**Rules for the Doctoral Thesis and Its Possible Forms**

*DSP Molecular and Cellular Biology, Genetics and Virology*

Besides the sections required by the university rules and the internal rules of the respective faculty (the Title page, the signed Declaration of the Author, Abstracts in Czech and English, etc.) and the supporting parts (the Content, the Reference List, the Abbreviations List if appropriate), the doctoral thesis must contain these sections:

1) **Introduction and Literary Overview** (the summary of the current knowledge on the topic of the doctoral thesis based on the information available in the scientific literature);

2) clearly defined **Aims of the Thesis**;

3) **Experimental Part** (description of the original hypotheses and experiments performed in order to test these hypotheses, i.e., the general conception of experiments, the description of the experimental material and methodical approaches, as well as adequately described results documented in tables and/or figures);

4) **Discussion**;

5) **Summary/Conclusions**.

These sections of the doctoral thesis (particularly the Experimental Part) can be further divided and appropriately named according to the general character of the doctoral project and the internal rules of the respective faculty (*some modality in the general structure of the doctoral thesis is possible, e.g., the merging of the Experimental Part and Discussion in case of theses from the bioinformatics field; however, this must be consulted in advance with the Head of the Subject Area Board*).

The Experimental Part **can include (and can be partially replaced by) the original research papers of the doctoral student** that are relevant to the topic of the doctoral thesis and were i) published, ii) accepted for publication or iii) are accepted for review in some IF journal during the course of the doctoral study (*the last mentioned type of publication can be included in the doctoral thesis similarly to the other two types of publications, i.e., the author does not have to again describe data presented in such paper; however, such publication is not counted among the two IF publications required for fulfilling the conditions that must be met prior to the thesis defence!*). However, it is recommended to include only such papers that the student significantly participated in and that directly concern the main topic of the doctoral thesis. **It is, of course, also possible to not include any publications and to write the whole thesis as a continuous original text** – this decision fully depends on the doctoral student. Inclusion of publications directly in the thesis (*without requirement of their high number, as was the case in the past with so-called short form of the doctoral thesis*) only offers a potential simplification of the thesis writing.

In case the student decides to include his/her publications in the Experimental Part of the thesis, they can be either incorporated directly into the text or can be presented as the Supplementary section of the doctoral thesis. However, they must comply with the requirements for the electronic version of the thesis, particularly the file format and size(*the necessary information can be found in the* [*Rector´s Directive 72/2017*](https://cuni.cz/UK-8701.html)*, Article 5*: *the main text must be in the PDF-A format, the format allowed for Supplements is also specified there; however, prior to the final submission of doctoral thesis a request can be made directly in SIS for a permission of the different file format for Supplements. It is strongly recommended to check in advance whether various transformations of files do not result in the decline of quality of graphics or text and, according to this check, to chose an appropriate way of the presentation of the publications*). However, the publications must be actually present in the thesis, either by their direct incorporation into the text or as the Supplementary section; it is not allowed to include only html links to the respective web pages instead of complete publications! Moreover, licencing rights of the respective publisher must also always be complied with. You must take into an account the fact that your thesis must be fully available to the general public after its upload into the Charles University [Digital Repository](https://dspace.cuni.cz/)‚ either immediately after the thesis defence or, at the latest, after additional 3 years (*in case your supervisor requests such a delay*). This also means that in case the publications are presented as supplements in the electronic version of the thesis, they must be printed and included at the end of the printed version of the thesis (*which will be archived in the respective library*) before it is bound and submitted.

**The publications incorporated in the thesis** (in either form) **must be linked by an original explanatory text written by the student**, which has to emphasise the related nature of the respective publications in the context of the doctoral project and to summarize the main results and conclusions presented in these papers. It is not allowed to just include publications without this explanatory text! This text must also contain unambiguous and detailed verbal specification of the contribution of the doctoral student to both obtaining the experimental data and the preparation/writing of the respective manuscript(s) (*besides this, the internal rules of the respective faculty* *can require that such specification of the student´s contribution to the respective publications is submitted also as an additional separate document signed by the supervisor – see the web pages of the doctoral study at the respective faculty or contact the appropriate administrative personnel for more information on this*).

The eventual incorporation of publications into the doctoral thesis **cannot replace either the „Introduction and Literary Overview“ or the „Discussion“ sections** (*the text in these sections of the doctoral thesis cannot be simply copied or only slightly re-formulated from the respective publications!*). The Experimental Part should also include **all yet unpublished experiments** performed by the doctoral student that are relevant to the topic of the doctoral thesis (such experiments and their results should be always **fully described**).

The doctoral student is fully responsible for the presentation of publications in such form that complies with the licencing rights of the respective publisher. His/her responsibility is also to ensure that the printed and the electronic versions of the thesis fully correspond and that the electronic version complies with all university and faculty rules. The thesis is also checked for a possible plagiarism(*see the* [*Rector´s Directive 13/2020*](https://cuni.cz/UK-10442.html))

The doctoral thesis can be written in Czech, in Slovak or in English (English is recommended; *however, students registered at the Second Faculty of Medicine, whose study is performed in the Czech version of the study programme, must submit an official petition for the use of English language in their doctoral thesis; contact the respective administrative personnel for more information on this*).

The Subject Area Board **does not require a separate „Summary of the Ph.D. Thesis“** if not directly stipulated by the internal rules of the respective faculty the student is registered in (*such Summary is required for students registered at the First Faculty of Medicine*).

The required number of printed and bound copies of the doctoral thesis, the specification of various documents that must be submitted together with the thesis and the exact procedure for thesis submission can be found at the web pages of the administrative department dealing with the doctoral study at the respective faculty.

**The Defence of the Doctoral Thesis**

*DSP Molecular and Cellular Biology, Genetics and Virology*

The defence of the doctoral thesis always starts with a short introduction of the scientific and publication achievements of the doctoral student by the chairman/chairwoman of the defence committee. The students then addresses the committee and the public present at the defence with an approx. 20-25 min presentation that should include a brief introduction into the topic of the doctoral project, the reasons the respective research was performed, the clearly defined aims of the project and all necessary information on the performed experiments, their results and conclusions made from them. Reviews of the thesis by its opponents (*at least two are required*) then follow together with an eventual review of the student´s performance in the laboratory and his/her scientific abilities by his/her supervisor (*the order of these reviews and the necessity/or not for the supervisor´s review depends on the customs of the respective faculty*). It is recommended to prepare answers to opponents questions/comments in advance also in the form of a short pdf/ppt/pptx presentation and to show the exact text of questions in this presentation (*but it is not strictly necessary, the student can answer opponent questions ad lib, without any notes*). The final part of the public section of the thesis defence is the questioning of the defendant by the defence committee and the general public. The defence ends with a closed meeting of the committee and voting ot its members, followed by the public announcement of the result. The usual length of the doctoral thesis defence is usually between 1 to 1.5 hours including all necessary formalities, but if necessary, it can be longer.