

# Forum:Seminar papers/Biophysics/2. LF/2015-2016/Group 1

Group 1:

## Comparison of microscopic techniques

- optical microscopy
- fluorescent microscopy
- confocal microscopy
- electron microscopy
- Atomic force microscopy

## Subquestions

- Comparison of microscopic techniques/physical principle
- Comparison of microscopic techniques/application
- Comparison of microscopic techniques/resolution

## Responsibility for the page content

Subquestion (Link to the subquestion)	Developed by username (Surname, First name)	Team	Started	To be checked	Checked	Evaluation	Notice
Atomic force microscopy	Felix horst (Horstmann, Felix)	1C	2015-12-07				
Comparison of microscopic techniques/physical principle	Zaki237 (Zaknun, Christoph)	1A	2015-12-07				Sources/References missing! Complete, please!
Comparison of microscopic techniques/application	Paulina Bernardová (Bernardová, Paulina)	1A	2015-12-05	2015-12-07			
Comparison of microscopic techniques/resolution	hannahschroeder (Schroeder, Hannah)	1A	2015-11-29	2015-11-29			Wrong citations - use Template:Cite! Links missing.
[[[]]]	[[User:]]						

## Fluorescence

### Subquestions

- **Fluorescence:**
  - Principle
  - Characterization
- Fluophores (fluophore types and properties)
- Förster energy transfer
- Principle and application of:
  - Fluorescence spectroscopy
  - Fluorescence quenching
  - Fluorescence polarization
- Examples of fluorescence application:
  - FACS
  - Fluorescence microscopy
  - Confocal microscopy

## Responsibility for the page content

Subquestion (Link to the subquestion)	Developed by username (Surname, First name)	Team	Started	To be checked	Checked	Evaluation	Notice
Fluorescence/principle	nataschawilke (Wilke, Natascha)	3A					
Fluorescence/characterization	YakovFrolov (Frolov, Yakov)	1C	2015-12-07				
Fluophores	Margarida Pires (Pires, Margarida)	1D	2015-12-05				
Fluorescence spectroscopy	Inesfilipe (Filipe, Inês)	1D	2015-12-05	2015-12-06			
Fluorescence quenching	GD1 (Mkheidze, George & Curtius, Theresa Johanna)	1D	2015-12-04	2015-12-08			
Fluorescence polarization	Mohamad-Matar (Matar, Mohamad)	1B					
Förster energy transfer	lepetchor (Prezioso, Dennis)	4B					
FACS	AlbertoTettamanti (Tettamanti, Alberto)	1C					
Fluorescence microscopy	User: ehsan abbaspour (Ehsan Abbaspour)	1B					
Confocal microscopy	Shahsn (Shah, Snehadhar)	1B	2015-11-27	2015-11-28			Wrong citations - use Template:Cite! Links missing.
[[ ]]	[[User:]] ()						

Evaluation of the article:

- \* – this article is not good
- \*\* – this article could be worse
- \*\*\* – this article is good
- \*\*\*\* – this article is very good
- \*\*\*\*\* – this article is excellent

## Preparing subquestions

Click on your red coloured subquestion on the table above. The appropriate edit window will be opened and you will start creating the content.

## Help

- Global help: Help:Contents
- Pictures: Lots of free pictures are available on: Wikimedia Commons (<http://commons.wikimedia.org/wiki>)
- Every article must have sources (bibliography); see Template:Cite/documentation how to cite sources.

## Instructions

- Every wikipage (i. e. *subquestion*) should be prepared by **one student**.
  - Only in the case when the number of students in the group is greater than the number of the subquestions is allowed that some subquestions will be prepared by two co-operated students; every of them has to edit appropriate part of the wikipage.
- Fill your *Username* and *real name* in the column: *Developed by username (Surname, First name)*.
- Fill the date in the column *Started* when you start editing the page.
- The **absolute deadline for this seminar work is Monday, December 7th**.
- After the Wikipage is written it has to be checked by the professor Carmel J Caruana. Then:
  - On the beginning of the wikipage must be inserted the template:

```

{{Check|Carmeljcaruana}}

```

- Then fill the date in the column *To be checked*.
- When in doubt e-mail to: [carmel.j.caruana@um.edu.mt](mailto:carmel.j.caruana@um.edu.mt)

== From Prof Carmel J. Caruana

**Dear students here are some hints on writing your wikilecture.**

AT THE BEGINNING OF YOUR WIKILECTURE PLEASE INCLUDE THE FOLLOWING:

-----

**VERY IMPORTANT** Aim for quality not quantity! A lot of copying and pasting without true understanding would be easily detected by the examiner. Make sure you have some good diagrams. If it is copyrighted material, just describe it briefly in your own words, give the author and year of publication and provide a link to it.

Your wiki lecture should consist essentially of three parts:

### 1. Introduction

- a. Start with a good definition of the terms in the title which shows that you have understood clearly what the title of your wikilecture is about!
- b. Explain the definition in more detail - as if you are explaining it to a colleague who does not know it.

### 2. Say why it is important in clinical medicine

- a. In which branches of medicine is it important?
- b. What is its role in practical medicine (diagnosis, therapy, prevention etc) ?

### 3. Say briefly what the literature says about it. Answer a few of the following questions:

- a. Are there different types?
- b. What are advantages and disadvantages?
- c. How does it work?
- d. What is the present state of its development?
- e. Are there any risks in it's use?
- f. Any ethical issues associated with the topic?

### 4. Conclusion

What future developments are envisaged in the area and what are the possible impacts on medicine?

**Reference List** Give 3 - 5 KEY references (not the first ones you come across but those which provide real good information and which you can recommend to your colleagues).

The following information should be given for each reference:

**Book:** name of at least one author or organization; title; edition; year; isbn

**Article in journal:** name of at least one author or organization; title; journal; pages; year; volume; issn.

**Webpage:** name of at least one author or organization; url.

(For more information on referencing go to <http://www.wikilectures.eu/index.php/Template:Cite/documentation>)

The seminar paper should be between 500 - 600 words long. However I must emphasize again that it's the QUALITY not quantity that counts - this means whether you have followed the structure in the 'Hints' or not. If a topic is done between two persons the number of words should be 1000 - 1200.

**Dear students,**

Before you submit your wikilecture go through each part and ask yourself - is this really about my topic or not? Going out of subject is one of the worst things you can do at university because it shows that you cannot focus on your particular topic. Have I written something to be proud of and be of interest to my colleagues?

**Please remember the absolute deadline is Monday 7th December 2015 midnight.**

If you have any questions don't hesitate to send me an email on [carmel.j.caruana@um.edu.mt](mailto:carmel.j.caruana@um.edu.mt). The email subject should be 'Wikilectures - your name and surname'

For questions of a general nature which would be of interest to everybody please use the forum.

Best regards to all,

Prof. Caruana