

Part IB Plant & Microbial Sciences Practicals

Laboratory and field-based research are both essential for our further understanding of the function of plants and micro-organisms. The practicals provide a thoroughly integrated understanding, quite different from Part IA courses, by:

- Providing experience of the major techniques used in plant and microbial science research
- Developing skills in the design, interpretation and writing up of experiments
- Addressing theoretical problems through experimentation
- Increasing awareness of the social and industrial implications of plant and microbial science research
- Developing the ability to present and communicate scientific issues.



Light microscope images of GUS-stained plants

In the Michaelmas Term, you will learn important experimental skills. A series of thematic practicals investigate the impact of Rubisco antisense transformants on the growth, photosynthesis, nutrient uptake, and statistical analysis of the data. You learn how to write up a project report, maintain a laboratory notebook and, working in groups, prepare a presentation and summary report.

The Lent Term practicals introduce several aspects of the applied importance of plants and micro-organisms: key concepts in plant pathology and microbiology (including handling and detection of pathogens); analysis of the effects of pathogens on the host plant and the analysis of specific transgenic proteins in bacteria.



Virus infected tobacco plant



State of the art ground floor Teaching Laboratory, opened March 2014

In addition, we organise several visits to the Botanic Garden and meet the diverse Mediterranean vegetation and discuss phenology in a changing climate. In the Easter Term practical aspects of plant conservation are introduced through local field trips to study conservation measures, as well as a visit to the Innovation Farm at NIAB (National Institute of Agricultural Biology)