

**Prof. Sushma Sharma**

**Specialization: Physiology and Biochemistry**

Toxic effects induced by heavy metals, radiation, and cigarette smoke, anabolic agents and diabetes have great impact on human life. Environmental contamination and exposure to heavy metals is a serious problem throughout the world. Our laboratory is evaluating, histological, histochemical and biochemical changes in different tissues in chick, rats and mice under various stress conditions. Use of conventional drugs to treat metabolic disorders and pathological consequences further increase the complications because of the side effects and high cost of these drugs. Natural plants (*Picrorhiza kurroa*, *Aloe vera*, *Flaxseed oil*, *Tinospora cardiofoloa*, *Adhatoda vasica* etc.) are useful alternatives because these compounds are believed to have fewer side effects. Our studies indicated that phytochemicals act as strong antioxidants and powerful tools to scavenge free radicals, ROS and reduce oxidative damage to tissues. Further increased emphasis and importance will be given to investigate cytoprotective neuroprotective and antioxidative properties of various medicinal plants alongwith various anabolic and lipolytic agents on animal tissues.

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**Designation**  
Professor &  
Chairperson

**Specialization**  
Physiology and Biochemistry  
(Animal)

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Dr. Sushma Sharma

### Personal Information :

DOB: 01-01-1961

Qualifications: M.Sc. (Honours), M. Phil, Ph.D. & LLB

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Teaching and Research Experience: 27 Years.

Awards: Senior Scientist Award (2012, 2013)

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### Research Information:

Area of Research: Physiology and Biochemistry

Research Publications: 75

Papers in Journal: 75

Papers in Conferences: 60

No. of Ph. D. guided: 14

No. of M. Phil guided: 34

### Project Information:

Research Projects completed: 3

Research Project Ongoing: Submitted

### Conferences:

No. of Conferences/Workshops Organized: 4

Conferences attended (National): 18

Conferences attended international): 5

Any Other:

**Selected Publications: (5) Selected Publication (Sushma Sharma)**

1. Kumar, S., Sharma, S. and Katoch, S. S. (2003): Early onset of the maximum protein anabolic effects induced by isoproterenol in chick skeletal and cardiac muscle. *Acta Physiol. Hung.* 91 (1): 57- 67.
2. Katoch, S.S., Garg, A. and Sharma, S. (2006): Histological evidences of reparative and regenerative effects of  $\beta$  adrenoceptor agonists clenbuterol and isoproterenol, in denervated rat skeletal muscle *Ind. J. Exp. Biol* 44: 448- 458.
3. Kumar, R., Katoch, S.S. and Sharma, S. (2006):  $\beta$  adrenoceptor agonist treatment reverses denervation atrophy with augmentation of collagen proliferation in denervated mice gastrocnemius muscle. *Ind. J. Exp. Biol.* 44: 371-376.
4. Kumar, R. and Sharma, S. (2006): Remodeling of extracellular matrix protein collagen in beta receptor stimulation and denervation in mouse gastrocnemius muscle. *J. Physiol. Sci.* 56(1):1-8.
5. Sundal, S. and Sharma, S. (2007): Ultrastructural findings for mitochondrial subpopulations of mice skeletal muscle after adrenergic stimulation by clenbuterol. *J. Physiol.Sci.* 57 (1):7-14.
6. Kaundal, M. and Sharma, S. (2011): Analysis of isoproterenol induced changes in gastrocnemius muscle and serum lactate dehydrogenase expression. *Singapore Med. J.* 52 (4): 274- 282.
7. Singh, B., Sharma, S. and Dhiman, A. (2013): Design of antibiotic containing hydrogel wound dressings: Biomedical properties and histological study of wound healing. *Int. J. Pharmaceut.* 457: 82-91.