CEITEC PhD School

- 4-year programs
- Above-standard **funding**
- State-of-the-art **core facilities**
- **International** and **interdisciplinary** environment
- Wide range of topics from **experienced supervisors**
- Coursework in **hard** / **soft** / **transferable skills** and **bioinformatics**
- Vibrant **campus life** with many events tailored for PhD students

Information Session for Prospective PhD Students:
20 January 2022 at 13:00 (online)

Study Programs

Life Sciences

Biomedical Sciences

- **Molecular Medicine**

Life in Brno

"I like the people at CEITEC, my group, the possibilities to attend workshops & trainings, and the accessibility of the Core Facilities."
Lilla (Hungary)

"There's always something fun going on in the city. You can't get bored in Brno."
Anzer (India)

Call SPRING 2022 starts on 1 December 2021.

Deadline: 28 February 2022

Life Sciences

Open topic (supervisor)

1. Modelling binding specificities of RBPs using Artificial Neural Networks (Panagiotis Alexiou)
2. Characterization of cyclin-dependent kinase 12 (CDK12) substrates and their roles in regulation of transcription and tumorigenesis (Dalibor Blazek)
3. Functions of cyclin-dependent kinase 11 (CDK11) in regulation of gene expression and tumorigenesis (Dalibor Blazek)
4. Structural studies of various states of direct and bridged transcription-translation coupling in vitro and in vivo (Gabriel Demo)
5. RNA as a drug target (Peter Lukavsky)
6. Designing modified DNA fragments (Radek Marek)
7. Structure of parallel forms of nucleic acids studied by NMR spectroscopy and molecular modelling (Radek Marek)
8. Regulation of cell migration in B cell leukemias and lymphomas (Marek Mraz)
9. Lymphoid microenvironment models and their use to study targeted therapy and resistance in B cell malignancies (Marek Mraz)
10. Subcellular trafficking in plant adaptation (Tomasz Nodzyński)
11. Characterization of components of cytokinin metabolism involved in shoot regeneration (Marketa Pernisova)
12. AFM Extension Modules to Study Cell Mechanics and Electrophysiology (Jan Pribyl)
13. The role of the intracellular environment in modulation of biomolecular structure, dynamics and interactions (Lukas Trantirek)
14. Basic principles of DNA quadruplex folding landscape studied by advanced simulations (Lukas Trantirek)
15. Structural Biology of WNT Signalling (Konstantinos Tripsianes)
16. Antimicrobial peptides and the role of line tension (Robert Vacha)
17. Antimicrobial peptides and the role of membrane asymmetry (Robert Vacha)
18. Role of protein disorder in bacterial transcription (Lukas Zidek)

Molecular Medicine

Open topic (supervisor)

1. Long non-coding RNAs (lncRNAs) in the pathogenesis of B cell lymphomas (Marek Mraz)
2. Prioritizing drug combinations in leukemia based on analysis of targetted therapy in vivo (Miroslav Boudny)
3. Characterization of cyclin-dependent kinase 12 (CDK12) substrates and their roles in regulation of transcription and tumorigenesis (Dalibor Blazek)
4. Functions of cyclin-dependent kinase 11 (CDK11) in regulation of gene expression and tumorigenesis (Dalibor Blazek)

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