



Praveen Rai

Date of birth: 01/01/1990 | **Nationality:** Indian | **Gender:** Male | (+91) 9911156648 | praveenraibt@gmail.com |

Department of Biotechnology, Central University of Rajasthan, 305801, Ajmer, India

About me: To make optimum use of my strengths and abilities to compete in this dynamic environment and to achieve desired results

● WORK EXPERIENCE

24/08/2015 – CURRENT – Ajmer, India

RESEARCH SCHOLAR – CENTRAL UNIVERSITY OF RAJASTHAN

I am working on anti-leishmanial lead compound screening. In the same area, I have good knowledge about *in-silico* high throughput lead screening (Autodock, Schrödinger), Molecular dynamics and simulation (Gromacs, Desmond), Cell culture, *Leishmania* culture, Molecular cloning, Protein expression, and purification (Bacteria, *Pichia pastoris*), Enzyme assay, Enzyme inhibition assay, Cell toxicity, Parasite inhibition assay etc.

● EDUCATION AND TRAINING

24/08/2015 – CURRENT – Ajmer, India

PHD BIOTECHNOLOGY – Central University of Rajasthan

2009 – 2014 – Ramgarhi, Meerut, India

INT. M. TECH BIOTECHNOLOGY – Ch. Charan Singh University

2005 – 2007 – India

INTERMEDIATE – Board of High School and Intermediate Education Uttar Pradesh

2005 – India

HIGH SCHOOL – Board of High School and Intermediate Education Uttar Pradesh

● LANGUAGE SKILLS

Mother tongue(s): HINDI

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	C2	C2	C1	C1	C1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

● DIGITAL SKILLS

Microsoft Office (Word Excel) | MS Power Point | GraphPad Prism

● HOBBIES AND INTERESTS

Photography

Wild life, Nature, Macro, Insect etc.

● HONOURS AND AWARDS

2015

Junior Research Fellowship (JRF) – Department of Biotechnology (DBT), Govt of India

2015

Junior Research Fellowship (JRF) – Council of Scientific and Industrial Research

2018

DMM Conference Travel Grant – Company of Biologists

● CONFERENCES AND SEMINARS

21/09/2020 – 23/10/2020

Introduction to Computational Drug Design

Introduction to Computational Drug Design (Theory-Demo-Hands-on) co-organized by Schrödinger, and Pharmacy Council of India, in association with JSS Academy of Higher Education & Research, and Manipal Academy of Higher Education

2020 – Jaipur

SUSTAIN-O-PRENEURSHIP:The Key To Self Reliance Mission of India

2020 – Jaipur

Covid-19: A Wake-Up Call to Progress Towards Sustainability

2019 – Sao Paulo, Brazil

Sao Paulo School of Advanced Science on Molecular Basis of Inflammatory Diseases

Poster presentation Title: Cloning, purification and drug repurposing against mitochondrial primase of *Leishmania donovani*.

2019 – Ajmer

International Conference on Molecular Basis of Diseases and Therapeutics (ICMBDT-2019)

Poster Presentation Title: Cloning, purification and drug repurposing against kinetoplast primase of *Leishmania donovani*.

23/11/2018 – 24/11/2018 – Manipal University, Jaipur

National workshop on foldscope & symposium on applied microbiology

2018 – ICGEB, Trieste, Italy

Molecular Biology of Leishmania

Oral and Poster Presentation Title: Genome-wide identification and comprehensive analysis of Excretory/Secretory mitochondrial proteins in *Leishmania* provides a potential drug target for parasite control.

27/02/2018 – BCIL, New Delhi

Workshop on "Bioentrepreneurship Development"

29/06/2017 – 01/07/2017

Advance Microscopy and Imaging Techniques

26/03/2010 – 27/03/2010 – IAMR, Ghaziabad

3rd National Conference on "Leads for Futuristic Biotechnological Input: Indian Context

26/10/2010 – IAMR, Ghaziabad

Biofest: Genetix

● **PROJECTS**

Salutary Effect of Antioxidant and Antimicrobial Activity of Leaf of *Emblica officinalis*

The purpose of this project is to investigate the *in-vitro* anti-oxidative and antimicrobial activity of leaves of *Emblica officinalis*.

Duration: 6 Month

Enzyme Inhibitor: A Potential Drug Target for Aids Treatment

The purpose of this project is to provide all the information of the Enzyme Inhibitor used in AIDS treatment.

Duration: 6 Month

Summer Internship from Rapture Biotech Noida

Project Title: Probiotics and prebiotics- Brief Study Based on Laboratory Module.

