

ESSAYS AND ORAL PRESENTATIONS IN THE PATHOPHYSIOLOGY COURSE

The summer semester curriculum of the pathological physiology course includes:

- 1) Written essay
- 2) Oral presentation in one of the seminar

1. WRITTEN ESSAY

The aim of the essay is to explain the pathophysiology of a given disorder based on the scientific literature. This compilation should go into greater depth than the conventional textbooks. Student - author should actively look up the needed scientific literature, process the search results and formulate a written synthesis of the retrieved knowledge. Another goal of the work is to prepare the student for the revision process (here: teacher feed-back), which a common part of the publishing process in medicine (or science in general), and for other formal procedures associated with publishing.

The paper should emphasize underlying **pathophysiological** mechanisms of the disorder or disease. Do not give excessive and patho-physiologically unjustified information from clinical textbooks, as this is not going to be considered an adequate completion of the task.

TOPICS

Each study group has been assigned a research area and each student can select a particular topic from within that area. Each student has informed their teacher about the selected topic. More detailed information is available on the web sites. You can also ask the teaching secretary, Ms. R. Korhonova (door number 2008).

Study group Number Research Area:

3051 6 Pneumology

3052 11 Cardiology

3053 3 Endocrinology

3054 4 Nephrology

3055 6 Hematology

PAPER STRUCTURE

The paper has to have the following structure:

Title page:

- Topic number and name
- Author's name, study group, the date
- An abstract (up to 100 words)

Organization of the manuscript (from the second page on):

The manuscript should contain the table of contents, introduction section, the main part (structured into chapters) describing the pathophysiological mechanisms of the disorder and the summary (points to be learned)

The manuscript can contain figures or diagrams; original, modified or taken from literature (you should cite the source).

The paper should be concluded by the citation section. It should contain at least one true scientific article, cited in proper scientific form (see below).

Formal requirements

The essay is written in MS Word, Times New Roman font, letter size 12, line and spacing

1.5. It can be written in English or Czech. Figures taken from literature can be in the original language. However, the caption of the figure should be translated or written in the article language. Pages should be numbered.

Lenght of the paper

Paper should be about 3 to 4 standard pages long (i.e. 1,800 characters per page), this excluding the title page and the table of content (see section 4)

PAPER SUBMISSION

The essay, written in Microsoft Word, is to be submitted through faculty on-line application. The submission therefore consists of up-loading the essay to the system according to instructions specified in due time.

File name formalism: ResearchArea_topicNumber_firstName_familyName.doc (example: Nephrology_143_John_Smith.doc).

REVIEW AND CLASSIFICATION OF THE ESSAY

The first draft of the paper is going to be **reviewed by the teacher and returned to the student with comments**. The final version is to be submitted by the on-line system too. **Date of the final submission** can be moved slightly by the teacher with regard to expected extent of modifications and the available time (where possible after mutual agreement with students). The date should allow to grant credits in time and it should not to be too different from the general deadline.

Classification:

Completion, i.e. submission of the revised paper is a prerequisite for receiving credit in the summer semester. Extraordinary papers will be marked as Excellent, which is considered during the final exam. An essential part of the work is correct use and citation of relevant **scientific literature** (see below).

Warning: Many papers submitted in recent years included sections copied from internet sources or from the papers submitted in previous years (so-called "copy and paste method" of "writing" an essay). This practice cannot be considered an original work; instead it is an act of plagiarism. Plagiarism is one of major offences against ethics of the academic work. **Strongly note that the papers will be checked by software verifying the originality of the text.**

Plagiarism will reduce student classification and can even result in failure to receive the credit.

If you want to cite your source verbatim (word for word), you can do that. In that case, include the cited text (usually from several words to few sentences long) into parentheses followed by square brackets containing the number given to the source text in the reference section. This is a correct practice and is not considered an act of plagiarism. All cited papers should be properly listed in the reference section (see below).

2. EXAMPLE STRUCTURE OF WRITTEN PAPERS

One paper is in one file, the file name (in ascii without spaces):

File name Field_number_fiorst name_family name.doc (example: Nephrology_143_John-Smith.doc).

Title page:

Field (e.g, 07 Nephrology)

Study Group: 30xx.

Date.

Name of author / authors.

Number and name of the topic (eg, 146 acute renal failure).

A brief abstract (100 words).

Introduction:

Basic intro to the problem, relevance to the field, formulation of aims of the paper.

The main part

Figure(s) or diagram(s) can be your original, modified or taken from literature (you should cite the source). Any figure must be accompanied with a legend (name of figure, source, explanation of abbreviations and all foreign language texts)

Summary / Conclusions

The main conclusions that you want to address to the reader. Can be in separate points.

