

BIO-603(DP)

**Practical - Dyson Lab**

Dyson Paul Joseph

Cursus	Sem.	Type
Molecular Life Sciences		Obl.

Language of teaching	English
Credits	1
Session	
Exam	Oral presentation
Workload	30h
<b>Hours</b>	<b>24</b>
Courses	6
TP	18
<b>Number of positions</b>	<b>4</b>

**Frequency**

Every year

**Remark**

3-day Block course, every year in January. To register, contact EDMS Administration

**Summary**

In vitro cytotoxicity testing is often the first step to establish the utility of a compound as a potential drug. The course will teach students how to evaluate the cytotoxicity of compounds on cancer cells of human-origin and appropriate non-tumorigenic cell lines.

**Content**

In the course, the MTT cell viability assay will be used to determine compound sensitivity profiles and to estimate the efficacy of potential chemotherapeutic compounds as drugs.

Preparation, treatment and analysis:

- Plating cancer and non-tumorigenic cells
- Preparation of compound dilutions
- Cell treatment protocols
- Determination of the cell viability
- Spectrophotometric analysis
- Preparing compound sensitivity profiles
- Estimation of errors and statistical analysis

**Note**

Please note that you cannot register in your own group Practical!

Note that 3 practical courses are mandatory for all EDMS students and that they have the priority; each course has between 2 to 4 possible slots.

**Therefore, please do not register by yourself to this course, this will be done by the EDMS program administrator!**

**Keywords**

Cancer; chemotherapy; drug screening

**Learning Outcomes**

By the end of the course, the student must be able to:

- Assess / Evaluate the cytotoxicity of a compound

### **Assessment methods**

Oral presentation

### **Resources**

#### **Websites**

- <https://www.epfl.ch/labs/lcom/>