

Dr. Himanshu Dubey

Scientist- C

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Education:

1. **PhD.** (2018) School of Biotechnology, Institute of Sciences, Banaras Hindu University, Varanasi, India.

Thesis Title- “Understanding role of non-coding RNAs in pathogenesis of wheat leaf rust fungus *Puccinia triticina*”.

Supervisor: Prof. A. M. Kayastha (School of Biotechnology, BHU), and
Dr. Tilak Raj Sharma (DDG, Crop Science ICAR).

2. **MSc.** (2008) School of Biotechnology, Awadhesh Pratap Singh University, Rewa, India.

Scholarships and awards

1. Junior Research fellowship from UGC - December 2013.
2. ASRB-NET (Agricultural Biotechnology) – 2012.
3. GATE (Biotechnology) – 2017.

Research Publications:

1. Rajdeep Jaswal, Sivasubramanian Rajarammohan, Himanshu Dubey, Kanti Kiran, Hukam Rawal, Humira Sonah, Rupesh Deshmukh, Tilak Raj Sharma. Intrinsically Disordered Kiwellin Protein-Like Effectors Target Plant Chloroplasts and are Extensively Present in Rust Fungi. **Molecular Biotechnology**, 2023.
2. BN Devanna, Basavantraya N Devanna, Priyanka Jain, Amolkumar U Solanke, Alok Das, Shallu Thakur, Pankaj K Singh, Mandeep Kumari, Himanshu Dubey, Rajdeep Jaswal, Deepak Pawar, Ritu Kapoor, Jyoti Singh, Kirti Arora, Banita Kumari Saklani, Chandrappa AnilKumar, Sheshu Madhav Maganti, Humira Sonah, Rupesh Deshmukh, Rajeev Rathour, Tilak Raj Sharma. Understanding the Dynamics of Blast Resistance in Rice-Magnaporthe oryzae Interactions. **Journal of Fungi**, 2022.
3. Kangayam M Ponnuvel, Joachim R de Miranda, Olle Terenius, Wenli Li, Katsuhiko Ito, Diksha Khajje, G Shamitha, Anupama Jagadish, Himanshu Dubey, Rakesh K Mishra. Genetic characterisation of an Iflavirus associated with a vomiting disease in the Indian tropical tasar silkworm, *Antheraea mylitta*. **Virus Research**, 2022.
4. Pooja Makwana, Himanshu Dubey, Appukuttan Nair R Pradeep, Vankadara Sivaprasad, Kangayam M Ponnuvel, Rakesh K Mishra. Dipteran endoparasitoid infestation actively

suppressed host defense components in hemocytes of silkworm *Bombyx mori* for successful parasitism. **Animal Gene**, 2021.

5. Kanti Kiran, Hukam C. Rawal, **Himanshu Dubey**, Rajdeep Jaswal, Subhash C. Bhardwaj, Rupesh Deshmukh and Tilak Raj Sharma. Genome-Wide analysis of four pathotypes of wheat rust pathogen (*Puccinia graminis*) reveals structural variations and diversifying Selection. **Journal of Fungi**, 2021.
6. Anupama Jagadish Diksha Khajje Merinrose Tony Anna Nilsson Joachim R.de Miranda Olle Terenius **Himanshu Dubey** Rakesh K. Mishra Kangayam M. Ponnuvel. Development and optimization of a TaqMan assay for *Nosema bombycis*, causative agent of pébrine disease in *Bombyx mori* silkworm, based on the β -tubulin gene. **Journal of Microbiological Methods**, 2021.
7. S T Prashantha, B M Bashyal, S Gopala Krishnan, **Himanshu Dubey**, Amolkumar U Solanke, G Prakash, Rashmi Aggarwal. Identification and expression analysis of pathogenicity-related genes of *Rhizoctonia solani* anastomosis groups infecting rice. **3 Biotech**, 2021.
8. Priyanka Jain, Samreen Hussian, Jyoti Nishad, **Himanshu Dubey**, Deepak Singh Bisht, Tilak Raj Sharma, Tapan Kumar Mondal. Identification and functional prediction of long non-coding RNAs of rice (*Oryza sativa* L.) at reproductive stage under salinity stress. **Molecular Biology Reports**, 2021.
9. Kirti Arora, Amit Kumar Rai, BN Devanna, **Himanshu Dubey**, Alka Narula, Tilak Raj Sharma. Deciphering the role of microRNAs during Pi54 gene mediated *Magnaporthe oryzae* resistance response in rice. **Physiology and Molecular Biology of Plants**. 2021.
10. **Himanshu Dubey**, Kanti Kiran, Rajdeep Jaswal, Subhash C Bhardwaj, Tapan Kumar Mondal, Neha Jain, N. K. Singh, Arvind M Kayastha, Tilak Raj Sharma. Identification and characterization of Dicer-like genes in leaf rust pathogen (*Puccinia triticina*) of wheat. **Functional and Integrative Genomics**, 2020.
11. A. Ramesha, **Himanshu Dubey**, K. Vijayan, K. M. Ponnuvel, R. K. Mishra, Suresh K. Genome wide characterization revealed MnMLO2 and MnMLO6A as candidate genes involved in powdery mildew susceptibility in mulberry. **Molecular Biology Reports**, 2020.
12. **Himanshu Dubey**, Hukam C Rawal, Megha Rohilla, Urvashi Lama, P Mohan Kumar, Tanoy Bandyopadhyay, Madhurjya Gogoi, Nagendra Kumar Singh, Tapan Kumar Mondal, TeaMiD: a comprehensive database of simple sequence repeat markers of tea. **Database**, 2020.
13. Priyanka Jain, **Himanshu Dubey**, Pankaj Kumar Singh, Amolkumar U. Solanke, Ashok K. Singh, and T. R. Sharma. Deciphering signalling network in broad spectrum Near Isogenic Lines of rice resistant to *Magnaporthe oryzae*. **Scientific reports**, 2019.

