

# SAMIR SHARMA

**POSITION:** Associate Professor, Department of Biochemistry, University of Lucknow

**TEACHING EXPERIENCE:** ~20 Years (on permanent position)

## **RESEARCH FOCUS:**

- A. Redox signaling between axis and cotyledons
- B. Ca<sup>2+</sup> protease mediated storage protein mobilization
- C. Stage specific expression of SOD isoforms during germination and seedling establishment
- D. Alternative respiratory pathways in developing tissue under stress.
- D. Origin of Nitric Oxide (NO) during germination and seedling establishment: Reductive pathway or oxidative?
- E. Role of lysosomal proteases/Cathepsins in disease.

## **Publications (Last 10 years)**

### **RESEARCH PAPERS IN PEER REVIEWED JOURNALS :**

1. Verma G, Sharma S (2010): *Ind. J. Biochem. Biophys.* 47: 249-253. IF=1.026 (CSIR-NISCAIR)
2. Khan S, Verma G and Sharma S (2010): *J. Plant Physiol.* 167 (11): 855-861. IF=2.699 (Elsevier)
3. Singh P, Sharma S and Prasad V (2011): *Plants. J. Phytopathol.* 159: 127-129. IF=1.0 (Blackwell)
4. Verma G, Mishra S, Sangwan NS and Sharma S (2015): *J. Plant Physiol.* 184: 79-88 (Elsevier)
5. Yadav N. and Sharma S. (2016): *Biol. Forum.* 8(1): 414-419. (Research Trends)
6. Agarwal SK, Ukil A and Sharma S (2016): *J. Biochem. Tech.* 7(1): 1051-1057
7. Yadav N., Vati K, Agarwal SK and Sharma S (2018): *Trop plant Biol.* 11: 66-77. (Springer)
8. Verma G, Khan S, Agarwal SK and Sharma S (2019): *J. Plant Physiol.* 236: 66-73. (Elsevier)
9. Singh S, Sharma S and Agarwal SK (2020): *Biochem. Biophys Rep.*  
<https://doi.org/10.1016/j.bbrep.2020.100739> (Elsevier)

### **CHAPTERS IN BOOKS:**

1. Verma G and Sharma S (2012): In Advances in Plant Physiology: An International Treatise Series. Volume 13, Chapter 11, **Science Publishers (Jaipur)**. ISBN: 978-81-7233-798-8 Pages: 349-385.
2. Sharma S: In Alternative Pathways in Plant Respiration. **Wiley Blackwell (London)** (2015). ISBN: 978-1-11-79046-5. pp115-155.
3. Sharma S (2015): In Reactive Oxygen and Nitrogen Species Signaling and Communication in Plants. **Springer (London)**. ISBN 978-3-319-10078-4. pp 301-316.
4. Sharma S and Agarwal SK (2018): in: Senescence Signalling and Control in Plants. **Elsevier (Academic Press)**. ISBN: 9780128131879

### **PROJECTS HANDLED:**

1. Investigations into Early Events in Signaling During Induction of Systemic Antiviral Resistance in Susceptible Plants. (As co-investigator) Funding Agency: DBT, GOI. **Total funding ~ 37 lacs (2006-2009)**
2. Control of Storage Protein Mobilization in Mungbean: Identification, Characterization and Role of a Novel Ca<sup>2+</sup> activated protease. Funding Agency: CSIR. **Total funding ~ 21 lacs (2009-2012)**

3. Deputy Coordinator, Dept. of Higher Education, UP State Govt. funded Center of Excellence in Biochemistry. **Total funding received till date ~ 2.0 Crore (2011 till present sanction upto 2018)**

**Ph.D SUPERVISION:** Three students awarded, five presently enrolled.

**ADMINISTRATIVE RESPONSIBILITIES:** Member, Executive Council, LU (2008-2009), Member, Academic Council, LU (2013-2014), Member, Board of Studies and DRC of The Department of Biochemistry, Member, Lucknow University Research Council.

**MEMBERSHIP OF PROFESSIONAL SOCIETIES:**

- Society of Biological Chemists-India
- Society for Free Radical Research-India
- Indian Science Congress Association
- Indian Society of Agricultural Biochemists
- Indian Society of Plant Physiology

**REVIEWER:**

**Elsevier:**

- Journal of Plant Physiology
- Plant Physiology and Biochemistry
- Environmental and Experimental Botany
- Plant Science
- Scientia Horticulturae

**Cambridge Journals:**

- Seed Science Research

**NISCAIR (CSIR):**

- Indian Journal of Biochemistry and Biophysics

**Current Science Association/Indian Academy of Sciences:**

- Current Science