

# Vibhay Nath Tripathi, Ph.D.

Assistant Professor  
Department of Botany  
Guru Ghasidas Central University  
Bilaspur, CG 495009  
India  
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## Research Interests:

- A) Study of conjugation machinery and role of Type IV secretion substrates in virulence of *Rhodococcus equi*.
- B) Molecular analysis of *Rhodococcus equi* biofilm formation and its role in virulence.

## Education:

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| <b>1999-2005</b> | <b>Ph. D. in Genetics</b><br>Department of Genetics, University of Delhi, South Campus,<br>New Delhi, India           |
| <b>1997-1999</b> | <b>Master of Science, Botany</b> , Department of Botany,<br>Banaras Hindu University, Varanasi, India                 |
| <b>1994-1997</b> | <b>Bachelor of Science (with Honors), Botany</b> , Department of<br>Botany, Banaras Hindu University, Varanasi, India |

## Research Experience:

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| <b>2014-till date</b> | <b>Assistant Professor</b><br>Department of Botany<br>Guru Ghasidas Central University<br>Bilaspur, CG, India                                  |
| <b>2007- 2014</b>     | <b>Post-Doctoral Fellow</b><br>Department of Infectious Diseases<br>College of Veterinary Sciences<br>University of Georgia<br>Athens, GA, USA |
| <b>2006- 2007</b>     | <b>Post-Doctoral Fellow (DBT)</b><br>Eukaryotic Gene Expression Lab<br>National Institute of Immunology<br>New Delhi, India                    |

**2005- 2006**

**Project Associate**

Eukaryotic Gene Expression Lab  
National Institute of Immunology  
New Delhi, India

**1999- 2005**

**Ph.D Scholar**

Department of Genetics  
University of Delhi, South Campus  
New Delhi, India

**Awards/ Fellowships and Membership:**

- Member of American Society of Microbiologists.
- Life member of Association of Microbiologists of India (AMI, Membership No. 2715-2003).
- Travel Grant to attend the meeting in Mid-Atlantic Microbial Pathogenesis Meeting, Wintergreen Resort, Virginia, USA (2011).
- Best poster award in Science of Veterinary Medicine Symposium, Translating basic science to medical tools, UGA, Athens, USA (2010).
- Best poster award in 4th Havemeyer Workshop on *Rhodococcus equi*. Edinburgh, UK (2008).
- Awarded Post-Doctoral Fellowship from Department of Biotechnology, Government of India, India (to work on an independent project).
- Junior/Senior research fellowships by University Grants Commission, India during Ph. D.
- Qualified in Graduate Aptitude Test in Engineering (1999).

**Research Grants:**

“Molecular evaluation of biofilm formation by an opportunistic pathogen *Rhodococcus equi*.”  
**PI- Dr. Vibhay Nath Tripathi (UGC-Start-Up grant, 6.0 Lakhs)**

**Publications:**

**Tripathi VN, Latek M, Azuonye I, Bazques-Boland JA and Hondalus MK (2013)** Regulation of Dicarboxylate transport and utilization in the opportunistic macrophage pathogen *Rhodococcus equi*. (Manuscript in Preparation)

**Tripathi VN (2017)** Molecular mechanisms of heavy metal resistance in bacteria. In: Plants and Microbes in an ever-changing environment (Ed: Dr. Satya shila Singh) Nova Science Publishers, New York (USA) pp. 327-341

**Tripathi VN**, Harding C, Willingham-Lane JM and Hondalus MK (2012) Conjugal Transfer of Virulence in *Rhodococcus equi*. **J. Bacteriol.** 194:6790-6801

**Tripathi VN** and Srivastava Sheela (2006) Extracytoplasmic storage as the nickel resistance mechanism in a natural isolate of *Pseudomonas putida* strain S4. **Can J. Microbiol.** 52(4): 287-292

**Tripathi VN** and Srivastava Sheela (2006) Ni<sup>2+</sup>-uptake in *Pseudomonas putida* strain S4: a possible role of Mg<sup>2+</sup>-uptake pump. **J. Biosciences.** 31: 61-67

