

## Curriculum vitae of Professor B.N. Tiwary



**Name** : DR. BHUPENDRA NATH TIWARY

**Date of Birth** : 10.02.1958

**Designation** : PROFESSOR OF BIOTECHNOLOGY & REGISTRAR (Acting),  
Guru Ghasidas Vishwavidyalaya, Bilaspur, C.G.

**Father's Name** : Late Jagannath Tiwary

**Permanent Address** : Village: Lachhnauta, P.O.: Chanpatia  
Distt: West Champaran (845449)  
Bihar (INDIA)

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**Nationality** : Indian

### Academic Qualifications:

|                      |                     |      |   |
|----------------------|---------------------|------|---|
| Post Doctoral Fellow | Sheffield Univ., UK | 1989 | Molecular Biology & Biotechnology                             |
| Ph.D.                | Patna University    | 1986 | Botany Fungal genetics & Molecular Biology                    |
| M.Sc.                | Patna University    | 1978 | Botany I Class (69.3%)  |
| B.Sc. (Hons)         | Patna University    | 1976 | Botany I Class (66.0%)  |
| I.Sc.                | Patna University    | 1974 | Botany/ I Divn (63.2%)<br>Zoology/Chem Distinction in Biology |
| Matriculation        | BSEB, Patna         | 1972 | Phys, Chem, I Divn (75.3%)<br>Biol, Maths                     |

**Title of Ph.D. Thesis:** "Genetics of aromatic amino acid transport in *Aspergillus nidulans*"

**Field of Specialization:** Microbial & Molecular Genetics,  
Microbial Biodiversity & Biotechnology  
Environmental Biotechnology

### **Professional Details:**

|                            |  |                         |
|----------------------------|--|-------------------------|
| Professor of Biotechnology | Guru Ghasidas Vishwavidyalaya          | 11.06.2007- contd...    |
| Reader in Botany           | Patna University, Patna                | 10.07.1995-10.06.2007   |
| Lecturer in Botany         | Patna University, Patna                | 10.07.1987- 09.07.1995  |
| Research Associate (UGC)   | Barkatullah Vishwavidyalaya,<br>Bhopal | 13.08.1986 - 09.07.1987 |

### **Teaching Experience:**

(a) UG (Hons) Course: 28 years  
(b) PG Course: 28 years

**Research Experience:** 32 years

**Post Doctoral Research Experience:**

[a] Worked as a Commonwealth Post-Doctoral Fellow in the Department of Molecular Biology & Biotechnology, University of Sheffield (UK) during 1989-1990 on a Research Project entitled “Cloning and Heterologous Expression of Penicillin biosynthetic genes of *Penicillium chrysogenum* in *E.coli* and *Aspergillus nidulans*” with Professor Geofferey Turner.

[b] Worked as UGC-Research Associate in the Department of Microbiology, Bhopal University during 1986-1987 on a Research Project entitled “Genetics of cyanobacteria and cyanophages”.

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|---|---|----|
| <b>No. of Scholars Supervised for Ph.D.</b> | : | 11 |
| <b>No. of Scholar Registered for Ph.D.</b>  | : | 06 |
| <b>No. of M.Sc. Dissertation supervised</b> | : | 29 |
| <b>Research Projects (Completed)</b>        | : | 04 |
| <b>Research Project (ongoing)</b>           | : | 03 |

