



**Institute of Experimental Botany
of the Czech Academy of Sciences**

The Director's Monthly

July 2026

Foreword



Dear Colleagues,

We all make promises from time to time... *"The wolf promised, too,"* as Pepino says in the popular comedy *The World Is Fun with You*.

In a moment of weakness, I promised to write a foreword for the institute's (bi)-monthly newsletter. It's easy to make promises when the deadline is still far off. But time marches inexorably forward, bringing with it yet another issue of the institute's newsletter.

The heat wave and the hustle and bustle of recent months have somehow clouded my thoughts. Conferences, publications, and projects are swirling in my head... The minds of every (or almost every) institute employee are filled with them. For scientists, this holds the promise of excitement; those words evoke the experiments we're looking forward to.

But beyond that, administrative burdens and the professional/personal life balance also creep into my mind—and these are topics that, judging by the discussions in the hallways, are troubling us.

We're expecting improvements in this area. Even the government is promising us greater support for research. I'm an unshakable optimist—I want to be one—and somehow I feel that things will get better.

In June, the President of the Academy visited us; he's taking an interest. The institute is preparing an application for the HR Award, for example—they're also taking an interest. I think we're slowly starting to move toward better support for our core (research) activities. Everyone involved deserves our sincere thanks. I believe better times are on the horizon.

Make a promise that you'll treat yourselves to a well-deserved break during the summer. Have a wonderful summer full of rest and relaxation! And in September, let's be back "on track" at full strength.

