

University of Debrecen



TRAINING PLAN

*Doctoral School of Molecular Cellular and Immune
Biology*

Training started after 01/09/2016

2022.

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The basic principles of the training of doctoral schools in the field of medicine are laid down in the Regulations of the University of Debrecen Medical Doctoral Council (ODT). The regulations are available on the website of the Doctoral School of Molecular Cell and Immunobiology (<https://molcellimm.phd.med.unideb.hu/EN>).

1. Introduction to the School of Molecular Cellular and Immunobiology

Major area: medicine, theoretical medicine

Research fields: biochemistry, molecular biology, immunology, cell biology, genetics

Degrees awarded: summa cum laude, cum laude or rite doctorate (PhD) in theoretical medicine.

Master's degrees on which the programme is based: general practitioner, dentist, pharmacist, molecular biologist, biologist, biotechnologist, chemist, physicist, program designer, mathematician and other relevant disciplines

Head of the School: Prof. Dr. József Tózsér, Doctor of Sciences (Institute of Biochemistry and Molecular Biology, Faculty of Medicine, University of Debrecen)

Secretary: Dr. András Mádi, Senior Research Fellow (Institute of Biochemistry and Molecular Biology, Faculty of Medicine, University of Debrecen)

The Doctoral School makes the full intellectual and material potential of the school available to all its doctoral students, to operate the school in accordance with the regulations of the University and Faculty Doctoral Councils, and to achieve creative collaboration between faculty members and students within the school. The wide range of methodologies and multidisciplinary teaching staff allow for multidisciplinary training of students. The Doctoral School currently has no sub-programmes. The school has 7 core staff and 45 accredited trainers.

2. Admission to the Doctoral School

There are two forms of organised doctoral training at the University of Debrecen: full-time and part-time. The doctoral programmes are offered in Hungarian and English. Admission to the doctoral programme is only possible by applying to the announced topics on *www.doktori.hu* and after a successful interview with the admission committee. The research topics announced by the School are listed in Annex 1. The application form for the programme is given in Annex 5 of the ODT Doctoral Regulationst.

The teaching and scientific activities of the institutes and accredited researchers participating in the doctoral schools affiliated to the DE Medical Doctoral Council (ODT) are not homogeneous, and therefore the PhD students admitted to the PhD training may have a wide range of degrees (general practitioner, dentist, biologist, pharmacist, molecular biologist, chemist, program designer, mathematician, physicist, and other relevant disciplines). The requirements are designed to ensure that the doctoral candidates recruited have the appropriate background and a positive attitude towards research activities. The most important requirements are a good quality degree, high level of language skills, outstanding previous work and a well thought-out research programme. In addition, the ODT also sets expectations for the tutors as well. Besides their research activities, the following requirements must be fulfilled: a track record of scientific publications in the previous, an eligible research plan and proof of funding (see Doctoral Regulations, § 15). On the other hand, in order to avoid repeatedly unsuccessful topic proposals, previous tutoring activities will also be evaluated. Candidates' achievements in these areas will be assessed according to the uniform scoring system described in the Doctoral Regulations (Annex 3/a) and in the Training Plan of the Doctoral School.

For admission to doctoral schools of medicine, a state-recognized, at least intermediate level (corresponding to level B2 of the Council of Europe's Common European Framework of Reference for Languages) complex (including oral and written skills, previously "C" level) English language examination, as it is required for medical doctoral students to obtain a degree.

3. Organization of training

The full-time course lasts eight semesters (48 months). The training is organised by the doctoral councils of the disciplines in consultation with the councils of the doctoral schools. They are responsible for the announcement of courses, the management of study matters, the closure of semesters on demand and the payment of grants.

The supervisor is in charge of the doctoral candidate's studies and research. Exceptionally, and in cases approved by the EDHT and justified by the subject, a co-supervisor may be appointed in addition to the supervisor. The subject supervisor has to propose the doctoral candidate's training and research plan and shall be responsible for its quality and implementation; has to ensure the possibility of regular professional consultations and certify the completion of research tasks every semester; shall assist the doctoral candidate in writing scientific publications, in preparing the doctoral thesis, shall support the candidate in obtaining foreign scholarships; has to certify that the candidate has made a decisive contribution to the results of the thesis through his/her independent creative work and shall recommend the acceptance of the thesis.

- A change of supervisor can be requested by first and second year students with sufficient justification. A new research plan must be attached with the approval of the Head of the School. In particularly justified cases, or if the change of supervisor involves a change in the topic of the doctoral research, including the PhD thesis, a change of supervisor may be allowed for students in the upper years or who have already completed their studies.

Courses taken by the student are controlled by the supervisor. The student may take any course offered by the doctoral schools in the field of medicine, provided that it fits in with his/her training orientation. The doctoral school encourages the participation of the students in the preparation of independent thematic reports based on the international literature.

The training is organised by the ODT with the involvement of the councils of the doctoral schools. The announcement of courses, the management of study matters, the closure of semesters and the payment of scholarships are handled centrally in the Neptun system by the ODT staff.

