



Institute of Experimental Botany
of the Czech Academy of Sciences

The Director's Monthly

December 2025



You promised peace and quiet

A sincere colleague, which I appreciate, recently threw it in my face: „You promised peace and quiet, but I already know that there is no peace and quiet here and there will never be.“ Yes, there is no peace and quiet at the institute. I know that, it’s a fact. And the result of this „unrest“ is change.

Changes should lead to something better. However, some may ultimately lead, for example, to a decision to leave the institute. Every such departure needs to be considered, to think about what caused it, to consider whether the changes were well thought out, whether something happened that was not intended. On the other hand, a certain dynamic is necessary for every organization, and this also applies to science.

Although we are essentially a government organization, we work in an extremely competitive environment. The need to constantly obtain grants and apply the results of our work on the global market, a completely open market where there are no tariffs or regulations, where there is nothing to mitigate this enormous competition, creates a demanding, „hostile“ environment. It is a challenging situation that constantly forces us all to engage in all kinds of activities that prevent any kind of peace and quiet.

And in this world, in the Czech scientific community, our institute is valued and respected. Our great results are well known. Our excellent publications are well known. Just look

into the Director’s Monthly issues to see how many great publications have been published this year in the best journals in our field. The institute is the recipient of prestigious grants. The colleagues from our International Advisory Board told me something similar at the institute retreat. And I don’t suspect them of doing so to please me.

We have also undergone an evaluation by an international commission, and the institute did not fare badly at all. Nine out of thirteen laboratories were rated as outstanding or excellent. The institute is on the right track, as can be read in the final report. That is a great result.

And please, keep in mind that this great result is the result of all of you. Each and every one of you, in all positions. Your good work, whether you are in the laboratories, in the offices, in management positions, or in the support team, ultimately leads to the overall result. I must thank you all for this work, and it gives me great pleasure to do so. Without you, the institute would not be where it is today. And I say again: it is good, it is excellent, it is outstanding.

Of course, every thing and every one of us has room for improvement, we can all change something, try to do things differently, bet-

ter. Everyone can approach their work with an open mind, seek their own path, and reflect. And if they have enough strength, they can also look at it from a broader perspective – the laboratory, the department, the institute. And they can, should, and must communicate this to others.

Because every opinion guided by good intentions is valuable. Every criticism guided by good intentions is valuable. It is often difficult to accept, or it is difficult to be rejected for one’s opinion. But it is worth it. It creates the necessary dynamic, the opposite of peace and quiet.

Christmas and the end of the year are approaching. I will not promise anyone peace and quiet; I will not make that mistake again. But I can wish you peace. And you can imagine whatever you want under the word peace – doing nothing or being active, being alone or with loved ones, being at home or out in the world, a snowy landscape or a beach with palm trees.

Thank you for everything you do for the institute; you are part of it, and without you it would be different. I wish you peace during the upcoming holidays and a happy new year.

Jan Martinec, director

Excellent grant harvest

Congratulations to all who received the Czech Science Foundation (GA ČR) grants. This year, the institute performed above average compared to previous years, despite the fact that the overall success rate of applications for standard projects was only 14%, the lowest since the agency was established in 1993.

Standard projects will be carried out by **Přemysl Pejchar** and **Martin Potocký** from the Laboratory of Cell Biology, **Klára Hoyerová** from the Laboratory of Hormonal Regulations in Plants, and **Aleš Pečinka**, **Jan Šafář**, and **Hana Šimková** from the Centre of Plant Structural and Functional Genomics.

A new feature of this year's GA ČR competitions are **the return grants** for female scientists who are returning to research work after parental leave or after a period of caring for a dependent person. One of these projects was awarded to **Petra Cířová** from the Laboratory of Integrative Structural Biology.

Highly Cited Researcher from Olomouc

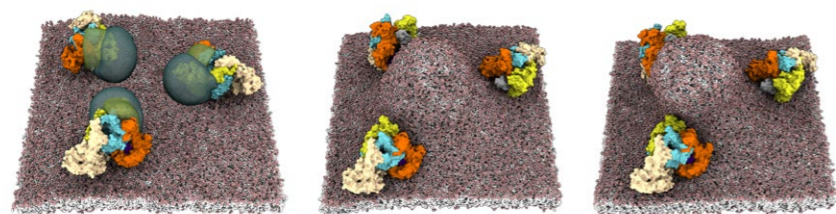
Ondřej Novák, head of the Laboratory of Growth Regulators, has been ranked among the researchers who have a significant influence on developments in their field for the seventh time in the last eight years. In addition to the citation performance of publications, other criteria were also taken into account when selecting researchers for inclusion in the [Highly Cited Researchers 2025](#) database. Ultimately, only about one scientist in a thousand made it into this prestigious group. Only seven of them [work in the Czech Republic](#) – and one of them is Ondřej Novák. So, congratulations are well deserved.



Ondřej Novák. Photo: Jana Plavec / Czech Academy of Sciences, modified, license CC BY-SA 3.0 CZ.