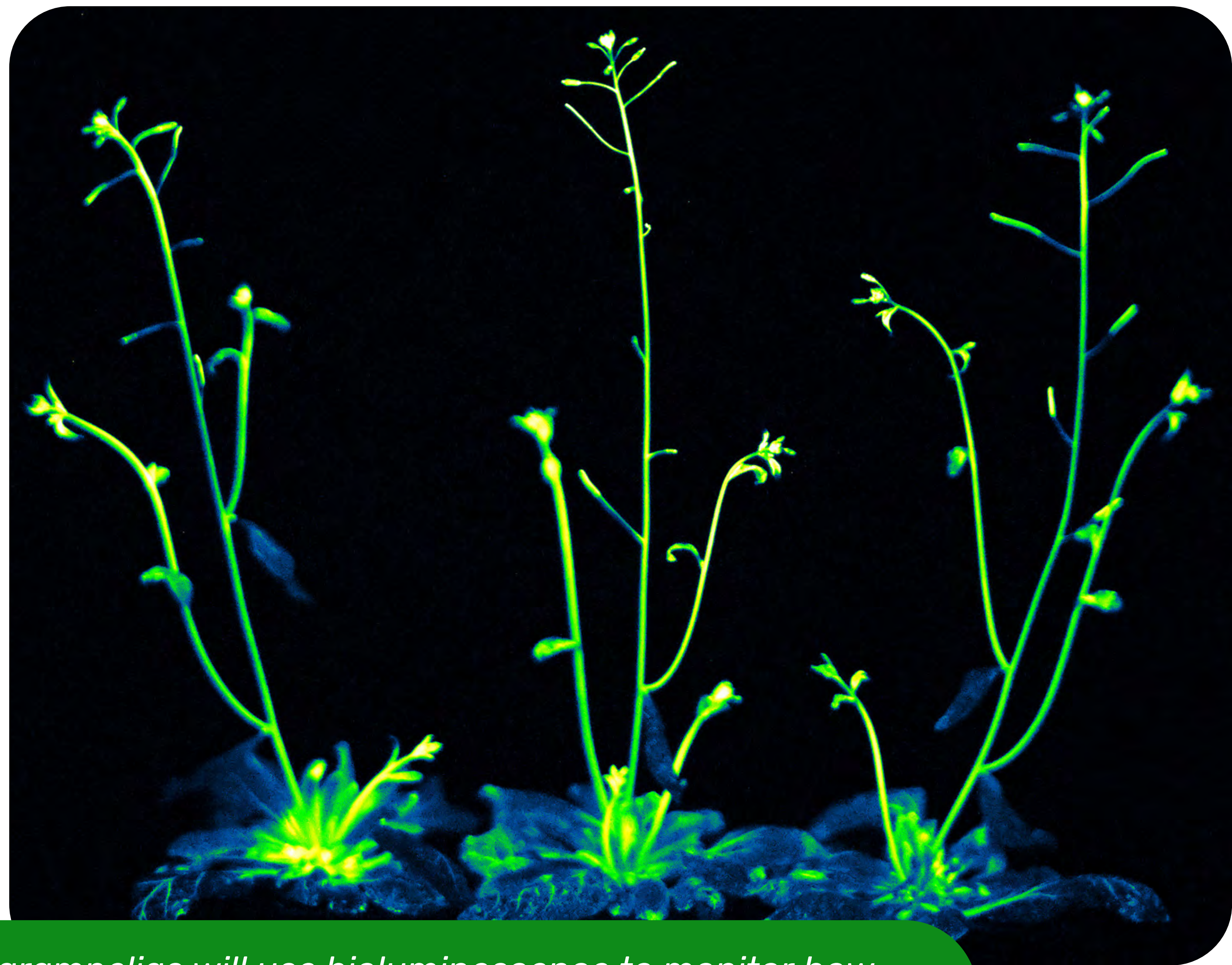
Jan Bartoš, deputy director

CONGRATULATIONS and ACKNOWLEDGEMENTS

The IEB's Grant Agency for Research and Innovation (**GAVI**) has awarded the **first four return grants**. Their goal is to support researchers' return to active professional careers after an interruption. They are provided for a period of 30 months and will fund the work of the principal investigator and a team of up to five members.

The grants were awarded to Martina Knirsch and Michael Karampelias from the Laboratory of Hormonal Regulations in Plants, Ursula Rácová from the Laboratory of Growth Regulators, and Zuzana Jelínková from the Station of Apple Breeding for Disease Resistance. I warmly congratulate all four and **wish them every success** in carrying out their research projects.

Return grants were introduced at the IEB thanks to the [Back2Science](#) project. The next call for proposals will be open from 2 March to 12 April 2027. You can find out more on the intranet in the [GAVI](#) section.



Michael Karampelias will use bioluminescence to monitor how phytohormone levels change after a plant is infected by a pathogen.

CONGRATULATIONS and ACKNOWLEDGEMENTS

Ramakrishna Yadala from the Olomouc facility has been awarded the **prestigious Marie Skłodowska-Curie Postdoctoral Fellowship**. He will investigate an unusual phenomenon known as the “labile” barley ear. In some Ethiopian varieties, the six-row ear transforms into a two-row one depending on the conditions in which the plant grows. This peculiar trait was described more than a century ago, but its molecular basis remains unclear.

Professor Jaroslav Doležel from the genomics centre has become the **first recipient** of the [Jan Krekule Award](#). This new award, presented by the Czech Society of Experimental Plant Biology, honors individuals who have made exceptional contributions to the development of plant biology while also commemorating the legacy of a prominent scientist associated with our institute.

The **Research.com** platform ranked Professor Doležel first among Czech scientists in the field of plant biology and agronomy, as well as among the highest-ranked Czech scientists in the field of genetics. The assessment is based, among other things, on the so-called D-index and the citation impact of publications.



I would like to thank everyone who contributed to the preparation and successful execution of the institute's presentations at **two major outreach events**—the Science Fair and VědaFest. I greatly appreciate it. Such events are extremely important for expanding awareness about the work of scientists at the IEB.

Ramakrishna Yadala will study a unique phenomenon related to the development of barley ears.

HR Award

Over the past few months, both the working group and the steering committee for the HR Award have met repeatedly. The main goal of the meetings was to **prepare the documentation** for submission to the European Commission at the end of July 2026.

The OTM-R Checklist document has now been finalized; we are completing the GAP Analysis and working on the most important part of the documentation—the **Action Plan**. This will include an overview of the measures that the institute will gradually implement over the next two years during the first phase of the HR Award process. These include, for example, translating key internal documents to English and establishing bilingual communication, preparing onboarding materials and practical guides for new employees, adding information about PhD studies to the website, and other activities aimed at improving the work environment and employee support.

Over the next month, we will also launch a **temporary section on the institute's website** dedicated to the HR Award. Once we have successfully received the award, this information will be incorporated into the upcoming career section of the website.

After submitting all documents to the European Commission, we will also publish the **results of the questionnaire survey** so that all employees can review them. Due to capacity constraints, it was not possible to process and present the results earlier; however, publishing them is now one of our priorities.

Staff photo sessions

Two rounds of staff photo sessions have already taken place at the institute. In addition to portraits intended for the intranet (and, with consent, also for the public website), group photos, portraits of senior staff, and illustrative shots from individual workplaces were also taken. **Thank you to everyone who participated.** We believe that the newly produced materials will contribute to a professional and authentic presentation of our institute to both the scientific community and the general public.

If you were unable to participate in the photo sessions, there's no need to worry. The photographer will return to both the Olomouc and Prague facilities. The **next session** is expected to take place around the end of August or beginning of September, but the exact date has not yet been set.