The course is divided into semesters starting on 1 September and 1 February. PhD students must register using the Neptun system at the beginning of each semester, during the period announced

in advance, except for the very first semester of the course, when they register personally at the PhD Office. Deferment of a full semester is only possible in justified cases (up to a maximum of 3 times), during the deferred semester(s) the student status is passive.

The students register for the required and/or chosen courses and research commitments from the announced options in the Neptun system each semester. Proof of the required performance is also provided in Neptun. For a given semester, registration requires the completion of the Research course (27 credits) in the active semester preceding the current semester. If this is not fulfilled, in justified cases, the registration will be completed with the written permission of the head of the relevant doctoral school at the PhD Office.

4. Registration for courses

Each semester, the teachers of the School announce the courses to be held in the semester before starting the semester. When announcing the courses, the teachers provide the course title, the number of hoursclasses, a brief description of the course and the possible dates of the course (Course announcement form: Annex 3). Courses given by accredited lecturers are collected by the Secretary of the School and, after approval by the Board of the Doctoral School, sent to the ODT Lecturer in charge, who will announce them in Neptun, where students can register for them. It is strongly requested that the courses are taught by lecturers in English.

5. Conditions for obtaining credits

Study requirements are measured in credits. A credit is a measure of the academic, teaching and research work undertaken by a PhD student to fulfil his/her obligations. Doctoral students are required to complete 30+3 credits per semester, for a total of 240 credits over the entire training period. In the first four semesters of a doctorate in medicine, the number of training credits to be completed is 12.

If a doctoral student fails to complete the required number of credits in a given semester, the Doctoral Council of the discipline shall decide to suspend the doctoral fellowship. If the doctoral student fails to make up the shortfall within one year, the Disciplinary Doctoral Council may decide to terminate the student's status.

In the case of doctoral schools in the field of medicine, the 240 credits are acquired in the following order (for a detailed description of each credit and the conditions for its completion, see the relevant sections):

- study (training) credits - a minimum of 12, to be acquired during the first four semesters of training;
- Research credits - 27 credits per semester, for a total of 216 credits;
- Dissertation credits - 6 credits in total, in the research-dissertation phase;

- 6 credits for other achievements (conference presentation, BSc/MSc thesis supervision).

5.1. Study (training) credits

Study credits can be earned by completing the curriculum of the PhD courses. The completion of the credits is certified by the lecturer in the electronic study system (*Neptun*) on the basis of the examination, essay, report, etc. required for the course taken. Completion of the course is certified by the *grade* of a five-level colloquium mark by the person responsible for the subject in the Neptun system.

The student takes the courses after consultation with the *tutor*, the *successful* completion of *credits* is also supervised by the subject lead *controlled by the tutor*. As an example: 1 credit can be obtained by attending one class per week for one semester and passing an exam. *The base of the credit calculation*: the number of hours spent on the course is calculated as the sum of contact hours and preparation hours (~100-140% of contact hours). No credits can be obtained in the doctoral programme through language learning and teaching activities. A brief description of the courses regularly offered by lecturers *of the School* can be found in the Neptun.

The student may take any of the courses offered by the *medical* schools as long as they fit in with the doctoral training direction. The Doctoral School considers it important that doctoral students participate as often as possible in the preparation of independent thematic reports based on the international literature related to the course material. The PhD students regularly report on their work and progress at the peer-review meetings of the *tutors'* institutes/departments.

5.2. Research credits

The majority of the 240 credits (228 credits) required for the doctoral programme are research credits.

- Completion of the credits is certified by the supervisor on the basis of a written report submitted by the doctoral student every semester. After the end of each semester, the *tutor* submits the doctoral student's semester reports to the *Head of the Doctoral School*. The content and format of the report are set out in Annex 5.

- During the first four semesters of the training (training-research phase), 27 research credits per semester must be acquired through research activities (Research I-IV).
- In the second half of the training period (research-dissertation phase), 27 research credits per semester (Research subjects V-VIII). If the thesis and dissertation are submitted before the end of the training (end of the 8th semester), the research credits for the remaining semesters will be automatically given.
- In the research-dissertation phase, students must obtain 6 credits, called dissertation credits, which can be completed by taking courses I-II "Preparation of dissertation", each of 3 credits. These courses may be completed in one semester, depending on the progress of the dissertation.
- The total number of credits to be acquired during the whole duration of the course is 6 credits by conference presentations. 3 credits may be awarded for a presentation at international conferences and 2 credits for a presentation in Hungarian (symposia of doctoral schools are local events, therefore do not count). 2 credits for a first author poster in English, 1 credit for a poster if it is in Hungarian. The value of conference credits will be determined by the Secretary of Doctoral Council on the basis of a request approved by the head of the relevant doctoral school. The request must be accompanied by the conference documentation. The credits are awarded by the PhD referee.
- A maximum of 4 credits may be awarded for participation in the supervision of the work of a BSc/MSc PhD student or a student researcher (individual topic supervision - 2 credits/student, co-subject supervision - 1 credit/student). The credits are determined by the Secretary of the Doctoral Council and credited by the PhD referee, based on the certification of the PhD student's tutor. The application must be accompanied by the completed thesis and/or a certificate of the thesis of the thesis or presentation. (A student as a topic leader can only be credited once, even if he/she has completed both a thesis and a presentation.)

