



Institute of Experimental Botany
of the Czech Academy of Sciences

The Director's Monthly

November 2025

Foreword

Today, reality is shaped by the media. If you take it seriously, you might even become a minister. Our institute is among the best – but that is not yet reality. Only the popularization of its results will make it a reality. Yes, I am exaggerating. I just want to say that we simply cannot do without popularization today. Yet many people at the institute may reject it: there is no time for it, it is not their job. And they are (somewhat) right.

That is why I have decided that those who do not reject popularization – and do not have it in their job description – should be rewarded. I respect these colleagues and want to thank them publicly. The „Director’s award for outstanding contribution to the popularization of science“ has been created, which will be presented at each of the institute’s retreats. It will be awarded separately to a doctoral student and a researcher and comes with a cash prize.

The downside of such an award is that only two people will receive it once every year and a half. However, there are many more of you who popularize science, and I greatly appreciate your work as well. The rest of you will at least receive a special financial reward at the end of the year.

I would like to thank everyone who promotes science and wish everybody a peaceful last month and a half of this year.

Jan Martinec, director



Great news came from the Czech Science Foundation (GA ČR): Jakub Hajný from the Laboratory of Growth Regulators received a prestigious five-year **JUNIOR STAR** grant for his project „Programmable sugar distribution in plants.“ Congratulations!

I would like to thank Kateřina Malínská for organizing a **microscopy workshop**, which featured the first presentation of the institute's new acquisition – the Abberior Mirava super-resolution microscope. Workshop participants and other scientists from the IEB also had the opportunity to try out a lattice lightsheet microscope from Zeiss, which was on loan for a short period.

A big thank you goes to everyone who participated in the **Open Door Days** in Prague and Olomouc. This is an important event for the institute, where we can inform the public about our work. And the elementary, high school, and university students who visit us may one day become brilliant scientists! Or at least informed laypersons with an interest in plant biology.

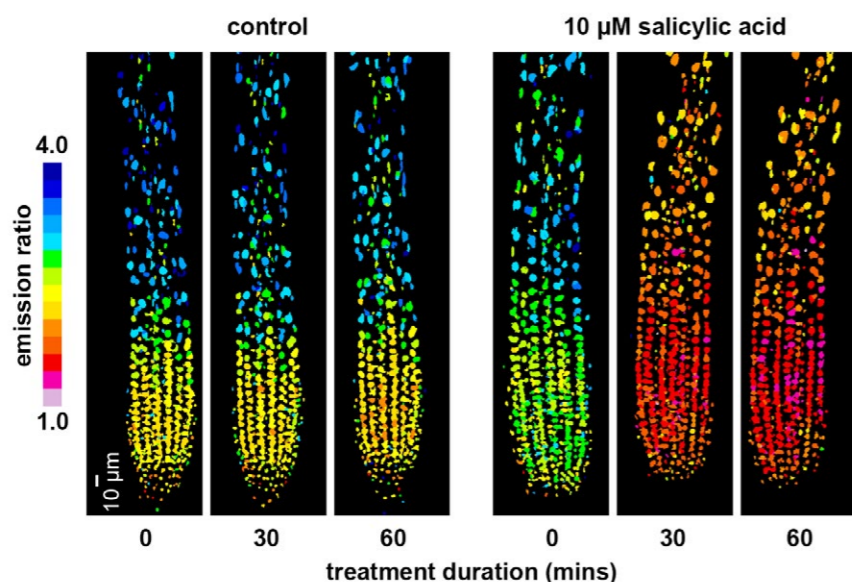


This year, for the first time, we awarded the Director's award for outstanding contribution to the popularization of science. It was a great honor for me to present it at the retreat to two scientists from the genomic center – Aleš Pečinka and Lucie Hloušková.



Jakub Hajný, recipient of the new **JUNIOR STAR** grant

Tetiana Kalachova and Hana Leontovyčová from the Laboratory of Plant Pathophysiology are co-authors of an article in *Science*. They have made a significant contribution to the development of a **revolutionary protein sensor** for monitoring the temporal and spatial dynamics of salicylic acid levels. ([*SALICYLIC ACID SENSOR1 reveals the propagation of an SA hormone surge during plant pathogen advance*](#))



Hana Šimková from the genomic center contributed to a publication in *Nature* on the decoding of the genome of the wild barley species *Hordeum bulbosum*. Congratulations! ([*A haplotype-resolved pangenome of the barley wild relative Hordeum bulbosum.*](#))



On September 23, the directors of the IEB and the Korean Institute for Natural Products Research (KIST-INP) signed a **memorandum of understanding**. Its goal is to increase the production of various useful compounds in plants. Scientists will combine cultivation in so-called smart farms with the use of microorganisms that live in symbiosis with plants. Artificial intelligence will help them discover the most suitable symbionts.

The **third IEB retreat** took place on 5–7 November in Liblice. Lectures focused on applied research, the use of artificial intelligence, and advanced methods available at the institute. Members of the International Advisory Board as well as the new Communications Office were introduced. The authors of selected articles in prestigious journals presented their research. The event was also an opportunity to discuss what we can improve at the institute and where it should be headed in the future.

On 14–15 October, the Imaging Facility organized its traditional **course on advanced microscopy** in plant biology, „Multi-modal light microscopy imaging in plant research“. Twenty-two participants from several Czech institutions attended the lectures and practical workshops.

Scientists from the genomic center and other IEB laboratories participated in [*the international conference Green for Good*](#). In Olomouc, 70 researchers, industry representatives, and young scientists sought ways to develop sustainable agriculture and ensure food security.

Following last year's premiere, the Prague facility once again hosted a **poster party**. On 22 October, young scientists presented their projects in a pleasant, informal atmosphere.