News from the IEB

New content on the intranet

[IEB User Manuals](#) are gradually being added to the intranet. Read them before it's too late! You can already find there, for example, the Rules for using tokens to publish articles, Verso: requests and orders, Ten rules for smart work flexibility, and Operating conditions of the GLUťárna canteen ordering system (on the Prague-Lysolaje campus).

Materials developed as part of the **INOVATE** and **BALANC** projects will also gradually appear on the intranet. You'll find here analytical reports from various fields that will serve as a basis for preparing strategies and policies at IEB, as well as practical informational materials dedicated to topics such as career breaks and other issues related to **workplace development**.

Employee training

Training companies were selected through a public procurement process and will begin implementing training activities starting in September. A preliminary **training schedule** will be published on the intranet, where information about the content of individual training sessions and registration options will also be available. Lenka Zemanová, project specialist for the INOVATE project (zemanova.lenka@ueb.cas.cz), will coordinate activities, arrange training dates, and handle related administrative tasks.

Imaging Facility courses

On 13–14 October 2026, you can participate in the traditional advanced course **Plant Imaging: Multimodal Light Microscopy in Plant Research**. This year's program will feature the following topics:

- Mirava Polyscope – Super-Resolution and FLIM (*Gero from Abberior Instruments*),
- NoBody, also known as Plant Scope Xero (*Daniel from 3i*),
- Dynamics Profiler (*Pavel from Zeiss*),
- Image Analysis of Time-Resolved Data (*Olaf from PicoQuant*).

If you would like to participate, send a brief statement of interest to ifieb@ueb.cas.cz. We also warmly invite the IEB principal investigators!

On 26–27 May, the Imaging Facility organized the summer school **Basics of Light Microscopy in Plant Research**. The course combined lectures with hands-on workshops. It focused on the principles and key differences between widefield fluorescence microscopy, spinning-disk confocal microscopy, and laser-scanning confocal microscopy. Participants also gained practical experience in image acquisition, visualisation, and basic image-processing workflows.

The event received a **very positive feedback**. 80% of participants rated its scientific and technical quality as excellent. The facility thanks them all for their enthusiasm and looks forward to seeing everyone interested in its services at the microscopes again.

Poster Party

Do you have an interesting scientific hypothesis but aren't sure how to take it further? Are you planning an important conference and would appreciate feedback on your results before you leave? Come discuss them at the traditional IEB Poster Party! It will take place on **Wednesday, 19 August** in Prague-Lysolaje, in the B1 building. Refreshments, a great atmosphere, and scientific discussions are guaranteed. Colleagues from Olomouc will also be warmly welcomed.



News from the IEB

Scientific events at the genomics centre

On 25 June, the centre organized the [Cereal Genomics Mini-Symposium](#). Scientists from IPK Gatersleben, Zhejiang University, and La Trobe University gave presentations. The talks focused on barley genetic diversity, spatial transcriptomics, and new directions in wheat breeding.

On 8 June, the **Interministerial Council for Genetics and Genomics**—established by the Czech government to connect research, public administration, and practical applications—held a meeting at the genomics centre. Discussions among CAS experts, plant breeding companies, the Czech Agrarian Chamber, and the Ministry of Agriculture focused, among other things, on the initial results of applying molecular genetics and genomics to the breeding of apple trees, cherry trees, cucumbers, tomatoes, and hops.

Colleagues from Olomouc organized a highly successful [international conference](#) on **B chromosomes** on 1-4 June 2026. Participants learned about the latest findings in genomics, cytogenetics, and evolutionary biology and established new collaborations.



Participants of the conference on B chromosomes

Poster stands

The Institute has acquired **20 double-sided poster stands** for use at conferences and other events. Six of them are equipped with an adjustment mechanism allowing the presentation board to be oriented either vertically or horizontally; the others are designed for vertical installation. These are high-quality wooden frames with a padded center panel and stainless steel supports. The usable surface area of the panel (excluding the frame) measures 131×97 cm.

If you would like to **borrow** them, contact Mr. Petr Nový (novy@ueb.cas.cz). Please handle the stands with care so they remain in perfect condition for as long as possible.

New data steward

Starting 1 August, **Michal Daněk** will work part-time as data steward (phone 225 106 416, danek@ueb.cas.cz). Since our data steward, Arzuv Čaryjeva, is going on maternity leave, please direct all inquiries regarding data management to Michal Daněk **starting 1 September**. The work will still be coordinated with Arzuv to ensure continuity.

