

žurnál

Magazine of Palacký University Olomouc, 2020/1

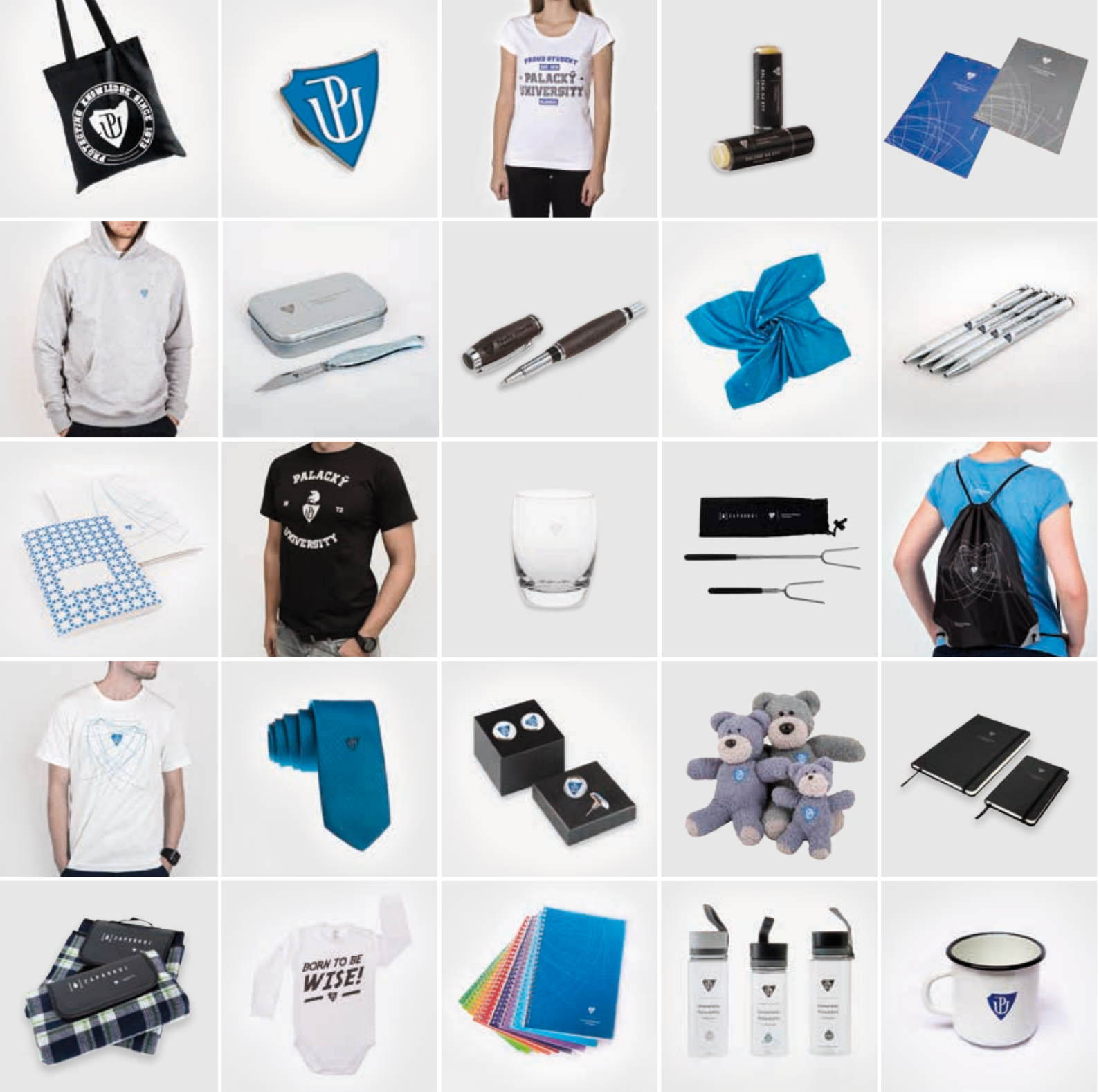
portrait

Pavel Kučera Sign Language Interpreter



Univerzita Palackého
v Olomouci

Genius loci...



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photo: Gabriela Knýblová

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MINISTERSTVO ŠKOLSTVÍ,
MLÁDEŽE A TĚLOVÝCHOVY



Dear colleagues, students, and esteemed friends of Palacký University

At the turn of the past year our country commemorated the 30th anniversary of an event which became known throughout the world as the Velvet Revolution. Czechs remembered those moments in which we set out together on the path to building a democratic state. At the university, we also remembered, and gave our thanks. As you will read in this issue, we wanted to express our gratitude and respect for personalities who exhibited a great deal of personal courage in difficult times. And thanks to them we live today in a country where we can participate in deciding its future.

In my opinion, it is exactly this possibility of actively engaging in events, not being just a mere "user" of freedom, that is essential to our university. To the three goals of education, science, and research which we daily fulfill in our lecture halls and labs, I think there should be one more: the public. This is why we, as a free university, offer our expertise and ideas to elements of our society outside the university campus, and why we raise our voices in times when we feel the basic principles of a democratic state are being threatened. At the same time, we make use of our freedom in the clash between our work and the outside world, we are building an international environment, our scientists are recognised authors of discoveries with global impact, students are setting off for work experience all over the world. I am very glad that our active conception of freedom has not remained unnoticed. Palacký University just a short time ago received the prestigious European Association for International Education Institutional Award for excellence in internationalisation. This represents not only a huge success for us, but also proof that we set off in the right direction those thirty years ago.

Jaroslav Miller
Rector

theme

text: Ivana Pustějovská
photos: Vojtěch Duda, Adolf Jankovský

Transformations at Palacký University

Thirty years. A short time or a long time? From the point of view of a human lifespan, it's quite long: a person grows up, matures, and enters into the active life of a whole new generation. From the perspective of a university which was founded almost 450 years ago and has survived centuries, it can represent just a brief episode. But when that time period overlaps with the era of the sweeping societal changes which took place in Czechoslovakia at the close of 1989 when communism fell, then thirty years is time enough for even fundamental transformations. And since human memory is short, we have decided to jog people's memories via photographs to show how Palacký University looked in 1989 and how it looks now.



The current seat of the Sts Cyril and Methodius Faculty of Theology has an incredibly colourful history. It was built between 1717–1720 and served as a Jesuit College for impoverished students. After the dissolution of the university in 1860, only the library and the Theological Faculty, Medical-Surgical Faculty, and a German gymnasium remained in its premises. After the founding of Czechoslovakia, it was the headquarters of the Sts Cyril and Methodius Faculty of Theology in Olomouc, which was later shut down by the Nazis in 1939. During the Occupation, it became the Hitlerjugend headquarters. After WWII, the Faculty of Theology was reopened. In 1950, however, the communist regime abolished the faculty, and the building was used by the Pedagogical Faculty. In 1990, the UP Sts Cyril and Methodius Faculty of Theology was re-established there.

Thousands of people every year go to the former Jesuit Convictorium, now the UP Arts Centre, for the international Academia Film Olomouc film festival, others meet up in the Armoury café or sit on the bench at Václav Havel's Place, law students hurry to their classes at the Envelopa campus, their classmates from the Faculty of Education walk back and forth past the statue of T.G. Masaryk, and the first president of Czechoslovakia, and Olomouc citizens take pictures of their city from the high terraces of the Faculty of Science. And only seldom do they realise that where today people debate about films and art there was a parking lot for military vehicles, that future lawyers are now in the place of the former communist apparatchik headquarters, and that the future generation of teachers is walking the same halls where the boots of Soviet Army commanders stomped. After

November 1989, Palacký University could finally breathe a sigh of relief, and over the years since it has transformed itself into an internationally recognised and respected university. The number of students both domestic and from abroad, its fields of study, faculties, and scientific workplaces have all increased.

It has been a long journey, and one of the milestones has been renovations to all of its existing and acquired premises. So let's take a look back to the start of the 1990s with the first "Velvet" rector of UP, Josef Jařab. "We all knew how rundown and decrepit the state of the university was. Because we lived inside that environment. All the buildings occupied by both the Soviets and our troops were in dire conditions," remembers Prof. Jařab. And he added a reminiscence on how the Armoury was acquired. "I remember the building from

the mid-50s, when I and my classmates had to go there for our military training. Major Tůma taught us how to break down and assemble an anti-aircraft gun, which we really did learn, but luckily, we never had to test the weapon for real. Later the student brigade was no longer sent there because the building was made strictly military and off-limits to the public. The armoury. After November 1989, I could not get the building out of my sight – it was so close to the university buildings, it irritated me!" recalls the UP emeritus rector. After long negotiations, the Armoury was given (and not only the Armoury) to the university. The former fortress city of Olomouc could thus be finally transformed into a real university town. Take a look for yourselves at the archival photos by Adolf Jankovský and compare them to the way Olomouc looks today, as captured by Vojtěch Duda.

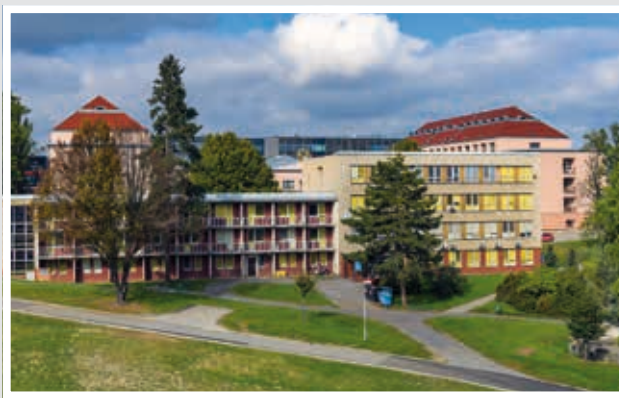




One of the latest and most significant changes at UP has been renovations to the buildings of the Faculty of Arts at 10 Křížkovského Street. The complete renovation of "No. 10" was completed in 2018 and comprised complete surface repairs, electrical rewiring, water and heating conduits, installation of ventilation and air-conditioning, reconstruction of sanitary facilities, repairs to the façades, and interior modifications. It is now home to the Dean's Office and five large departments of the Faculty of Arts. The building also has a renovated Assembly Hall as well as a renovated courtyard with seating.



One illustrative example of how the university has been transformed is the Envelopa campus, a centre for student life due to its halls of residence, central dining hall, and outdoor sports facilities. The dominant feature of this space today, however, is the building of the Faculty of Science, which was built between 2006–2008 on a vacant lot on 17. Listopadu St.



The surroundings of the Theoretical Institutes, where the Faculty of Health Sciences and the Faculty of Medicine and Dentistry are located, are constantly changing. Since construction, the building of the Department of Allergology and Clinical Immunology has obscured the view of the institutes; a few months ago, it used to be the building of the Department of Internal Medicine II. Behind the "old" Theoretical Institutes, we can see their modern completion, and on the left we can also see the building of the Institute of Molecular and Translational Medicine. Both modern buildings were completed in 2012.

**PALACKÝ UNIVERSITY
IN THE ACADEMIC YEAR 1988/1989**

4 faculties
 6,239 students
 157 international students
 6,073 registered library patrons
 1 Marxist-Leninist Institute
 0 Václav Havel's Places



**PALACKÝ UNIVERSITY
IN THE ACADEMIC YEAR 2018/2019**

8 faculties
 20,292 students
 4,045 international students from 107 countries
 28,166 registered library patrons
 1 Endowment Fund
 1 Václav Havel's Place



Photo: Olomouc Museum of Art archives



The former site of a memorial to the first president of communist Czechoslovakia, Klement Gottwald, is now the place of a memorial to those who fought for freedom and democracy. Hardly any place in Olomouc is a bigger symbol of the changes in the political system. The former headquarters of the District Committee of the Czechoslovak Communist Party has been transformed into the UP Faculty of Law. Its modern history began in 1991, when it was founded as the first post-communist law faculty in what was then Czechoslovakia. Its mission is to support the values of freedom, democracy, and civil society. For its efforts in this field, it was awarded the Hannah Arendt Prize in 1996.