Srivastava S, Singh P, Bhagat R and **Tripathi VN** (2005) Application of bacterial biomass as a bioindicator. **Current Science.** 89 (7): 1248-1251

Srivastava S, Saxena D, Choudhury R, Joshi N and **Tripathi VN** (2002) Genetics of metal resistance in soil bacteria. **In: Mineral Biotechnology** (Eds: Shukla, L.B. and Mishra, V.N.) Allied Publishers Pvt. Ltd. New Delhi. pp. 198-203

### **Invited Talk/ Posters presented/ Conferences attended:**

**Tripathi VN (2017)** Role of cell culture techniques in bacterial infections studies of eukaryotic cells. Workshop on Animal cell culture: Techniques and Applications. Dept. of Biotechnology, GGV, Bilaspur 19-25 Jan 2017 (**Invited Talk**)

**Tripathi VN (2010)** Conjugal transfer of virulence in *Rhodococcus equi*. 3<sup>rd</sup> Southeastern Tuberculosis Meeting, University of North Carolina, Chapel Hill 15-16 Jan 2010 (**Invited Talk**)

**Tripathi VN (2012)** Conjugal transfer of a virulence plasmid in the opportunistic intracellular actinomycete *Rhodococcus equi*. Annual Meeting, Southeastern Branch of the American Society for Microbiology, Athens GA October 25 – 27, 2012, (**Oral presentation**)

**Tripathi VN**, Sasseti, C and Hondalus MK (2012) Detection of genes essential for *in vivo* survival of *Mycobacterium tuberculosis* Using Transposon Capture Sequencing (TraCS). 4<sup>th</sup> Southeastern Tuberculosis Meeting. Emory University, Atlanta 13-14 Jan. 2008.

**Tripathi VN**, Harding, C and Hondalus MK (2011) Study of Conjugation in *Rhodococcus equi*, transfer of virulence genes from Pathogenic to Non-Pathogenic Bacteria. Mid-Atlantic Microbial Pathogenesis Meeting, Wintergreen Resort, Virginia Jan,30- Feb,1 2011 (**Awarded Travel Grant to attend the meeting**)

**Tripathi VN**, Harding, C and Hondalus MK (2010) Conjugal Transfer of virulence in *Rhodococcus equi*. Science of Veterinary Medicine Symposium, Translating basic science to medical tools, UGA, Athens 14 Oct 2010 (**Won the award for best Poster**)

**Tripathi VN**, Azuonye I, Latek M, Rogovskyy A, Coulson G, Bazques-Boland JA and Hondalus MK (2009) Regulation of Dicarboxylate transport and utilization in the

opportunistic macrophage pathogen *Rhodococcus equi*. 109<sup>th</sup> General Meeting of American Society of Microbiology (ASM), Philadelphia 17-21 May 2009

**Tripathi VN**, Azuonye I, Rogovskyy A, Coulson G and Hondalus MK (2008) Study of C4 dicarboxylic acid transport and its Regulation in *Rhodococcus equi*. 4th Havemeyer Workshop on *Rhodococcus equi*. Edinburgh, UK 13-16 July 2008 (**Won the award for best Poster**)

Rogovskyy A, **Tripathi VN**, Sasseti C, and Hondalus MK (2008) Screening for genes of *Mycobacterium tuberculosis* required for virulence utilizing both mouse and guinea pig aerosol infection models. 2<sup>nd</sup> Southeastern Tuberculosis Meeting, University of Georgia, Athens 19 Jan. 2008.

**Tripathi VN** and Srivastava S (2003) Mg<sup>2+</sup> and Ni<sup>2+</sup> interactions in *Pseudomonas putida* S4. 44<sup>th</sup> Annual Conference of the Association of Microbiologists of India, 12-14 November, 2003; University of Agricultural Sciences, Dharwad, India. Abstract, pp 186