

CURRICULUM VITAE

PANKAJ SHARMA

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EDUCATION

Indian Institute of Technology Delhi, New Delhi, India, 2013-2018.

Ph.D. in Biological Sciences, 2018, **Area of Specialization:** Protein Engineering and Proteomics.

Guru Gobind Singh Indraprastha University, New Delhi, India, 2006-2012.

Master of Technology in Biotechnology, 2010-2012 (79.16 % CPI).

Bachelor of Technology in Biotechnology, 2006-2010 (74.68 % CPI).

RESEARCH EXPERIENCE

Postdoctoral Research: **Indian Institute of Technology Delhi**, Department of Biochemical Engineering and Biotechnology, New Delhi, India, **December 2018- September 2020.**

- Baseline and ethnographic studies along with molecular biology experiments on sub-clinical mastitis in dairy cattle associated Antimicrobial Resistance development (**INDO-UK collaborative project entitled “DOSA- Diagnostics for one Health and User Driven Solutions for Antimicrobial Resistance”**).

Doctoral Research: **Indian Institute of Technology Delhi**, Kusuma School of Biological Sciences, New Delhi, India, **January 2013- November 2018.**

- Gene cloning and expression of a ‘cell division activator gene’ - ‘cedA’ in bacterial expression system (BL21 E. coli cells).
- Purification of recombinant bacterial ‘Cell division activator protein’- ‘CedA’ using ‘His-Tagged Ni-NTA affinity chromatography’ on ‘AKTA FPLC system’.
- Identification of CedA binding proteins using pull down assay & SDS-PAGE and further characterisation by Trypsin-in-gel digestion method followed by MALDI-TOF Mass Spectrometry Technique.
- Biophysical and in-silico experiments showing interaction studies of CedA protein with ds-oligonucleotides as well as RNA Polymerase subunit-β using Fluorescence and Circular Dichroism Spectroscopy, BioLayer Interferometry (BLI) Technique and NP-Dock (Nucleic acid-Protein Dock) web server.

TEACHING EXPERIENCE

Assistant Professor (Ad-Hoc): University of Delhi, Department of Biochemistry, **Sri Venkateshwara College**, New Delhi, India, **September 2020- January 2021.**

Assistant Professor (Guest Faculty): **Guru Gobind Singh Indraprastha University**, University School of Biotechnology, New Delhi, India, **January 2020 - May 2020, August 2020 – December 2020 and October 2021 – November 2021.**

COMPUTER SKILLS

Gantt chart preparation, Proficient with **Microsoft Word, Excel and PowerPoint**, **STRING Database** search for functional protein association networks, **Mascot Search engine** for proteins database, **PubMed** search engine, **UniProt** database search, **Auto dock** web server, **NP-Dock** web server.

RESEARCH PUBLICATIONS (Five Peer Reviewed International Publications)

- **Sharma, Pankaj**, Anil Kumar Tomar, and Bishwajit Kundu. "Interplay between CedA, rpoB and double stranded DNA: A step towards understanding CedA mediated cell division in *E. coli*" *International Journal of Biological Macromolecules*. **107 B**, (2018): 2026-2033.
- **Sharma, Pankaj**, Anil Kumar Tomar, and Bishwajit Kundu. "Identification of functional interactome of a key cell division regulatory protein CedA of *E. coli*." *International Journal of Biological Macromolecules*. **106**, (2018): 763-767.
- Singh, Jasdeep, Ankit Srivastava, **Pankaj Sharma**, Prashant Pradhan, and Bishwajit Kundu. "DNA intercalators as amyloid assembly modulators: mechanistic insights." *RSC Advances* **7**, no. **1** (2017): 493-506.
- Gautam, Saurabh, Sandip Karmakar, Radhika Batra, **Pankaj Sharma**, Prashant Pradhan, Jasdeep Singh, Bishwajit Kundu, and Primit K. Chowdhury. "Polyphenols in combination with β -cyclodextrin can inhibit and disaggregate α -synuclein amyloids under cell mimicking conditions: A promising therapeutic alternative." *Biochimica et Biophysica Acta (BBA)-Proteins and Proteomics* **1865**, no. **5** (2017): 589-603.
- Kant, K., Tomar, A. K., **Sharma, P.**, Kundu, B., Singh, S., & Yadav, S. Human Epididymis Protein 4 Quantification and Interaction Network Analysis in Seminal Plasma. *Protein and peptide letters*, **26**(6), (2019): 458-465.

INTERNATIONAL / NATIONAL CONFERENCES AND WORKSHOPS

- Presented the work progress report for annual project meeting at **University of Edinburgh** while working in an **Indo-UK collaborative project DOSA- 'Diagnostics for One Health and User Driven Solutions for AMR'** from **21st - 24th October 2019**.
- Doctoral research work, poster presentation at **International Biophysical Society 62nd Annual Meeting in San Francisco, California, USA, 17th -22nd February 2018**.
- Doctoral research work, poster presentation at **Bioprocessing India (BPI) 2017, IIT Guwahati, 9th-11th December 2017**.
- Doctoral research work, poster presentation at **Annual Symposium of the Indian Biophysical Society, IISER Mohali, Mohali (Punjab), India, 22-25 March, 2017**.

ACHIEVEMENTS

- **CSIR-UGC-NET (LS)** qualified for lectureship in Life Sciences with **All India Rank-25**.
- **GATE 2011** qualified in Biotechnology discipline with **99.00 percentile** and **All India Rank-164**.
- **GATE 2012** qualified in Biotechnology discipline with **96.49 percentile** and **All India Rank-513**.

REFERENCES

1. Dr. Bishwajit Kundu Professor Kusuma School of Biological Sciences Indian Institute of Technology Delhi Hauz Khas, New Delhi 110016, India Email: bkundu@bioschool.iitd.ac.in, kundudr@yahoo.com Contact No: 011 26591037, 2659 6104	2. Dr. Ravikrishnan Elangovan Associate Professor Department of Biochemical Engineering and Biotechnology Indian Institute of Technology Delhi Hauz Khas, New Delhi 110016, India Email: elangovan@dbeb.iitd.ac.in Contact No: +91-11-26591057	3. Dr. Ashok Kumar Patel Associate Professor Kusuma School of Biological Sciences Indian Institute of Technology Delhi Hauz Khas, New Delhi 110016, India Email: ashokpatel@bioschool.iitd.ac.in Contact No: +91 11 26597528
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Declaration: I do hereby declare that the above particulars of facts and information stated are true and correct to the best of my belief and knowledge.

Pankaj Sharma

(PANKAJ SHARMA)

Place: New Delhi

Date: 03/01/2022