New Colleagues

These employees joined the IEB in May and June:

- **Tereza Kratochvílová** (research associate, Centre of Plant Structural and Functional Genomics),
- **Maridul Kundan** (postdoctoral researcher, Centre of Plant Structural and Functional Genomics),
- **Lukáš Ležal** (research associate, Laboratory of Hormonal Regulations in Plants),
- **Alžběta Mičúchová** (researcher, Laboratory of Growth Regulators),
- **Ramakrishna Yadala** (postdoctoral researcher, Centre of Plant Structural and Functional Genomics).

We wish them all the best in their work and hope they enjoy their time with us.

AI News

I recently attended a few events focused on the **use of AI in science**, and my perhaps naively optimistic feeling that we haven't completely missed the boat still holds true.

At the [Matchm-AI-king](#) event, presentations were given by both AI and IT specialists who were offering their skills, as well as colleagues who have data and need experts to analyse them.

The Agentic Systems in Biomedicine workshop (I announced it by email) showcased the work of the [Research Software Engineering](#) group, which operates at Charles University.

Finally, I'll add a link to the [Zero to Mastery course](#)—for those who have plenty of time and energy to delve into the topic of machine learning.

Karel Müller, institute's coordinator for AI

Do you have a question or idea related to AI, have you read an inspiring article, or do you know about an interesting lecture or application?

Then don't hesitate to contact our coordinator (muller@ueb.cas.cz).

- Ongoing** A call for applications to the **CAS Academy of the Future** program is open on a rolling basis for funding international research visits and return-to-research grants following a career break. The [application form](#), available on the intranet, must be accompanied by a Letter of Intent and submitted to projekty@ueb.cas.cz. Upon completion of a stay, recipients are required to submit a brief final report or present the knowledge and experience gained at an IEB seminar.
- 30 Jul 2026** Deadline for submitting applications to the [INTER-ACTION Czech Republic-Korea](#) sub-program. The maximum funding per project is CZK 5 million over 3 years, with a total call budget of CZK 25 million.
- 9 Sep 2026** Deadline for applications to the [Marie Skłodowska-Curie Actions \(MSCA\) Postdoctoral Fellowships](#). The call is open to researchers who wish to come to the IEB from abroad or to travel abroad from the IEB.
Applicants must hold a PhD (or at least have defended their doctoral thesis) by the call deadline; have not held a PhD for more than 8 years; and must not have resided in or carried out their main professional activity in the recipient country (European Fellowships) or at the host organization during the outgoing phase (Global Fellowships) for more than 12 months within the 36 months preceding the call deadline.

Changes to the PPPLZ program

Starting on 1 January 2027, funding will be allocated directly to the institute, which will select candidates through an internal selection process. The exact number of recipients has not yet been determined (approximately 1–2 per year).

The program's goal is to **support outstanding, ideally newly recruited postdoctoral researchers**. Funding will continue to be provided in the form of a fellowship without research funds. The expected date for the announcement of the internal call is October/November 2026. More detailed information will be sent via email.

Grant Opportunities

Further news

The IEB's Grant Agency for Research and Innovation (**GAVI**) awarded four return grants in its first call, each with a project duration of 30 months, for a total amount of CZK 26,273,996. The **next call** will open on **2 March 2027** and will fund two grants, this time with a project duration of 24 months. More information about GAVI can be found on the [intranet](#).

The institute is preparing a project proposal for the OP JAK – Open Science III call. This call is primarily focused on funding positions related to **open science** and training qualified personnel in this field.

Within the INOVATE project, each research group can be reimbursed for a maximum of one annual license or 12 monthly licenses for an **artificial intelligence tool**, up to CZK 8,400 per year. If interested, please contact Zuzana Hroncová.

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).

IEB in the Media

Experts from the Laboratory of Growth Regulators contributed to the discovery that **cytokinins** induce a “sleep mode” in leaves kept in the dark for extended periods. This mode ensures the preservation of the photosynthetic apparatus and a rapid and safe restart of photosynthesis upon re-exposure to light.

The study was covered by the daily newspaper *Právo* and the magazines *Zemědělec* and *21. století* (by the latter also on its website). The news was also reported by the news website novinky.cz and industry websites such as uroda.cz, casopisczechindustry.cz, and cysnews.cz.

A project by the Laboratory of Pathological Plant Physiology, which we promoted in collaboration with the press office at the CAS Centre of Administration and Operations, attracted significant media attention. The team led by Tetiana Kalachova is investigating ways to **use bacteriophages to protect tomatoes** from a serious disease called bacterial speck.

The Czech Press Agency included information about this research, which has great practical potential, in its news service. Articles were published in the magazine *Zemědělec* as well as on the websites of the TV station ČT24 and the magazine *21. století*. Reports also appeared on the Czech Radio stations *Plus* and *Pohoda*, as well as on industry websites such as ekolist.cz, Agris.cz, enviweb.cz, sciencemag.cz, and others.