Roman Pleskot and **Michaela Neubergerová** from the Laboratory of Integrative Structural Biology published an article in *Nature Plants* with their Belgian colleagues. In it, they describe the first phase of **plant endocytosis** – a process that allows cells to obtain various substances from their surroundings and also plays a key role in regulating cell division or maintaining plasma membrane function. Michaela is the shared first author of the paper and Roman is the shared corresponding author.

[\(A combined biochemical and computational approach provides evidence for membrane remodelling by the structural scaffold of the endocytic TPLATE complex\)](#)



The beginning of endocytosis in plants: on the membrane, TPLATE protein complexes form a future vesicle for transporting substances into the cell.

A Czech–German team has mapped how **barley controls the activity of its genes** through distant regulatory sequences in DNA. Among other things, this has resulted in a database of possible regulatory elements in the barley genome, which is freely accessible and can accelerate the breeding of higher-quality varieties. The research article was published in *Cell Genomics*, and the majority of its authors come from our genomic center: **Pavla Navrátilová** (lead author), **Hana Šimková** (corresponding author), **Šimon Pavlů**, **Zuzana Tulpová**, and **Ondřej Kopecký**.

[\(Epigenome and interactome profiling uncovers principles of distal regulation in the barley genome\)](#)

Jakub Hajný from the Laboratory of Growth Regulators co-authored a publication in the journal *Cell*. The article describes the molecular mechanism by which **auxin** regulates its own protein transporters when roots bend in the direction of gravity.

[\(ABP1/ABL3-TMK1 cell-surface auxin signaling targets PIN2-mediated auxin fluxes for root gravitropism\)](#)

The second **conference of the OP JAK Tangenc project**, led by the IEB, took place on 24–25 November at the **CEITEC facility of Masaryk University** in Brno. It was attended by 130 experts, who appreciated not only the professional level of the program, but also the opportunity to share experiences and establish new partnerships. The project contributes significantly to strengthening cooperation within the community of plant molecular biologists.



On 11 November, the Olomouc genomic center hosted a meeting on the creation **of a national phenotyping platform**. Experts from Czech research institutions met here to join forces in the field of phenotyping. The national platform would enable more effective research into plant responses to climate change, drought, and pests, and would help in the development of new, more resistant crop varieties.

The institute has announced [a vacancy for the position of gardener](#). If you know any good

candidates, please let them know. The job is also suitable for recent graduates. The deadline for applications is **7 January 2026**.

New assistant to the director

Barbora Kalivodová joined us in December as an assistant to the director. Contact: kalivodova.barbora@ueb.cas.cz, phone **225 106 459**.

Questionnaire to improve the working environment and obtain the HR Excellence in Research Award

As part of the INOVATE project, the IEB is applying for the prestigious HR Excellence in Research Award, which confirms high-quality employee care, support for researcher mobility in the EU, and greater competitiveness in projects.

In the coming months, we will update guidelines, make information available to foreign colleagues, simplify processes, and set up new ones where necessary. In order for the

changes to be truly helpful, we need to know how you perceive the working environment and what you would like to improve.

Therefore, you will receive **a questionnaire** in December. It might be longer, but we are trying to make it as clear as possible and allow you to share everything that is important. We would be very grateful if you could take the time to fill it out. Your feedback is crucial for us.

We will use your answers to prepare documents for obtaining the award and to propose specific measures for the coming years. Representatives of various professional groups at the IEB will work on their content to ensure that the measures are practical and functional.

The BALANC project: where we are and where we are headed

A series of questionnaire surveys and interviews with laboratory managers, technical and administrative staff, and other employees were conducted at the institute. The resulting analysis was presented to the management of the IEB and the Ministry of Labor and Social Affairs and is [available on the intranet](#) (after logging in).

The data obtained serves as a basis for amending important internal documents. The aim is to clarify personnel processes, unify the rules of flexible work, and increase transparency so that employees are better informed about their rights, obligations, and options.

Maternity and parental leave (MD/RD): clear rules and practical support.

We are finalizing three key materials in this area.

An information leaflet for pregnant employees will provide an overview of their rights and obligations after announcing their pregnancy, including contact details for key persons, information on occupational safety, and an overview of conditions that may affect pregnancy.

A brochure for employees leaving for MD/RD will summarize the main legislative information, procedures for leaving, options for maintaining contact with the workplace, and what to expect upon returning to work.

The guide for managers sets out recommended procedures when pregnancy is announced, during maternity/parental leave, and upon return to work, and recalls the employer's obligations. It will include a practical checklist.

Flexible forms of work: harmonization of rules and new options.

Some internal documents relating to flexible forms of work are not always consistent. They are therefore now being harmonized so that they are clear and apply equally to all employees. In accordance with the law, amendments to contracts will now also be signed for the work-from-home directive.

A compressed working week is being added to the range of flexible forms of work. It will first be piloted and, after evaluation, possibly introduced permanently. At the same time, annual testing of job sharing runs from 1 August 2025.

What are we planning next?