14. Rajdeep Jaswal, **Himanshu Dubey**, Kanti Kiran, Pankaj Kumar Singh, Hukam C. Rawal, Subhash C. Bhardwaj, Pramod Prasad, Naveen Gupta, and T. R. Sharma. Comparative secretome analysis of Indian wheat leaf rust pathogen *Puccinia triticina*. **Indian Journal of Agricultural Sciences**, 2019.
15. Samriti Sharma, Rajinder Kaur, AmolKumar U. Solanke, **Himanshu Dubey**, Siddharth Tiwari, Krishan Kumar. Transcriptome sequencing of Himalayan Raspberry (*Rubus ellipticus*) and development of simple sequence repeat markers. **3 Biotech**, 2019.
16. Deepti Varshney, Hukam C. Rawal, **Himanshu Dubey**, Tanoy Bandyopadhyay, Biswajit Bera, P. Mohan Kumar, Nagendra Kumar Singh, Tapan Kumar Mondal. Tissue specific long non-coding RNAs are involved in aroma formation of black tea. **Industrial Crops & Products**, 2019.
17. **Himanshu Dubey**, Kanti Kiran, Rajdeep Jaswal, Priyanka Jain, Arvind M. Kayastha, Subhash C Bhardwaj, Tapan Kumar Mondal, Tilak Raj Sharma. Discovery and profiling of small RNAs from *Puccinia triticina* by deep sequencing and identification of their potential targets in wheat. **Functional and Integrative Genomics**, 2018.
18. Deepak V Pawar, Pankaj Kumar Singh, Jyoti Singh, **Himanshu Dubey**, Priyanka Jain, Tilak R. Sharma and Nagendra K Singh. An Efficient Protocol for Embryogenic Callus Induction and Whole Plant Regeneration in *Oryza rufipogon* WRA21. **Indian Research Journal of Genetics and Biotechnology**, 2018.
19. Bishnu Maya Bashyal, Kirti Rawat, Sapna Sharma, Deepika Kulshrestha, Gopala Krishnan S, Ashok Kumar Singh, **Himanshu Dubey**, AmolKumar U. Solanki, T. R. Sharma, Rashmi Aggarwal. Whole genome sequencing of *Fusarium fujikuroi* reveals the role of secretory proteins and cell wall degrading enzymes in causing bakanae disease of rice. **Frontiers in Plant Science**, 2017.
20. Priyanka Jain, Vinay Sharma, **Himanshu Dubey**, Pankaj Kumar Singh, Ritu Kapoor, Mandeep Kumari, Jyoti Singh, Deepak V. Pawar, Deepak Bisht, Amolkumar U. Solanke, T. K. Mondal, T. R. Sharma. Identification of long non-coding RNA in rice lines resistant to Rice blast pathogen *Maganaporthe oryzae*. **Bioinformatics**, 2017.
21. Kanti Kiran, Hukam C. Rawal, **Himanshu Dubey**, R. Jaswal, Subhash C. Bhardwaj, P. Prasad, Dharam Pal, B. N. Devanna, Tilak R. Sharma. Dissection of genomic features and variations of three pathotypes of *Puccinia striiformis* through whole genome sequencing. **Scientific Reports**, 2017.
22. Kanti Kiran, Hukam C. Rawal, **Himanshu Dubey**, Rajdeep Jaswal, B. N. Devanna, Deepak Kumar Gupta, Subhash C. Bhardwaj, P. Prasad, Dharam Pal, Parveen Chhuneja, P. Balasubramanian, J. Kumar, M. Swami, Amolkumar U. Solanke, Kishor Gaikwad, Nagendra K. Singh, Tilak Raj Sharma. Draft Genome of the Wheat Rust Pathogen (*Puccinia triticina*) Unravels Genome-Wide Structural Variations during Evolution. **Genome Biology and Evolution**, 2016.
23. Ragavendran Abbai, Veera Ranjani Rajagopalan, Jagadeesh Selvam Nallathambi, **Himanshu Dubey**, Saranya Selvaraj, B. C. Varalakshmi, Sankari Mohan, Jagadish Kumar, Uma Maheswari, Raveendran Muthurajan, Senthil Natesan, Balasubramanian

