

**SCHOOL OF BIOCHEMISTRY  
DEVI AHILYA UNIVERSITY, INDORE**

**EXTERNAL ACADEMIC AUDIT REPORT 2016-2017**

Academic audit was done by **Dr. Sai Prasad**, Principal Scientist & Head, IARI Regional Station, Indore. on 21/12/2017 at School of Biochemistry. The academic details of the school are as follows

**1. Curriculum - M.Sc. Biochemistry**

S.No.	Parameters	Comments
1.	Course Content	<i>Very good</i>
2.	Course Coverage	<i>very good.</i>

**2. Evaluation Process**

S.No.	Parameters	Comments
1.	Grade System	<i>Satisfactory</i>
2.	Transparency	<i>Very good</i>
3.	Quality of Exam Papers	<i>Very good.</i>



### 3. Research Activities

S.No.	Parameters	Comments
1.	Paper Publications	Excellent
2.	Ph.Ds	excellent
3.	Research Projects	Very good
4.	Research Seminars (List enclosed)	Very good.

### 4. Infrastructure

S.No.	Parameters	Comments
1.	Basic Facilities- Instruments, such as, PCR, Elisa Reader, Ultracentrifuge, HPLC, Spectrophotometers, Plant Growth Chambers, Cooling Centrifuges, Electrophoresis Units, Hot Air Ovens, Water Baths, Double Distillation Water Unit, Electrical Balances, Cold Room etc.	very good
2.	Library- 850 Books	Excellent
3.	Cleanliness	Very good
4.	Facility of clean drinking water	very good

*S. V. Sai Prasad*

External Member

Dr Sai Prasad

*R. Gadre*

DQAC Chairperson

Dr Rekha Gadre

*Meeta Jain*

DQAC Coordinator

Dr Meeta Jain

IQAC Coordinator

Dr Pratosh Bansal



## School of Biochemistry, DAVV

### List of Publication of Faculty members for the period 2016-17

1. Gunapati, S., Ram Naresh, Ranjan, S., Hans, A., Nigam, D., Verma, P.C., **Gadre, R.**, Pathre, U., Sane, A., and Sane V. (2016) Expression of GhNAC2 from G. herbaceum improves root growth and imparts tolerance to drought in transgenic cotton and Arabidopsis. *Scientific Reports*, 6-24978. DOI 10:1038/srep 24978. **Impact Factor 5.228**
2. Gupta, P., Sarengetham, J., Dhamgaye, S. and **Gadre, R** (2016) Differential effect of aluminium on enzymes of nitrogen assimilation in excised bean leaf segments. *Advances in Biological Chemistry*, 6, 106-113. **Impact Factor 0.76**
3. Sinha V, Kumar A, Sarin NB, **Bhatnagar D** (2016). Recombinant croton yellow vein mosaic virus associated with severe leaf curl disease of papaya in India. *Int. J. Adv. Res.* 4 (3), 598-604.
4. Harsha Lad, Ankita Joshi, Deepti Dixit, Harsha Sharma and **Deepak Bhatnagar** (2016) Antioxidant, genoprotective and immunomodulatory potential of *Vitex negundo* leaves in experimental arthritis. *Oriental Pharmacy and Experimental Medicine* 16(3): 217-224.
5. Harsha Lad and **Deepak Bhatnagar** (2016) Amelioration of oxidative and inflammatory changes by *Swertia chirayata* leaves in experimental arthritis. *Inflammopharmacology* 24(6):363-375. (Impact factor 2.551).
6. **Are VN**, Ghosh B, Kumar A, **Gadre R**, Makde RD. Crystal structure and dynamics of Spt16N-domain of FACT complex from *Cicer arietinum*. *Int J Biol Macromol.* (2016), 88, 36-43.
7. Swati T., and **Meeta J**: Impact of Osmotic Stress on Biochemical and Physiological Parameters in *Zea mays* L. cv. Ganga Safed-2 Genotype, *Maize Genomics and Genetics*, 7(01): 1-14 (doi: [10.5376/mgg.2016.07.0001](https://doi.org/10.5376/mgg.2016.07.0001)) (2016).
8. H Lad, **D Bhatnagar** (2017) Modulation of oxidative stress mediators in the liver of adjuvant induced arthritic rats by *Nyctanthes arbor tristis*. *Clinical Phytoscience* 3 (1), 1.
9. Venkat N Are; Ashwani Kumar; Saurabh Kumar; Venuka Durani Goyal, Ph.D.; Biplab Ghosh; **Deepak Bhatnagar**; Sahayog N Jamdar; Ravindra D Makde. (2017) Crystal structure and biochemical investigations reveal novel mode of substrate selectivity and illuminate substrate inhibition and allostericity in a subfamily of Xaa-Pro dipeptidases *Biochimica Biophysica Acta* 1865(2): 1153-164. (Impact factor 3.016).
10. Sarengetham, J., Dhamgaye, S. and **Gadre, R** (2017) Cadmium effects on enzymes of ammonia assimilation in excised etiolated maize leaf segments during greening : A mechanistic approach 8(6), 1399-1410. *AJPS* **Impact Factor 1.03** (DOI: [10.4236/ajps.2017.86095](https://doi.org/10.4236/ajps.2017.86095))
11. **Are VN**, Jamdar SN, Ghosh B, Goyal VD, Kumar A, Neema S, **Gadre R**, Makde RD. Crystal structure of a novel prolidase from *Deinococcus radiodurans* identifies new subfamily of bacterial prolidases. *Proteins.* (2017) Sep 20. doi:10.1002/prot.25389. PubMed PMID: 28929533.
12. Meeta Jain, Mahija Panwar and **Rekha Gadre** (2017) Influence of Selenium Supplementation on  $\delta$ -Aminolevulinic Acid Formation in Greening Maize Leaf Segments. *Research Journal of Phytochemistry*, (DOI: [10.3923/rjphyto.2017](https://doi.org/10.3923/rjphyto.2017))