Originally a Jesuit Convictorium (dormitory for aristocratic students and students receiving imperial, papal, and episcopal scholarships), it later served variously as a mint, military barracks, infirmary, and warehouses. All this was in the past of the former Jesuit Convictorium on Univerzitní Street – today, it is the UP Arts Centre, which provides facilities for the departments of Art History and Art Education of the Faculties of Arts and Education. The “Konvikt” is also a popular place for various cultural activities, where festivals, lectures, discussions, and concerts take place. And its restaurant is a good place to go for coffee, lunch, or dinner.

8 faculties
1 university

New dean at the Faculty of Health Sciences: Martin Procházka

The UP Faculty of Health Sciences has new management. Martin Procházka was elected Dean by the Academic Senate of the faculty for the next four years. He was the head of the Department of Midwifery and was the only candidate for Dean. He took office on 1 November 2019.

The goal of the new dean is to develop the faculty as a first-rate and modern institution of transnational importance with emphasis on the quality of education of non-medical healthcare workers and in

cooperation with the Faculty of Medicine and Dentistry and University Hospital Olomouc. Among his priorities are, for instance, the preparation of a career codification and the adjustment of academic staff salaries, hoping to enhance interpersonal relations and communication at the faculty. “My main task is the preparation and implementation of a new building shared with the medical faculty. Further, international cooperation is of big importance, such as student internships, joint projects,

and the winter schools we organise. These are factors which increase the prestige of the faculty,” said Procházka.

In order to fulfil these visions and goals, he has a four-member vice-dean team. Zdeňka Mikšová is in charge of study affairs, Jiří Vévoda is responsible for science and research, Jiří Stavovčík is in charge of external relations and international cooperation, and Andrea Drobiličová became Vice-Dean for Quality and Practical Training. (vim)



UP strengthens cooperation with the University of North Texas

With the aim of enhancing mobility and expanding artistic and scientific projects, John Richmond, Dean of the University of North Texas (UNT) College of Music, was invited to Palacký University, in particular its Faculties of Education and Arts. He discussed further possibilities of cooperation with members of the Department of Music Education and Musicology.

“We have a great partnership with Palacký University, confirmed by our joint memorandum. I really look forward to our future joint projects,” said Richmond. The bilateral cooperation agreement between the two universities was signed by their rectors in December 2018. According to UP Vice-Rector and composer Vít Zouhar, however, the partner-

ship was established earlier. “Some time ago, I lectured at the University of North Texas, led a workshop Different Hearing, and published in their in-house journal *Harmonia*. Even before Rector Jaroslav Miller signed the Memorandum of Cooperation, five UNT students had visited Olomouc. Together with Ensemble Damian led by Tomáš Hanzlík from the Department of Music Education, they performed Stabat Mater by Giovanni Battista Pergolesi here in 2018,” recalled Zouhar.

During his two-day visit, John Richmond got acquainted with the practical exercises of the Different Hearing programme and took part in a class at the Department of Music Education and Musicology. (map)



Left to right: Martin Vodrážka, John Richmond, and Faculty of Education Vice-Deans Jana Kvintová and Vojtech Regec.

Kopretina project aims to prevent cervical cancer by “self-sampling”

Ten thousand self-sampling tests were distributed to women aged 30–65 by the Czech Cancer Research Foundation in cooperation with the Institute of Molecular and Translational Medicine (IMTM) of the UP Faculty of Medicine and Dentistry as part of the Kopretina [Daisy] project.



Its aim is to improve prevention of cervical cancer, which is the cause of death of up to 400 women a year in the Czech Republic, and to ensure acceptability of “self-examination” in the comfort of home.

“If the project could diagnose and save in time even a single patient, it would make it all the worthwhile. We believe that the project will provide unique data for the government, health insurance companies, and medical/pharmacological companies that will enable them to optimise the existing cervical cancer screening programme. Above all, we want to improve the engagement of women who do not get screened for various reasons and who are at the highest risk for cancer,” said IMTM Director Marián Hajdúch.

In some countries, the prevalence of cervical cancer is minimal because the population is vaccinated against the human papillomavirus (HPV). However in the Czech

Republic, almost half of women do not go to a gynaecologist regularly for various reasons, although it is older women who most often suffer from this malignant disease. Cervical cancer develops in the body for 10–15 years. The home test takes only ten minutes.

“As part of our project, every woman can take the smear test herself and simply send it to the lab in a return envelope for free. The Cancer Research Foundation of the Czech Republic and IMTM are thus trying to overcome barriers concerning prevention,” added Peter Vanek, the director of the foundation.

The research is carried out in cooperation with the Czech Gynecological and Obstetrical Society and the company NaturaMed Pharmaceuticals, who are cooperating in the preparation of a database of women, communication with them, and subsequent care. (vim)

Health Talks offer experience with epilepsy in children, breast cancer, and palliative care

The unique web portal Health Talks, which is being created at the UP Sts Cyril and Methodius Faculty of Theology, was expanded by three topics last year. Parents of children with epilepsy and women who have been diagnosed with breast cancer shared their experience in in-depth interviews. The Palliative Care module is dedicated to the end of life experience.

Scientists from the Olomouc University Social Health Institute (OUSHI) managed to capture a wide range of experiences. In the case of epilepsy, they talked to the parents of children who are already seizure-free, as well as to offspring with more severe manifestations of the disease, one that affects the whole family's quality of life. “Parents described how they coped with the demands and obstacles that epilepsy brought with it. Some mentioned that they gained some new insight into life, that they reassessed their life values. It was moving to hear them describe how they could only watch their children suffering from seizures and could not help them,” said one of the researchers, Jana Trtilková.

Visitors may also find support and inspiration in the testimonies of more than fif-

ty women who have been diagnosed with breast cancer and the experience of terminally ill patients with palliative care. “The interviews often serve as an overall evaluation of everything they have gone through. It is very valuable to us and at the same time a commitment, in that these people shared their precious time with us. We believe that the published interviews will be useful,”

said Lenka Slepíčková, the guarantor of the Palliative Care topic.

The Health Talks portal informs in an unbiased way about issues related to health, illness or specific social needs. The main tool is the international methodology DIPEX, the Czech version of which was created by the OUSHI team, which also holds the certification for the Czech Republic. (vim)



8 faculties
1 university



Faculty of Law allowed to grant the title Professor of Civil Law

Great news for the UP Faculty of Law came from the National Accreditation Bureau for Higher Education. The Faculty obtained accreditation for habilitation and professorship procedures in Civil Law. The title of Professor in this field can be granted by the faculty for the first time in its modern history.

“The Board of the National Accreditation Bureau approved our application

in August 2019. The accreditation will be valid for ten years. The decision came into force in mid-September,” said UP Faculty of Law Vice-Dean Blanka Vítová.

While the habilitation procedure in Civil Law has been carried out by the UP Faculty of Law for four years, the possibility of awarding the title of professor is a first. According to the faculty manage-

ment, the successful accreditation is an important confirmation and acknowledgement of the growing qualities of the school. The Faculty of Law received accreditation for the habilitation procedure in Civil Law for the first time in autumn 2014. Since then, the title of associate professor (i.e. docent) has been awarded to three candidates. (eha)

Faculty of Physical Culture given over to foreign lecturers for the 15th time

Lectures focused on sports diagnostics, physiotherapy, and biomechanics, innovative methods for swimming education, or pickleball which combines elements of tennis, table tennis, and badminton – all these were offered by the 15th International Teaching Week at the UP Faculty of Physical Culture. Teachers from Israel, Iran,

Portugal, Serbia, Canada, and the United States held classes as every year.

“Thanks to the International Teaching Week, our foreign guests could get acquainted with the environment of our faculty, meet their students who are here on Erasmus, or Czech students who had previously visited their countries. Last but not

least, they had the opportunity to establish fellow networks with our teachers and researchers, which creates potential for new projects and partnerships,” said Jitka Martinová, faculty coordinator for incoming students and academics.

The friendly atmosphere of the week was praised by one of the foreign lecturers, Anat Farkash from the Academic College at Wingate. “The faculty’s employees have taken great care to make this week a wonderful experience for us, both professionally and personally. Communication with the students was perfect and interaction with other foreign teachers was simply amazing,” said the Israeli lecturer.

The International Teaching Week has been held at the UP Faculty of Physical Culture since 2012, when compulsory English was introduced at the faculty. This week-long programme with foreign teachers is organised by their International Office twice a year. So far, students and other interested parties have been able to meet more than a hundred lecturers from thirty countries. (vim)



Scientists studied how drivers work with latest technologies

Driver assistance systems do not automatically guarantee traffic safety, as was proven in an investigation by experts from the UP Faculty of Arts and the Czech Academy of Sciences (CAS) who created a new educational system for drivers, driving schools, and car dealers.

As part of the project “Adaptation of human beings to driver assistance systems in motor vehicles”, experts from the Faculty of Arts and the Institute of Information Theory and Automation under CAS mapped out the positive and negative impacts of driver assistance systems on traffic safety. These include adaptive cruise control, parking assist, or navigation. “We found that newly developed intelligent systems may not increase traffic safety. Risk compensation theory suggests that drivers expect a certain level of risk when driving.

If some precautions are in place, they may adapt and their behaviour may become unconsciously more risky. A typical example is ABS (Anti-lock Brake System),” said Matúš Šucha, Head of the Department of Psychology at the Faculty of Arts and the project manager.

The objective of the research by experts from UP and CAS was to develop educational materials for drivers and thus improve driving culture in the country. “We succeeded. The result of our work is an effective database of knowledge that can be used for information campaigns by state institutions, driving schools, and car manufacturers. We provide educational software, video tutorials, a driving school instruction book, and a lot of information for car dealers,” concluded the traffic psychologist. (map)



Faculty of Science modernised labs

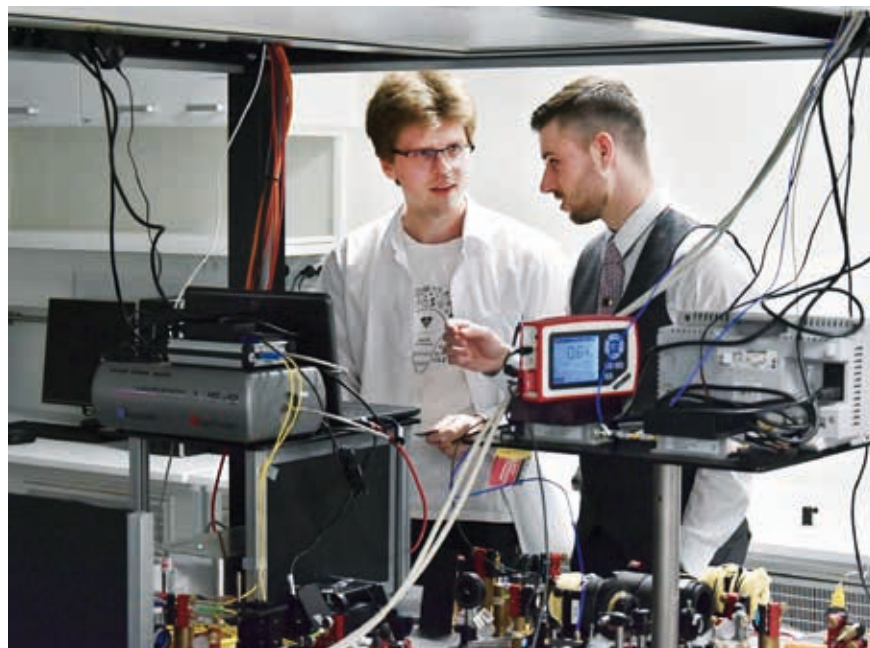
New cutting-edge devices and laboratories that open the door to conducting the most demanding experiments in optical, material, nanotechnological, biochemical, and biophysical research are available to students and scientists at the UP Faculty of Science. Thanks to funding from the Operational Programme Research, Development and Education (OP RDE) in a total amount of €6,250,000, more than fifty scientific devices have been purchased and four laboratories have been completely modernised.

