**Department of Biotechnology**

**Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G)**

## RENU BHATT, Ph.D.

**Professor**

**Guru Ghasidas Vishwavidyalaya**

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https://scholar.google.com/citations?user=tpUQtHwAAAAJ&hl=en

**EDUCATIONAL QUALIFICATION:**

• **Ph.D**. Zoology, Banaras Hindu University, Varanasi, India.

• **M.Sc**. Zoology, Garhwal University, India

• **B.Sc**. Zoology, Botany and Chemistry, Garhwal University, India

**ACADEMIC POSITION HOLD:**

* Dean, School of Life Sciences, GGV, Bilaspur 2016-2019
* Member Academic Council member, GGV, Bilaspur
* Head, Department of Biotechnology, GGV, Bilaspur, Aug 2016- June 2023
* Chairman, Departmental Research Committee, Dept. of Biotechnology, GGV, Bilaspur
* Chairman , Board of Studies, Department of Biotechnology GGV, Bilaspur
* Member Secretary of DBT PG Program Advisory committee member
* External Expert, Board of studies, Department of Biotechnology, RSU Raipur (2023-2026)
* Chairman, Member of Departmental Purchase Committee, Dept. of Biotechnology, GGV, Bilaspur
* VC nominated Member of UGC and DBT project in Zoology, Botany and Rural Technology, GGV, Bilaspur
* Chairman, Departmental board of studies, Dept. of Biotechnology (2016-2023)
* Programme Coordinator, DBT Sponsored PG Programme (2020-2025)

**AWARDS:**

• **Exchange program visitor**, Department of Animal Science, MN, USA. 2000-2002

• **Young Scientist Project Award**, Department of Science and Technology, New Delhi, India 1999-2000

• **Pool Scientist Award,** CSIR, New Delhi, India ----1996-99

• **Research Associate Award**, CSIR, New Delhi, India 1991-1995

• **Pre doctoral Fellowship Award**, Department of Atomic Energy, Trombay, India 1986-1989

**RESEARCH GUIDANCE:**

* Total No. of Ph.D. Students awarded: 05
* Total No. of M. Sc. Dissertation Students: 54
* Total No. of UG Students: 48

**PROFESSIONAL EXPERIENCE:**

**Professor,** Department of Biotechnology, GGV, Bilaspur (Jan 2017-till date)

* + **Associate Professor**, Department of Biotechnology, Guru Ghasidas Vishwavidyalaya, Bilaspur, Chhattisgarh, India (2011-2016)
  + **Consultant,** Center for Nanobiotechnology and Life Science Research, Alabama State University, Montgomery, AL, USA (2011)
  + **Research Faculty,** Department of Psychology, Neuroscience Program, Florida State University, Tallahassee, FL, USA (2008-2010)
  + **Postdoctoral Fellow,** Department of Pediatrics, Medical College of Wisconsin, Milwaukee, WI, USA (2005-2008)
  + **Research Associate,** Department of Medicine, University of Arkansas for Medical Science, Little Rock, AR, USA (2002-2005)
  + **Post-doctoral Associate**, Department of Animal Science, University of Minnesota, St. Paul, MN,USA (2000-2002)
  + **Pool Scientist,** Council of Scientific and Industrial Research [CSIR], New Delhi, India. (1995-1999)

**PROFESSIONAL MEMBERSHIP:**

* + **Member**, Society for Neuroscience, USA (2008-2010)
  + **Member**, Society for Behavioral Neuro-endocrinology, USA (2009-2010)
  + **Member**, American Association for the Advancement of Science, USA (2003-2005)
  + **Life member**, Society for Reproduction Biology and Comparative Endocrinology (Since 1992)
* **Life member**, Indian Science Congress (Since 2015)

**PROJECTS COMPLETED/ONGOING:**

* Phytochemical Investigation of Moringa in cisplatin induced Nephrotoxicity . Chattisgarh Council of Science and Technology (PI) Sep 2015-2017**- 4.5 Lakhs**
* Exploring Fungal diversity from selected area of Assam Using Biochemical and Molecular Approach for Industrially Important Bio-molecules. Twining Project DBT (CO-PI ) 2012-2015- **27 Lakhs (project transferred to central University of Rajasthan in year 2013.**
* **Programme Coordinator of DBT sponsored PG programme 2020-25 . 180 Lakh**