5.3. Credits for teaching activities

- PhD students are not allowed to earn credits for teaching at the Doctoral School of Molecular Cell and Immunobiology, because their teaching activities are recognised in other ways - through remuneration.
- A PhD student may participate in teaching activities if he/she has successfully completed the main subject of his/her complex examination.

5.4. Technical credits

Courses successfully completed at another university or study abroad can be used to obtain so-called technical credits, which can be counted towards the required course credits.

- A maximum of 4 of the 12 compulsory training credits can be obtained in this way.
- The value of the technical credit is determined by the Secretary of the Doctoral Council on the basis of a request approved by the head of the relevant doctoral school. The request must be accompanied by the documentation for the course in question. The credit will be registered by the PhD referee.

6. Examinations during the training period

According to the Doctoral Regulations, the doctoral school reviews the progress of each student at least once a year.

1. The progress of the students (training, research work) is assessed by the doctoral school at the end of the first year of training and at least once a year during the dissertation phase. The results of the evaluation are documented in writing and submitted to the Council of the Doctoral School, which, if necessary, makes a proposal to change the supervisor or to reclassify the doctoral student with a state grant as a self-financed student.

2. An important element of the mandatory qualification is the annual symposium of doctoral students in English. The Doctoral School organises an annual PhD symposium in which all students, except first-year students, are required to give a presentation. The student registers for the symposium with an abstract. In his or her presentation, the PhD student summarises the results of his or her research. Although first-year students are not required to give a presentation, the doctoral school encourages them to participate by presenting at least one poster.

3. To complete the research credits, the doctoral student is required to prepare a written report every semester and submit it to the supervisor of the doctoral school. The content and format of the report are specified in Annex 4.

4. A Thesis Committee is set up for each PhD student in order to follow his/her progress. The Committee is chaired by one of the core members of the Doctoral School. The other members are an expert from the staff of the School, the doctoral student's supervisor and a PhD student who makes official notes. Once a year, the committee hears the doctoral student's report and makes suggestions/recommendations to help the work. The notes of the meetings are sent to the Secretary of the Doctoral School. The report covers the presentation of research results, the publication of articles, teaching activities, participation in conferences and the monitoring of the student's competence. They will also examine whether progress is adequate in terms of time. If not, the leaders of the School will draw the the tutor's and/or the student's attention to the problems and suggest remedial actions. The experience of the doctoral interviews will be summarised by the core members at the meeting of the Doctoral School Council.

5. At the end of the fourth semester of the doctoral programme, and as a prerequisite for the start of the research and dissertation phase, a complex examination has to be taken by the PhD student to measure and evaluate the progress of the studies and research.

7. Complex examination

The complex examination is an examination that has to be taken at the end of the fourth semester of the doctoral programme as a prerequisite for the start of the research and dissertation phase, and to measure and evaluate the progress of the studies and research. Since, after passing the complex examination, the student enters the degree-awarding procedure, the application for the complex examination is also the application for the degree-awarding procedure. At the beginning of the fourth semester, the doctoral student is required to register for the Complex Examination, a non-credit course in the Neptun system. Completion of the course is certified by the Secretary of the Doctoral Council after the successful Complex Examination.

- To pass the complex examination, the candidate must have completed at least 90 credits in the "training and research phase" (first four semesters) of the doctoral programme and all the "training credits" required by the doctoral school's training plan (except for individual preparation for the doctoral degree). If the student has not completed the training credits in accordance with the school's training plan, the head of the School may refuse to support the application for the complex examination.

- The number of compulsory training (study) credits for doctoral studies in medicine is minimum 12.

- Applications for the complex examination must be made in writing (see Annex 4 of the Doctoral Regulations). A copy of the diploma and any supporting documents available to prove the language skills must be submitted with the application.

- The complex examination must be taken in public, in front of a committee that has 3 members appointed by the Doctoral Council of the discipline. The majority of the members of the committee must be from outside the candidate's doctoral school. In the composition of the committee, particular attention should be paid to avoiding conflicts of interest. No member of the committee may be a close relative of the candidate or someone who cannot be expected to give an objective assessment of the examination for any other reason, e.g. a colleague or co-author of the candidate. The student may object in writing to the composition of the committee within 8 days to the Doctoral Council of the discipline, only in cases of bias or conflict of interest. The complex examination may be conducted if all three members of the committee are present. Committee members must be approved by the Doctoral Council.

- Before the complex examination, the tutor shall evaluate the doctoral candidate's performance in writing and state whether or not he/she recommends that the doctoral candidate proceed to the degree procedure. The supervisor shall have the opportunity to assess the candidate during the examination.

- The complex examination consists of two main parts: one part shall assess the candidate's theoretical knowledge ('theoretical part') and the other part shall report on the candidate's academic progress ('dissertation part').

The theoretical part of the complex examination is an oral examination, in which the student has to answer questions from one main and one subsidiary subject. To ensure a uniform standard, the list of subjects approved by the Doctoral Council is given in Annex 6. For the complex examination, the subjects recommended by the relevant doctoral school must be indicated on the application form. The Doctoral Council decides on the subjects for the complex examination.

