

# Vibhay Nath Tripathi, Ph.D.

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Department of Botany  
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## Research Interests:

- A) Study of Quorum Sensing in soil bacteria and elucidation of Quorum Sensing driven phenomena.
- B) Molecular analysis of *Rhodococcus equi* biofilm formation and its role in virulence.

## Education:

**1999-2005**

**Ph. D. in Genetics**

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

**1997-1999**

**Master of Science, Botany**, Department of Botany,  
Banaras Hindu University, Varanasi, India

**1994-1997**

**Bachelor of Science (with Honors), Botany**, Department of  
Botany, Banaras Hindu University, Varanasi, India

## Teaching / Research Experience:

**2014-till date**

**Assistant Professor**

Department of Botany  
Guru Ghasidas Central University  
Bilaspur, CG, India

**2007- 2014**

**Post-Doctoral Fellow**

Department of Infectious Diseases  
College of Veterinary Sciences  
University of Georgia  
Athens, GA, USA

**2006- 2007**

**Post-Doctoral Fellow (DBT)**

Eukaryotic Gene Expression Lab  
National Institute of Immunology  
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:**

- 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)**

**Research Guidance:**

**Ph. D. guidance** - 04 (ongoing)

**M.Sc. Dissertation-** More than 25

### **Publications:**

Rajendra Mehta, Suraj Dhruv, Vidyanshu Kaushik, Kamal Kumar Sen, Naureen Shaba Khan, Amar Abhishek, Ashwini Kumar Dixit & **Vibhay Nath Tripathi** (2020) A comparative study of antibacterial and antifungal activities of extracts from four indigenous plants.

**Bioinformation** 16(3): 267-273

**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

### **Book Chapters:**

Archana Mishra & **Vibhay Nath Tripathi** (2021) Role of bacteria in the development of cancer. In: Colon Cancer diagnosis and therapy, Vol. 2 (Eds: Drs. N. K. Vishvakarma, G. P. Nagaraju and D. Shukla) Springer Nature, Switzerland pp. 91-108

**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

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

### **Workshop / Conference Organized:**

One week “**Lecture series cum Awareness Program on Antimicrobial Resistance**” during World Antimicrobial Awareness Week (**WAAW-2022**), 18<sup>th</sup>- 24<sup>th</sup> Nov 2022

### **Invited Talk/ Posters presented in conferences:**

**Tripathi VN (2022)** Diagnosis of drug resistance in bacterial pathogens. National Workshop on Molecular Diagnostics: Advances and Applications. Dept. of Biotechnology, GGV, Bilaspur 03-09 Nov. 2022 (**Invited Talk**)

**Tripathi VN (2022)** Study of bacterial infections and animal cell culture. Workshop on Animal cell culture: Techniques and Applications. Dept. of Biotechnology, GGV, Bilaspur 16-22 Feb 2022 (**Invited Talk**)

**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

**Other Administrative / Academic Experiences:**

- School Coordinator for Cultural Activities of SoS in Life Sciences
- Member Board of studies (BOS) in Botany
- Member, Departmental Research Committee (DRC)
- Coordinator CSIR-UGC NET for SC-ST/minority students
- Assistant Center superintendent (Different Examinations of University)