13. Prakash Malviya, S.V. Saiprasad, **Meeta Jain** and Divya Ambati: Genetic divergence and gene source studies in durum wheat genotypes under early sown and moisture stress conditions. Indian Journal of Plant Genetic Resources. (Accepted).

#### **Ph.D.s Awarded**

Vartika Sinha : Papaya leaf curl virus: Molecular characterization and generation of resistance in model plant.

Ms. Seema Kelotra : Ligand binding studies with some caspases using computational methods

Mr. Ankit Kelotra : Computational drug design for some crucial target proteins in Psoriasis

Mr Antariksh Tyagi : Studies on global gene expression and adaptability of different ecotypes of Arabidopsis thaliana along altitudinal gradient

Mrs Sonal Dhamgaye : Evaluation of salinity stress on the key enzymes of nitrogen assimilation in Phaseolus vulgaris

Mrs Vaishali Mourya : Association mapping for protein content in soybean germplasm lines

#### **List of Projects of Faculty members for the period 2016-17**

##### **Dr. Rekha Gadre, Professor**

Investigation of X-ray irradiation effects on Phaseolus vulgaris (Rajmah) under stressed conditions.

Funded by UGC-DAE DSR Indore, CSR-IC-BL-24/CRS-121-2014-15/1217

Amount 7.0 lakhs.

##### **Dr. Meeta Jain, Reader**

Proteomic and biochemical study of the enzymes of chlorophyll biosynthesis and antioxidative system in maize subjected to salt stress.

ID: MRP-MAJOR-BIOC-2013-6699 F. No. 43-39/2014 (SR)

Funded by UGC

Amount Rs. 13, 90, 000/-

#### **Research Seminars**

National Seminar on **Basic and Applied Immunology: An Industrial Perspective** held on **27<sup>th</sup> and 28<sup>th</sup> January 2017** was jointly organised by School of Life Sciences, Biochemistry and Pharmacy.

  
DQAC Coordinator

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