

## Dr. Rachna Pandey

**Designation:** Assistant Professor



### Academic Qualifications:-

- Ph.D (Biotechnology) 2001. Banaras Hindu University (BHU) Varanasi
- M.Sc ( Botany) 1995. Banaras Hindu University (BHU) Varanasi
- B.Sc ( Hon) 1993. Banaras Hindu University (BHU) Varanasi.

### Professional Experience:-

- Working as a Assistant Professor in Dr. D.Y. Patil Biotechnology and Bioinformatics Institute, Tathawade, Pune.
- Post Doc ( DBT) National Chemical Laboratory (NCL), Pune.
- Worked as Research Associate under potential for excellence ( UPE-UGC) scheme at IBB, Pune .
- Worked as Research Associate in CSIR sponsored project at Banaras Hindu University ( BHU ), Varanasi.
- Worked as SRF & JRF ( GATE – UGC) at Banaras Hindu University ( BHU ), Varanasi.

### Publications:-

1. Biocontrol potential of actinomycetes against *Xanthomonas axonopodis pv. punicae*, a causative agent for oily spot disease of pomegranate, 2015. N.P. Chavan, **R. Pandey**, N. Nawani, G.D. Tandon and M.B. Khetmalas, Biocontrol Science and Technology ( accepted).

2. **Rachna Pandey**, K.V Swamy and Madhukar B. Khetmalas. 2013. Indole : a novel signaling molecule and its applications *Indian Journal of Biotechnology* , 12 :297-310 **Impact factor 0.5**

3. **Rachna Pandey**, Niranjana P Chavan, Nilesh Walokar, Nikita Sharma, Vishal Tripathi, Madhukar B. Khetmalas 2013. *Pseudomonas stutzeri* RP1: A Plant Growth Promoting Rhizobacteria (PGPR) inhabiting Sunflower ( *Helianthus annuus*). *Research J of Biotechnology*, 8 (7) 47-55 **Impact factor 0.3 [citation:1]**

4. Mandeep Singh Gujral, Parinita Agrawal, Madhukar B Khetmals and **Rachna Pandey**. 2013 Colonization and plant growth promotion of Sorghum seedlings by endorhizospheric *Serratia sp.* *ActaBiologicaIndica*.(2) 343-352.
5. **Book chapter:** Plant Growth Promoting Rhizobacteria (PGPR) : Back to the roots **Rachna Pandey**. 2013. A book published by IK International Publishing House Pvt.Ltd, Edited by R. S. Singh, Ashok Pandey & Christian Larroche page 153-179
6. **Rachna Pandey** and Udai Pratap Singh. 2013. Phenolic acid content in different preparations of maize (*Zea mays*) *Int.J.Curr.Microbiol.App.Sci*, 2(6): 84-92. ISSN:2319-7706
7. **Rachna Pandey**, Manoj K. Pandey and Udai Pratap Singh. 2012. Variability in Indian isolates of *Sclerotium rolfsii* by SDS -PAGE. *Archives of Phytopathology and Plant Protection*, 46 (1), 19–28, ISSN:03235408
8. KV Swamy, Supriya Kore, **Rachna Pandey**, Madhukar B. Khetmalas. 2011. Extraction Isolation Molecular Modeling and Optimization of Antimicrobial Agents from *Coriandrum sativum*. *Current trends in Biotechnology and Pharmacy*. 1033-1036
9. Nilesh Gawade, Supriya Kore, **Rachna Pandey** and Madhukar B. Khetmalas 2010. Antibacterial Activity of *Coriandrum sativum* CCl<sub>4</sub> Seed Extract Against Drug Resistant Human Pathogens. *HerbalTech Industry 6 (1):19-23*.
10. Soumitra Pal Choudhary T. Nagarajan, **Rachna Tripathi**, Muktinath Mishra Daniel Rudulier and Anil K Tripathi 2007. Strain specific salt tolerance and osmoregulatory mechanisms in *Azospirillum brasilense*. *FEMS Microbiology Letters* 267(1) 72-79. **Impact Factor: 2.0 [Citation:11]**
11. **Rachna Pandey**, Nitin S Patil and Mala Rao. 2006. Protease and protease inhibitors: implications in antitumorogenesis and drug development. *Int. J. Human Genetics*. 7 (1):67-82 ISSN No.0972-3757 **Impact factor 0.3 [Citation :11]**
12. Tripathi, A. K., **Tripathi, R.** Ganguli, A, and Bazzicalupo, M. 1998. Duplication of insertion element IS50 and its transposition in *Azospirillum brasilense*, *Canadian Journal of Microbiology*, 44:1110-1113. **Impact Factor:1.2 [Citation1]**

Ph.D guide for Abhay Ghatage and Co guide for Niranjana P. Chavan

Supervised 5 students for their M. Tech ( Biotechnology), M. Sc and B. Tech( Biotechnology) project.

**Other institutional responsibilities:**

Member Board of Studies ( BOS) for Biotechnology.

Secretary, Staff and Welfare committee

**Area of Research Interest:** Catabolite repression, dicarboxylate transport, Endophytic bacterial diversity by polyphasic taxonomy, Dicarboxylate transport, fungal pathogenesis, Microbial protease and protease inhibitors in cancer, Antimicrobial peptides (AMP) and Indole signaling, Plant growth promoting rhizobacteria (PGPR), Pink Pigmented Facultative Methylophs (PPFM) in mitigating CH<sub>4</sub> levels. Volatile Organic Compounds ( VOCs) in plant growth promotion