| SL. No | Project Title/Position  | Funding Agency  | Year of Sanction | Duration | Status         |
|--------|---|---|------------------|----------|----------------|
| 1      | Biochemical genetics of phenylalanyl-tRNA synthesis of <i>Aspergillus nidulans</i> (As principal investigator)  | Department of Science & Technology (DST) Government of India      | 1992             | 02 year  | Completed 1994 |
| 2.     | Microbial Biodiversity Consortium Network (MBCN) of Bihar (A Multi institutional Project) (As project co coordinator)   | Department of Biotechnology (DBT), Government of India            | 2004             | 03 Year  | Completed 2007 |
| 3.     | Assessment of Microbial load of the herbal drug Triphala and the use of Y-irradiation to enhance its shelf-life and efficacy (As Principal Investigator)                              | BRNS/BARC, Department of Atomic Energy (DAE), Government of India | 2005             | 02 Year  | Completed 2007 |
| 4.     | Purification & Characterization of Bioactive compounds from wild lignicolous mushrooms from Achanakmar-Amarkantak Biosphere Reserve   | CG Council of Science & Technology (CCOST)                        | 2010             | 02 Years | On-going       |
| 5.     | Process optimization of conditions for extraction and purification of lignin from agro and forest wastes using physico-chemical and biological approaches (As Principal Investigator) | UGC Major Project   | 2011             | 03 Years | On-going       |
| 6.     | Studies on the diversity of entomopathogenic fungi of Chhattisgarh: Understanding the molecular mechanism of Entomopathogenesis for Bioprospecting (As principal investigator)        | Department of Biotechnology (DBT), Government of India            | 2012             | 03 Years | On-going       |
| 7.     | DBT-BUILDER (As Project Co-ordinator)   | Department of Biotechnology (DBT),                                | 2013             | 05 Years | On-going       |

|  |  |                     |  |  |  |
|--|--|---------------------|--|--|--|
|  |  | Government of India |  |  |  |
|--|--|---------------------|--|--|--|

**Experience of Guiding Research** : 28 Years  
Number of Scholars awarded Ph.D. Degree : 11  
Number of Scholars presently registered : 04

| Sl No | Name of the Research Scholars                       | Topic of Research  | Date of Registration | Date of the Award of Ph.D. Degree |
|-------|---|--|----------------------|-----------------------------------|
| 1.    | Dr. Nalin Kumar Singh<br>(CSIR-NET Fellow)          | Studies on the genetics of Phenylalanyl-tRNA synthetase of <i>Aspergillus nidulans</i>   | 06.11.1987           | 22.03.1994                        |
| 2.    | Dr. Ujjal Kumar Ghosh<br>(UGC Teacher Fellow)       | Investigations on the effect of some quinolone drugs in <i>Thermoactinomyces vulgaris</i>  | July,1989            | 20.07.1996                        |
| 3.    | Dr. Sanjay Sahay<br>(UGC-NET Fellow)                | Studies on the uptake of Amino Acids in <i>Aspergillus nidulans</i>  | July,1989            | 06.08.1998                        |
| 4.    | Dr. Vikash Chandra<br>(UGC-NET Fellow)              | Biochemical genetics of transport and utilization of amino acids in <i>Aspergillus nidulans</i>  | February,1994        | 22.09.2000                        |
| 5.    | Dr. Ashok Kumar Singh                               | Genetics of Over-production of aromatic amino acids in the fungus <i>Aspergillus nidulans</i>  | February,1997        | 23.02.2004                        |
| 6.    | Ms. Navneel   | Isolation and characterization of soil Actinomycetes. A search for new secondary metabolite  | July,2002            | 14.11.2006                        |
| 7.    | Mr. Rajesh Anand<br>(CSIR-NET Fellow)               | Investigation on some entomopathogenic fungi affecting paddy crop of Bihar: A search for Novel Biopesticides   | July,2002            | 14.11.2006                        |
| 8.    | Mr. Dhan Prakash                                    | Biochemical and molecular analysis of nitroaromatic (4-nitrophenol) and chloronitroaromatic (2-chloro-4-nitrophenol) degrading organisms: studies of bacterial diversity in contaminated niches. | June 2008            | Awarded                           |
| 9.    | Ms Jola Dubey                                       | Biochemical and Molecular characterization of indigenous entomopathogenic nematodes  | July, 2008           | Awarded                           |
| 10.   | Ms Arpita Mani Tripathi<br>DST- Women Scientist (A) | Prospective of novel bioactive compounds from selected wild lignicolous mushrooms of Achanakmar-Amarkantak Biosphere Reserve, Chattisgarh  | June 2008            | Awarded                           |