List of cited literature

Pathophysiological analysis (at least 2-3 standard pages)

This text must be about pathophysiology. Does not include any listing of clinical symptoms and examination approaches, statistics etc. It should be based on pathophysiological analysis of the disease (may be from the molecular and cellular levels to system level), pathogenesis, and only then it can lead to the signs and symptoms as consequences of the disease.

Cited literature: at least 1 main article and other articles. The articles should be found on PubMed (Medline). In case that the paper is not accessible please enclose it or otherwise document.

3. ORAL PRESENTATIONS ON MOLECULAR MECHANISMS OF DISEASE

The goal of the oral presentations is to learn how to retrieve information of a molecular level pathophysiology actively and independently. The presentations should go to a greater depth than taught during the course. Working with literature, collecting of knowledge and its presentation are important parts not only of study, but also of later practice.

Presentation should clearly explain the fundamental **genetic, molecular, cellular and physiological mechanisms** and their involvement in disease, with their brief cross-utilization in diagnosis and therapy. For some subjects it is possible/appropriate to show example. Presentation should lead to the ability to clearly present a complex problem to your colleagues. The slides should use more schemes, figures, avoid excessive text etc.

Duration: 5 to 10 minutes

Presentation: a short PowerPoint presentation. Should not be exactly read (comments are possible). It should be accompanied by an adequate amount of visual materials (diagrams, pictures, tables). It should be instructive to other students.

Presentation structure: introduction to the topic, basic concepts, explanations, context. Molecular biology should be illustrated on clinical and therapeutical consequences. Most important conclusions. The the last slide should contain cited literature, e.g. 1-2 textbooks and monographs, and at least 1-2 scientific articles (mandatory), and/or websites used.

Summary: The author should submit along with presentation 1 printed summary sheet - the title of presentation, author name, study group, the date of presentation, a brief abstract (one paragraph up to 100 words or just main points the presentation), and a list of used literature as cited on last slide.

Topics: draw from the list of topics. You can also ask the teacher to approve your own topic.

Date of presentation: students will choose dates in a study group and will tell the teacher. In principle, there will be **one presentation per seminar** (in weeks 5 and 10 three or more presentations) to allow terms for all students.

Oral presentation should be in English, Czech, or Slovak languages, text on slides as well. Figures taken from literature can be in another language. However, the figure should be explained by a presenter.

4. SEARCH AND CITING OF SCIENTIFIC LITERATURE

Search in scientific literature is the first and essential prerequisite for addressing a scientific problem. New information in medicine is increasing rapidly and **textbooks**

or **monographs** cannot reflect new discoveries enough quickly. You can find the up-to-date information in medical or other scientific **journals**. You can use **internet** databases and search engines to search particular information. The topic-focused websites are also helpful (however, as opposed to journals, they do not pass review process).

Scientific/medical databases contain most information, including **Medline** (i.e. **PubMed** www.ncbi.nlm.nih.gov/entrez). You can also visit the **National Medical Library** (Sokolska 54, Prague 2). Some articles are available directly on-line (some of them only from faculty computers). The best source are **review articles**, namely in journals New England Journal of Medicine, Lancet, JAMA, but also in many others. Most articles are in English, some papers may be in local languages.

It is important that information should be obtained or at least corrected from **recent papers**. **You should always cite used literature. Avoid using only one source.** For more detailed information, please contact your teacher.

Example citations forms:

Article:

[Citation number] Author or Authors: Title of article. Name of journal (in full or in abbreviated form so-called Harvard form), year, month and volume (or number in a given volume): page numbers.

[1] Greenwood Z, Black J, Weld L, et al.: Gastrointestinal infection among international travelers globally. *J Travel Med* 2008; 15:195-202.

[2] Sándor T.: Travel thrombosis: Pathomechanisms and clinical aspects. *Pathophysiology*. 2008 Dec, 15 (4) :243-52. (Epub 2008 Nov 18)

Book:

The book citation should contain place of publication, publisher and year of issue, you can cite whole book or preferably the chapter used in your paper. The ISBN number uniquely identifies each published book and can be included.

[3] Eddleston M, Davidson R, Brent A, Wilkinson R.: *Oxford Handbook of Tropical Medicine*. Chapter 2: Diarrheal Diseases. 3rd edn. Oxford: Oxford University Press, 2008.

Internet source:

[4] ABL800 Specifications Flex, Radiometer Medical A / S 2004th

[<http://www.radiometer.com/abl800-specifications>]

[5] web encyclopedia (Wikipedia) sites - cystic fibrosis

[http://en.wikipedia.org/wiki/Cystic_fibrosis]

Note: Internet sources are usually not cited in the scientific literature. There is no guarantee for quality and reliability of information on the internet. In principle, anybody can write what he wants. Moreover, webpages change frequently - the reader is not guaranteed to find to find cited link in future. For your essay, you are allowed to use internet resources reasonably. But consider relevance and credibility of such sources.