**LIST OF PUBLICATION:**

* Kahar, N., Mishra, P., Bhatt, R., & Seth, R. (2023). Chemical characterization of the crude extract of Sauromatum venosum (voodoo lily) and docking study with 12-O-acetylingol 8-tiglate for cytotoxicity testing in SaOS2 (osteoblastic osteosarcoma cells). Analytical Sciences, 1-12.
* Bhange, K., Nath, A., Singh, N., Chaturvedi, V., & Bhatt, R. (2023). Statistical optimization and prediction of significant nutritional factors for keratinase production by Stenotrophomonas maltophilia Kb2 and its application as dehairing agent. Bioresource Technology Reports, 23, 101541.
* Das, R., & Bhatt, R. (2021)Phytochemical Investigation, Antioxidant Activity and Compound Characterization of successive extraction from tuber of unexplored Amorphophallus margaritifer.
* Bhange, K., Yadaw, R., & Bhatt, R. (2021) Chicken feather waste derived production and characterization and blood clot lytic activity of keratinase from stenotrophomonas maltophilia.
* Seema M, Verma SA, Banjare L., Dubey A, **Bhatt R**., Thareja, S and Jain AK (2020) : A comprehension into target binding and spatial fingerprints of noscapinoid analogues as inhibitors of tubulin. Medicinal Chemistry, 15. 1-12. (IF 2.74)
* Panigrahy, SK, Jha A, **Bhatt R** and Kumar A (2020) [Molecular docking and ADMET-based mining of terpenoids against targets of type-II diabetes](https://scholar.google.co.in/citations?view_op=view_citation&hl=en&user=TlJ5Ot0AAAAJ&citation_for_view=TlJ5Ot0AAAAJ:IjCSPb-OGe4C). Network Modeling Analysis in Health Informatics and Bioinformatics 9 (1), 1-9 IF 1.20
* Das, R., Patre, J. R., & Bhatt, R. (2020). Comparative Analysis of Nutritional Value of different types of Mushrooms from Chhattisgarh.
* Yadaw, R., Vaishnav, V. K., Toppo, S. R., Bhange, K., & Bhatt, R. (2020) Catalytic Potential of Laccase Enzyme Produced by Endophytic Fungi for Dye Decolorization.
* Panigrahy SK, Kumar A and **Bhatt R** (2019). *In Vitro and In Vivo* Anti-diabetic Activity of Fractions Obtained from the Unexplored *Hedychium coronarium* Rhizome. Proc. Natl. Acad. Sci., India, Sect. B Biol. Sci. 90: 605-614
* Panigrahy SK, Kumar, A and **Bhatt, R.** (2018). *Hedychium coronarium* Rhizomes: Promising anti-diabetic and natural inhibitor of α-amylase and α-glucosidase. Journal of Dietary supplements, 81-87
* Kumar, G., Kumar, P., Kumar, D., Kumar, A., Bhatt, R., & Sharma, P. (2018) Biochemical assessment among toddy users in bihar region, muzaffarpur.
* Pandey, N, and **Bhatt, R.** (2018). Improved biotransformation of arsenic by arsenite oxidase–Chitosan nanoparticle conjugates. International journal of biological macromolecules, 106, 258-265.
* Purena, R. and **Bhatt, R.** (2018). *In vivo* study of protective role of *Moringa oliefera* pod extract in cisplatin induced nephrotoxicity. Toxicology International. 25(1), 19-25
* Purena, R. and **Bhatt, R.** (2018). Comparative Phytochemical investigation, antioxidant and anticancer properties of leave extracts of four medicinal plants from Chhattisgarh, India. Asian Journal of Plant Science and Research. 8(3), 1-21.
* Purena, R., Seth, R. and **Bhatt, R.** (2018). Protective role of Emblica officinalis hydro-ethanolic leaf extract in cisplatin induced nephrotoxicity in Rats. Toxicology reports, 5, 270-277.
* Panigrahy,SK, Kumar A and **Bhatt R.** (2017): Antioxidant potential of successive solvent extract of unexplored *Hedhychium coronarium* rhizomes. Journal of Food Science and Technology 54, 3297–3306
* S.K.Panigrahy, Kumar A, and **Bhatt, R** (2016): Reactive oxygen species: sources, consequences and targeted therapy in type 2diabetes. Journal of drug targeting, 25(2),93-101
* Pandey, N., & **Bhatt, R.** (2016). Role of soil associated Exiguobacterium in reducing arsenic toxicity and promoting plant growth in Vigna radiata. European Journal of Soil Biology, 75, 142-150 (IF 2.846)
* Pandey, N and **Bhatt, R** (2016): Arsenic removal and biotransformation potential of Exiguobacterium isolated from arsenic rich soil of Central India, *CLEAN Soil Air Water* 44(2), 211-218
* Bhange K, Chaturvedi V, **Bhatt R** (2016): Feather degradation potential of *Stenotrophomonas maltophilia* KB13 and feather protein hydrolysate (FPH) mediated reduction of hexavalent chromium. *Biotech* (*Springer)* 6:42 ( IF-1.4)
* Bhange K, Chaturvedi V, **Bhatt R** (2016): Ameliorating effects of chicken feathers in plant growth promotion activity by a keratinolytic strain of Bacillus subtilis. *Bioresources and Bioprocessing* PF1. 3:13 (IF 4.578)