Duration: 30 days

Summer Internship from Bioinformatics Institute of India Noida

Project Title: *In-silico* Drug Design for HIV-1 Integrase.

Duration: 30 days

Summer Internship from Codon Biotech Lab Noida

Project Title: Advance RDT

Duration: 30 days

● **PUBLICATIONS**

Research paper

2021

Praveen Rai, Hemant Arya, Satabdi Saha, Diwakar Kumar & Tarun Kumar Bhatt (2021) Drug repurposing based novel anti-leishmanial drug screening using *in-silico* and *in-vitro* approaches, Journal of Biomolecular Structure and Dynamics, DOI:10.1080/07391102.2021.1950574

Research paper

2020

Bhowmik D, Jagadeesan R, **Rai P**, Nandi R, Gugan K, Kumar D. Evaluation of potential drugs against leishmaniasis targeting catalytic subunit of *Leishmania donovani* nuclear DNA primase using ligand based virtual screening, docking and molecular dynamics approaches [published online ahead of print, 2020 Mar 17]. *J Biomol Struct Dyn*. 2020;1-15. doi: 10.1080/07391102.2020.1739557

Research paper

2020

Sharma D, Dada R, Tejavath KK, **Rai P**, et al. A paradigm towards the antimalarial quest: *in silico* identification and biological evaluation of novel inhibitors targeting 1-deoxy-D-xylulose-5-phosphate reductoisomerase. *J Biomol Struct Dyn.* 2020;38(1):295-301. doi:10.1080/07391102.2019.1570342

Review paper

2018

Sharma D, Soni R, **Rai P**, Sharma B, Bhatt TK. Relict plastidic metabolic process as a potential therapeutic target. *Drug Discov Today.* 2018;23(1):134-140. doi:10.1016/j.drudis.2017.09.019

Review paper

2017

Soni R, Sharma D, **Rai P**, Sharma B, Bhatt TK. Signaling Strategies of Malaria Parasite for Its Survival, Proliferation, and Infection during Erythrocytic Stage. *Front Immunol.* 2017;8:349. Published 2017 Mar 28. doi:10.3389/fimmu.2017.00349

Review paper

2017

Rai P, Sharma D, Soni R, Khatoon N, Sharma B, Bhatt TK. Plasmodium falciparum apicoplast and its transcriptional regulation through calcium signaling. *J Microbiol.* 2017;55(4):231-236. doi:10.1007/s12275-017-6525-1

Book chapter

2020

The Design and Development of Novel Drugs and Vaccines 1st Edition, Edited by Tarun Bhatt & Surendra Nimesh;
Published at 1st January 2021

Chapter 11: Molecular cloning

Book chapter

2020

The Design and Development of Novel Drugs and Vaccines 1st Edition, Edited by Tarun Bhatt & Surendra Nimesh;
Published at 1st January 2021

Chapter 12. Protein expression

Book chapter

2020

The Design and Development of Novel Drugs and Vaccines 1st Edition, Edited by Tarun Bhatt & Surendra Nimesh;
Published at 1st January 2021

Chapter 13. Protein purification and desalting

Book chapter

2020

The Design and Development of Novel Drugs and Vaccines 1st Edition, Edited by Tarun Bhatt & Surendra Nimesh;
Published at 1st January 2021

Chapter 14. Biological assay

Book chapter

2020

The Design and Development of Novel Drugs and Vaccines 1st Edition, Edited by Tarun Bhatt & Surendra Nimesh;
Published at 1st January 2021

Chapter 15. Biophysical methods

NETWORKS AND MEMBERSHIPS

2020

The British Society for Parasitology

2019

The VALIDATE Network

The Indian Science Congress Association

2017

EXTRACURRICULAR ACTIVITY

22/02/2011 – 25/02/2011

2nd Prize in quiz competition under college level

22/02/2011 – 25/02/2011

Participated in CLIFF-HANGER (QUIZ) competition

RECOMMENDATIONS

Tarun Kumar Bhatt, PhD – Assistant professor – tarun@curaj.ac.in – (+91) 9079825742

Assistant professor, Department of Biotechnology, School of Life Sciences, Central University of Rajasthan, Ajmer, Rajasthan, India, 305817

Kiran Kumar Tejavath, PhD – Assistant professor – kirankumar@curaj.ac.in – (+91) 7725908348

Assistant professor, Department of Biochemistry, School of Life Sciences, Central University of Rajasthan, Ajmer, Rajasthan, India, 305817

Diwakar Kumar, PhD – Associate professor – diwakar11@gmail.com – (+91) 8134080245

Associate professor, Department of Microbiology, Assam University Silchar, Cachar, Assam, India, 788011