|     |   |   |                  |          |
|-----|---|---|------------------|----------|
| 11. | Ms Reena Das<br><b>UGC-BSR Fellowship</b> | Studies on microbial diversity for bioremediation of hydrocarbon present in the petroleum contaminated site                     | October 11, 2008 | Awarded  |
| 12. | Mr. Tarun Kumar Patel                     | Molecular characterization of selected <i>Aspergillus flavus</i> and other entomopathogenic fungi associated with pathogenesis. | May, 2012        | Working  |
| 13. | Ms. Pallavi Singh                         | Biochemical & Molecular characterization of bacterial strains involved in degradation of Polyaromatic Hydrocarbons              | May, 2014        | Working  |
| 14. | Ms. Madhu Manikpuri                       | Isolation and characterization of conidial surface antigen from aeromycoflora   | August, 2014     | Working  |
| 15. | Ms. Anjni Sahu                            | Study on the nature and mode of action of secretory biomolecules produced by entomopathogenic fungi                             | February, 2015   | Resigned |
| 16. | Ms. Vaishali Paul                         | Investigations on Fungal L-Asparaginase : Optimization of conditions for production, purification and stability                 | August, 2015     | Working  |

#### Research Collaborations:

1. MTCC & Gene Bank, IMTECH, Chandigarh
2. IARI, New Delhi
3. Baba Gadge Amravati University, Amravati (MS)
4. Department of Physical Anthropology, Pt. Ravi Shankar Shukla Univ, Raipur

#### Awards & Medals:

- [1] Awarded **National Merit Scholarship** for securing position in the Merit List of Bihar School Examination Board from 1972-1976.
- [2] Awarded **Patna University Merit Scholarship** for securing third position in I Class in B.Sc. (Hons.) Examination from 1976-1978.
- [3] Awarded **Junior Research Fellowship (JRF) of the UGC** from 1981-1983.
- [4] Awarded **Senior Research Fellowship (SRF) of the UGC** from 1983-1986.
- [5] Awarded **Research Associateship (RA) of the UGC** from 1986-1987.
- [6] Awarded **Young Scientist Medal** jointly by MP Council of Science & Technology (MPCST) and Department of Science & Technology (DST), Government of India in 1987.
- [7] Awarded **Commonwealth Fellowship for Post-Doctoral Research by British Council Division, Commonwealth Scholarship Commission to work in the University of Sheffield, UK** in 1989.

#### Membership of the Learned Bodies:

- [1] Life Member, Indian Science Congress Association
- [2] Life Member & Fellow of International Society of Conservation of Natural Resources
- [3] Life Member, Indian Society of Microbiologist
- [4] Member, American Society of Microbiology (ASM)
- [5] Member, Fungal Genetics Stock Centre (FGSC), USA

#### Other Academic/Administrative Experiences in Patna University (1987-2007):

- [1] Professor-in-Charge, Microbial & Mol. Genetics Lab, Department of Botany, Patna University since 1990
- [2] Organizing Secretary of two National Seminars and one workshop
- [3] Nominated Member of the Committee constituted by the Vice-Chancellor, Patna University to formulate bye-laws and curriculum for the P.G. Department of Biochemistry in 1999.
- [4] Assistant Superintendent, Newton House, Science College, Patna University