On 15 October, the Board of Directors and Supervisory Board of the Agricultural Chamber of the Czech Republic met at the Olomouc genomic center. The meeting confirmed the importance of close cooperation between research and business for the future of Czech agriculture. Farmers chose Olomouc because it is here that cutting-edge research connects with the application sector.

On 16 September, an off-site meeting of **the Czech Nursery Association** and the management of **the Czech Fruit Growers Union** took place at the Střížovice breeding station. It focused on current topics in nursery growing, variety composition, and apple breeding. Participants also toured the apple plantations in Střížovice and discussed future cooperation.

In recent months, the **institute's social media portfolio** has expanded. We now manage four platforms: Instagram, Facebook, LinkedIn and BlueSky. Each has a different focus and target audience, which is reflected in the form of shared content.

Instagram is primarily intended for a younger audience, while **Facebook** appeals to a wider audience in the middle age category. The content here is based on attractive photographs and popular topics. This also includes posts about life at the institute. We use **LinkedIn** for professional communication with the scientific community, partner organizations, and potential collaborators from applied research. **BlueSky** is an alternative to X (formerly Twitter), which IEB left at the end of September. Here, we focus on sharing scientific results and new publications. However, we do not have many of these available yet.

The Communications Office (komunikace@ueb.cas.cz) therefore invites you to collaborate on content creation! If you have an interesting publication coming out, take beautiful microscopic or regular photographs of plants, are planning an event, expecting an award, or have a project that needs PR outputs, we are here for you. Your cooperation is especially important when it comes to filling the BlueSky account. Given the limited space, just a few things are needed: publication title, publisher, DOI + high-quality photographs or graphic abstract.

Continuously

EMBO Postdoctoral Fellowships. Postdoctoral fellowship programs (up to 24 months) with support for scholarship/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, Young Investigator Programme, and grants for Courses & Workshops. Details at www.embo.org.

1 Dec 2025

Deadline for submitting Czech Challenge Fund 2025 projects to be implemented in Bosnia and Herzegovina, Ethiopia, Georgia, Cambodia, Moldova, or Zambia; support up to USD 40,000.

9 Dec 2025

Deadline for submitting applications to **PRAK** (Application Development and Commercialization Program), support up to CZK 500,000 for projects with application potential: financing of personnel costs and key activities, support for intellectual property protection, assistance with partners, possibility of a license agreement or spin-off.

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).

Journalists paid attention to our collaboration with the **Korean institute KIST-INP**, which will focus on obtaining important substances from cultivated plants. The Czech Press Agency, Czech Radio Hradec Králové, and the news websites ct24.cz, silvarium.cz, zemedelec.cz, enviweb.cz and ekolist.cz have reported on this cooperation.

The media were also interested in the article in *Science* about a **protein sensor** that can monitor salicylic acid concentrations in cells after a plant has been attacked by pathogens or pests. *An interview* with one of the authors of the paper, Hana Leontovyčová, was broadcast on 10 October by Czech Radio Plus. The November issue of the popular science magazine *Vesmír* covered the topic as well. The research was reported by specialized news websites zahradaweb.cz, uroda.cz, sciencemag.cz and vedavyzkum.cz.

Polopatě is a Czech Television magazine about the latest trends in housing and gardening. The episode broadcast on 5 October included *a report from the institute's breeding station*. It focused on **the breeding and cultivation of apple trees**, new varieties from IEB, and the work of our experts.

Our Open Door Days were mentioned twice on television. On 1 November, the manager of the Week of the Czech Academy of Sciences invited viewers to attend *on the morning broadcast* of the ČT24 channel. On 5 November, *Televizní noviny*, TV Nova's main news program, broadcast a report from the Open Door Days at several Academy institutes, including IEB.

The report for the TV magazine *Polopatě* was filmed directly on the grounds of our breeding station

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.



On 2 September, high school seniors from Přerov who are considering studying biology, biotechnology, or agriculture visited the genomic center. The **excursion** introduced them to current trends in plant research and showed them how scientific knowledge is put into practice.

On 1 October, our experts led a workshop at the Prague Municipal Library branch in Petřiny. Children aged 9–13 tried out **creative activities** based on the properties of plant dyes. The event was a part of the Strategy AV21 Epicenters of Civilization project.

On Wednesday, 15 October, a **workshop** for a scout group was held at the Prague facility. The children learned how to use pipettes and work in a sterile environment. As a bonus, they could take home a carnivorous plant they had planted themselves.

We still have two spots available in **the Young Botanists club**, which meets every Thursday from 4:00 to 5:00 p.m. The club is free of charge.



Open Door Days were held as part of the Week of the Czech Academy of Sciences. In Prague, there were laboratory tours on 3 November and an interactive fair with a wide range of activities on 4 November. Around 60 people attended the laboratory tours. The interactive fair attracted 14 schools (including 6 high schools), a total of 360 students and teachers. Approximately 100 individual visitors, mainly parents with children, also arrived.

In **Olomouc**, the Open Door Days took place from 4 to 6 November. The program included an introductory presentation and an interactive tour of the laboratories, where visitors were introduced to the equipment and procedures used for genome analysis. Experts explained how genetic research contributes to the development of new crops that are resistant to climate change, drought, and disease. We welcomed about 130 visitors here.

Apple breeders organized several presentations about their work and varieties in September and October. During Researchers' Night, they lectured at the Dobruška Gymnasium. They participated in a fruit-growing workshop organized by the „Flera – Ferdinandovy zahrady“ company and the „Kopidlenský kvítek 2025“ gardening exhibition. At the Nemo preschool in Říčany, they prepared a program that taught children about the development of apples, the importance of bees, and the diversity of apple varieties in a playful way.

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