In the dissertation part of the complex examination, the candidate has to give a short presentation (max. 20 minutes) on his/her knowledge of the literature, his/her research results, his/her research plan for the second stage of doctoral studies, and the milestones for the preparation of the dissertation and the publication of the results. The supervisor should be able to assess the candidate during the examination. After the presentation, the committee members will ask questions on the material presented.

The presentation should be in the form of a PowerPoint (or similar) presentation. The contents of the presentation:

- o Brief literature review
 - o Main research questions
 - o Methodological principles
 - o Results to date and expected results
 - o Future plans, milestones
- The examining board marks the theoretical and dissertation parts of the exam separately. A report is drawn up on the complex examination, including a written evaluation (Annex 5/1 of the Doctoral Regulations). The results is announced on the day of the oral examination. A complex examination is successful if a majority of the members of the board give passin grade for both parts of the examination. A doctoral candidate may repeat a failed complex examination once during the same examination period.
- In the case of medical doctoral schools, if the dissertation part of the complex examination is repeated, the Medical Doctoral Council expects the student to take the examination in front of the same committee. In the case of repeating the dissertation part, a new composition of the committee is only possible in particularly justified cases, with the approval of the Medical Doctoral Council. If a repeated complex examination is held solely because of failure in the theoretical part, the student may take the repeating examination in front of a new committee. The committee members must be re-approved by the Medical Doctoral Council that case.
- For the fifth semester of the doctoral programme, the doctoral student may only apply after passing successfully the complex examination.

8. Correspondent and individual training programmes

Staff members of the University - or persons in a position that can be considered equivalent to them - can apply for and be admitted to the correspondence form of the organised doctoral programme while maintaining their employment. The admission procedure and assessment are the same as for full-time applicants. Candidates may apply for admission to full-time or part-time organised training at the same time. The requirements for correspondence students are in all respects the same as for full-time doctoral students. Correspondence course participants do not receive a scholarship and the doctoral schools do not receive any public budget support. Reimbursement for students participating in correspondence courses is HUF 60 000 per semester. The Medical Doctoral Council may grant an equitable exemption from this fee. Students who are employed by the University of Debrecen or are employed in a research group supported by the Hungarian Academy of Sciences do not pay any reimbursement.

The aim of the individual preparation is to enable professionals with a Master's degree and a diploma certifying professional qualifications from a domestic or foreign university with significant teaching and/or research experience and documented academic performance to obtain a doctoral degree. Degree acquisition on the basis of individual preparation, as an exceptional procedure, may be used only in particularly justified cases. Individual candidates shall be exempted only from completing the first two years of doctoral studies, but shall be required to complete all the requirements for the award of the doctorate (PhD). Individual trainees pay a fee (HUF 60 000 per semester). If the Medical Doctoral Council accepts the application, it will appoint the committee and subjects for the complex examination. The individual candidate must take the complex examination before the beginning of the semester following acceptance of the application. The individual candidate is accompanied by a subject supervisor appointed by the Doctoral Council from among the supervisors of the relevant doctoral school, who monitors and assists the candidate's preparation.

9. National and international mobility

The Doctoral School encourages and occasionally supports the participation of doctoral students in training courses at home and abroad, the acquisition of experience, and participation in national and international conferences.

Part-time training may be based on a work programme approved by the supervisor, which ensures the validity of the period of study in the doctoral training programme of the University. The duration of the part-time study period abroad counts towards the duration of the doctoral programme, the student's status is not interrupted and the state scholarship is paid. The partial training requires the approval of the Doctoral Council of the discipline on the basis of the work programme, the proposal of the supervisor and the acceptance declaration of the foreign institution.

10. Interruption of the study period

If the student declares (Annex 6) that he/she does not wish to fulfil his/her student obligations in the next training period, or if the student does not register for the next training period, his/her student status will be suspended.

- The continuous period of suspension must not exceed two semesters.
- The cumulative duration of the interruption during the doctoral studies must not exceed six semesters.
- The Doctoral Council may, at the request of the student, authorise a suspension of the student's studies for a continuous period longer than that provided for in the preceding paragraph, if the student is unable to fulfil the obligations arising from the student's studies through no fault of his/her own, whether due to childbirth, accident, illness or other unforeseen circumstances. A student may only be suspended for a full semester.
- No state scholarship is paid during the period of suspension.

The student status must be terminated - at the end of the fourth semester of the doctoral programme - if the student fails to pass the complex examination;

- upon the award of the diploma;
- at the end of the 14th semester after admission;
- at the end of the eighth semester of the doctoral studies for which the student is registered.

The Chair of the Doctoral Council informs the student in writing about the termination of his/her student status.

11. Obtaining absolutorium

After completing the eight semesters successfully, the doctoral student receives an absolutorium. The absolutorium certifies that the doctoral candidate has fulfilled all the obligations of the doctoral programme. The Doctoral Council of the discipline may issue it to a doctoral candidate only with the written approval of the head of the relevant doctoral school (Annex 7). A doctoral candidate who has not obtained the required 240 credits must not be awarded an absolutorium. Detailed rules for the award of an absolutorium:

- the doctoral school sends to the PhD supervisor a list of subjects for which the absolutorium cannot be awarded if they have not been completed;
- if the student has acquired 240 credits but has not fulfilled his/her obligations as required by the school, the PhD supervisor will inform the Head of the Doctoral School, who may refuse to issue the absolutorium.