* Pandey, N and **Bhatt, R** (2015): Arsenic resistance and accumulation by two bacteria isolated from a natural arsenic contaminated site. *Journal of Basic Microbiology* 55:1275-1286 (IF 2.281)
* Bhange K, Chaturvedi V, **Bhatt R** (2015): Potential biofilm dispersel by a partially purified keratinase produced by Stenotrophomonas maltophilia strain Kb2.*Biocatalysis and Agricultural Biotechnology* 4: 801-805 (IF 3.281)
* Pandey, N and **Bhatt, R** (2015): *Exiguobacterium* mediated arsenic removal and its protective effect against arsenic induced liver toxicity in *Channa striata*. *Toxicology Report* 2:1367-1375 (IF 4.81)
* Chaturvedi,V Bhange K, **Bhatt R,** Verma P (2014): Production of kertinases using chicken multifunctional strain of *Pseudomonas stutzeri*and its dehairing application. Biocatalysis and Agricultural Biotechnology*.* 3:167-174 *(Elsevier*).(IF-3.281)
* Chaturvedi,V Bhange K, **Bhatt R,** Verma P (2013): Biodetoxification of high amounts of malachite green by a multifunctional strain of *Pseudomonas mendocina*and its ability to metabolize dye adsorbed chicken feathers. *Journal of Environmental Chemical Engineering* 1(4), 1205-1213.(IF-5.88)
* Chaturvedi V, Vaishnaw M, **Bhatt R**, Verma P (2013): Variation in antioxidant Potential of Processed and Unprocessed Honey Samples from Central India. A Plausible role of Quinolin and Gallic acid as antioxidants.*Current trends in Biotechnology and Pharmacy* 8(3): 264-275. Current trends in Biotechnology and Pharmacy, Refereed Journal, ISSN 0973-8916
* Gil, M, **Bhatt,R,** Picotte Katie G and Hull EM (2013): Sexual experience increases oxytocin receptor gene and protein expression in the medial preoptic area of the male rat. *Psychoneuroendocrinology* 38:1688-1697. Psychoneuroendocrinology, Refereed journal, ISSN 0306-4530, IF:5.42
* Chandrabhan, D. Hemlata, R, Bhatt, R and Verma, P (2012): Isolation of Dental Caries Bacteria from Dental Plaque and Effect of Tooth Pastes on Acidogenic Bacteria.*Open Journal of Medical Microbiology* 2, 65-69, Open Journal of Medical Microbiology, IF: 0.89, Refereed Journal ISSN 2165-3380.
* Seth, R, Terry D, Parrish, B **Bhatt,R** and Overton, MJ(2012):Amylin–leptin coadministration stimulates central histaminergic signaling in rats. *Brain Research* 1442 15-24. Brain Research, Refereed Journal ISSN 0006-8993, I|F: 2.665
* Gil, M, **Bhatt,R**, Picotte Katie G and Hull EM (2011): Oxytocin in the medial preoptic area facilitates male sexual behavior in the rat*. Harmones and Behavior* 59(4): 435-444. Hormones, and Behavior, Refereed journal, ISSN 0018-506x. IF: 4.63
* Wangila, G.W. Nagothu, K.K. Steward R 3rd **Bhatt R.,** Iyere PA., Willingham W.M., Sorenson J.R., Shah S.V., and portlla, D. (2006): Prevention of cisplatin-induced kidney epithelial cell apoptosis with a Cu superoxide-dismutase-mimetic [Copper(2)(II) 3,5-ditertiarybutylsalicylate)(4)(ethanol)(4)]. *Toxicol In Vitro* 20(8);1300-12.
* Nagothu, K.K., **Bhatt R**., Kaushal, G.P. and Portilla, D. (2005): Fibrates ameliorate cisplatin-induced proximal tubule cell death. *Kidney Int.* 68(6):2680-93.
* Li. S, **Bhatt R**. Megyesi J., Gokden N., Shah, V.S., and Portilla, D. (2004): PPAR alpha ligand ameliorates acute failure by reducing cisplatin-induced increased expression of renal endonuclease G. *Am J. Physiol Renal Physiol*. Nov 287 (5):F990-F999.
* Li, S. Gokden, N. Okusa, M.D., **Bhatt, R.,** and Portilla, D. (2005): anti inflammatory effect of fibrate protects from cisplatin-induced ARF. *Am J physiol Renal Physiol.* 289(2):F469-80.
* Drew, P.D. Chavis, J.A., and **Bhatt R** (2003): Sex steroid regulation of microglian cell activation: Relevance to multiple Sclerosis. *Annals New York Acad. Sci* 1007:329-334.
* **Bhatt, R.** Youngren O,M., Kang, S. and El, Halawani, M.E. (2003): Dopamine infusion into the third ventricle increase gene expression of hypothalamic vasoactive intestinal peptide and pituitary prolacting and luteinizing hormone B subunit in the turkey. *Gen Comp. Endocrinology*. 130(1)41-47.
* **Bhatt, R.** and Chaturvedi, C.M. (1992): The effect of combined serotonin and dopamine precursor applicaton during testicular photosensitivity Vs photorefreactoriness of the Red headed bunting (Emberiza bruniceps). *J. Interdisipl.* Cycle Res 23:120-127. Swets & Zeitlinger, the Netherlands.
* Chaturvedi, C.M., and **Bhatt, R.,** (1990): The effect of different temporal relationship of 5-hydroxytryptopham (5-HTP) and L-dihydroxyphenylalanine (L-DOPA) on reproductive and metabolic response of migratory Red headed bunting (Emberiza bruniceps). *J. Interdisp* Cycle Res. 21:129-139. Swets & Zeitlinger, The Netherlands.

