

# **Biomolecular Chemistry and Bioinformatics (BINFO)**

## **National Centre for Biomolecular Research**

Guarantor: prof. Mgr. Lukáš Žídek, Ph.D., [Izidek@chemi.muni.cz](mailto:Izidek@chemi.muni.cz), room C04-126

# BINFO PhD program Scientific board

## Internal members:

- **Assoc. Prof. Mgr. Lukáš Žídek, Ph.D. (Chair)**
- Assoc.prof. RNDr. Michaela Wimmerová, Ph.D.
- Assoc. doc. Mgr. Lumír Krejčí, Ph.D.
- Assoc. prof. RNDr. Vladimír Sklenář, DrSc.
- Assoc. doc. RNDr. Radka Svobodová, Ph.D.
- Assoc. prof. RNDr. Jiří Šponer, DrSc.
- Assoc. prof. Mgr. Richard Štefl, Ph.D.
- Assoc. doc. Mgr. Lukáš Trantírek, Ph.D.
- Assoc. prof. Mgr. Štěpánka Vaňáčová, Ph.D.

## External members:

- prof. Ing. Richard Hrabal, CSc. (Praha)
- prof. RNDr. Michal Otyepka, Ph.D. (Olomouc)
- Prof. Mgr. Daniel Svozil, Ph.D. (Praha)

# As PhD you should:

- understand theories, concepts, and methods that **represent** current trends in structural biology and bioinformatics
- **become independent expert**
- independently design and **conduct research** in all its stages
- interpret research outcomes and **present** them at international conferences
- write a research paper and **publish** it in an impacted international scientific journal
- **teach/supervise** students ... to become a science leader once

# Milestones and deadlines

- Research project **plan** – 1st year  
(max 1 page describing background, objectives, methods, and timeline).
- State Doctoral **Exam** (SDE/SDZ) – 2nd to 4th year (award)
- Thesis **defense** – 4th to 5th year (award) = standard time (4+1)  
or later ... extended = 8+1 (9th year only exceptions – dean must approve)

1. 6. 2023 – 20. 9. 2023	Student's semestral plan
15. 6. 2023 – 30. 9. 2023	Supervisor approves
1. 9. 2023 – 07. 10. 2023	Scientific board/chair approves
1. 12. 2023 – 31. 1. 2024	Student's feedback
15. 12. 2023 – 15. 2. 2024	Supervisor evaluates
Anytime	Scientific board/chair evaluates

# Studies roadmap – Mandatory duties

- general requirements for all astudents in the programme (please see detailed requirements for the Individual Study Plan in the detailed table below):

Mandatory duties: checked by Dean´s Office

Code	Title	
XD100	Ph.D.thesis/ Příprava dizertační práce	Enrolled every semester during entire studies, recommended 20-25 ECTS for semesters 1-4, 30 ECTS for semesters 5-8, 20 ECTS for semesters 9+
CB060	NCBR seminar/ Seminář NCBR	Obligatory seminar for all semesters of full-time study mode (with exceptions of stay abroad)
CB100	TAC/ Thesis Advisory Committee	Standard tool to provide individual quality assessment of PhD candidates, mandatory, to be enrolled in 1st,4th-5th, 7th, 9th, 11th semester)
C7777	Handling chemical substances/ Zacházení s chemickými látkami	Enrolled every year of study, every autumn semester
CB030	Teaching Assistance/Pomoc při výuce	See table for details, maximum 150 hours in total during studies
XD106	Lecture in the foreign Language/ Odborná přednáška v cizím jazyce	Minimum once during studies
XD110	Placement Abroad/ Zahraniční pracovní pobyt	Minimum 1 month stay, min,1-time during studies , requirement given by law
C9870	Zpracování a prezentace vědeckých dat/ Processing and presentation of scientific data	Mandatory subject

# CB060/CC060 NCBR seminar

- To practice the ability to present results in the form of a lecture
- To provide active feedback (discussing, asking questions) to other presenting students and to critically evaluate their presentations.
- First 4 years as a student enrolled in a course (credits), then as a community member
- Presentations of local structural biology experts and guests
- Great opportunity to present own work in front of the public
- Become a member of local scientific community

# CB100 Thesis Advisory Committee (TAC)

student + supervisor + at least **2 independent scientists**

**A tool to help PhD candidates make decisions, solve problems, prepare for the defense**

**Scientific board decided to implement TAC in December 2021 to help students to:**

**1st year:** set up your doctoral project plan (*1 meeting during 1st year*)

**4th/5th year:** get your thesis finished in the standard study time of 4+1 years

*(1 meeting before the end of 4th year or beginning of 5th year)*

**6th year:** get your thesis finished as soon as possible (*1 meeting during 6th year*)

**7th/8th year:** get your thesis finished as soon as possible (*meeting every semester*)

TAC report templates provided by PhD coordinator

# CB030/CC030 Teaching Assistance

- 2 semesters teaching or 3 semesters co-supervising undergraduate students**
- Credits given by the course guarantor, not by your supervisor**
- When you enroll, contact the course guarantor and inform him/her, how you fulfill your duty (which course you teach, how many hours, to what extent, which undergraduate student works under your supervision, in which group)**
- Credits: 2 for co-supervision, 3 for each hour of full-time, contact teaching**
- Semesters, not credits count as the requirement (as an exception, a large load of teaching in one semester can be accepted as completion of the duty)**
- Do not select any other code when enrolling (XD102 or S5009)**



# State Doctoral Exam (SDE)

- prove general knowledge of structural biology and bioinformatics  
(answering shortly questions common for all students)
- prove deeper insight into a narrower area related to the PhD thesis (scientific discussion)
- students' presentation of his/her PhD topic (if taken in advance)
- motivated by a stipend (currently 5000 CZK, if evaluated by A,B,C)
- apply ASAP

# Thesis defense

## *Thesis:*

- student must be the first author of at least one publication
- student's contribution must be stated
- if the student co-authored at least 2 papers - comprehensive introduction and commentary on papers
- if there are less than 2 publications – monography, use templates provided by the university

## *Defense:*

- student presents major results/achievements in 20 min, supervisor reads his/her evaluation of the student, reviewers read their reports, student answers questions, discussion follows

**SDE and defense applications via IS (Iva Klimova)**