

## Personal information

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### Mgr. Jakub Hajný, PhD

Nationality: Czech

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## Education

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### 2021 - Postdoctoral researcher

Institute of Experimental Botany of the Czech Academy of Sciences

Topic: Non-coding regulation in plant development

### 2017 - 2020 PhD in Molecular and Cell Biology

Institute of Science and Technology Austria

Topic: Developmental and Cell Biology of Plants

Supervisor: Jiří Friml

Description: Revealing mechanism of transcriptional and non-transcriptional control of PINs repolarization during plant development

### 2014 - 2016 Master' degree of Analytical chemistry

Palacký University Olomouc, Faculty of Science

Topic: Development and application of the method for determination of carboxylic acids using ion-pairing reagents by capillary electrophoresis coupled with mass spectrometry

Supervisor: Vítězslav Maier

Description: Improving of mass spectrometry analysis of negatively charged compounds using ion-pairing reagents

### 2011 – 2014 Bachelor's degree of Biochemistry

Palacký University Olomouc, Faculty of Science

Topic: Determination of piperazine-based new designer drugs

Supervisor: Vítězslav Maier

Description: Developing method for identification and quantification of new piperazine-based drugs for medical utilization

## Research experience

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- 2022, August**      **Institute of Biochemistry and Biophysics, Varšava**  
Swiezewski group: CRISPR/Cas9 design, 5' and 3' RACE PCR
- 2022, March**      **Uppsala Biocenter, Swedish University of Agricultural Sciences,**  
molecule fluorescence      Stefanie Rosa group: Methodology of single-  
in situ hybridization (smFISH)
- 2017**      **Institute of Science and Technology Austria,** Internship in Friml group:  
Topic: Non-transcriptional pathway of auxin
- 2016, April-July**      **Teva Pharmaceutical Industries,** Czech Republic, Full-time job as gas  
chromatography specialist  
Topic: Analyzing the content of degradation products and residual  
organic solvents in drug samples
- 2014**      **Teva Pharmaceutical Industries,** Czech Republic, Internship, Research  
and Development  
Topic: A developing method for the determination of silymarin content  
in drug samples using UPLC

## Conference presentations

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- 2023**      **Physic and Biology of Plant Growth,** Ein Gedi, Israel, oral  
presentation  
Title: A non-coding regulation of tissue-specific expression of CANAR  
receptor

- 2021**      **The Czech Plant Nucleus Workshop (CPNW)**, Olomouc, Czech Republic, oral presentation  
Title: A role of long non-coding RNAs in auxin-mediated development.
- 2019**      **European Network for Plant Endomembrane Research (ENPER)**, Valencia, Spain, oral presentation  
Title: Cell surface receptor complex for auxin-mediated PIN-dependent development of vasculature
- 2019**      **The American Society of Plant Biologists (ASPB)**, San Jose, USA, poster  
Title: Cell surface receptor complex for auxin-mediated PIN-dependent development of vasculature
- 2019**      **Chemistry and Biology of Phytohormones and Related Substances (CBPRS)**, Luhačovice, Czech Republic, oral presentation  
Title: Cell surface receptor complex for auxin-mediated PIN-dependent development of vasculature  
Award: Best PhD presentation
- 2018**      **Auxin and Cytokinins in Plant Development (ACPD)**, Prag, Czech Republic, poster  
Title: Molecular insights into auxin effect on PIN polarity
- 2017**      **Auxin meeting**, VIB, Ghent, oral presentation  
Title: Structural auxin analogue PC2 – a novel tool for investigating auxin perception and response
- 2017**      **Chemistry and Biology of Phytohormones and related substances**, Palacky University, Czech Republic, oral presentation  
Title: PC2, a possible activator of fast non-transcriptional pathway of auxin

## Fellowships and grants

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- EMBO fellowship:**      A role of long non-coding RNAs in auxin-dependent development. Institute of Experimental Botany of the Czech Academy of Sciences. 2021-2023.
- DOC fellowship:**      Molecular and cellular mechanisms of PIN-dependent canalization, Institute of Science and Technology, Austria. Austria Academy of Science. 2019-2020.

**Mobility:** Molecular and cellular mechanisms of PIN-dependent canalization, Palacký University, Czech Republic. EU operational program Research, Development and Education. 2018.

## Teaching

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| 2022 | Genomics: Non-coding regulation   |
| 2022 | KBC_BAM: Introduction to Microscopy; Introduction to Epigenetics;<br>Plant Biotechnology  |
| 2021 | KBC_BAM: Introduction to Microscopy   |
| 2021 | LRR_FZRSB: Laboratory exercise in Plant Physiology  |
| 2019 | Teaching assistant in Plant Developmental Biology course (led by prof. Jiří Friml at Institute of Science and Technology Austria) |

## Language skills

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Czech – native  
English – Fluent

## Computer skills

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Microsoft office, ImageJ, Adobe illustrator

## Courses

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| 05.2022 | Applying design principles to schematic figures (Provided by EMBO fellowship) |
| 05.2022 | Laboratory leadership for Postdocs (Provided by EMBO fellowship)              |
| 06.2022 | Effective Negotiation (MK-consulting)   |