**REVIEW:**

* Jaiswal, C., Pant, K. K., Behera, R. K. S., Bhatt, R., & Chandra, V. (2023). Development of New Molecules Through Molecular Docking. In Industrial Microbiology and Biotechnology: Emerging concepts in Microbial Technology (pp. 643-660). Singapore: Springer Nature Singapore.
* Kosariya, A., Kumar, D., Pant, K. K., **Bhatt, R**., & Chandra, V. (2023). Strategies for strain improvement of economically important microorganisms. In Industrial Microbiology and Biotechnology: emerging concepts in Microbial Technology (pp. 695-727). Singapore: Springer Nature Singapore.
* Yadaw, R., & Bhatt, R. (2022). Microbial Proteases: Inexpensive Enzymes with Countless Applications.
* Panigrahy, S. K., **Bhatt, R.,** & Kumar, A. (2021). Targeting type II diabetes with plant terpenes: The new and promising antidiabetic therapeutics. *Biologia*, *76*(1), 241-254.
* Anand, R., Biswal, S., Bhatt, R., & Tiwary, B. N. (2020). Computational perspectives revealed prospective vaccine candidates from five structural proteins of novel SARS
* Panigrahy, S. K., Jha, A., **Bhatt, R.,** & Kumar, A. (2020). Molecular docking and ADMET-based mining of terpenoids against targets of type-II diabetes. *Network Modeling Analysis in Health Informatics and Bioinformatics*, *9*(1), 1-9.
* Panigrahy, S. K., **Bhatt, R.,** & Kumar, A. (2017). Reactive oxygen species: sources, consequences and targeted therapy in type 2 diabetes. Journal of drug targeting, 25(2), 93-101.
* Corona virus 2019 (SARS-CoV-2). *PeerJ*, *8*, e9855.
* **Bhatt R,** Thomas V, Dean D, Nyario E, Singh U, and Mishra M (2013): Role of PPARs as Chemotherapeutics and Anticancer molecules. International Journal of advanced biotechnology and Bioinformatics. 1, 11-18.