The new research infrastructure will primarily serve doctoral students. “The modern laboratories we have built are taking us forward in the field of instrumentation. It will allow us to keep in touch with world leaders and to carry out experiments that have not been physically possible in our country. It is a strategic project of our faculty, focused on the support and development of doctoral studies,” said Jaromír Fiurášek, Head of the Department of Optics and main investigator of the OP RDE project “Modernising research infrastructures for the needs of doctoral study in physics, chemistry, and biochemistry at the UP Faculty of Science”, from which the investment was financed.

Four laboratories were modernised – three optical laboratories and one under the Department of Experimental Phys-

ics. “The three optical laboratories have excellent parameters regarding microclimate and cleanrooms that are comparable to the world’s leading scientific workplaces. It provides us with brand new ideal conditions for the realisation of the most demanding experiments, for example in quantum optics, optical quantum technologies, quantum interaction between radi-

ation and matter, or Raman spectroscopy, all of which require extreme stability and purity of the environment,” said Fiurášek. The Laboratory of Applied Physics now enables students and researchers to significantly expand research in experiments focussing on applied physics, nanotechnology, Mössbauer spectroscopy and material characterisation. (cho)





science

Prof. Jarošlav Doležel at the flow cytometer.

Cultivation of new varieties thanks to sequencing the pea genome

After the banana tree, barley, and bread wheat, Olomouc scientists participated in sequencing of the genome of another important crop – the common pea. The findings from six years of research by an international team were published in the prestigious scientific journal *Nature Genetics*. This discovery could facilitate faster cultivation of new varieties with better properties.

The research required the collaboration of laboratories from all over the world, associated in the International Pea Genome Consortium, coordinated by the French National Institute for Agricultural Research in Dijon. Scientists from the Olomouc laboratory of the Institute of Experimental Botany (IEB) at the Czech Academy of Sciences, which is part of the Centre of the Region Haná for Biotechnological and

Agricultural Research (CRH), made a significant contribution to this achievement. Sequencing the pea genome, which is one-third larger than the human genome, could result in expanding the cultivation of this important source of protein.

“It opens up a whole new path to pea breeding because it will be possible to apply the latest methods of molecular biology and biotechnology. Personally, I see a cer-

text: Martina Šaradínová
photo: Miroslav Bednařík

tain symbolism in this work, in relation to the legacy of the founder of genetics, Mendel, who studied in Olomouc and who discovered the laws of inheritance in Brno thanks to studying peas. I have no doubt that he would be very pleased with our work, and I hope that with our help the pea will become a widespread crop again,” said Jaroslav Doležel, the head of the laboratory and Scientific Director of CRH.

His team participated in the research in two ways. By means of using unique technologies of genome optical mapping and chromosome sorting, they contributed significantly to improving the assembled text of hereditary information. The method of chromosome sorting was developed by the IEB

laboratory in Olomouc, which is still the only workplace in the world that uses this method routinely. The same technology was used by experts to investigate the differences between the structure of hereditary information in cultivated peas and its wild relatives. The outcome of the project is fascinating. They have been able to reveal how the evolutionary information of the pea evolved from a common ancestor existing 50 million years ago to today. The detailed knowledge of hereditary information will make it easier for breeders to produce new pea cultivars resistant to fungal and viral diseases and having better nutritional quality.

Although peas are traditionally grown legumes, it is a slightly overlooked crop

in the Czech Republic, grown on less than 75,000 acres. This is because the current varieties of peas are somewhat problematic for farmers, so it is economically more advantageous for them to grow other crops. The pea is however an important plant source of proteins. Its cultivation does not burden the environment as much as livestock breeding, from which we obtain animal proteins. A big advantage of the pea, as well as other plants of the bean family, is that it can fix atmospheric nitrogen and improve soil quality. And last but not least, peas are also a great healthy and ecological alternative to soy, which is imported to the Czech Republic in large quantities.

People with cardiac implant devices can safely drive electric cars

Could a sophisticated piece of machinery like a modern electric car be driven safely by a person with a cardiac implant device? The answer to this question was investigated by the “Safety Study of the Use of Electric Vehicles by Patients with Implantable Cardioverter–Defibrillators (ICDs) and Pacemakers” by the UP Faculty of Medicine and Dentistry and University Hospital Olomouc.

“We were especially interested whether, in ordinary road conditions, such modern high-performance electric vehicles could create potential electromagnetic interference, which might lead to incorrect detection of signals in the heart cavities and then cause inappropriate reactions in defibrillators in the form of inadequate ICD discharges or potential inhibition of pacemaker functions. This would not only be dangerous, but also unpleasant – and even painful,” explained Miloš Táborský, Head of the First Internal Clinic – Cardiology, at the UP Faculty of Medicine and Dentistry and University Hospital Olomouc.

His team approached 52 patients with cardiac implants. Half were tested using ordinary automobiles and half in the Audi e-tron electric car. Emphasis was placed on testing everything connected with automobile operation. During testing, patients were monitored with the assistance of a technician in the vehicle and also remotely on-line.

“None of the 26 tested patients operating an electric car had any significant interference nor other disturbances. There were only two cases in which patients described perceiving the charging process in the form of pressure on the chest; nevertheless, monitoring showed no pathological effects, so these were likely subjective perceptions. Thus it can be stated that the use of modern electric vehicles by patients with cardiac implant devices in ordinary road conditions does not present any potential risk and can be considered safe,”

concluded the head of the clinic, regarding the study’s results.

However, he added that the study has its limits. “It represents a small number of tested patients, and only one type of electric vehicle was tested; in addition, there was an absence of induction technology charging this automobile, not to mention the extremely rapid development of technology in this area. Thus it is clear that the study must be repeated in the future, and we plan further cooperation with other electric vehicle manufacturers,” added Táborský. (fri)



Discovery of a unique luminous click beetle reveals the evolution of bioluminescence in Elateridae

A unique bioluminescent click beetle was discovered by a team of scientists in a subtropical forest in China, where such beetles had not yet been recorded. It was named *Sinopyrophorus schimmeli*, and according to experts, it represents not only a new species and genus, but also a unique unknown developmental branch of click beetles, which deserve to receive the status of a separate subfamily. The newly discovered beetle species is helping scientists uncover the evolution of bioluminescence. Analysis of molecular data has shown multiple occurrences of this phenomenon in click beetles. The results of the study, in which Robin Kundrata from the Department of Zoology of the UP Faculty of Science participated in cooperation with Chinese authors, were published in the journal *ZooKeys*.

“The family of click beetles (Elateridae) contains over 10,000 described species from various regions of the world, but only about 200 species classified into three subfamilies can emit light. These bioluminescent lineages have so far been

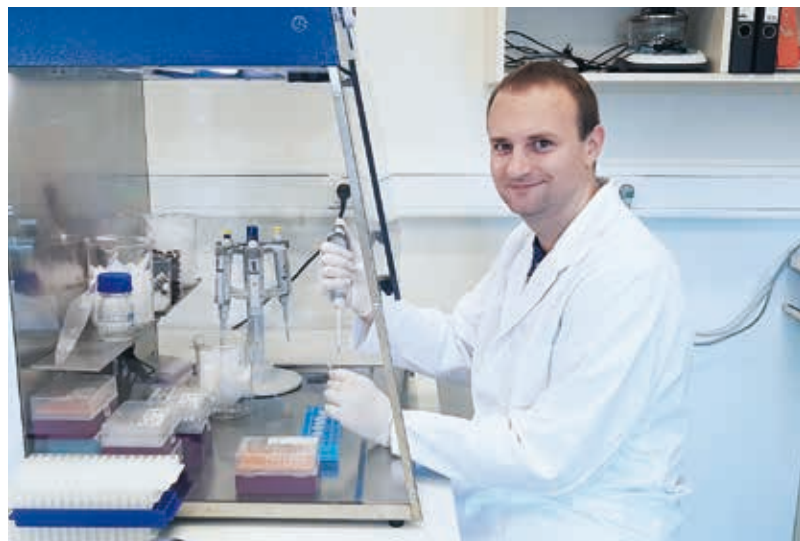
known only from Latin America and ocean islands. The discovery of a bioluminescent click beetle from the subtropical evergreen forests of southwestern China is therefore something extraordinary,” said Kundrata, who collaborated with Wen-Xuan Bi, Jin-Wu He, and Xue-Yan Lie from the Chinese Academy of Sciences in Kunming, and Chang-Chin Chen from Tianjin New Wei San Industrial Company, Ltd. in Tianjin.

Chinese entomologists discovered representatives of the species *Sinopyrophorus schimmeli* in 2017 on an expedition to the forests of the western part of Yunnan province. Since no bioluminescent click beetle had been known from Asia until then, scientists immediately began to examine in detail the morphology of the new species. Using DNA sequence analysis, they also found out its relationship with other groups within the family. The combination of the unique morphology of this beetle together with the phylogenetic analysis of 16 genes has shown that the newly described

species belongs to a previously unknown genus and represents its own subfamily of Elateridae, which was given the name *Sinopyrophorinae*.

“What is also fascinating about the newly discovered species of click beetle is its light organ. The position of these organs differs in bioluminescent beetles. Most often, two paired organs are located only on the thorax at the base of the wing-case or in combination with an unpaired organ on the abdomen, and the presence of an unpaired abdominal bioluminescent organ has so far been recorded in only one oceanic genus,” explained Kundrata.

While thoracic organs glow green, the abdominal organ in previously known lineages produces yellow, orange, or red light. “*Sinopyrophorus* is unique in that it has only one unpaired abdominal organ, and it glows green. A discovery of this kind sheds a new light, literally, on the geographical distribution and evolution of bioluminescence in click beetles,” pointed out the scientist.

