

**Dr. Ravi Kumar,**  
Assistant Professor, Dept. of Biotechnology,  
Central University of Haryana, Mahendergarh-  
123031.  
Email: ravikumar@cuh.ac.in



### **Research Interests**

HIV Sequences analysis, Web server and Database developments, Bioactive peptides, NGS data analysis.

### **Academic Qualifications**

- 2008-2014      PhD Bioinformatics  
  
Bioinformatics Centre (BIC), Institute of Microbial Technology (IMTECH), Chandigarh.  
  
Title: Development of in silico tools for understanding HIV-Human interactions and designing of therapeutics against HIV.  
  
Supervisor: Dr G.P.S. Raghava
- 2005-2007      M.Sc Biomedical Sciences  
  
Dr. B R Ambedkar Centre for Biomedical Research (ACBR), University of Delhi, Delhi.

### **Research/Teaching Experience**

- 2020 – Present: Assistant Professor, Dept. of Biotechnology, Central University of Haryana, Mahendergarh.
- 2017 – 2020: Visiting fellow at the National Institute on Alcohol Abuse & Alcoholism (NIAAA), National Institutes of Health (NIH), Rockville, Maryland, USA.
- 2014 - 2017: Postdoctoral fellow at the Walter Reed Army Institute of Research (WRAIR), Henry M Jackson Foundation (HJF), Silver Spring, Maryland, USA.

### **Databases and Webserver Development**

AHTPDB: Antihypertensive Peptide Database.

<https://webs.iiitd.edu.in/raghava/ahtpdb/>

AHTPin: Analysis & designing of Antihypertensive peptides webserver.

<https://webs.iiitd.edu.in/raghava/ahtpin/>

HIVcoPred: HIV coreceptor usage prediction method.

<https://webs.iiitd.edu.in/raghava/hivcopred/>

CancerPred: Analysis and designing of cancerlectins.

[https://webs.iiitd.edu.in/raghava/cancer\\_pred/](https://webs.iiitd.edu.in/raghava/cancer_pred/)

### Teaching Assignments

MSc Biotechnology Course: Core subjects – 1. Analytical Techniques, 2. Biosafety, Bioethics and IPR, 3. Biostatistics and Bioinformatics. GEC-1. Principles of Biotechnology, 2. Principles of Bioinformatics.

PhD Biotechnology: 1. Biosafety & Bioethics, 2. Research Methodology & Scientific Communications.

### Research Supervision

Supervising 2 PhD scholars and supervised 9 Post graduation (PG) MSc dissertation thesis.

### Extra curriculum

Sub-coordinator Equal Opportunity Cell (EOC). NAAC Criteria 1.4 team member.

### Publications

1. Kumar R, Panwar B, Chauhan JS, Raghava GP. Analysis and prediction of cancerlectins using evolutionary and domain information. *BMC Res Notes*. 2011;4.
2. Kumar R, Raghava GPS. Hybrid Approach for Predicting Coreceptor Used by HIV-1 from Its V3 Loop Amino Acid Sequence. *PLoS One*. 2013;8(4).
3. Kumar R, Chaudhary K, Sharma M, Nagpal G, Chauhan JS, Singh S, et al. AHTPDB: A comprehensive platform for analysis and presentation of antihypertensive peptides. *Nucleic Acids Res*. 2015;43(D1):D956–62.
4. Kumar R, Chaudhary K, Singh Chauhan J, Nagpal G, Kumar R, Sharma M, et al. An in silico platform for predicting, screening and designing of antihypertensive peptides. *Sci Rep*. 2015;
5. Ehrenberg P, Geretz A, Sindhu RK, Thomas R. P037 Genotyping of six classical HLA loci using next generation sequencing. *Hum Immunol*. 2016;77.
6. Ehrenberg PK, Geretz A, Sindhu RK, Vayntrub T, Fernández Viña MA, Apps R, et al. High-throughput next-generation sequencing to genotype six classical HLA loci from 96 donors in a single MiSeq run. *HLA*. 2017;90(5).
7. Baker M, Lindell SG, Driscoll CA, Zhou Z, Yuan Q, Schwandt ML, et al. Early rearing history influences oxytocin receptor epigenetic regulation in rhesus macaques. *Proc Natl Acad Sci U S A*. 2017;114(44).
8. Sharma D, Verma S, Kumar S, Singh J, Kumar R, Jangra A, and Dinesh Kumar. Hydroethanolic leaf extract of *Acacia auriculiformis* exhibited antidiabetic and antioxidant activities. *EGYPTIAN JOURNAL OF BASIC AND APPLIED SCIENCES*. 2022; 9(1):372-382.

### Poster Presentation / Paper in Conference

Sindhu RK, *et. al.* (2018) Human-Based Exome Capture Performed in Rhesus Macaques Identifies a GABRA6 Polymorphism That Predicts Individual Differences in Neonatal Imitation Behavior. *NEUROPSYCHOPHARMACOLOGY*, 43: S149.

### **Conferences & Workshops (Participation)**

Canadian Bioinformatics Workshop 'High-throughput Biology: From Sequence to Networks' in collaboration with Cold Spring Harbor Laboratory (CSHL) at New York Genome Center, New York, USA (April 27- May 3, 2015).

4<sup>th</sup> Annual Short Course on Next-Generation Sequencing: Technology and Statistical Methods at the University of Alabama, Birmingham, USA (December 15-18, 2014).

International conference on "Open Source for Computer-Aided Translational Medicine (OSCAT)" Chandigarh, India (Feb 22-25, 2012).

A national workshop on "In silico approaches for Designing Bioactive Peptides" at IMTECH, Chandigarh, India (October 18-21, 2011).

International "Indo-Russia workshop on Bioinformatics" at IMTECH, Chandigarh, India (2010).

A national workshop on "Trends in Protein Modeling and Chemoinformatics" at IMTECH, Chandigarh, India (January 14-16, 2009).

International conference on "Open Source for Computer Aided Drug Discovery (OSCADD)" IMTECH, Chandigarh, India (March 22-26, 2009).

6<sup>th</sup> annual symposium on "Frontier in Biomedical Research" organized by ACBR, University of Delhi, India (November 30, 2006).