Part of the project is the creation of the BALANC website, which will provide clear information to employees planning a family, those on maternity/parental leave, or those preparing to return to work. The project also focuses on training opportunities during maternity/parental leave and on strengthening the technical and organizational readiness for working from home. We are also preparing materials for HR that will help better understand the needs of employees and support their professional development.

Continuous [EMBO Postdoctoral Fellowships](#). Postdoctoral fellowship programs (up to 24 months) with support for fellowship/salary and living expenses. Applications are accepted on an ongoing basis (**the next deadline is 23 January 2026**). EMBO also offers other continuous forms of support, such as Scientific Exchange Grants, Core Facility Fellowships, New Venture Fellowships, the Young Investigator Programme, and grants for Courses & Workshops. Details at www.embo.org.

For more information, contact Zuzana Hroncová (B2/223, hroncova@ueb.cas.cz, phone 225 106 802).

Project annotations for Executive Board approval should be sent in advance to the Board secretary Barbora Jindřichová (jindrichova@ueb.cas.cz).

A team led by Hana Šimková from the genomic center [described in detail](#) how distant regulatory elements in barley DNA **control the activity of its genes**.

Information about this research was published by the Czech Press Agency and reported by the news websites [iRozhlas.cz](#), [Tyden.cz](#), and [Metro.cz](#). It also appeared on the specialized websites [Ekolist.cz](#), [Casopisczechindustry.cz](#), [Sciencemag.cz](#), and ASZ.cz. The Czech Radio Hradec Králové reported on the project in its broadcast.

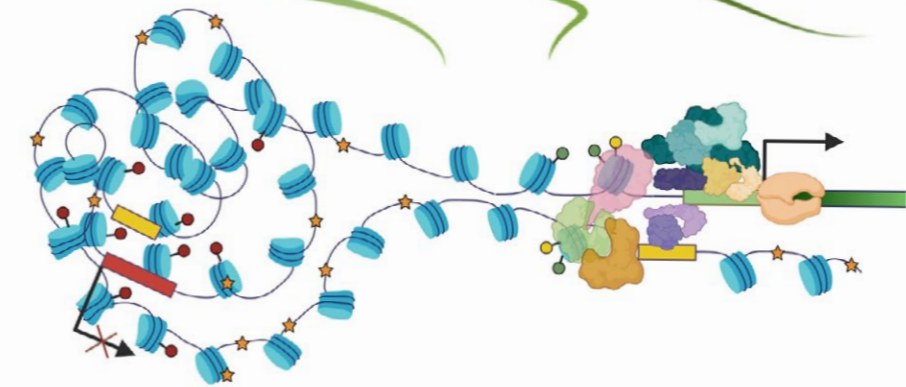
Roman Pleskot and Michaela Neubergerová were important members of the team that elucidated the first stages **of plant endocytosis** – a transport process essential for cell function – at the molecular level. The Czech Press Agency featured a report about the discovery in its news service. It was picked up by specialized websites such as [Vedavyzkum.cz](#), [Ekolist.cz](#), [Silvarium.cz](#), and others.

Helena Štorchová, head of the Laboratory of Plant Reproduction, was a guest on the popular science radio program [Meteor](#) on 29 November. She spoke about her research on the genetic information of the waterwheel plant (*Aldrovanda vesiculosa*). The study helped to understand how this **carnivorous aquatic plant** spread around the world and what genetic changes are behind its very unusual way of life.

Jaroslav Doležel from the Olomouc facility was a guest on the Czech Radio PLUS program [Laboratoř \(Laboratory\)](#) about genetically improved fungi.

BarleyEpiBase

Barley Epigenome Browser and Database



Do you have an **article** coming out in a prestigious journal, did you get a **major grant project**, or are you organizing a **scientific event**? Please inform the Communications Office (komunikace@ueb.cas.cz) and discuss the possibilities for publicity.

Prague

On Tuesdays, 25 November and 2 December, **workshops for schools** (Angel Elementary School and Spektrum Elementary School) were held at the institute. Students practised pipetting and working in a sterile environment. As a bonus, they took home a carnivorous plant they had planted themselves.

If you know of a **school** that might be interested in the workshops, please inform Markéta Fílová (filova@ueb.cas.cz). You can also send your kids' school a link to [all the workshop topics](#) that IEB offers. Markéta would appreciate your help spreading the word.

There is still one place available in the institute's **young botanists club**, which meets every Thursday from 4:00 p.m. to 5:00 p.m. The club is free of charge.



Olomouc

On 21 November, scientists from the Olomouc facility stood behind the counter **of a charity stand at the Christmas market** in Olomouc's Upper Square. Each cup of punch sold supported the Early Care Society, which helps disabled children.

On 1 December, children from **a primary school in Zlín** visited the genomic center to learn about the methods and procedures used in modern

genomics. Tereza Bojdová prepared an interactive program for the pupils, which gave them a more comprehensive idea of how this research center works.

For more information about IEB's outreach events, please contact the Communications Office (komunikace@ueb.cas.cz).