12. Degree procedure

The relevant rules and principles are set out in the University of Debrecen's Doctoral Regulations. The PhD student must submit the final (after the predefense) version of the doctoral thesis within three years after the complex examination. This deadline may be extended by up to one year, upon request, by decision of the Doctoral Council of the discipline, provided that the student is unable to fulfil his/her obligations through no fault of his/her own, due to childbirth, accident, illness or other unforeseen circumstances. The dissertation is submitted for predefense before finalisation of the work, as laid down in the quality assurance plan of the Doctoral School. The predefense is organised by the Council of the Doctoral School and a record of the discussion has to be made. Students can download all the regulations and documents necessary for the doctoral procedure from the Doctoral School's website (<https://molcellimm.phd.med.unideb.hu/EN>).

Annexes

Annex 1

Research topics of the Doctoral School are available at the website: www.doktori.hu

University of Debrecen (FI 17198)

APPLICATION FORM
(for the doctoral (PhD) training program)
Doctoral Committee of Medical Sciences
1st semester of academic year 2022/23

I. Personal data

Name: Sex: male/female

Name at birth:

EHA/Neptun code (only for students graduated from UD):

Place of birth (city, country):

Date of birth:

Mother's full name: Nationality:

Number of ID card (*In case of non-Hungarian citizen, the number and date of residence permit*):

Permanent address:

Mailing address:

e-mail: phone number:

Workplace:

II. Qualification, professional experiences

University degree program (major):

If graduated already:

Qualification:

Issuing Institute:

Number/year:

If not graduated yet:

Expected date of graduation:

Have you participated previously in any doctoral training program or degree-conferment procedure of University of Debrecen or other university:

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a) no

b) yes, please specify (program, university):

Grade point average (GPA) of the last closed 10 semesters (for MSc students GPA of the last 4 semesters):

Knowledge of foreign language(s) [language, level of language examination, number and date of certificate]:

Data pertaining to prior scientific activities/achievements (please enclose the underlying documentation, see the list of documents to be enclosed):

	Number
<u>Scientific papers in peer reviewed journals as first author</u> - written in English - written in native language (if different from English)	
<u>Scientific papers in peer reviewed journals as coauthor</u> - written in English - written in native language (if different from English)	
<u>Awarded oral presentations in the national TDK (Students' Scientific Association) conference</u>	
<u>Non-awarded oral presentations in the national TDK (Students' Scientific Association) conference</u>	
<u>Oral presentations in the local TDK (Students' Scientific Association) conference</u>	
<u>Accepted TDK (Students' Scientific Association) theses as first author</u>	
<u>Oral presentations as first author in scientific conferences (excluding local, university-organized* and TDK (Students' Scientific Association) conferences)</u>	
<u>Poster presentations as first author in scientific conferences (excluding local, university-organized* and TDK (Students' Scientific Association) conferences)</u>	
<u>Oral or poster presentations as coauthor (excluding local conferences and TDK (Students' Scientific Association) conferences)</u>	

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new type of doctoral training
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Oral or poster presentations as first author in local (university-organized*) conferences and events (announced publicly)	
Other <i>in extenso</i>, non-university* published scientific papers	

*refers to the university the applicant graduated from

III. The doctoral program applied for:

Name of Doctoral School:

Name of Doctoral Program (if applicable):

Title of the proposed research topic

.....

Name and e-mail address of supervisor:

Supervisor's workplace:.....

Place of research (if it is different):

Research sources of the supervisor:

Data pertaining to prior scientific and doctoral training activities/achievement of the supervisor (please enclose the underlying documentation, see the list of documents to be enclosed):

Number of students obtained PhD degree under the supervision of the supervisor:

Individual supervising:.....Co-supervising:

Number of PhD students in the 2nd semester of academic year 2021/22 (both active and suspended state students, for all the doctoral training programs the supervisor participates)

Individual supervising:.....Co-supervising:

Number of scientific publications in journals with impact factor (according to the Thomson-Reuters list) in the last 3 years (2020-2022):

Form of PhD training program applied for:

Full-time (Stipendium or other state-sponsored scholarship) ----- Full time (other source* or not sponsored) ----- Part-time

*Please, name the source the scholarship will be provided from:

Is the applicant enrolled in specialist (residency) training in Hungary?

Yes – No

(If yes, please attach the permission issued by the party at fault in residency training.)

Date:

.....

Applicant

.....

Supervisor

The proposed research plan and the application is supported by the Doctoral School.

.....
Head of the Doctoral School

The application was registered by the doctoral school, the proposed research topic was uploaded to the database of the Hungarian Doctoral Council (www.doktori.hu).

.....
Secretary of the Doctoral School

Infrastructure and facilities required for the successful completion of the PhD project will be provided by the Department.

.....
Head of Department
(supervisor's workplace)

.....
Head of Department
(place of research, if it is different)

For part time students:

I agree with the application.