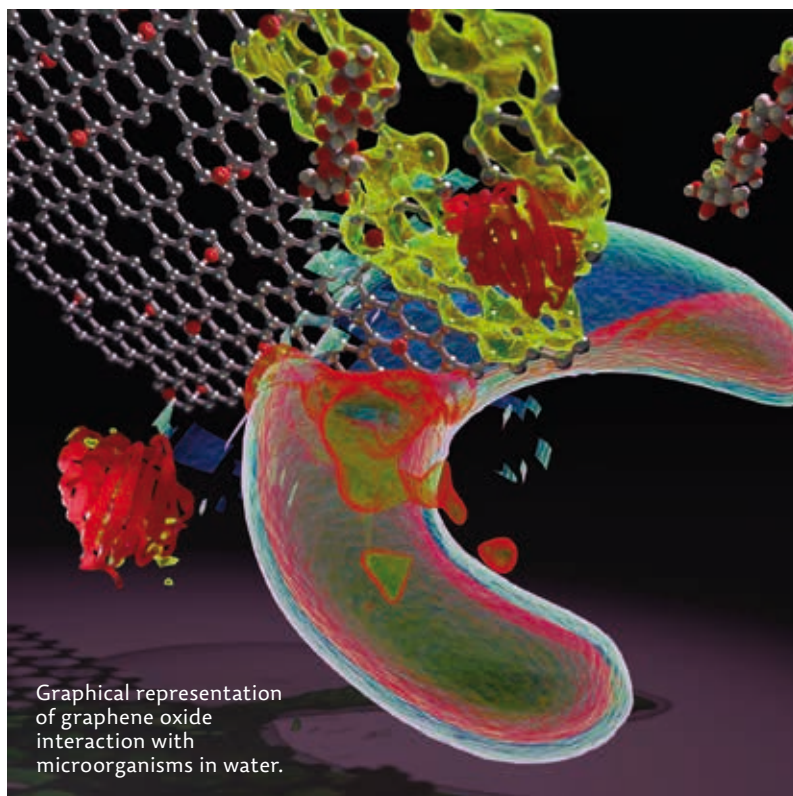


Modified graphene can attack aquatic microorganisms. And vice versa!

An important contribution to the debate on the possible negative impact of carbon nanomaterials on the microorganisms present in aqueous environments was made by researchers from the Regional Centre of Advanced Technologies and Materials (RCPTM), Palacký University Olomouc, in collaboration with colleagues from the Institute of Botany of the Czech Academy of Sciences (CAS). They confirmed that in certain conditions, chemically modified graphene can change into “nano-blades” which can harm algae in water. However, it was found that these unicellular organisms can build, over time, an effective defence against such mechanical attacks, making them capable of dealing with them.

Chemically oxidized graphene is one the most widely studied two-dimensional materials at present. As opposed to graphene, oxidized graphene (graphene oxide) disperses well in water, offering broad application potential, e.g. in biomedicine in targeted drug transport, in new technologies for energy storage, and in a number of environmental technologies. It has been proven to work in desalination and in the removal of pollutants from water. “In this regard, the scientific community has been investigating whether oxidized graphene can negatively impact the microorganisms living in surface waters. The aim of our research was to identify the mechanism of interaction between these carbon 2D materials and algae and cyanobacteria, which form a fundamental part of the food chain in water ecosystems”, said the main author of the study, Tomáš Malina, of RCPTM.

The researchers prepared three chemical forms of nanomaterials having different levels of oxidation. “The graphene that had the lowest number of functional groups on its surface acted like a very thin scalpel or razor, able to disrupt cell membranes. By contrast, graphene materials with a high-



Graphical representation of graphene oxide interaction with microorganisms in water.

er number of bonded functional groups did not possess this ability. These findings are novel. The complex mechanism of the behaviour of oxidized graphene in contact with these simple organisms, and mainly the impact of its surface chemistry on the overall ecotoxicity of these materials, has not been described previously”, added Malina, who conducted the research as part of his PhD studies.

An important finding is that microorganisms can develop defensive mechanisms against such 2D nano-blades. “With the example of algae, we demonstrated that the most devastating impact of these microorganisms occurred only in the first hours of the interaction. Then the algae

were able to produce proteins and hydrocarbons so that they managed to coat the graphene oxide with these molecules, thus averting the danger. Therefore, the environmental risk of graphene materials has been proven not to be so large. In the long term, even very simple organisms are able to defend themselves. Nature can handle nanomaterials,” said Blahoslav Maršálek from RCPTM and the Institute of Botany of the CAS, where the experiments with algae and cyanobacteria were performed.

The work, published in the journal *Carbon*, follows long-term research done by RCPTM regarding the interactions of nanomaterials with biosystems and microorganisms.

Research into the conversion of solar energy into fuels supported by a prestigious grant

Development of a new class of catalysts is the aim of a project that succeeded in the 4th tender of the ERC CZ programme. Its author is Alberto Naldoni, an expert focusing on research into nanomaterials for energy and environmental applications at the Regional Centre of Advanced Technologies and Materials (RCPTM) at the UP Faculty of Science. Among the seven projects awarded, Naldoni's was ranked first.

"The support from the Czech Ministry of Education marks the starting point for the development of an internationally recognised research programme for the direct conversion of solar energy into fuels and the development of sustainable chemistry. The ERC CZ grant will allow me greater independence in research and

raise my chance of winning an ERC grant in the Consolidator category," said Naldoni, who has been dealing with solar radiation applications in photochemistry, plasmonics, and catalysis for a long time. He moved to Olomouc two years ago from the Institute of Molecular Science and Technologies in Milan. "I decided to join a group which is one of the leaders in the field of renewable energy conversion," explained Naldoni.

The project, "Light-driven biorefinery using metacatalysts", enables the researcher and his team to work on developing catalysts with high selectivity and efficiency, whose properties can be managed and optimised during the course of chemical reactions. Metacatalysts will al-

low the emergence of ultra-compact portable fuel synthesis devices in biorefineries powered by light radiation. Results of the research will also serve to further develop the scientific field of photochemistry, to which the youngest research group of the RCPTM – Photoelectrochemistry – is devoted.

The ERC CZ programme aims to promote top quality research in the Czech Republic by implementing projects submitted in response to calls of the European Research Council which successfully passed expert evaluation but did not receive financial support from the European body. Nine project proposals were submitted to the 4th ERC CZ tender, seven of which met the criteria.



The European Research Council (ERC) supports cutting-edge research across all disciplines. ERC supports individual researchers and their research teams. The only criterion for evaluation is scientific excellence – both in the project design and the investigators themselves. There are currently five types of ERC grants: Starting, Consolidator, Advanced, Synergy, and Proof-of-Concept.

text: Milada Hronová
photos: Gabriela Knýblová

portrait

Pavel Kučera

Sign language interpreter, Assistant Professor
at the Institute of Special Education Studies,
UP Faculty of Education



- ↑ In these three shots Pavel Kučera makes the sign for happiness, which he wishes all readers of *UP Žurnál*.
- ← Signing Bear – a fun and mainly educational tool for parents and nursery school teachers for communicating with children with hearing impairments. Pavel Kučera uses this aid even when working with university students (introductory photo on the previous page).

Pavel Kučera (b. 1972)

He graduated from the Drama Education for the Deaf programme at JAMU in Brno, Special Education for the Hearing Impaired at the Faculty of Education, Masaryk University in Brno, and Primary School Education at the Faculty of Education, University of Hradec Králové. He completed his doctorate in Olomouc at the UP Faculty of Education. He has taken courses in teaching sign language, and he has been teaching it himself since 1999. Since 2009 he has been employed as an assistant professor in the Institute of Special Studies at the UP Faculty of Education. He mainly teaches Czech sign language. In addition, he is the Coordinator for Hearing Impaired Students at the UP Centre for Students with Special Needs. He is part of a team creating sign language dictionaries, and is connected to various projects regarding physical disabilities. He works externally for the Tamtam Children's Hearing Centre and is an expert consultant and teacher of Czech sign language for parents. At UP, he takes part in the videos *Let's Sign Together* and he also interprets children's fairy tales for Czech Television.

The man has talented hands. The same hands that clothe him by knowing how to sew trousers also feed him via interpreting. Pavel Kučera of the UP Faculty of Education has been living with hearing impairment since he was four, and despite the fact that he did not learn sign language until secondary school, today he is a much sought-after interpreter. He is fulfilling his dreams when he signs, and it also brings him closer to students, children, and their parents, for whom he often serves as an example. He loves the world of the deaf.

“The events of 1989 changed a lot of things in sign language. Until 1989 sign language was forbidden here, you couldn't even sign on the street. It was found offensive by most people. According to the society of the time, signing hindered a person's development,” recalls the lively Olomouc interpreter. At that time, doctors were instilling the idea in parents that a child must be spoken to in order to learn language.

“But for people with disabilities, of course it's not that easy. Learning Czech for a deaf person is like studying any other foreign language. For such people the mother tongue is not innate. Also, if a hearing person can learn a foreign language, they can also learn sign language,” he adds.

Pavel Kučera grew up in a family in Olomouc with hearing parents and a deaf brother. While his brother attended an elementary school for the hearing disabled, he attended a standard school. But when they

were at home, they spoke in every which way, had their own language, and also learned to lip read.

“I began learning sign language only at a technical secondary school for clothing manufacture for the hearing impaired in Kremnice, Slovakia. It was actually there where I first found myself solely among deaf people. At first they rejected me, because I'm only hard of hearing. It wasn't an easy time, I didn't fit in, being neither a hearing person nor a deaf person. And on top of that, I was in a Slovak-speaking environment, not a Czech one.” And so he forced himself to learn. In his second year, he learned sign language so well, he began helping his classmates with interpreting. He translated the television news, and messages to and from the teachers. “Once my classmates realised I was good at signing, the barriers fell down,” says the energetic man, whose presence fills the room.

Pavel Kučera himself says he's an optimist. He sticks to the motto: “Tomorrow can be even better than today.” After graduating, he knew that he would not stay in the clothing industry. “I wanted to be closer to deaf people, so I began to study Drama Education for the Deaf at the Faculty of Theatre in the Janáček Academy of Music and Performing Arts (JAMU) in Brno. Although facial expressions and gestures, an essential part of sign language expressing for example emphasis, reminded me of bad theatre: keeping one foot in theatre and the

other in school was something I loved doing and continue to love,” he explains.

After graduating from JAMU, he taught hearing impaired pupils for ten years, including math and science, but mainly drama and physical education. Later he also worked as an interpreter at Masaryk University in Brno and there he would participate in various conferences.

“And it was at one of those where Eva Souralová, head of the Institute of Special Education Studies at the Faculty of Education in Olomouc, asked me if I wouldn’t like to pursue doctoral studies at UP. At that time I had already completed studies in both Hradec Králové and Brno. I’m not really the bookish type, so I turned down the offer, saying I’m better with my hands, and I would prefer to teach sign language than write scholarly studies. But a few years later I did start studies,” he says. He has been working at UP for ten years now. He also works in the university-wide Centre for Students with Special Needs and the Tamtam Children’s Hearing Centre. In

addition, he runs courses in sign language even for entire families and it is not an exception for him to travel to teach in their homes.

Living every day as if it were his last, he tries to make things better. For example, he continues to point out imprecise terminology. “Everyone knows the word ‘nosočistoplena’ (nose-cleaning-cloth = handkerchief), which was used by the 19th century Czech language revivalists but is now archaic, however in the deaf-mute community it is still in use, even in the media,” he says. He also thinks it is a shame that due to poor communication, many talented people are not used to their full potential. Wherever he goes, he draws attention to the lack of interpreters. “People with hearing disabilities sometimes have to wait even days at certain offices until an interpreter arrives, and thus find themselves in the situation of feeling discriminated against. Those around them do not know how to communicate with the deaf,” he adds.

The time has long passed when Pavel Kučera wasn’t sure whether he belonged to the hearing or deaf community. “It’s absolutely clear to me now. I can express myself better through signing than in Czech. The world of the deaf is more natural to me, and I know a lot about it,” says the likeable interpreter and teacher. He enjoys the variety which teaching sign language offers. He travels hither and yon to interpret at weddings or lectures. Now he’s filming videos called Let’s Sign Together, for the purpose of popularising sign language. When he has time, he does sports. His recreational activities include cycling, skiing, and hiking. And on top of all that, he likes to work with his hands.

