#### Dr. Saurabh Sharma, Ph.D.



# **Assistant Professor (Guest Faculty)**

PGDAV (Evening) College,

University of Delhi, New Delhi, India,

Email id: saurabhaiims21@gmail.com, saurabh1987sharma@gmail.com

Mobile No: 9654683168 DOB: September 25, 1987

# **Research Interest:**

I am highly interested in translational cancer research, with the goal of developing innovative diagnostic and therapeutic strategies. My research interest also lies in the structural, biophysical, and biochemical characterization of biologically important molecules, with a particular focus on drug targets from pathogenic organisms, and the development of novel drugs.

## **Laboratory techniques & skills:**

Molecular

Cloning, Expression, and Purification of Protein from Bacterial System.

Biology:

Proteomics: 2-Dimensional gel electrophoresis, LC-MS

Bioinformatics: Homology Modeling, Molecular Docking (Protein-Ligand).

Biophysics and

Circular Dichroism Spectroscopy, Colorimetric and fluorometric assays, FTIR

Biochemistry:

Programs/Software: PyMOL, AutoDock Tools

Cell culture: Working experience with human cell lines (HepG2). Primary cell culture of

synoviocytes of RA & OA tissue. Cell viability assays (MTT, Nitric oxide

assay), Light and Fluorescence microscopy

Immunological

ELISA, Western blot analysis, Immunoprecipitation.

Techniques:

#### **Education:**

2013-2019 Ph.D., Laboratory of Bioresources & Environmental Biotechnology,

> Department of Environmental Studies, University of Delhi, Thesis **Supervisors**: Prof. Radhey Shyam Sharma (University of Delhi) and Dr.

Ethayathulla AS (AIIMS, Delhi)

Thesis Title: Evidence on environmental roots of non-communicable

diseases and putative mechanism of phytochemical-based cure.

2008- 2010 M.Sc. (Biotechnology, 78.38%), University of Rajasthan, Jaipur, (Raj.)

2005-2008 B.Sc. (Biotechnology, 70.4%), University of Rajasthan, Jaipur, (Raj.)

2004 Intermediate, 68% Board of Rajasthan, Raj.

High school, 71.1%, Board of Rajasthan, (Raj.)

### **Employment History:**

Oct 11, 2023, to present Assistant Professor (Guest faculty) in P.G.D.A.V. Evening

College (University of Delhi), New Delhi, INDIA

Feb 08, 2021 to Feb 08, 2024 ICMR Postdoctoral Research Associate under Dr. Ethyathulla

AS (Additional Professor), at Dept. of Biophysics, All India

Institute of Medical Science, New Delhi, INDIA

July 01, 2011, to Oct 31, 2013 Project Assistant, Institute of Genomics and Integrative

Biology (IGIB), Delhi, INDIA

### **Teaching Experience and Public Outreach:**

January 2022- Mentor, 1 M.Sc. Student, Department of Biophysics, AIIMS, Delhi.

April 2023

Jan. 2020- May Mentor, 1 M.Sc. Student, Department of Environmental Studies, University of

2020 Delhi, Delhi.

January 2016- Mentor, 1 M.Sc. Student, Department of Environmental Studies, University of

May 2016 Delhi, Delhi.

# **Reviewer in Peer-reviewed Journals:**

Frontiers: Frontiers in Bioinformatics

Taylor & Journal of Biomolecular Structure and Dynamics

Francis:

Hindawi Scientifica

### **Publications:**

#### Peer-reviewed journal articles (11):

| Journal of      | Structure-based identification of potential natural compound inhibitors    |
|-----------------|--|
| Biomolecular    | targeting bacterial cytoskeleton protein FtsZ from Acinetobacter baumannii |
| Structure and   | by computational studies. Sanghati Roy Chowdhury, Redam Saha,              |
| <b>Dynamics</b> | Tirthankar Koley, Farah Naz, Saurabh Sharma, Mohd Imran Khan, Manoj        |
| (2024)          | Kumar, Punit Kaur and Abdul S. Ethayathulla                                |