.....
Head of the workplace

Documents to be enclosed:

Deadline: May 15, 2022

1. Professional CV
2. Documentation of scientific activities
 - list of publications (please, prepare according to the template provided)
 - title page of published or accepted scientific papers (if the accepted paper is not available yet in scientific database, please provide the letter of acceptance);
 - documentation of conference presentations (Abstract book, conference program book, internet address if available, etc.)
3. Supervisor's publication list (2020-2022, only papers with impact factor should be presented).
4. List of students obtained PhD degree under the supervision of the supervisor
5. List of present PhD students of the supervisor in the 2nd semester of academic year 2021/22
6. The title of the proposed research topic and research plan (max. 2 page).
7. Certificate of local and national TDK presentations
8. Transcript about closed semesters.
9. Copy of University degree certificate or declaration of the expected date of graduation
10. Copy of document(s) certifying language skills.
11. Certificate of good conduct (only for those who graduated from another university)
12. Applicants enrolled in the specialist (residency) training program in Hungary should attach the written permission issued by the party at fault.
13. Certificate of the transfer of application fee (9000 HUF). The application fee should be transferred in HUF to the following bank account: IBAN: HU03 1173 8008 2148 9815 0000 0000, SWIFT: OTPVHUHB. In the subject of the bank transfer, please give your name and the following text: „PhD application fee, 1H4DBK00PHDF247”

Template for the publication list

1. Per reviewed scientific papers in English (authors, title, Journal/Book, page number (if available), date of publication)
2. Per reviewed scientific papers in native language (authors, title, journal/book, page number (if available), date of publication)
3. Other *in extenso*, non-university* published scientific papers (authors, title, journal/book, page number (if available), date of publication)
4. Oral presentations (authors, title of the presentation, name, venue and date of the conference/event, website- if available)
5. Poster presentations (authors, title of the presentation, name, venue and date of the conference/event, website- if available)

**THIS FORM IS FOR TEACHERS OF THE SCHOOL IN
HUNGARIAN**

Útmutató PhD kurzusok hirdetéséhez

Kurzus csak az illetékes doktori iskola jóváhagyásával hirdethetőek meg, ezért a kitöltött adatlapot juttassa el a doktori iskola titkárához!

A Debreceni Egyetem Doktori Szabályzata szerint:

5.§ (11) A doktoranduszok számára meghirdetett tanulmányi foglalkozásokat – az oktató engedélyével – az alap-, mester- vagy osztatlan képzésben résztvevő hallgatók is felvehetik, de az alap-, mester- vagy osztatlan képzésben résztvevő hallgatók számára meghirdetett foglalkozásokkal PhD-kredit nem szerezhető.

***Kreditszámítás módja:** Kurzusok **CSAK** egész számú kredittel hirdethetők meg. 1 kredit 30 munkaóra teljesítménnyel szerezhető.

Munkaórák száma = kontakt órák + felkészülési órák száma (ez utóbbi ~100-140%-a a kontakt óráknak).

(Pl. 1 kredithez minimum 12-13 kontakt óra szükséges, így a munkaórák száma kb. 30.)

A kurzusok teljesítését 5 fokozatú kollokviumi jegy adásával lehet igazolni. A jegyet mind a leckeönyvben, mind a Neptun rendszerben regisztrálni kell az adott félév végéig.

(Kredit csak olyan tárgyhoz rendelhető, amelynek minősítése ötfokozatú skálán érdemjeggyel történik.)

Hasonlóan, a Kutatás kurzus teljesítését 5 fokozatú gyakorlati jegy adásával lehet igazolni.

A tárgyakat/kurzusokat központilag viszik fel a Neptunba. Az oktatók saját Neptun kódjukkal lépnek be, adják a jegyeket és hagyják jóvá a kreditek megszerzését.

**...tanév...félév időszakra
meghirdetni kívánt PhD kurzus**

Amennyiben olyan kurzust kíván tartani, amelyet korábban már meghirdetett, azt ÚJRA meg kell hirdetni. Ebben az esetben elegendő, ha a kurzus NEPTUN kódját adja meg, illetve az esetlegesen módosítani kívánt adatokat (ld. alább).

Módosítható adatok korábban már meghirdetett kurzus esetében: hallgatói létszám (minimum, maximum), leírás

NEM VÁLTOZTATHAÓ: KURZUS CÍME, KREDITÉRTÉK (ILLETVE AZ AZT ALÁTÁMASZTÓ ÖSSZES MUNKAÓRA SZÁMA).

Adatlap PhD kurzus meghirdetéséhez

Kurzus magyar címe:

Kurzus angol címe:.....

Tárgy Neptun kódja (amennyiben korábban már meg volt hirdetve):.....

Tárgyfelelős neve, elérhetősége (e-mail, telefonszám):

Tárgyfelelős Neptun kódja:

Kreditpont (számítását ld. az Útmutatóban)*:

Követelmény: kollokvium

Óraszám/félév: (összes munkaórák száma, azaz kontakt és felkészülési órák együttesen)

Minimum hallgatói létszám: (ha nem ad meg minimális létszámot, 1 fő lesz beírva)

Maximum hallgatói létszám: (ha nem ad meg maximális létszámot, 50 fő lesz beírva)

Tárgy rövid leírása (néhány mondat, vagy tematika; egyéb hasznos információ. A Neptunos nyilvántartás/jelentkezés ellenére legtöbbször személyes egyeztetés is szükséges az időpontot, termet stb. illetően, ezért – amennyiben nem a tárgyfelelőssel azonos – kérjük, hogy adja meg annak a személynek a nevét és elérhetőségét, akivel az egyeztetés történik.):.....