- from 2001
- [5] Co-ordinator, “Refresher Course in Biotechnology” organized by the UGC, Academic Staff College, Patna University in 2004
  - [6] Project Co-ordinator, Multi-institutional Research Project entitled “Microbial Biodiversity Consortium Network (MBCN) of Bihar” funded by Department of Biotechnology, Government of India in 2004
  - [7] Elected (Teacher) Member, Patna University Senate in 2005
  - [8] Elected (Teacher) Member, Patna University Finance Committee in 2005
  - [9] Member, Finance Committee, Patna University
  - [10] Chief Coordinator, Self-Financing Courses in Patna University in 2006-2007
  - [11] Coordinator, Department of Biotechnology in Patna University in 2006-2007
  - [11] Member, Advisory Committee on Higher Education constituted by HE, the Governor-cum-Chancellor, Bihar

### **Administrative Experience in Guru Ghasidas Vishwavidyalaya (GGV), Bilaspur (2007-contd)**

- [1] Head, Department of Biotechnology (June 2007-Nov. 2012 & May 2013-contd.)
- [2] Dean, Faculty of Natural Resources (2007-2009)
- [3] Member of Academic Council (2007-2009)
- [4] Member, Standing Committee of Academic Council (2007-2009)
- [5] Member of the Executive Council (2007-2009)
- [6] Member of the Academic Council of GGV (A Central University) (2009-contd)
- [7] Dean, School of Life Science (2009-contd)
- [8] Head (in-Charge), Departments of Botany, Zoology, Forensic sciences and Anthropology & Tribal Development in GGV (2009-2013)
- [9] Member of the Standing Committee of Academic Council of GGV (A Central University) (2009-contd)
- [10] Member, Central Purchase Committee of GGV, Bilaspur
- [11] Member, Central Purchase Committee of GGV, Bilaspur
- [12] Member, Advisory Committee of CHiPS and CCOST, Government of Chhattisgarh
- [13] Coordinator, UGC-CSIR NET Coaching for SC & ST, GGV, Bilaspur
- [14] Nodal Officer, GGV-Inspired Teachers Network of Central Universities since 2014
- [15] Nominated member of Executive council, GGU, Bilaspur in 2016
- [16] Nominated by the Executive Council as Member of the Finance Committee of GGV Central University
- [17] Appointed Registrar of GGV Central University on 26.07.2017 to contd. ....
- [16] Nominated representative of the Honb’le Vice Chancellor GGV, at “International Conference on Resurgence for Research” held at VNIT, Nagpur from 10-12 Feb, 2016.

### **Nominee of Central/State Government for Statutory Bodies**

- [1] Nominee of Department of Biotechnology, Ministry of Science & Technology, Government of India for Institutional Bio-safety Committee (IBSC) for Department of Plant Biotechnology, Indira andhi Krishi Vishwavidyalaya (IGKV), Raipur
- [2] Nominee of Government of Madhya Pradesh for the Governing Body of Amity University, Gwalior
- [3] Inspired Teacher, Representative from the GGU, state of Chhattisgarh for In-house Residential program for INSPIRED TEACHERS NETWORK.

### **Other Academic/Administrative Assignments**

- [1] External Subject Expert/Member, Board of Studies in Biotechnology, Jiwaji University, Gwalior
- [2] Reviewer of a number of Indian and Foreign Journals related to Microbial Technology
- [3] Worked as Elected Recorder of Environmental Science Section of ISCA (2007-2009)
- [4] Member of the Selection Committee for appointment of faculty members in Biotechnology, Baba Gadge Amaravati University, Amravati, Maharashtra



### **Out-Reach Programs Organized**

- [1] Organized Inspired Summer Camp for School students during 2012-13 and 2013-14 to attract talents and to motivate young students towards higher education & research
- [2] Organized National Science Day in 2013 on the theme “Genetically modified crops” on February 28, 2013.

