

Projekt: „Zintegrowany Program Rozwoju Uniwersytetu Śląskiego w Katowicach”

## HARMONOGRAM ZAJĘĆ

### Applied Plant Molecular Biology

1. Repetition of the basics of genetics, basics terms, history of genetics, introduction to genome organization.  
Wednesday, 7<sup>th</sup> April, 9:30 – 11:45
  
2. Plant genome organisation, sequential organization, higher-order organization of genome, methods of studying genome organization.  
Wednesday, 14<sup>th</sup> April, 9:30 – 11:45
  
3. Basics of epigenetics, molecular aspects of epigenetic, the role of epigenetic regulation in plant development, reproduction and interaction of plants with the environment.  
Wednesday, 21<sup>st</sup> April, 9:30 – 11:45
  
4. Plant cell biology, organisation of interphase cell nucleus in plants, differentiation of the plant cells.  
Wednesday, 28<sup>th</sup> April, 9:30 – 11:45
  
5. Plant tissues, *in vitro* tissue cultures with their physiological a molecular biological aspects.  
Wednesday, 5<sup>th</sup> May, 9:30 – 11:45
  
6. Applications of the methods *in vitro* tissue cultures in plant reproductions, breeding and plant protection.  
Wednesday, 12<sup>th</sup> May, 9:30 – 11:45
  
7. Genetic modification of the plants, methods.  
Wednesday, 19<sup>th</sup> May, 9:30 – 11:45
  
8. Genetic modified crops in agriculture, environmental risks, European legislation associated with GMO cultivation.  
Wednesday, 26<sup>th</sup> May, 9:30 – 11:45
  
9. Non-GMO techniques in breeding programs, genetic diversity, mutation breeding. Artificial polyploidy in plants.  
Wednesday, 2<sup>nd</sup> June, 9:30 – 11:45

Projekt: „Zintegrowany Program Rozwoju Uniwersytetu Śląskiego w Katowicach”

---

10. Methods of molecular biology for plant screening, searching for genetic diversity, detection of transgenes, gene expression.

Friday, 11<sup>th</sup> June, 13:45 – 16:00