Ponnuswami, Sivasamy Murugasamy, Gon Sup Kim, Tilak Raj Sharma. Proteomic analysis of compatible and incompatible interactions of wheat with *Puccinia triticina*. **Physiological and Molecular Plant Pathology**, 2016.

24. Ganesh Chauhan, Rubina Tabassum, Anubha Mahajan, Om Prakash Dwivedi, Shubhanchi Nigam, **Himanshu Dubey**, S. V. Madhu, Sandeep K. Mathur, Saurabh Ghosh, Nikhil Tandon, Dwaipayan Bharadwaj. Common variants of FTO and the risk of obesity and type 2 diabetes in Indians. **Journal of Human Genetics**, 2011.
25. Rubina Tabassum, Anubha Mahajan, Ganesh Chauhan, Om Prakash Dwivedi, **Himanshu Dubey**, Vasudha Sharma, Bratashree Kundu, Saurabh Ghosh, Nikhil Tandon, Dwaipayan Bharadwaj. No association of TNFRSF1B variants with type 2 diabetes in Indians of Indo-European origin. **BMC Medical Genetics**, 2011.
26. **INDICO**: the development of a resource for epigenomic study of Indians undergoing socioeconomic transition – **The HUGO journal**, 2011.

Review Articles

1. Smut fungi as a stratagem to characterize rust effectors: opportunities and challenges. Rajdeep Jaswal, Sivasubramanian Rajarammohan, **Himanshu Dubey** & T. R. Sharma. **World Journal of Microbiology and Biotechnology**, 2020.
2. Effector Biology of Biotrophic Plant Fungal Pathogens: Current Advances and Future Prospective. Rajdeep Jaswal, Kanti Kiran, Sivasubramanian Rajarammohan, **Himanshu Dubey**, Pankaj Kumar Singh, Yogesh Sharma, Rupesh Deshmukh, Humira Sonah, Naveen Gupta & T. R. Sharma. **Microbiological Research**, 2020.

Book chapters

1. T. R. Sharma, B. N. Devanna, Kanti Kiran, Pankaj K. Singh, Kirti Arora, Priyanka Jain, Ila M. Tiwari, **Himanshu Dubey**, Banita Saklani, Mandeep Kumari, Jyoti Singh, Rajdeep Jaswal, Ritu Kapoor, Deepak V. Pawar, Shruti Sinha, Deepak Singh Bisht, A. U. Solanke and T. K. Mondal. Status and Prospects of Next Generation Sequencing Technologies in Crop Plants. (Book title- Next-generation Sequencing and Bioinformatics for Plant Science) 2017.
2. Meenakshi Singh, Manoj Kumar Tripathi, Smita shukla, **Himanshu Dubey** and Keshwanand Tripathi. Genetic modification of cyanobacteria for sustainable agricultural. (Book title- Role of Photosynthetic Microbes in Agricultural and Industry) 2018.

Membership of Scientific Societies:

1. National Academy of Sericultural Sciences, India (Life membership no. 203)
2. National Environmental Science Academy, India (Life membership no. 2181)
3. Society for Plant Biochemistry and Biotechnology, India (Life membership No. - L789)

4. Indian Society of Genetics & Plant Breeding, India (Life membership-2017)

(Himanshu Dubey, PhD.)