| International Journal of Biological Macromolecules (2023) | Putative interactions between transthyretin and endosulfan II and its relevance in breast cancer. <b>Saurabh Sharma</b> , Lakshay Malhotra, Paromita Mukherjee, et.al.  |
|---|---|
| Journal of Molecular<br>Structure (2022)                  | Genistein: A novel inhibitor of IL-6/IL-6R interface of the Interleukin-6–mediated STAT3 dependent pathway of carcinogenesis. <b>Saurabh Sharma</b> , Lakshay Malhotra et. al   |
| BBA-Molecular cell<br>research (2022)                     | Mechanism of apoptosis activation by Curcumin rescued mutant p53Y220C in human pancreatic cancer. Lakshay Malhotra, <b>Saurabh Sharma</b> , Gururao Hariprasad, et. al  |
| <b>PeerJ</b> (2019)                                       | Protein signature linking history of miscarriages and metabolic syndrome: A proteomic study among North Indian women. <b>Saurabh Sharma</b> , Suniti Yadav, Ketaki Chandiok, et. al   |
| Trends in<br>Carbohydrate<br>Research (2019)              | Synovial fluid phosphoproteome profile of Indian-German Osteoarthritis:<br>Serum albumin a potential marker. Sagarika Biswas, Karl-Heinz Frosch,<br>Narendra Kumar Sharma, Rajesh Malhotra, <b>Saurabh Sharma</b> , Ashish<br>Sarkar, et. al. |
| Ethnopharmacology (2018)                                  | Antiproliferative, cell cycle arrest and apoptosis induction potential of the <i>Viscum articulatum</i> Burm. f. aqueous extract in leukemia cells. Ruchi mishra. <b>Saurabh Sharma</b> , Radhey Shyam Sharma, et. al                         |
| Phytomorphology (2018)                                    | Purification and characterization of a lectin isoform of ribosome inactivating protein from Viscum articulatum parasitic on Grewia tilifolia. Ruchi Mishra, Archana Yadav, <b>Saurabh Sharma</b> , et al                                      |
| IJPSR<br>(2017)   | Anticancer potential of leafless mistletoe ( <i>Viscum angulatum</i> ) from Western Ghats of India. <u>Saurabh Sharma</u> , Radhey Shyam Sharma, Milind Madhav Sardesai, Vandana Mishra   |
| PLOS ONE<br>(2013)  | •New autoantigen identification in the synovial fluid of rheumatoid arthritis patients using immunoproteomics approach. Sagarika Biswas, <u>Saurabh</u> <u>Sharma</u> , Ashish Saroha, et al  |
| Proteomics and<br>Bioinformatics<br>(2013)                | •Conference proceeding: Comparative phosphoproteomics analysis of synovial fluid proteins in Indian – German Osteoarthritis patients. Sagarika Biswas, <b>Saurabh Sharma</b> , Ashish Sarkar et al  |

# **Book Chapter:**

1. Sarthak Malhotra, Ruchi Mishra, Swagata Karmakar, Deepak Rawat, **Saurabh Sharma**, Savita Singh, Pankaj Kumar, Sirawung Raiping, Vandana Mishra (2018). Environmental factorsshaping plant-microbeassociations: Their significance to improveplant health and vegetation restoration indegraded lands. ENRICHEDPUBLICATIONSPVT. LTD, 1-16, ISSN no. 978-81-934634-9-9.

# Awards:

- 1. ICMR-Research Associate Fellowship
- 2. CSIR-Direct SRF

#### **Conferences:**

1. 5th International Health Conference in Oxford, UK, 2019. Xanthatin, a sesquiterpene

lactone, acts as a novel potent stabilizer for native form of transthyretin. Saurabh Sharma,

A.S. Ethayathullah, Vandana Mishra, B. D. Banerjee, Radhey Shyam Sharma.

2. 27th Annual Meeting of the Indian Society for the Study of Reproduction and Fertility

(ISSRF), AIIMS, New Delhi, 2017. Understanding the Link between Adverse Pregnancy

Outcomes and Metabolic Syndrome through Proteomics. Saurabh Sharma, Suniti, Ketki, K

N Saraswathy, Vandana Mishra.

3. Trends in Cell and Molecular Biology at BITS Pilani K K Birla Goa Campus, Goa,

2015. Identification of new therapeutic targets in the plasma of breast cancer patients using

proteomic approach. Saurabh Sharma, Vandana Mishra, A.S.Ethayathullah, B. D. Banerjee,

Radhey Shyam Sharma.

4. 7th Annual Meeting of Proteomics Society (India) at VIT, Vellore 2015. Host Specific

Variation in Proteins of Semi Parasitic Plant (Mistletoe) with Anti-Cancer Potentials.

Saurabh Sharma, Radhey Shyam Sharma, A.S.Ethayathullah, Vandana Mishra.

5. 5th Annual Meeting of Proteomics Society (India) at IISc Banglore 2013. Comparative

profiling of synovial fluid proteome in the Indian-German osteoarthritis patients. Saurabh

Sharma, Ashish Sarkar, Pooja Kumari, Rupsi Kharb, Rajesh Malhotra, Sagarika Biswas.

### **References:**

#### 1) Prof. R S Sharma

Professor, Department of Environmental Studies,

University of Delhi, Delhi-110007, INDIA

E-mail: radheyss26@gmail.com

#### 2) Dr. Ethavatulla AS

Additional Professor, Department of Biophysics

AIIMS, Delhi, INDIA

E-mail: ethayathulla@gmail.com

I hereby proclaim that all the information equipped above is true to the best of my knowledge and belief.

Samaly

Saurabh Sharma