

## **BSP409 ADVANCED CELL BIOLOGY LAB**

## **Course Outcomes:**

After undergoing the course, students will be able to:

- successful completion of the course, students will be able to:Enhance the theoretical knowledge of cell division and cell cycle through visualization of stages of mitosis and meiosis.
- Develop the skill of cytogenetic staining techniques.
- Understand the impact of toxic agents on chromosomes and cell division through cytogenetic experiments.
- Conduct the cell viability tests for screening agents for anticancer activity.
- Know how to isolate the sub-cellular organelles.
- Gain the skill to measure Na-K ATPase in membrane fractions and determine osmotic fragility.
- 1. Study of mitotic stages in onion root tip
- 2. Study of meiosis in Onion inflorescence/grasshopper testis
- 3. Study of chromosomal aberration in *Allium cepa* after chemical induction
- 4. Differential staining of tissue sections
- 5. Cell viability assays
- 6. Isolation of Sub cellular organelles
- 7. Measurement of Na-K ATPase in membrane fractions
- 8. Determination of osmotic fragility of erythrocyte membranes