## Major Projects undergoing

- DBT – BUILDER PROJECT funded by Department of Biotechnology, Govt. of India  
Project coordinator : Prof B.N.Tiwary

### List of JRF's under Microbial Technology Group

| S.No | Name          | Photographs  | Contact Details   | Topic   |
|------|---------------|--|---|---|
| 1    | Vaishali Paul |   | Mob:<br>8109613223;<br>9479288531<br><br>Email:<br><a href="mailto:vaishalipaul89@gmail.com">vaishalipaul89@gmail.com</a> | Investigations on Fungal L-Asparaginase : Optimization of conditions for production, purification and stability |
| 2    | Namrata Kahar |  | Mob:<br>9329601151  | Metagenomics  |

### Current Areas of Research

1. Microbial diversity of sites contaminated with heavy metals and xenobiotics
2. Purification, characterization and identification of novel bioactive compounds from plants, Mushrooms and microorganisms
3. Isolation and characterization of microorganisms (fungi and nematodes) showing potential as biopesticides, biofertilizers and other useful commercial products.

### Significant Contributions made by Dr. B.N. Tiwary, Professor of Biotechnology in the Development of the field of Knowledge/Institution

1. Explored **three diverse mechanisms for the development of resistance to Antimetabolites** in eukaryotes using *Aspergillus nidulans* (an ascomycetous fungus) as the genetic test system (**Ref. Current Microbiology . 1987, 15:305-311**).
2. **Proposed a model for explaining the Polymeric nature of aromatic amino acid permease in eukaryotes** on the basis of interaction studies between different genes concerned with amino acid uptake in *Aspergillus nidulans* (**Ref. Biologisches Zbl. 1989, 108:77-81**).
3. Made **first report of the identification and functional characterization of a gene (fpaU) involved in the synthesis of  $\alpha$ -subunit of Phenylalanyl-tRNA synthetase** of *Aspergillus nidulans* (**Ref. Molecular & General Genetics. 1987, 209:164-169**).
4. Reviewed the research work done in the field of “**Fungal Physiology and Biochemistry**” **In India** that forms one of the Chapters of the **Reference Book** entitled “**BOTANY IN INDIA:History & Progress**”, Edited by Professor BM Johri in 1994, Oxford & IBH Publishers, New Delhi.
5. Have **edited two books**, which include review articles on diverse topics of Plant Sciences In general and Molecular Biology & Biotechnology, in particular, contributed by scientists of National and International repute.
6. Have been instrumental in establishing **Patna University Botanical Society** with the aims of making Botany teaching more interactive by organizing seminars, workshops etc., Publication of its **Journal “The Botanical Bulletin”** and served as the **first President of the Society** during 1982-1985.
7. Have worked as a **member of the Committee constituted by the Vice-Chancellor,**

- Patna University to develop curriculum and frame the bye-laws to establish a separate Post-graduate Department of Biochemistry** under the Faculty of Sciences in Patna University.
8. Have been the **Organising Secretary of three National Seminars and two National Workshop** held in the Department of Botany, Patna University and Bihar Council on Science & Technology, Ministry of Science & Technology, Government of Bihar and in the Guru Ghasidas University, Bilaspur.
  9. Have been a **member of the panel constituted by the Bihar Council on Science & Technology, Ministry of Science & Technology, Government of Bihar** to prepare the “**Draft Policy for Biotechnology in the State of Bihar**”.
  10. Worked as the **Chief Co-ordinator of a Multi-institutional Project entitled “Microbial Biodiversity Consortium Network (MBCN) of Bihar”** funded by the **Department of Biotechnology, Government of India** with the objective of investigation, preservation and documentation of the diverse microbes of different ecosystems of Bihar and assessment of their potentials in agriculture and industries.
  11. Have worked as **Principal Investigator of a Project on Herbal drug Triphala** funded by **Board of Radiation & Nuclear Science (BRNS/BARC), Department of Atomic Energy (DAE), Government of India** with the aim to assess its microbial load, the toxins and optimization of conditions for radiation hygienization using  $\gamma$ -irradiation.
  12. Have **isolated, identified 7 new strains of agriculturally important soil bacteria and deposited the rDNA sequence data of two novel biovars of *Agrobacterium tumefaciens* to International Gene Bank, Maryland, USA in 2006, first such data submission for any organism from the soil of Bihar.**
  13. Have been associated with State Council of Educational Research & Training (SCERT) and Sri Krishna Science Centre, Patna as the **Resource Person to train teachers of +2 Schools** as well as **nominated in the Panel of Judges during National Level Science (Model & Chart) Competitions** for school children.
  14. Have been working as **In-Charge, Microbial & Molecular Genetics Lab, Department of Botany, Patna University**, since 1991.
  15. Have been teaching Microbiology, Molecular Genetics and Recombinant DNA Technology in the UGC Centre for Biotechnology, B.N. College and Postgraduate Department of Biochemistry, Patna University as the Guest Faculty.
  16. Have guided a number of students of B.Sc. & M.Sc. courses from different institutions for their “on the Job Training” on various topics related to Industrial Microbiology, Microbial Diversity & Biotechnology.
  17. Have got sanction of two separate self-financing M.Sc. courses in Industrial Microbiology and Bioinformatics in Guru Ghasidas University under XI Plan period to provide job-oriented training to students

