

Major activities organised by the Department

- ❖ National Symposium on “Plant Biology and its role in sustainable food and energy production”, funded by DRDO, DBT, UGC, CCOST
- ❖ One Day Excursion trip to Sudha Agro & Power Industry, Bilaspur

Completed Project

- Isolation and molecular characterization of aluminium resistant genes from crops.
UGC Rs. 10,76,000.00
- Characterization of aluminium resistant genes and their role against other metals in chickpea. DRDO Rs. 24,96,000.00

Ongoing Project

- Detection of aluminium resistant genes and their role in conferring cross tolerance to other metals (Cu, Cd).
CSIR 18,00,000.00
- Expression of peroxiredoxins and their relationship with metal stress in chickpea.
DST 16,29,000.00

Projects received

- Effects of Heavy metals/metalloids contamination of sewage on micronucleus induction in *Allium cepa* and on microbial enzyme activities
DBT 29,40,000.00
- Effects of heavy metals/metalloids contamination of soils on micronucleus induction in *Tradescantia* and on microbial enzyme activities
UGC 8,08,300.00
- Asssment of salt responsive physiological and biochemical modifications in *Frankia* strains
UGC 10,95,800
- Heavy Metal Speciation of Dust Deposited on Plant Leaves and its Effect on Biochemical Parameters of Leaf (Chlorophyll, Ascorbic acid, Leaf extract pH and Relative Water Content)
UGC 6,00,000.0
- Physiological and molecular charterization of calmodulin (CaM) gene responsible for tuberization in potato
DBT 34,30,000.00
- Role of 24-epibrassinosteroin in potato development and abiotic stress tolerance: A physiological approach
UGC 6,00,000.00
- Isolation, characterization and over-expression of CaM, a calcium dependant protein in Potato.
DBT 43,20,000.00
- Investigating and probing RBC-Endothelial cell cell interaction through ex-vivo cerebral malaria model to develop adjuvant therapy for malaria pathology
DBT-Twining in collaboration with IIT, Guahati 1.20.00.000.00

- Control of airborne particulate matter (PM) pollution utilizing suitable plant species UGC 6,00,000.00

Patents generated:

- Development of bio-filter for the purification of water (applied)
- Colorimetric Detection on intracellular content of aluminum in plant tissue (applied)

Awards/honours/fellowships/Recognition received by faculty:

- ❖ Dr. BN Tripathi is awarded with prestigious JSPS Invitation Research Fellowship to work on Retrograde Signaling in Plants at Department of Life Sciences and Biotechnology, Shimane University, Japan.
- ❖ Dr. SK Prajapati is awarded with Young Investigator Grant from Department of Biotechnology, New Delhi under RGYI Scheme.
- ❖ Dr. SK Prajapati is awarded with D S Kothari award 2010
- ❖ Dr. S. K. Pandey Juan De La Cierva Post Doctoral Fellowship, Spain 2010