**ARTICLES/ CHAPTERS PUBLISHED IN BOOKS:**

* Kosariya, A., Kumar, D., Pant, K. K., Bhatt, R., & Chandra, V. (2023). Strategies for strain improvement of economically important microorganisms. In Industrial Microbiology and Biotechnology: emerging concepts in Microbial Technology (pp. 695-727). Singapore: Springer Nature Singapore.
* Chandra, V, Tiwari A, Pant, KK and **Bhatt R** (2022): Animal Cell Culture: Basics and Applications. 691-719
* Mishra MK, Erglou E,Jain S, Singh SR, **Bhatt R** and Singh SR (2012): Role of TGF-ß and Regulargloutory T Cells in Prostate Cancer. In: Signaling, Gene Regulation and Cancer Nova Science Publisher, Inc., New York. ISSN 0258-851x
* Bhadauria M, Nirala SK, JaswalA,Raghuvanshi S, **Bhatt R** andShuklaS(2012)**. Propolis:therapeutic perspectives against silica induced toxic manifestations.** Beneficial Effects of Propolis on Human Health and Chronic Diseases-Vol 2 Nova Publishers USA. ISBN.905809-5711
* Chaturvedi, C.M. and **Bhatt, R**. (1990): The effect of different temporal relationships of 5-hydroxytryptophan (5-HTP) and L-dihydroxyphenylalanine (L-DOPA) on reproductive and metabolic response of migratory Red headed bunting (Emberiza bruniceps). **Cycles in Human and Nature**. The srew press Inc. London, Swets & Zeitlinger, The Netherlands. ISBN 905809-5711

1. **CONFERENCE/ WORKSHOP ORGANIZED:**

* **R.**Bhatt (Convener): Practical approaches of Bioinformatics: Basics to Advanced Organized by Department of Biotechnology, Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.). 2023 March-16-20
* **Bhatt, R (Organizing Secretary):** International Conference on Emerging Researches in Biosciences (ICERB-2018). Organized by: Department of Zoology, SOS in Life Sciences, Guru Ghasidas Vishwavidyalaya, Koni.
* **Bhatt R (Convener):** National workshop on Animal Cell Culture Techniques and Applications-2018. Organized by: Department of Biotechnology, Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.).
* **Bhatt R (Convener):** National workshop on Animal Cell Culture Techniques-2017. Organized by: Department of Biotechnology, Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.).
* **Bhatt R (Course Co-ordinator):** GIAN (Global Initiative Academic Network) Dec 2017- Cancer health Disparity (Short term course). At Department of Biotechnology, Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.).
* **Bhatt R, (Convener):** National Seminar on Innovations and Enterpreneurship in Biotechnology 26-27 Dec. 2016. Organized by: Department of Biotechnology, Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.).

**INVITED TALK/ CHAIRED SESSION:**

* **Bhatt R** (2022):As a Resource Person in Refresher Course in Biological Science held at UGC-HRDC, Pt. Ravishankar Shukla University, Raipur ( 14th Nov 22 to 26th Nov. 2022)
* **Bhatt R** (2018): Invited Talk on Medicinal chemistry and its application as a Resource person at Refresher course (Academic Staff College) Guru Ghasidas Vishwavidyalaya, C.G. June
* **Bhatt R** (2018): Invited talk on Role of Bezafibrate on Cisplatin Induced Nephrotoxicity at Workshop on Animal cell culture organised by Columbia institute of pharmacy, Raipur (23-24 Sep)
* **Bhatt R** (2017): invited talk on *in-vitro* cell line study for drug discovery and development organised by Columbia institute of pharmacy, Raipur (7-8 Sep).
* **Bhatt R** (2017): Chaired the session International Conference Pharma science organised by Columbia institute of pharmacy, Raipur (23-24 Sep)
* **Bhatt R** (2017): Chaired the session International Conference on Bharat Rejuvenation organized by Guru Ghasidas Vishwavidyalaya. Bilaspur
* **Bhatt R**, (2015): As a Resource person (Examiner of presentations) HRDCGGV Bilaspur (CG) Nov.18-December 19
* **Bhatt R,** (2015)As a Resource person Refresher Course Organized by ASC Pt. Ravi Shankar Shukla University Raipur (CG)

**(Dr. Renu Bhatt)**