### Research Publications

1. **Tiwary BN** (1985) Genetics of aromatic amino acid transport in *Aspergillus nidulans*. Ph.D. Thesis, Patna University, Patna, India.
2. **Tiwary BN & Sinha U** (1985) Preferential selection and genetic characterization of an amino acid analogue-resistant mutant in *Aspergillus nidulans*. *Current Science* 54: 244-245.
3. **Tiwary BN & Sinha U** (1985) Aromatic amino acid analogue-resistance in *Aspergillus nidulans*. *Indian Botanical Contactor* 2: 127-137.
4. **Tiwary BN & Sinha U** (1986) Genetic characterization of mutants resistant to an aromatic amino acid analogue in *Aspergillus nidulans*. *Perspectives in Cytology & Genetics* 5:741-746.
5. **Tiwary BN & Sinha U** (1986) Degrees of p-fluorophenylalanine-resistance of amino acid transport mutants of *Aspergillus nidulans*. *Mendel* 3: 39-43.
6. **Sinha U & Tiwary BN** (1986) Genetics of antimetabolite-resistance in *Aspergillus*. In: *Aspects of Plant Sciences* (ed Bir SS), Today & Tomorrow Printers & Publishers, New Delhi, Vol. 9: 35-62.
7. **Tiwary BN, Bisen PS & Sinha U** (1987) Genetic control of amino acid transport in *Aspergillus nidulans*: Evidence for polymeric amino acid permease. *Current Microbiology* 15:305-311.
8. **Tiwary BN, Bisen PS & Sinha U** (1987) Demonstration of an altered phenylalanyl-tRNA synthetase in an analogue-resistant mutant of *Aspergillus nidulans*. *Molecular & General*