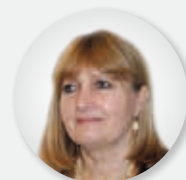
“When I was fifteen, my mum realised that I was quite handy. That is why she sent me to a technical school in the clothing industry. Today it has its advantages. I can sew anything, and in addition to interpreting, I’m always available for sewing or mending something – even for my mum,” he adds with personal charm.

“It’s absolutely clear to me now. I can express myself better through signing than in Czech. The world of the deaf is more natural to me, and I know a lot about it.”



Petra Šobánková
UP FE Vice-Dean

How to describe Pavel? Words are not enough. Perhaps a lovely, dynamic sign could describe him. In short, only by visual-motor means like those which he himself masters so perfectly could one describe his cheerful attitude, boyish mischief – and also expertise. Pavel is a real professional, which has been proven to me many times, for instance when filming our videos Let’s Sign Together or when he interprets for students.



Eva Souralová
Director of the Institute of Special Education Studies, UP FE

It is not easy for someone with hearing problems to easily deal with all the snares in a world full of sounds. Pavel is however one of the few who can cope with anything. Proof of this is his work on campus, about which I hear only praise from our students. We teach the same subject, and thanks to Pavel’s professional and human commitment, I sometimes realise that if I want to have such good feedback from students as his, I’m going to have to try harder. I must say that it is great to have such a good colleague and friend around upon whom I can absolutely rely.

success



UP Faculty of Medicine and Dentistry granted European accreditation

Palacký University Olomouc's Faculty of Medicine and Dentistry (UP FMD) is the first in the Czech Republic to pass the demanding external evaluation to receive accreditation from the Association of Medical Schools in Europe (AMSE), which confirms the high quality and European standards of medical studies in Olomouc.

UP FMD, together with five other medical schools in Europe, was subjected to the detailed evaluation of its General Medicine study programme as part of a pilot project launched by the association. AMSE accreditation guarantees the quality of education provided for medical applicants as well as hospitals and healthcare facilities as

their future employers. "This is an important achievement for us. The fact that our medical faculty has become the first in the Czech Republic and one of the first in Europe to receive this European certification is mainly due to the efforts by previous faculty management and to the long-term cultivation of the General Medicine curriculum during the era of my predecessors," said Dean Josef Zadražil.

According to Dean Emeritus Milan Kolář, this is a confirmation of the quality of UP FMD as an educational and scientific research institution. "This accreditation means that our diploma will be one of the most recognised and highly sought-after

in the European Union, and many European hospitals will give preference to medical graduates with it. At the same time, it is necessary to realise that it is also a commitment to further development, i.e. maintaining this seal of European quality," added Kolář.

The Olomouc faculty underwent the demanding evaluation during the past two years. The evaluators appreciated, among other things, the modern facilities used for education, the comprehensiveness of the curriculum and the continuity of individual subjects, and the above-standard collaboration of the faculty with University Hospital Olomouc. (vim)

Prestigious grant for international team led by Olomouc lawyers

Three years of work by legal experts from five European universities has been conducted under the auspices of the "European Union and the Challenges of Modern

Society" project. The project succeeded in a worldwide competition for a prestigious grant awarded by the European Commission. In the Networks and Projects category, it received one of the highest amounts. The work of the international team will be managed by the Jean Monnet Centre of Excellence in European Law at the Faculty of Law, headed by Naděžda Šišková.

From September 2019 to the end of August 2022, experts have to meet the objectives of the project called "European Union and the Challenges of Modern Society: Legal issues of digitalization, robotization, cyber security and prevention of hybrid threats". "We want to influence future European legislation and be engaged in shaping and creating new legal rules related to

current technological developments," said Šišková.

The team will consist of academics from five European universities – the Jean Monnet Centre of Excellence in Olomouc, the University of Heidelberg, Tallinn University of Technology, Comenius University in Bratislava, and the Taras Shevchenko National University of Kiev. "The selection of partners was influenced by our previous collaboration as well as their expertise," explained Šišková. In the next three years, the project investigators will hold a series of lectures, round tables, workshops, and academic conferences. Their joint research will then culminate in the publication of two monographs and articles in impact journals. (eha)



UP has three representatives in Highly Cited Researchers 2019

Three Palacký University Olomouc scientists appeared on the list of the world's most cited scientists, Highly Cited Researchers, published annually by Clarivate Analytics in the United States. Analytical chemist and phytochemist Ondřej Novák and chemists Rajender Varma and Radek Zbořil have repeatedly reached the elite club, which includes 23 Nobel Prize winners. Fourteen scientists on the list are affiliated with Czech research institutions or universities.

Radek Zbořil, an expert in nanotechnologies working at the Regional Centre of Advanced Technologies and Materials (RCTPM), appeared in the list in the Cross-field category. "This is really an appreciation of the great ideas and all the staff at RCPTM who conduct multi-disciplinary research with large potential in applications," Zbořil said. Rajender Varma, who also works for the US Environmental Protection Agency, is also employed at RCPTM.

Ondřej Novák, an expert in plant hormone analysis, works in the Olomouc workplace of the Institute of Experimental Botany at the Czech Academy of Sciences, which is part of the Centre of the Region Haná for Biotechnological and Agricultural Research. "I accept with great humility the fact that I am among the group of highly cited scientists for the second time. I would like to thank all my colleagues from the Laboratory of Growth Regulators and other colleagues from abroad, without whose cooperation I could not be part of this prestigious ranking," said Novák, who is included in the category Plant and Animal Science.

The list of Highly Cited Researchers 2019 includes over 6,000 researchers from roughly 60 countries. These are scientists who have won recognition and received great citation response across 21 research areas and have immensely contributed to the development of both knowledge and society. (mš)



European champions: Tereza Janošíková in orienteering, Klára Hricová in canoe slalom



One studies Recreation and Leisure Studies, the other will be a midwife: both have one thing in common. They are champions of Europe in their respective sports.

Tereza Janošíková ran for the golden hat trick at the historically first European academic championship in orienteering, hosted in summer 2019 in Olomouc and its surroundings. "It was an amazing feeling, to take the top place at the winners' podium, especially in my native region. I appreciate the medals very much. And I'm glad that we have brought the name of Palacký University to the forefront and that our university placed a respectable second place in the ranking of schools," said the student of the Faculty of Physical Culture, one of

the greatest hopes of Czech orienteering today.

The Faculty of Health Sciences can also boast a European champion – canoe Klára Hricová. "First place when three canoes go as a team is wonderful. I'm satisfied even with the fourth place in the individual race, my goals weren't that high," said the member of canoe slalom team SK UP about her success at the European Championship in Slovenia. During the summer, she also achieved second place in canoe teams at the ICF U23 and Junior Canoe Slalom World Championships and also at the Czech national championship, and third place in the overall ranking of the Czech Cup. (vim)



success



Palacký University was awarded national prize for social responsibility

UP was awarded the National Prize for Social Responsibility. The award was granted in the category of large and medium-sized public sector organisations. The prize was accepted by Rector Jaroslav Miller and Vice-Rector Hana Marešová at a gala evening at Prague Castle, where the Czech Ministry of Industry and Trade and the Quality Council of the Czech Republic announced the winners of the 2019 Czech National Prizes. “This achievement represents the success of the entire university, but the team of Vice-Rector Marešová deserves the greatest credit for it. I would like to thank her and all my other colleagues,” said Rector Jaroslav Miller after receiving the award.

UP enrolled in the programme to find out how it stands in the competition with other schools in fulfilling the third role of

the university – working for the benefit of society, both in the city and in the region. Recently, UP was particularly involved in local and regional action plans for education; volunteer activities such as Civic University, in which students and academics offer their knowledge via lectures to the public; the Euforka project, which seeks to mediate relevant information about Europe; and the student association Sustainable Palacký, which promotes environmentally friendly behaviour. “We perceive the university as a community that systematically helps its members even in the public space,” added Vice-Rector for External Relations Petr Bilík.

“We wanted to conduct an external evaluation of UP and, in addition to comparing it with other schools, to get informa-

tion on key trends in social responsibility and sustainable development in our country,” said Marešová, Vice-Rector for Strategic Planning and Quality, whose department coordinated the evaluation process. It resulted in the first place in the National Prize for Social Responsibility, which UP shares with the Technical University of Ostrava. In addition, the victory includes being granted the internationally recognised Committed to Sustainability Award for three years and the inclusion of UP in the European Foundation for Quality Management database.

“We were positively rated as a very active institution with recognition in regional cooperation activities, social responsibility and sustainable development,” added Marešová. (ipu)

French Embassy awarded a doctoral student from the Faculty of Arts



Every year, the French Embassy in Prague honours the best young researchers from Czech universities and research institutions. They have been awarded prestigious awards for their outstanding scientific achievements across disciplines. In 2019, Ludmila Lacková from the Department of General Linguistics of the Faculty of Arts won third place in humanities and social sciences.

The prize awarded to the PhD student bears the name of French philosopher Jacques Derrida. Its purpose is to highlight the best research work of Czech doctoral

students in social sciences and humanities. “I wrote the dissertation for which I was awarded under two advisors – in addition to Palacký University it was in cooperation with the University of Bologna. I called the thesis ‘Linguistic Approach to Protein Folding: Towards Semiotic Descriptions of Living Systems’ and I focus on the application of linguistic methods and theories to biological processes,” said Lacková, who works as an assistant professor at the Department of General Linguistics and specialises in semiotics, biosemiotics, and general linguistics. (map)

Tomáš Pluháček from the Faculty of Science received the Shimadzu Award

In the future, searching for serious criminals who use a firearm could be facilitated by a unique method of fingerprint detection and classification of post-firing residues, for which its author Tomáš Pluháček from the Department of Analytical Chemistry at the Faculty of Science won the prestigious Shimadzu Award for young scientists under 35.

Police investigators are now able to detect post-firing residues, for example on clothes and human skin, but first they need to track down the suspect. Thanks to the recently developed method of analysing the chemical composition of post-firing residues on fingerprints obtained by criminalists at the crime scene, it is possible to find out precisely and relatively quickly in the laboratory and in the dactyloscopic database who pressed the trigger of the firearm and committed the crime.

The post-firing residues have the form of spherical particles and their chemical com-

position corresponds to a firearm, projectile, and cartridge. “Unfortunately, none of the methods used so far have been able to determine the correlation between biometric information and corpus delicti, which in our case is the presence of post-firing residues,” said Pluháček.

The research, made in collaboration with Martin Švidrnoch, Vítězslav Maier, Vladimír Havlíček, and Karel Lemr, resulted in the LA-ICP-MS imaging method that allows the detection and classification of post-firing residues on fingerprints or their fragments; such findings can be further correlated with the course of papillary lines. “It is an award that I greatly appreciate. It is not only mine – it also belongs to my colleagues who participated in this research. The presented work was part of my dissertation focused on the use of inductively coupled plasma mass spectrometry in clinical and forensic analysis,” said Pluháček. (cho)



UP jumps up in the Shanghai Rankings

Palacký University has achieved the best positions in its history in the prestigious ARWU Academic Ranking of World Universities – the “Shanghai” rankings. Among the one thousand evaluated universities, UP placed between the 501st and 600th positions, improving its score by one hundred places compared to the pre-

vious year. In the country, UP is second best after Charles University in Prague, but it has surpassed Masaryk University in Brno.

