sharma A, Pandith SA, Kaul V, Nandi U, **Misra P ***, Lattoo SK (2018) De novo transcriptome analyses reveals putative pathway genes involved in

biosynthesis and regulation of camptothecin in *Nothapodytes nimmoniana* (Graham) Mabb. **Plant Mol Biol.** 96, 1–2, 197–21 (**Co-corresponding author**) **IF: 3.928**

10. Pandey A, **Misra P**, Alok A, Kaur N, Sharma S, Lakhwani D, Asif MH, Tiwari S, Trivedi PK (2016) Genome-Wide Identification and Expression Analysis of Homeodomain Leucine Zipper Subfamily IV (HDZ IV) Gene Family from *Musa accuminata*. **Front Plant Sci.** 1; 7:20. doi: 10.3389/fpls.2016.00020. **IF:4.106**
11. Pandey A, **Misra P***, Choudhary D, Yadav R, Goel R, Bhambhani S, Sanyal I, Trivedi R, Kumar Trivedi P (2015) AtMYB12 expression in tomato leads to large scale differential modulation in transcriptome and flavonoid content in leaf and fruit tissues. **Scientific Reports** doi: 10.1038/srep12412. (***Joint first author**) **IF: 3.998**
12. Pandey A, **Misra P**, Trivedi PK (2015) Constitutive expression of Arabidopsis MYB transcription factor, AtMYB11, in tobacco modulates flavonoid biosynthesis in favor of flavonol accumulation. **Plant Cell Rep.** 34(9):1515-28. **IF:3.825**
13. Rai A, Bhardwaj A, **Misra P**, Bag SK, Adhikari B, Tripathi RD, Trivedi PK, Chakrabarty D (2015) Comparative Transcriptional Profiling of Contrasting Rice Genotypes Shows Expression Differences during Arsenic Stress. **The Plant Genome** 8: 1: 14. **IF: 4.042**
14. Pandey A, **Misra P**, Bhambhani S, Bhatia C, Trivedi PK. (2014) Expression of Arabidopsis MYB transcription factor, AtMYB111, in tobacco requires light to modulate flavonol content. **Scientific Reports** 21; 4:5018. **IF: 3.998**
15. Dubey, S., Shri M, **Misra P**, Lakhwani D, Bag, S, Asif, M.H., Trivedi PK, Tripathi, R.D., Chakrabarty, D. (2014) Heavy metals induce oxidative stress and genome wide modulation in transcriptome of rice roots. **Functional and Integrative Genomics**, 14: 401-417 **IF: 2.745**
16. Pandey, A[†], **Misra P[†]**, Khan, M.P., Swarnkar, G., Tewari, M.C., Bhambhani, S., Trivedi, R., Chattopadhyay, N. and Trivedi, P.K. (2013) Co-expression of Arabidopsis transcription factor, AtMYB12, and soybean isoflavone synthase, GmIFS1, genes in tobacco leads to enhanced biosynthesis of isoflavones and flavonols resulting in osteoprotective activity. **Plant Biotechnology Journal** 12(1):69-80. (**†Joint first author**) **IF:7.110**
17. Shri, M., Rai, A., Verma, P.K., Misra P, Dubey, S., Kumar, S., Verma, S., Gautam, N., Tripathi, R.D., Trivedi, P.K., Chakrabarty, D. (2013) An improved *Agrobacterium-*

mediated transformation of recalcitrant indica rice (*Oryza sativa* L.) cultivars. **Protoplasma** 250:631-636 **IF: 2.633**

18. Pandey A, **Misra P**, Chandrashekar K, Trivedi PK (2012) Development of AtMYB12-expressing transgenic tobacco callus culture for production of rutin with biopesticidal potential. **Plant Cell Reports** 31:1867-1876. **IF:3.49**
19. Pathak S, Mishra BK, **Misra P**, Misra P, Joshi VK, Shukla S, Trivedi PK (2012) High frequency somatic embryogenesis, regeneration and correlation of alkaloid biosynthesis with gene expression in *Papaver somniferum*. **Plant Growth Regulation** DOI: 10.1007/s10725-012-9689-z **IF: 2.473**
20. Pandey A, Niranjan A, **Misra P**, Lehri A, Tewari SK, Trivedi PK (2011) Separation and simultaneous determination of targeted group of compounds in *Psoralea corylifolia* L. through HPLC-PDA-MS-MS. **Journal of Liquid Chromatography & Related Technologies** 35:1–17 **IF:0.987**
21. Niranjan A, Pandey, A, **Misra P**, Trivedi PK, Lehri A and Amla DV (2011) Simultaneous quantification of three classes of flavonoids in legume seeds, vegetables, fruits and medicinal plants by high throughput HPLC-PDA-MS-MS. **Journal of Liquid Chromatography & Related Technologies**, 34, 1-14 **IF:0.987**
22. **Misra P**, Pandey A, Tewari SK, Nath P and Trivedi PK (2010) Characterization of isoflavone synthase gene of *Psoralea corylifolia*, a medicinal plant. **Plant Cell Reports** 29, 747-755. **IF:3.825**
23. **Misra P**, Pandey A, Tewari M, Chandrashekhar K, Siddhu OP, Asif MH, Chakrabarty D, Singh PK, Nath P, Trivedi PK and Tuli R (2010) Modulation of transcriptome and metabolome by AtMYB12 transcription factor leads to insect tolerance. **Plant Physiology** 152, 2258-2268. **IF:5.949**
24. Dubey S, **Misra P**, Dwivedi S, Chatterjee S, Bag S, Mantri S, Asif MH, Rai A, Kumar S, Shri M, Tripathi P, Tripathi RD, Trivedi PK, Chakrabarty D and Tuli R (2010) Transcriptomic and metabolomic shifts in rice roots in response to Cr (VI) stress. **BMC Genomics** 11, 648. **IF:3.501**
25. Chakrabarty D, Trivedi PK, **Misra P**, Tiwari M, Shri M, Shukla D, Kumar S, Rai A, Pandey A, Nigam D, Tripathi RD and Tuli R (2009) Comparative transcriptome analysis of arsenate and arsenite stresses in rice seedlings. **Chemosphere** 74, 688–702. **IF:6.420**
26. Chakrabarty D, Trivedi PK, Shri M, **Misra P**, Asif MH, Dubey S, Kumar S, Rai A, Tiwari M, Shukla D, Pandey A, Nigam D and Tuli R (2009) Differential transcriptional expression following thiazuron induced shoot primordia developmental shift in rice. **Plant Biology** 12, 46-59. **IF:2.156**

27. Shri M, Kumar S, Chakrabarty D, Trivedi PK, Mallick S, **Misra P**, Shukla D, Mishra S, Srivastava S, Tripathi R D and Tuli R. (2009) Effect of arsenic on growth, oxidative stress and antioxidant system in rice seedlings. **Ecotoxicology and Environmental Safety** 72, 1102-1110. **IF:4.527**
28. Asif MH, Trivedi PK, **Misra P** and Nath P (2009) Prolyl-4-hydroxylase (AtP4H1) mediates and mimics low oxygen response in Arabidopsis thaliana. **Functional and Integrative Genomics** 9, 525-535 **IF: 2.745**

Book chapter

Kundan M, Gani U, Nautiyal AK, Misra P (2019) Molecular biology of glandular trichomes and their functions in environmental stresses. In: Singh S, Upadhyay S, Pandey A, Kumar S (eds) Molecular approaches in plant biology and environmental challenges, 1st edn. Springer, Singapore, pp 365–393 (Invited book chapter, corresponding author)