Scientists from the IEB genomics centre, Aberystwyth University, and Palacký University in Olomouc have discovered that even very short DNA segments from the hardy wild grass Atlas fescue significantly improve the ability of cultivated grasses to **survive drought**. The popular science website Sciencemag.cz reported on the topic.

Radek Černý, head of our breeding station, was a guest on Czech Television's hobby magazine show *Polopatě*, which focuses on tips for the home and garden. In the episode aired on 21 June on the ČT1 channel, [he explained to viewers](#) why and how to **thin out fruit** on apple trees in June.



Hydroponically grown tomatoes in an IEB greenhouse early during the experiment on the protection against bacterial speck.

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 and PR Office (komunikace@ueb.cas.cz) and discuss the possibilities for publicity.

Prague

In June, the IEB participated in two major outreach events—the Science Fair and VědaFest. Our exhibit at the **Science Fair** was visited by several hundred visitors and received a very positive response. Our participation in **VědaFest** was also successful; despite the hot weather, the event attracted many people interested in science.



A part of the team behind the success of our exhibit at the Science Fair. Our director, Jan Martinec (third from the right), also visited the event.

Science Outreach Events

Two groups of college students—from the Faculty of Science at the Charles University in Prague and from the Masaryk University in Brno—visited our Lysolaje facility on an **excursion**. In addition, there was continued interest in **workshops** for elementary and high schools; a total of four classes visited us in June.

This summer, **day camps** will be held for employees' children. There are still a few spots available for both dates (27–31 July and 10–14 August). If you are interested, contact Nikola Siegelmannová (siegelmannova.nikola@ueb.cas.cz).

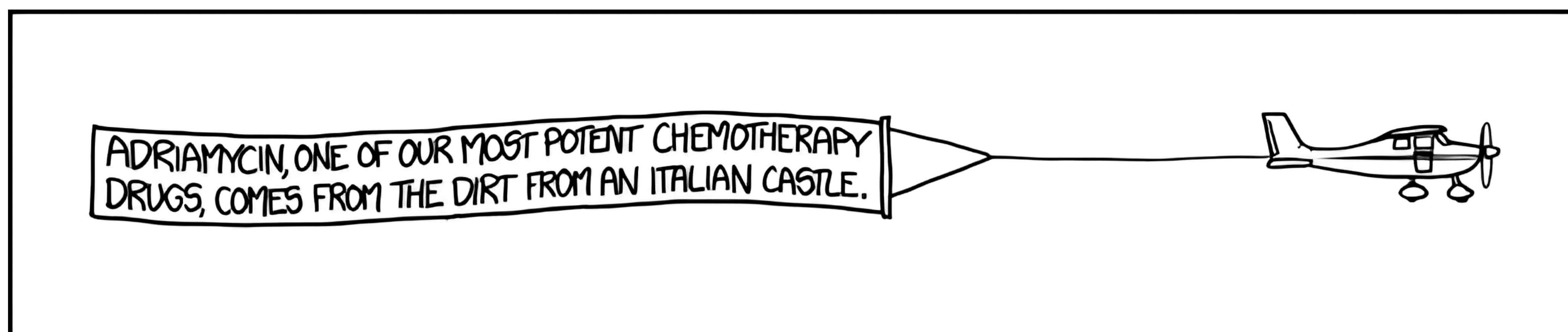
Starting in September, the **botany club** for children will resume. In the new school year, it will place more emphasis on science and exploration, introducing children to the world of science—especially biology—through experiments. Details will be announced at the end of August. Those with preliminary interest can already notify Nikola Siegelmannová.

Olomouc

On 5 June, children from the **Komenium Elementary School in Olomouc** visited the genomics centre, where scientists introduced them to the world of science and their work. The program also included a tour of the laboratories as well as simple experiments.

Students from **VOŠ and SPŠE Olomouc** visited the IEB facility on 21 June. They went on an interactive tour, during which they got a glimpse into the state-of-the-art laboratories and learned more about the work of our scientists as well as the potential applications of modern biotechnologies.

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



MY HOBBY:
BREAKING INTO AIRPLANE HANGARS AND REPLACING
THE ADS ON THEIR GIANT BANNERS WITH COOL FACTS

Author Randall Munroe, xkcd.com, CC BY-NC 2.5 license.

Please send suggestions for other scientific comics (publishable under a Creative Commons license) to the newsletter editor Jan Kolář at kolar@ueb.cas.cz.