Tudományterület: egészségtudományok, elméleti orvostudományok,
gyógyszertudományok, klinikai orvostudományok (kérjük ezekből egyet választani)

Előzetes követelmény (ha van):

Végleges követelmény (ha van):.....

RESEARCH REPORT

I. Details

Name:

Year:..... full-time or correspondence ... semester of academic year ...

Supervisor's name:

Place of work:

Contact details (e-mail address):

Title of the research topic:

Period being reported on:

II. Short narrative report on the work accomplished in the previous year (max. of 500 words)

Objectives:

Methods:

Results:

III. Published or accepted papers:

authors:

title:

journal, page number, year:

impact factor of the publication:

IV. Manuscripts submitted for publication

authors:

title:

journal the manuscript was submitted to:

V. Participation in specialised conferences

Name, date and venue of the conference (website of the conference, if available):

nature of participation: poster/ presentation

title and authors of the presentation/poster:

VI. Reports done in the institute/department (project report, report on an article, etc.)

title:

date (month/year):

VII. Study programs

name and address of the host institution:

date and duration of the study program:

TRAINING PLAN 2022.
new type of doctoral training
Doctoral School of Molecular Cellular and Immune Biology

type of financing:

Debrecen,

PhD student

Supervisor

A komplex vizsga ajánlott tárgyainak jegyzéke

GENERAL TOPICS

1. Genetics Textbook:

Robert L. Nussbaum, Roderick R. McInnes, Huntington F. Willard: **Thompson & Thompson: Genetics in Medicine**

Saunders, Elsevier, 7th edition, 2007

ISBN 9781416030805

2. Immunobiology

Textbook:

Kenneth Murphy: **Immunobiology** (Janeways's)

Garland Science; 7th edition 2011

ISBN: 9780815342434

3. Cell Biology

Textbook:

Bruce Alberts: **Molecular Biology of the Cell**

Garland Science; 5th edition, 2008

ISBN: 0815341059

4. Biochemistry

Textbook:

Thomas M. Devlin: **Textbook of Biochemistry with clinical correlations**

Wiley-Liss, 7th edition, 2010

ISBN: 9780470281734

SPECIFIC TOPICS (only recommended)

Cell Biology

Theoretical questions

1. Structure and molecular components of the cell membrane. Transport processes through membranes.
2. Vesicular transport in cells.
3. Structure and function of cytoplasmic organelles: ER, lysosomes, Golgi, peroxisomes.
4. Structure and function of cytoplasmic organelles: mitochondria.
5. Nucleus, nucleolus, nuclear bodies, chromatin structure.
6. Nuclear membrane, transport through the nuclear pores.
7. Signaling.
8. Mechanism of the cell-cycle.
9. Cell-cell interactions, cell-extracellular matrix interactions, cell-bacterium and cell-virus interactions.

Methodological questions

1. Principles of light microscopy (confocal, laser scanning, fluorescent, superresolution microscopic techniques).
2. Microscopic techniques allowing molecular resolution. Electron microscopy.
3. Methods of flow cytometry: measurement of cell-surface and intracellular parameters (immunofluorescence, membrane potential, intracellular pH, Ca²⁺, Mg²⁺, free radicals, etc.).
4. Techniques for the investigation of the cell cycle (flow cytometry, elutriation, cell cycle synchronization methods).
5. Application of fluorescent proteins in cell biology (types, spectral and other characteristics, examples on application).
6. Application of toxins in cell biology investigations (toxins targeting the cytoskeleton, replication, transcription, translation, both in eukaryotic and prokaryotic cells).
7. Techniques of expressing exogenous genes in cells, and of gene silencing.
8. Use of radioactive and stable isotopes in cell biological analysis.

9. Main characteristics of model systems: yeast, *Drosophila*, *C. elegans*

Biochemistry

Theoretical questions

1. Structural principles of enzymes and their functions.
2. Structural biochemistry of proteins.
3. Enzymology.
4. Structure and function of transcription factors.
5. Cell differentiation and transdifferentiation.
6. Significance of transgenic and knock out animal models in medical research.
7. Forms and mechanisms of cell death.
8. Molecular mechanism of phagocytosis.
9. Biochemistry of retroviruses.
10. Nutritional biochemistry.
11. Principles of clinical genomics and personalized medicine.

Methodological questions

1. Methods for exploring protein structures.
2. Experimental analyses of protein functions.
3. High-throughput methods for protein separation.
4. Expression systems of proteins.
5. Detection of cell death.
6. Detection of protein-protein interactions.
7. Epigenetics and its methodology.
8. Principles and practice of biobanking.
9. Methodology of genome investigations.
10. Bioinformatics of genome analyses.