9. **Tiwary BN** & Sinha U (1987) Characterization of six new p-fluorophenylalanine-resistant loci of *Aspergillus nidulans*. *Fungal Genetics News Letter* (Glasgow, UK) 34: 56-58.
10. Bisen PS, Audholia S, Gupa A & **Tiwary BN** (1988) Altered nuclease and protease activity in cyanophage LPP-1 infected cyanobacteria *Phormidium uncinatum* and *Plectonema boryanum*. *Current Science* 57: 548-550.
11. **Tiwary BN** (1989) Interaction between fpa genes of *Aspergillus nidulans* concerned with amino acid uptake. *Biologisches Zentralblatt* 108: 77-81.
12. **Tiwary BN** (1989) Isolation and characterization of a mutant with altered phenylalanyl-tRNA synthetase in *Aspergillus nidulans*. *Perspectives in Cytology & Genetics* 6: 107-114.
13. **Tiwary BN** & Sinha U (1989) Isolation and preliminary characterization of a new class of amino acid uptake mutant in *Aspergillus nidulans*. *Microbios Letters* 41: 57-61.
14. Sinha U & **Tiwary BN** (1989) Nucleic acids and cytotoxicity. In: *Vistas in Cytogenetics* (eds Sinha RP & Sinha UK), Spectrum Publishing House, New Delhi, pp 1-21.
15. Singh NK, **Tiwary BN** & Sinha U (1990) Domain-inhibition-linked low activity of Phe-tRNA synthetase for para-fluorophenylalanine in a mutant of *Aspergillus nidulans*. *Fungal Genetics News Letter* (Glasgow, UK) 37: 38-39.
16. **Tiwary BN** (1991) Sodium dodecyl sulphate-induced permeability changes in amino acid analogue-resistant mutant of *Aspergillus nidulans*. *J Indian Botanical Society* 70: 151-155.
17. Singh NK & **Tiwary BN** (1992) Modelling for competition between phenylalanine and its toxic analogue in a phenA auxotroph of *Aspergillus nidulans*. *Acta Botanica Indica* 20: 177-181.
18. Singh NK & **Tiwary BN** (1992) Isolation and characterization of an analogue-resistant aminoacyl-tRNA synthetase mutant in *Aspergillus nidulans*. *Indian J Experimental Biology* 30: 94-98.
19. Singh NK & **Tiwary BN** (1993) Identification and biochemical characterization of an aminoacyl-tRNA synthetase gene in a mutant of *Aspergillus nidulans*. *Proc Natl Acad Sci (India)* 63(B)III:341-346.
20. Sharma AN & **Tiwary BN** (1994) Development of stress tolerant plants in vitro. In *Aspects of Plant Sciences* (ed Sobti RS) 12: 1-14.
21. Sinha U & **Tiwary BN** (1994) Fungal Physiology & Biochemistry. In *Botany in India: History & Progress, Vol. I* (ed Johri BM), Oxford & IBH Publishing House, New Delhi, pp. 307-326.
22. **Tiwary BN** & Singh NK (1994) Molecular mechanisms of resistance to antimetabolites in *Aspergillus nidulans*. In: *Microbes and Environment* (eds Prasad AB & Bilgrami RS), Narendra Publishing House, Delhi, pp. 95-106.
23. Sinha U & **Tiwary BN** (1996) Heterosis in microorganisms. In: *Concepts in Applied Microbiology & Biotechnology* (eds Mukerji KG, Singh VP & Dwivedi S), Aditya Books Pvt Ltd, New Delhi, pp.43-49.
24. **Tiwary BN**, Ghosh UK, Saran AK, Singh AN, Alam S & Kumar S (1996) Genetic analysis of an obligate thermophile, *Thermoactinomyces vulgaris*. In: *Molecular Biology & Biotechnology* (eds Srivastava S, Srivastava PS & Tiwary BN), CBS Publications & Distributers, New Delhi, pp. 75-97.
25. **Tiwary BN** & Srivastava S (1996) para-Fluorophenylalanine resistance in *Aspergillus nidulans*: Modes of action of antimetabolites. In: *Molecular Biology & Biotechnology* (eds Srivastava S, Srivastava PS & Tiwary BN), CBS Publications & Distributers, New Delhi, pp. 98-125.
26. Singh NK & **Tiwary BN** (1996) Fast dissociation of phe-tRNA synthetase from *Aspergillus nidulans* immobilized on Sepharose-6B column by NaCl. *J Basic Microbiology* 36(1):59-62.
27. Sahay S & **Tiwary BN** (1997) Isolation and characterization of membrane bound ATPases from wild type and amino acid uptake mutants of *Aspergillus nidulans*. *Indian J Experimental Biology* 35: 276-279.
28. **Tiwary BN** & Prasad B (2004) Microbial Biodiversity of Bihar: Strategy and Action Plan. In: *Bihar on Road to Biotechnology: Opportunities & Challenges* (eds Gupta AK, Tiwary BN & Prasad B) pp. 12-19.
29. **Tiwary BN**, Kumar Sanjay, Prasad B, Ghosh Anuradha & Jain RK (2007) Characterization of two novel Biovar of *Agrobacterium tumefaciens* isolated from root nodule of *Vicia faba*. *Current Microbiology* 55:328-333
30. Kumari Nirupa, Prasad B & **Tiwary BN** (2007) Isolation and characterization of hyper-