“The placement of Palacký University on the verge of the top 500 universities in the world is a sign that we have come a long way in the last few years. I consider the re-

sults of one of the most prestigious global rankings as a confirmation of our great work, and being second best in the country makes us obligated. It has turned out that we are capable of entering the club of top global universities for good, however, we need to keep up the hard work,” said UP Rector Jaroslav Miller.

The Czech Republic is represented in the rankings by seven universities. Olomouc’s university has bettered its standings in one half of monitored indicators: in the number of highly cited researchers according to Clarivate Analytics, the number of publications in *Nature* and *Science*, and its academic performance.

The Shanghai rankings also rank individual disciplines within the natural sciences, medical sciences, technical sciences, life sciences, and social sciences. The oldest Moravian university has placed highest in agricultural science, placing globally in that category between the 151st and 200th positions. In physics, UP occupies the 301st–400th positions. UP placed between 401st–500th positions in chemistry, biological sciences, and pharmacy, as well as in ecology and public health, where it had its first ever ranking. (srd)



Law student won one of the region's awards for environmental activities

The 2019 Olomouc Region Environmental Awards have had a successful premiere, and UP also scored significantly. Luděk Plachký, a student of the UP Faculty of Law, won one of the awards for a major achievement in the Air category in 2018. The organisers made nominations, and the winners were then decided by the votes of the public. The law student earned the nomination for his activities focussed on the legislative limits of air protection and their possible development. "My success is largely due to the UP Endowment Fund, which trusted me from the beginning and supported my activities. I see the award as a confirmation that my work makes sense and also as a motivation for the future," said Luděk Plachký. (eha)



Faculty of Arts graduate won the Edvard Beneš Award



Petr Žižka, a graduate of the Department of History at the Faculty of Arts, won the Edvard Beneš Prize, Honourable Mention in History. He received the prestigious award for his Master's thesis entitled "Czechoslovak Ground Staff No. 8311 Servicing Echelon". The competition is open to young historians and sociologists and is awarded by the town of Sezimovo Ústí. (map)

UP scored in the Faculty of the Year poll



Several faculties of Palacký University were rated as the best in their categories in a survey organised among Czech students. The Faculties of Arts, Education, Science, and Physical Culture won their respective first places. The Faculty of Health Sciences took second place in the Healthcare category. The Sts Cyril and Methodius Faculty of Theology and the Faculty of Medicine and Dentistry both occupied third place in their categories. (vim)

Punch helps

Almost 4,500 euros were earned by the employees of the UP Faculty of Physical Culture when selling Xmas punch at the charity stand A Good Place to Live during the Christmas markets in the centre of Olomouc. The proceeds will support the activities of the faculty's APA Centre, which, among other things, operates a loan of compensatory aids for the handicapped, and the Olomouc branches of the Early Care Society, one of them helping families with visual and multiple disabilities. The other branch



of this organisation, which is dedicated to children with physical, mental, and multiple disabilities, was assisted a few days later by the UP staff together with representatives of the Institute of Experimental Botany of the Czech Academy of Sciences. Within twelve hours, they sold two thousand cups of hot punch and together "punched out" almost 2,200 euros for families in need. (ipu)

Wagnerová in the spirit of J.L. Fischer

Lawyer and judge Eliška Wagnerová spoke at Palacký University about constitutional order and its changes over time. Her talk in the Corpus Christi Chapel of the UP Arts Centre took place as part of the traditional Annual Lecture honouring the first Rector



of the renewed University of Olomouc J.L. Fischer. Eliška Wagnerová also discussed the status of elites in Czech society, their responsibilities, and the role of civil society and its emancipation, which we have witnessed in recent months. “Civil society is going in the right direction, it just has to persevere in the struggle for a liberal constitutional democracy, which must be permanent, because its threat is also permanent, although it changes in form,” said the respected lawyer. (ipu)

UP appreciated volunteers

The UP Volunteer Days culminated for the third time with the award of the Rector’s Prize for Merit in Volunteering. Eight students received a coloured glass angel for their time devoted to others, including Roksolan Illyck of the UP Crowd club for science popularisation activities, Applied Physical Education student Veronika Chvojková for her educational programme for children, and “fairy godfather” Květoslav Koudelný, a student of the University of the Third Age, who regularly visits the kindergarten in the nearby village of Tověř. (vim)



Ice-hockey players: new name, new competition

The eight teams that play the premiere season of the University Ice Hockey League also include ice-hockey players from Palacký University, newly under the name HC



Palacký University Olomouc. “This league is a revolution in academic ice hockey in our country and it is a challenge for us. The reason is, among other things, that we as club representatives can see from the inside how the league operates, and we have the opportunity to influence it ourselves. This is important for us,” said the club president Dominik Pudelka. Rector Jaroslav Miller also got his new jersey with the honorary number one on its back. (vim)

UP awarded prize for internationalisation

For excellence in internationalisation, Palacký University Olomouc received the prestigious 2019 Institutional Award, given by the European Association for International Education. UP has thus become one of the best European universities in this field. The award was received in Helsinki at the largest European conference on international university education by Rector Jaroslav Miller and Vice-Rector Martin Kudláček.

“It has been teamwork by all our colleagues at the university over the past five years. I thank everyone for their work. The award is proof that our efforts are meaningful,” said Rector Miller.

The European Association for International Education (EAIE) selects the university with the best internationalisation strat-

egy and results once a year. “The award celebrates higher education institutions that have shown excellent results in internationalisation. The association acknowledges successfully developed and implemented internationalisation strategies and activities that include, reflect, or promote three or more EAIE values. These include collaboration, inspiration, inclusiveness, and excellence. As the prize is awarded once a year, we can say that we are the best in Europe in 2019,” said Martin Kudláček, Vice-Rector for International Relations.

The European Association for International Education is an organisation aimed at developing internationalisation in the environment of European higher education. It is the European leader in the internationalisation of university education.



UP Vice-Rector Martin Kudláček and EAIE Vice-President Michelle Stewart during the award ceremony in Helsinki.

text: Ivana Pustějovská
photos: Gabriela Knýblová

interview

A portrait of Marek Jukl, a middle-aged man with a goatee, smiling and standing with his arms crossed on a balcony. He is wearing a light blue short-sleeved button-down shirt, blue jeans, and a black watch. The background shows a blurred cityscape with a prominent dome, likely St. Peter's Basilica in Rome.

Marek Jukl: If you want to help, you have to talk to all sides



Marek Jukl (b. 1969)

Associate Professor at the UP Faculty of Science, where he also graduated in Mathematics and Physics. He is interested in algebraic and geometrical disciplines. He is the author of eight dozen publications, including the textbook *Analytic Geometry*. He joined the Czechoslovak Red Cross in 1987 and has been its president since 2005. He also specialises in international humanitarian law. He is a member of the interdepartmental National Group for International Humanitarian Aid under the Czech Ministry of Foreign Affairs and the National Transfusion Commission under the Czech Ministry of Health.

His parents – doctors – wanted him to follow in their footsteps. But he was fascinated by technology, especially trains, and considered going to a university to study transportation. In the end he decided otherwise. A certain “duality” – logical thinking and the willingness to help others – stayed with him, and today he is a recognised mathematician and also the president of a large humanitarian organisation which has more members than the majority of the political parties in this country and in times of need is able to mobilise the entire nation to aid in catastrophes. Marek Jukl, Associate Professor at the UP Faculty of Science and President of the Czech Red Cross.

— **Mathematics and humanitarian work. How do they go together?**

My inclination toward humanitarian concerns is in the family. Both my parents were doctors and counted on me to follow in their footsteps. In addition, my father was active in the Red Cross for years and I used to go with him when I was a boy to various events when he was responsible for first aid and for training. That couldn't help but influence me. And when mathematics began to interest me and I decided to study maths and physics, I didn't want to give up on the experience I already had, so I joined the Red Cross when I was 18 and I still work for it to this day.

— **What do you like about mathematics, specifically algebra, which you work with?**

To be precise, I work with geometry, including some algebra.

— **That doesn't help me. So what interests you about – from my perspective – an abstract discipline?**

Mathematics is of interest because it is a very exact science. It describes and quite precisely defines concepts and finds various connections between them, their qualities. Mathematics is a world through which a person can easily navigate.

— **Some people can... my memories of descriptive geometry lessons are of a completely incomprehensible world. Your “objects” are ones you cannot touch. Where can I find your ordered world?**

You see it in your head. And if you cannot touch it... you can at least make sketches. At the same time the description I mentioned is a method to depict real objects via a certain number of projections, for example, two – which is how Monge's (or orthographic) projection works. And did you know that it was developed for absolutely real needs? It was used in constructing fortifications, and its method was kept secret for decades by the army. So that ordered world is just a question of your thinking.

— **They say that mathematics is a difficult subject. What's your opinion?**

I think it's not hard to learn mathematics, but it is difficult to teach. Or better said, to present it to students in such a way that makes it accessible to them. Many teachers are unsuccessful at this. But mathematics is extremely important in one's life – it develops logical thinking, which is needed in many fields – it is the language of physics, for example. I also devote myself to humanitarian law and people often ask me what that has in common with mathematics. Logic. Medicine is also based on logical reasoning. This is why I insist that acquainting oneself with maths is important – and I am using

the word “acquaint” on purpose, because I am not convinced that any special aptitude is necessary for an understanding of mathematics. What is important is taking an interest and whether you are willing to make some kind of effort.

— You mentioned humanitarian law, which is it related to your presidency. The Czech, or more precisely, Czechoslovak Red Cross, celebrated its centennial in 2019. What else does it embody today?

The first things that come to mind are donating blood and first aid. But our activities are much more wide-ranging; generally speaking, these are social-health activities. Few realise that in the Czech Republic we have roughly four dozen facilities with social and health-related purposes. Nor should I forget to mention preparedness for catastrophes and providing help both domestically and abroad, where we cooperate with all 191 national Red Cross organisations. We are creating a global network which can be one of the first to arrive at a crisis spot.

— We regularly promote blood drives at the university. Do you donate blood?

I sure do, ever since I was a student. I’ve given blood over 260 times. It’s a family affair for us – my wife and sister donate, even my father was a donor. In the Red Cross we call it a family donation, which is the best kind of advertising. When something is anchored in family tradition, then it is taken for granted that the children will continue it.

— How is it possible that in such an economically-oriented era, people are willing to donate blood for free?

They understand the necessity. The tradition of donating blood for free here and world-wide is not so old, it started in 1959. At that time, it was a reaction to the high transmission worldwide of hepatitis B via transfusions. It wasn’t about the money paid to people in different countries, it was mostly about the safety of blood recipients. It turned out that when people were not bound by the prospect – albeit small – of financial consideration, they answered questions about their health truthfully before giving blood, and the transmission of hepatitis B decreased dramatically. We must also bear in mind that even if the blood of the donor is checked, it’s not enough, for it cannot be tested for all diseases. It is crucial that the donor does not hold back any information regarding their health status. By the way, the trend of donating blood for free is global, even the World

Health Organisation has the ambitious (but in my view, unrealistic) plan to make all the blood donated globally be provided free of charge by the year 2030. I say unrealistic because only half of the countries in the world, including Czechia, are that way now. “Whole” blood is for free here, whereas plasma may have a different status.

— Founded by a Swiss businessman, the International Red Cross also celebrated an anniversary last year. In 1859, Henri Dunant was a volunteer nurse at the Battle of Solferino where he attended tens of thousands of the dead and wounded. The horrors of the battle’s aftermath led him to the idea of helping the wounded, and he suggested founding an international organisation to do so. How far have we come in those 160 years? We have organisations, the law – are we any more humane?

