

Resume

Dr. Kiran Bala

Ph.D.

(▪ Microbiology ▪ Biotechnology)

Contact Details:

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Technical Skills:

Microbiology

Anaerobic and aerobic media preparation, isolation, cultivation of aerobic & anaerobic bacteria, identification of bacteria, maintenance & preservation of bacterial cultures, screening of antibacterial activity of natural and synthetic molecules, antibiotic sensitivity assays, bacteriological analysis of water and food samples.

Animal Cell Biology

Culturing and maintenance of human cancer and non-cancer cell lines. Screening of compounds for anticancer activity. Microscopy, cell death pathway analysis and investigation of drug's half life (*in vitro*).

Protein Chemistry

Protein purification using gel-filtration, ion-exchange and affinity chromatography. Biochemical characterization at various pH, temperature, metal ions, modulators and inhibitors. Molecular characterization of protein by SDS-PAGE, Native-PAGE.

Molecular Biology

Extraction of genomic DNA, RNA and plasmid DNA. PCR and Agarose gel electrophoresis

Bioinformatics

Use of BLAST and CLUSTALW, **Databases**–KEGG, NCBI and PDB

Professional Summary:

- Doctorate in Microbiology from Rani Durgavati University, Madhya Pradesh, India.
- Proactive researcher with teaching experience courses on **Undergraduate (B.Sc.) and Postgraduate (M.Sc. & M.Phil.)** levels.
- Knowledge of scientific theories and principles within **Biology, Microbiology, Biotechnology, Environmental & Botany** disciplines. Independent professional judgment, able to comprehend, reason and problem solve effectively.

Publications:

- Islam Husain, **Kiran Bala**, Ikhlas Khan and Shabana (2021). A review on phytochemicals, pharmacological activities, drug interactions, and associated toxicities of licorice (*Glycyrrhiza* sp.). **Food Frontiers**, **2021**, **1:36**.
- **Kiran Bala**, Islam Husain and Anjana Sharma (2020). Arginine deaminase from *Pseudomonas aeruginosa* PS2: Purification, Biochemical Characterization and In-Vitro Evaluation of Anticancer Activity. **3 Biotech**. **10(226):1-17**. (IF- 1.786).
- Islam Husain, **Kiran Bala**, Abubakar Wani, Ubaid Makhdoomi, Fayaz Malik and Anjana Sharma (2017). Arginase purified from endophytic *Pseudomonas aeruginosa* IH2: Induce apoptosis through both cell cycle arrest and MMP loss in human leukemic HL-60 cells. **Chemico Biological Interactions**. **256: 35-49** (IF- 3.143).
- Anjana Sharma, **Kiran Bala** and Islam Husain (2017). Preliminary evaluation of arginine deiminase activity of indigenous bacterial strains for suitable chemotherapeutic applications. **Biocatalysis and Agricultural Biotechnology**. **12: 66-77** (IF- 2.14).
- Anjana Sharma, **Kiran Bala** and Islam Husain (2017). Optimization of arginine deaminase production from indigenous bacterium *Pseudomonas aeruginosa* PS2. **Int. J. Curr. Microbiol. App. Sci.** **6(11): 3621-3632**.
- Anjana Sharma, Ankita Shrivastava and **Kiran Bala** (2014). Enhanced production of carbonic anhydrase from indigenous alkaliphilic strains *P. dendritiformis* using response surface methodology. **Int. J. Curr. Microbiol. App. Sci.** **4(2):**

Languages:

English, Hindi & Odia.

References:

1. Prof. Anjana Sharma

Rector/Pro Vice Chancellor
Jaipur National University,
Rajasthan, India
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2. Prof. Prof. S.S. Sandhu

Director, DIC,
R.D. University, Jabalpur, (MP)-
482001, India
(M): +919424395270
E-mail: ssandhu@rediffmail.com

Professional Experience:

Apr. **Project Fellow**
2014- U.G.C. Jabalpur M.P
Dec. Supported advanced field research by assisting with experimental
2015 design, execution and results tracking.

Education:

2013- **Ph.D.: Microbiology**
2019 Rani Durgavati University, Madhya Pradesh
Project Title: “**Purification, characterization and evaluation of chemotherapeutic potential of arginine deiminase from indigenous bacterial isolates**”.

2012- **M.Phil.: Microbiology**
2013 Rani Durgavati University, Madhya Pradesh
Microbiology. Percentage: 76.46 %

2010- **M.Sc.: Microbiology**
2012 Rani Durgavati University, Madhya Pradesh
Microbiology. Percentage: 76.64 %

2007- **B.Sc.: Industrial Microbiology**
2010 Rani Durgavati University, Madhya Pradesh
Microbiology, Botany, Chemistry, English, Hindi, Percentage: 75.1 %

2006- **Higher Secondary School (C.B.S.E)**
2007 Kendriya Vidyalaya
Physics, Chemistry, Biology, English, Informatics Practice. Percentage: 59.8 %

2004- **Matriculation (C.B.S.E)**
2005 Kendriya Vidyalaya
Science & Technology, Mathematics, Social Science, English, Hindi. Percentage: 72.2%

Research Fellowships/Awards:

- Awarded Young Scientist award in the discipline of Life Sciences presented during 33rd M.P. Young Scientist Congress (March 15-16, 2018) held at R. D. University, Jabalpur, (M.P.), India.
- Awarded second prize for oral presentation in National Conference on “Innovations in Bio-inspired Smart Materials for Sustainable Development of Environment (IBSMSDE) sponsored by Ministry of Human Resource Development, New Delhi, on Oct 09, 2017 organized by Bio-Design Innovation Centre (DIC), R. D. University, Jabalpur, (M.P.), India.
- Qualified National Eligibility Test (ICAR NET-2017)
- Qualified and secured First position in Doctoral Entrance Test (DET) in 2013 M.Phil. Entrance Test- 2012 in the subject Microbiology at R. D. University, Jabalpur, (M.P.), India.
- Awarded second position for oral presentation in National seminar on Frontiers in Modern Microbiology: From Discovery to Applications from Sept 06-07, 2013 at St. Aloysius College (Autonomous), Jabalpur, India.
- Qualified and secured first position in M.Sc. in order of merit from among the examinees in the subject Microbiology in the year 2012 at R. D. University, Jabalpur, (M.P.), India.

Declaration:

I hereby declare that the details mentioned above are true to the best of my knowledge and belief.

Dr. Kiran Bala