- amylase producing strain *Streptomyces clavifer* MTCC 7778. *Columban J Life Sciences* 8(1):56-61.
31. **Tiwary BN**, Prasad B, Kumari N, Kumar P, Mitra D & Varshney L (2008) Studies on effects of  $\gamma$  radiation processing of herbal formulation Triphala. *Journal of Food Science (Springer)* 74: M109-113.
  32. Anand R, Prasad B, **Tiwary BN** (2009) Relative susceptibility of *Spodoptera litura* pupae to selected entomopathogenic fungi. *Biocontrol (Springer)* 54: 85-92.
  33. Anand R & **Tiwary BN** (2009) Pathogenicity of entomopathogenic fungi to eggs and larvae of *Spodoptera litura*, the common cutworm. *Biocontrol Science & Technology* 19(9):919-929.
  34. Anand R & **Tiwary BN** (2009) Th-1 and Th-2 Cytokines in a self-healing primary pulmonary *Aspergillus flavus* infection in Balb/C mice. *CYTOKINE (Springer)* Published online.
  35. Dubey Jola, **Tiwary BN**, Rathour KS & Ganguli S (2009) Phylogeny of some Indian species/strains of *Steinernema* (Rhabditida) based on RFLPs of the ITS region of rDNA. *International Journal of Nematology* 19: 182-188.
  36. Prakash Dhan, Pandey Janmejy, **Tiwary BN** & Jain Rakesh (2010) Physiological adaptations and tolerance towards higher concentration of selenite (Se<sup>4+</sup>) in *Enterobacter* sp. AR-4, *Bacillus* sp., AR-6 and *Delftia tsuruhatensis*. *Extremophiles (Springer)* Published online DOI 10.1007/s00792-010-0305-8
  37. Anand Rajesh & **Tiwary BN** (2010) Cytokine profile and cytotoxicity in response to acute intratracheal dose of *Metarhizium anisopliae* in BALB/c mice. *Medical Mycology*, Published online p 1-10.
  38. Prakash Dhan, Pandey Janmejy, **Tiwary BN** & Jain Rakesh (2010) A process optimization for biocatalytic production of substituted catechol (3-nitrocatechol and 30methylcatechol). *BMC Biotechnology* 10:49-58
  39. Singh Abha, K Sushma, Prakash Dhan and **Tiwary BN** (2011) Molecular identification of predominant bacteria associated with 'Khatua'- A traditional fermented food of Bihar, India. *Indian J Microbiology (communicated online)*.
  40. Prakash Dhan, Kumar Ravi, Jain RK & **Tiwary BN** (2011) Novel pathway for the degradation of 2-chloro-4-nitrobenzoic acid by *Acinetobacter* sp. Strain RKJ12. *Applied & Environmental Microbiology* 77:6606-6613.
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## LIST OF RESEARCH PUBLICATIONS (Chronological)

| Citation indices | All | Since 2010 |
|------------------|-----|------------|
| Citations        | 122 | 104        |
| h-index          | 6   | 6          |
| i10-index        | 4   | 4          |



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- [1] **Molecular Biology & Biotechnology (1996)** Eds. Sheela Srivastava, PS Srivastava & **B N Tiwary**; CBS Publications & Distributors, New Delhi
- [2] **Bihar on Road to Biotechnology: Opportunities & Challenges (2004)** Eds. AK Gupta, **B N Tiwary** & Birendra Prasad. Proceedings of the National Workshop for “Draft Policy for Biotechnology in Bihar”

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