Yes and no. Yes, in that the essential content of our work is to get healthcare to the needy. That is what Dunant began and it was also the content of the first founding principle of the Red Cross, which they say was born from the suffering of thousands on the battlefield and that it attempts to prevent or at least alleviate all types of human suffering. And that is still very urgent today. There are less than two hundred countries in the world and at present more than 90 of them are at war. So it’s almost a 1:1 ratio. And wherever there’s fighting, healthcare is one of the first casualties of the conflict.

— Why?

Because such care is based on free movement – of medical personnel to the sick and wounded and sick people to the healthcare workers. That all stops at the moment of conflict, so we are in the same situation in which Dunant found himself. Of course, we have much better foundations, a set of laws exists – international humanitarian law – which limits the free hand of warring parties and dictates what they must do. One example is that they must provide healthcare. That does not mean however, that everyone actually gets it. One example out of many: in Yemen, where armed conflicts have been going on for several years, more than fifty percent of the medical facilities are out of order. In the last three years, one-third of people on dialysis have died there. They did not die of gunshot wounds, but because they couldn’t get to dialysis, because they could not stick their noses out of their homes, or they did get to the hospital, but the machines were not working. People

think for the most part that our work is such that thousands of healthcare workers arrive and set up lots of hospitals and everything works. That’s only true to a certain extent – we primarily attempt to support the local infrastructure. We send medicines and necessary material, not only medical, but things that might surprise you: foil for glazing broken windows, fuel for electrical generators.

— Let’s get specific. I live in a region which becomes the site of a more or less legitimate armed conflict. How can the Red Cross help me?

You were right in saying that it doesn’t matter whether the war is legitimate or not. The Red Cross does not judge who is the aggressor and who is the victim. Now to your model situation. If the warring factions respect international conventions, then they will not fire at you. But you will still be exposed to clear and present danger, so it is certainly better to remove yourself from the site of the conflict. The citizenry should be helped by both warring factions, and at that moment the role of the Red Cross is crucial. Few people however are aware that we are in contact with all sides, and that we are in the position to remind and explain to them the principles of international humanitarian law. It is important to say that humanitarian law does not prevent the start of conflicts, that is not its role. However there are rules about how the fighting should be carried out, in order that the humanitarian impact is kept to an absolute minimum, and they also state how to care for the eventual victims of the fighting. I do not recognise dividing factions into better and worse sides during a conflict. What is important is to keep up a dialogue with all sides, it is the only way to help the victims.

— Do you ever get a feeling of helplessness? So many years and rules, and still so many casualties and wars?

Sure, there are still hundreds of wars in which crimes are committed, you are right. But that certainly doesn’t mean that that there are more standards being broken than are being honoured. The number of wars is not negligible, it must be reduced, but to be in despair is not the right feeling one should have.

— So you do see a light at the end of the tunnel, a hope that wars will decrease in number or stop altogether?

To say when or if there will be world peace is quite difficult. But even if it never happens, there is still the effort of the Red Cross; even if it seems like a contradiction, to “humanise” war is still important. I’m convinced of that.



30th anniversary of the Velvet Revolution at UP

Medals, happenings, meetings, talks, exhibitions, book launches, a strike occupation, and a wall made out of cardboard boxes. Via a rich programme, Palacký University publicly commemorated the 30th anniversary of the events of November 1989, when Czechoslovak society overthrew the governing communist regime and set out on the path to democracy.

By awarding important personalities in societal, political, and cultural development, the university declared its gratitude for their activities in building democracy. “Freedom is not a given, it remains in fact a rare commodity and a privilege to which only a small portion of humanity can look forward. In the future, people will certainly write new stories in which climate change, global migration, and new technologies will play important roles. Freedom howev-

er remains a constant and permanent value of the past, present, and future,” said Rector Jaroslav Miller. Medals were given for example to the Austrian politician and political scientist Erhard Busek, the politician Karel Schwarzenberg, the Slovak diplomat and former actress Magdaléna Vášáryová, musician and politician Michael Kocáb, author and the Director of the Václav Havel Library Michael Žantovský, and freedom fighter Zdena Mašínová.

“I’ve heard several times in the past years that Palacký is the university which retains the most ‘Velvet’ atmosphere of any in the country and is still full of Havel lovers. I suppose most people meant that pejoratively, but the legacy of Václav Havel and that time still warms my heart. Because respectfully, tenaciously, and completely idealistically, we still stick to a simple goal: That truth and love must again prevail.”

Jaroslav Miller

The more than a week-long programme offered the public a number of encounters with interesting personalities. They could debate for example about how in the last thirty years the mass media has changed or how the legal system has developed. But it wasn't all talk, there were also things to try. The student strike committee of 1989 decided to repeat their occupied strike at the UP Faculty of Arts in order to acquaint people with what was happening at the time. Committee members transformed classrooms and other areas into a typing pool, a print room, and a workplace for the outreach section, which spread information

to cities and factories throughout central and northern Moravia thirty years ago. In the corridors, stairways, and any free space, visitors to the occupied strike reconstruction could view 1200 historic photographs and hundreds of period posters and other artefacts. And anybody who wanted to could contribute in erecting a wall of cardboard boxes in front of the Faculty of Law at the Envelopa campus. The "Velvet Reconstruction" reminded all that on the same place in November 1989 stood the local headquarters of the Czechoslovak Communist Party, which people at the time surrounded by a cardboard wall.

After the celebrations several tangible "monuments" were left, which are not only reminders, but can also serve as teaching aids. The Faculty of Education for example issued special cards with the legend "November 1989 – 7 Key Moments in the Velvet Revolution", which should acquaint young people with no-so-distant Czech history. The UP University Press in cooperation with the Olomouc Museum of Art published the book *Olomouc Moments 1989* which is conceived as a chronical or diary of events of that key year, focussing on the city and its surroundings. It features photos from family archives, capturing ordinary events in the everyday life of "real socialism".



UP MEDALS WERE RECEIVED BY:

Erhard Busek, Austrian political scientist, historian, politician

Tomáš Hradílek, signatory of Charter 77, former Minister of the Interior

Jaroslav Hutka, musician and songwriter

Josef Jařab, first post-1989 UP rector, former senator

Věra Jourová, European commissioner, former Minister for Local Development

Michael Kocáb, songwriter, musician, activist, politician

Zdena Mašíňová, sister of the communist fighting Mašíň Brothers and daughter of Josef Mašíň, recipient of the Order of Tomáš Garrigue Masaryk

Šimon Pánek, Director of the NGO People in Need, activist during the Velvet Revolution, member of the Civic Forum

Ivana Plíhalová, Olomouc actress and activist

Karel Schwarzenberg, politician, former Minister of Foreign Affairs

Anna Šabatová, public rights defender, signatory of Charter 77

Magdaléna Vášáryová, Slovak politician and diplomat

Eliška Wagnerová, lawyer, judge, politician

Michael Žantovský, Director of the Václav Havel Library.

Foreign stays are the spice of (not only) doctoral studies



A necessary part of doctoral study as well as a welcomed bonus. This is how many doctoral students at Palacký University Olomouc perceive foreign stays. They never lack the enthusiasm and willingness to do extra. When they get to a prestigious workplace abroad, they will bring home valuable experiences, contacts, and materials for publications. And these are the trump cards for their future careers.

Michal and Rostislav Langer agree completely. The twins graduated in the same field at the UP Faculty of Science and now they study in the second year of the PhD programme Physical Chemistry. Thanks to the support of the Department of Physical Chemistry and the Regional Centre of Advanced Technologies and Materials, both were able to enjoy foreign stays to the utmost extent. The most recent one was their participation in the prestigious Summer School of Quantum Chemistry in Sicily. Michal also attended a foreign internship at the University of Illinois in Chicago this year. “I have gained experience that is of

great benefit to me. I came to know not only how science functions there, but also the educational system. Before long, we should publish a joint article with colleagues from the local laboratory,” says Michal.

His brother is still waiting for his PhD internship. During his Master’s degree, however, he worked for six months at the Institute of Chemical Research of Catalonia. One of the results was an article recently published in *Applied Materials Today*. He has also attended the Winter School on Magnetism in Vienna, a conference in Belgium, and in February he visited the Graphene Study in Austria with other doctoral students. “One of the Nobel Prize winners for the discovery of graphene, Sir Andre Geim, even saw my poster there and said a few words about it to me. This does not happen to everyone,” says Rostislav with a smile, adding that he would prefer to go to the USA for his doctoral internship.

Petr Stejskal, a doctoral student in European and International Law, also has extensive international experience. Over the

past two years, he has attended an internship in The Hague, earned an LL.M. at the University of Amsterdam, has written academic articles, attended an internship at the Permanent Mission of the Czech Republic to the UN in Geneva, enjoyed the Winter School on Law for selected students at the Hague Academy of International Law, worked for the Permanent Mission of the Czech Republic to the UN in New York, and also had a work stay in Johannesburg. “Before I started my doctoral studies, I had no idea that I would be able to travel, study, and work like this. The possibilities are vast – and, above all, feasible,” says Petr Stejskal in his message to other candidates.

Completion of at least a one-month study at a foreign institution, participation in an international creative project with results published or presented abroad, or another form of direct student participation in international cooperation are variations on one of the duties that PhD students must fulfil. Currently, there are 1500 doctoral candidates at UP.

Fort Science: Scientia Iudus

In April, it will be five years since Palacký University opened the gates to Fort Science. Visitors young and old have been welcomed into the wonderful world of science, which is by no means boring or complicated. Just the opposite. Fort Science has shown that science can entertain anyone. From four-year-olds to their grandparents. After all, it attracts 100,000 visitors annually.

The huge public response is the result of efforts by the Popular Science Centre team at the UP Faculty of Science, which prepares its portfolio of activities with boundless energy, thanks to which people keep returning. “Fort Science is first and foremost a showcase for Palacký University, the pillar of its ‘third role’ as its mission to the public, with significant societal outreach to all ages. It is the presentation of university research and results of Czech science that I see as our primary task, especially in today’s ‘post-truth’ era. To address scientific themes in a way which is understandable to the public is difficult however, so I highly appreciated all the workplaces and individuals who are interested in advocating that science is im-

portant to the public,” says Fort Science Director Matěj Dostálek. He adds that he considers cooperation with the Centre of the Region Haná for Biotechnological and Agricultural Research and especially the Olomouc workplace of the Institute of Experimental Botany of the Czech Academy of Science to be exemplary. “When I see how much attention, energy, and resources the team led by Prof. Jaroslav Doležel has devoted to popularising science here, it makes me very happy.”

Thematic exhibitions, weekend programmes, science clubs, the Children’s University, workshops for seniors, and debates about cannabis or the state of democracy in today’s world. These are all events that the centre uses to help create a community of loyal visitors and to pique the attention of important personalities, including those who come to Fort Science from abroad, such as the American astronaut Andrew Feustel, evolutionary biologist Richard Dawkins, theoretical physicist Lawrence M. Krauss, and many more.

The Popular Science Centre team is currently cooperating with the Department of

Physical Chemistry on an exposition popularising nanotechnology applications, and selected exhibits are being created in consultation with geographers, geologists, geoinformation specialists, zoologists, and botanists. “Our speciality is informal education, which will play an increasingly significant role. This is why we already research the efficacy of our educational programmes for school groups. And it is why I see huge potential primarily in connection with educational fields,” Dostálek explains. For this reason, the team also publishes: already out is the interactive textbook *From Earth to Space*, and soon there will be an illustrated textbook on genetically modified organisms.