Immunobiology

Theoretical questions

1. General characterization of the immune system – the innate and the acquired immunity.

2. Mechanisms maintaining central and peripheral immune tolerance
3. Recognition, signaling, executive mechanisms, and cell-cell communication in innate and acquired immunity.
4. Antigen presentation and recognition of antigens by T-cells. Immune regulatory and population genetic role of the major histocompatibility complex (MHC) in development of diseases.
5. Immunological aspects of inflammation – roles of coreceptors, cytokines and chemokines.
6. Immunodeficiency of the innate and the acquired immunity.
7. Development of hypersensitive reactions (I – IV) and the strategies for their treatment.
8. Tumor antigens, anti-tumor immune response and tolerance.
9. Interaction of the immune system with harmless, helpful and pathogenic microorganisms.
10. Immunological processes activated by organ and tissue transplantation, immunosuppression.

Methodological questions

1. Genetic background of immunoglobulin and T cell receptors.
2. Processes regulating activation and polarization of T-lymphocytes, characterization of T cell subtypes.
3. Organ specific and systemic autoimmune diseases, strategies and applications of biological therapy in clinical practice.
4. Immunological memory, active and passive immunization, vaccination.
5. Production and application of monoclonal and polyclonal antibodies.
6. Preparative and analytical methods based on primary antigen-antibody interactions.
7. Methods based on secondary antigen-antibody interactions
8. Functional analysis of immune competent cells.
9. Anti-viral, anti-bacterial and anti-fungal immunity, methods for detection of infectious agents.
10. Up-to-date strategies and methods of anti-tumor immune therapy.

GENETICS

Theoretical questions

1. Organization of mammalian and human genomes and their characterization.
2. Organization of the genetic material in prokaryotes, regulation of prokaryotic genes.
3. Organization of the genetic material in eukaryotes, regulation of eukaryotic genes.
4. Genetic polymorphism and its clinical relevance.
5. Structure and function of chromatin.
6. Molecular background of inherited diseases.
7. Genetic characterization of tumors.
8. Population genetics.
9. Proteomics and protein biomarkers.

Methodological questions

1. Methods for DNS sequencing. New generation DNA sequencing methods.
2. PCR and quantitative PCR
3. CGH, array CGH, and FISH
4. Molecular biology methods for detection of mutations
5. Cytogenetics and its methodology.
6. Pharmacogenetics and pharmacogenomics, ecogenetics and ecogenomics.
7. Methods for protein identification.

Request for the Suspension of Doctoral Student Status

Name of student:

Neptun code:.....

Doctoral school:

Name of the supervisor:.....

Year/form of education: full-time/correspondence

Doctoral studies commenced in:

Last valid/active semester:

Contact details of the student:

Tel. number:.....

e-mail address:

Address for service:.....

I hereby request that my doctoral student status be suspended for the semester of academic year

Please only tick one of the three options. If you request that your studies be suspended for a time exceeding 2 semesters, justification is needed. The suspension of the student status for a period exceeding 2 semesters may be approved by the Doctoral Committee in particularly justified cases.

I would not like to fulfill my obligations as a student in the upcoming period of training for not longer than one semester.

I would not like to fulfill my obligations as a student in the upcoming period of training for not longer than two semesters.

I would not like to fulfill my obligations as a student in the upcoming period of training for a time exceeding two consecutive semesters. As the justification below shows, I am unable to satisfy my academic obligations arising from my student status due to a reason beyond my control; therefore, I request that my student status be suspended.

Justification:

.....
.....
.....
.....

Date

.....

Signature of the student

.....

Signature of the supervisor

**APPLICATION FORM FOR
ABSOLUTORIUM FOR PHD STUDENTS**

Filled by the Student!

Name:..... Neptun
code:.....

Date and place of birth:..... Academic
period:.....

E-mail address:.....

Form of education: full time part time

Form of financing: state financed individual Stipendium H.

Name of the Doctoral School:

Name of the Discipline:.....

Name of the Doctoral Program:.....

I hereby state that

	yes	no
- I have completed the research credits required (..... * x 27)	<input type="checkbox"/>	<input type="checkbox"/>
- I have completed the academic credits required (min.12)	<input type="checkbox"/>	<input type="checkbox"/>
- I have completed „General research methods” subject	<input type="checkbox"/>	<input type="checkbox"/>
- I have completed subject of Preparation of the Dissertation I. (3 credit)	<input type="checkbox"/>	<input type="checkbox"/>
- I have completed subject of Preparation of the Dissertation II. (3 credit)	<input type="checkbox"/>	<input type="checkbox"/>
- I have completed credits for other performances (6 credit)	<input type="checkbox"/>	<input type="checkbox"/>
- I have completed obligatory subjects prescribed by the doctoral school	<input type="checkbox"/>	<input type="checkbox"/>

Debrecen, 20.....,

FULL TIME/PART TIME

First certified by the Doctoral School and after that please submit the completed form to the PhD Office (Main Building Room 15A).

*To be filled!

Filled by the Doctoral School!

The Candidate have completed the requirements of the doctoral training.

Debrecen, 20.....,

.....

Filled by the Doctoral Committee!

Absolutorium in the Neptun system.

Debrecen, 20.....,