An important role in the story of Fort Science is played by UP students, who work at the expositions as both guides and lecturers. Many have connected their work here with their master’s theses and communicating science has become part of their academic lives. The Fort is preparing a motivational-educational programme for them, thanks to which it will soon become a training centre for science communication.



In the preserved area of the Crown Fortress in Olomouc stands a rare historical building with a wooden frame. Until 1857 it was an integral part of the fortified city. While then it stored munitions, today it is a haven for science and informal education.



Successful in dry run rescue

Just as sports-minded students have academic games, and law students have moot courtrooms, future paramedics also prove and measure their skills and knowledge. Their competitions only simulate life and death scenarios, but preparation for real-life situations is invaluable. The trio Michaela Králíková, Tomáš Večeřa, and Jaroslav Zavadil, who recently achieved several good showings, can tell all about it.

Of particular note is their third place showing in First Aid Days in the Jeseníky Mts and another bronze in the event Yeti Rescue in the Orlické Mts, where they competed in the same category with professional paramedics. Jaroslav and Tomáš also took part together in the competition Inter Vitam et Exitum for medics, finishing in fifth place.

The variety of tasks which students of the UP Faculty of Health Sciences had

to tackle in individual events was more than varied: a bus accident, a difficult birth, a hanging, an accidental overdose, and a simulation of an operations centre. “The evaluators assess absolutely everything in the model situations – not just if we examine patients according to prescribed procedures and if we are able to stabilise the patient. They also evaluate the approach to the patient, communication with them, and mutual cooperation in the team,” Michaela Králíková said, explaining the difficulty of the rescue competitions.

Thorough preparation is the key. At present however, it is not as intense as it was during their first exercises, because they are now more coordinated. “When we work as a team, I’m the leader and I don’t treat the majority of patients, I’m in charge of organising our work performance while Michael and Tom do the examinations. The

advantage is that we are learning while preparing and the tasks we accomplish in competitions can be used in school during exams. At the same time, the experience is great for our internships. The faculty supports us in the competitions, which we truly appreciate,” adds Jaroslav Zavadil, who got his feet wet in rescue work as a volunteer fireman.

Whether the trio, called “UPs”, will add to their successes in further competitions in the 2020 season depends on the dates of their final state examinations. However, they are determined that Yeti Rescue will not be their final competition. At the same time, they are aware that their accomplishments to date have set the bar, and that their friends expect better results. And also, that this is just a competition and they still lack years of internships and experience before they can compare with real-life professionals.

text: Martin Višňa
photos: Gabriela Knýblová

alumni

Ladislav Korotvička knows how to treat tooth decay





Ladislav Korotvička (b. 1952)

A graduate in the field of Dentistry at the UP Faculty of Medicine and Dentistry, a dentist, founder of the non-profit organisation Arak, author and organiser of prevention programmes not just in the area of oral health. He also works as an external teacher, teaching dental students of UP FMD and also at the Emanuel Pötting vocational school in Olomouc. After work he takes care of horses, and likes fishing, mushroom picking, yachting, and downhill skiing. He also takes part in organising sporting events and cultural activities.

Some remember how he broke toothbrushes during check-ups, others praise him for what he has achieved in the area of prevention. Under the auspices of his Arak organisation, he has been running an annual dentistry conference for a full decade, as well as a number of educational programmes, not to mention competitions in rescue skills. In short, Ladislav Korotvička is not your ordinary dentist.

He graduated from the UP Faculty of Medicine and Dentistry in 1975 and his first practical experiences were gained in the army checking soldiers' teeth. After returning to civilian life, he was famous as the one who broke children's toothbrushes. "I broke about half of the toothbrushes during check-ups and then explained to the parents that they were no longer functional. Since then I've calmed down a lot. But when I see today the frayed toothbrushes some children use to brush their teeth, I then ask them what computer or mobile phone they have. People often put more emphasis on those kind of things," says the dentist, who has also held the position of district registrar, the professional guarantor for children's dentists in the Olomouc district.

According to Korotvička, Czechs' ideas about toothbrushes are stuck in the past. Dentistry, however, has evolved in the last thirty years like never before, whether it means equipment, new technologies, the choice of materials, and even dental care items for use at home. "Today there are many more possibilities, of course at the same time the gap between those who make minimum wage and those who can

afford to whiten their teeth or apply porcelain veneers is growing," he says.

In terms of the system, the Olomouc dentist sees it positively that the Czech Dental Chamber has established itself in a strong position to determine rules for dentistry. One negative he sees was abolishing regular preventive check-ups in schools. Not even one half of Czech schoolchildren see their dentist twice a year.

Ladislav Korotvička has also directed his attention outside his own dental surgery. A decade ago, together with Zdeněk Hamřík and Michal Kalman from the UP Faculty of Physical Culture, he founded the Arak charitable trust aimed at prevention in the field of oral health as a component of a healthy lifestyle. Crossword puzzle solvers know "arak" as the name of an alcoholic spirit made from rice but it's also a synonym for *Salavadora persica*. "This is the 'toothbrush tree', whose branches and roots were used by the ancient Babylonians to clean their teeth. Millions of people still use it today for this purpose. And because prevention is the foundation, the root of medicine, we decided to name it symbolically," he explains.

Under the pilot programme Mandala, dental teams made up of dentists and dental students went into schools. Using a playful format, they familiarised 1500 children with the basics of dental care. Arak is also aimed at educating dentists and future teachers. A rescue skills competition for school teams called Arakiáda has become an important event, as well as the international conference We Know How to Treat Tooth Decay.

"What's unique about the conference is that you will meet dentists, dental students, dental hygienists and nurses, or even dental lab technicians. During the past ten years it has grown into a large, acclaimed event, at which there have been a total of 250 lecturers, including ones from Switzerland, Sweden, and the USA. But I have decided to end my presidency after ten years. I would like to dedicate myself primarily to preparing events for World Oral Health Day, which falls on March 20th," Korotvička pointed out.

He wants to pay especial attention to originality. "The Czech Dental Chamber has been awarded for hosting the best prevention events in the world, and the Olomouc branch under the leadership of Roman Šmucler is one of the best organisers in the country. It's been awarded for frequency, so we'll add a touch of creativity. I'm thinking about a dental party," he reveals.

When planning, he can rely on a dependable and enthusiastic team with wide experience and contacts. For example, he was one of the founders of the civic association Credo, under whose auspices a school for pupils with special educational needs was established. He has taken part in the organisation of various sporting and cultural events, including being the curator for an exhibition by the Czech-Australian painter Václav Ježek von Thienfeld. Korotvička himself has carved sculptures and created jewellery out of wood combined with metal. And perhaps one of his future events could be imbued with a Western theme, because Ladislav Korotvička's major hobby is horses.

text: Martin Višňa
photos: Vojtěch Duda, AV archives

endowment
fund

When pottery clay heals

Love at first sight. This is how Anna Višková, PhD student of the UP Sts Cyril and Methodius Faculty of Theology, talks about the therapeutic method Work at the Clay Field, which may look like simple playing with clay, however it allows a trained eye to detect something about the person and their experience with relationships. Her “clay field project” also interested the Board of Directors of the UP Endowment Fund, and thanks to the Fund’s support, the art therapist could fulfil some of her dreams and help popularise this method.

“I’ve always been creative, and at the same time I needed to help people. Art therapy allowed me to connect both,” says Višková. She had been engaged in various forms of art therapy for some time, in addition to Art Education at the UP Faculty of Education she also graduated from the Atelier of Art Therapy at the University of South Bohemia, and for more than ten years she has been working mainly with children from children’s homes in a Prague NGO, Letní dům [Summer House]. The crucial moment came when

she attended a workshop by the author of the “clay field” method, Heinz Deuser. “It was an amazing experience, I came back home charged with wonderful positive energy. And when Deuser opened a training class, I did not hesitate,” she says in reminiscence of her beginnings with the method that has become both her main working tool and the topic of her study in the doctoral programme Social and Spiritual Determinants of Health.

With a project focussing on “clay field” therapy, she also applied to a grant call from the UP Endowment Fund and – although not at the first time – succeeded. Among other things, it enabled her to work with the German-Australian therapist Cornelia Elbrecht, a colleague of Deuser’s and the author of the only book on clay field therapy in English. “I had this dream of meeting her one day, and it blew my mind that it really happened! For two weeks I was an assistant in her class, helping newcomers get introduced to this method. I also received supervision from her,” she says about the completed internship. →



Anna Víšková, however, did not want to be useful only to herself; one of the goals of her project supported by the UP Endowment Fund was organising a symposium in order to further promote clay field therapy. Together with the “godmother” of this method in the Czech Republic, Petra Součková, they prepared a programme for five dozen participants, even from countries such as Switzerland and Estonia. Cornelia Elbrecht and Heinz Deuser, who celebrated his birthday in Olomouc, were among the speakers. “I’m very pleased. Everything worked out perfectly, our participants were leaving full of enthusiasm. It was a successful event, everything just fell into place,” says the art therapist modestly.

Of course, she immediately admits that things were not so easy. The preparations took about a year and included contacting the speakers, finding the premises, putting together a programme that would be suitable for both complete beginners and those who already know this method, managing registrations, accommodating participants – and procuring pottery clay (sixty kilos were used during the symposium).

Today, she shrugs off the minor technical problems from the first day of the event. What matters now is that she needs to complete the proceedings of the symposium and then start working on her own dissertation. She will employ all the experience she has gained, most importantly the findings from her own research, which focusses on how children with an attachment disorder – a condition of disturbed emotional attachment to a parent during early childhood – relate to the material and to themselves during the clay therapy and how that changes during the therapeutic process. The main focus is on the child’s first movements when they approach the “clay field”. “This is in fact the first question I want to find an answer to during every session. Just as child’s drawing develops, so does haptic communication. Children with a developmental trauma show significant regression, for example in equilibrium or in basic things such as when a 12-year-old boy is not able to use his strength, resembling a small child,” explains Víšková.

The goal of clay field therapy is not about creating something. “It is mainly

about the client’s sensorimotor experience, about their haptic communication, and about how they relate to the environment and themselves by means of contact with the material. The client comes to a crate filled with pottery clay, there is also a bowl with hot water and a sponge on the table. What happens next is always different: one person needs to show their strength and take all the clay out of the crate, while another will be too timid to get out a sufficient quantity. Some need more touch; when I deal with deprived children, for example, I pour warm water on their arms, because it reminds them of being in the womb. Adult clients sit at the table with their eyes closed because they tend to judge things by how they see them. Children are more spontaneous in their physical contact and for them, eyesight does not play such a role; they also often work with the clay through play. I assure every client they can do whatever they need and follow their impulses,” says the specialist in a method that has a long tradition in Western Europe but is a novelty in Czechia. However, thanks to Anna Víšková, the public can learn more about it.

Anna Víšková (b. 1980)

Art therapist specialising in the method Work at the Clay Field. Born in Prague, she graduated from the Atelier of Art Therapy in České Budějovice and from the UP Faculty of Education; currently she studies in the doctoral programme at the UP Sts Cyril and Methodius Faculty of Theology and attends psychotherapeutic training at the Czech Institute of Biosynthesis. She works with children from children’s homes at the Letní dům NGO in Prague; she also works in the crisis intervention centre of the J.J. Pestalozzi Centre in Žamberk. Her favourite leisure activities are working on her own art and spending time with her dog named Námí, which means joy.



text: Martin Višňa
photos: Tomáš Křikal

experience

Back from Patagonia

Always with make-up on, in a dress and high-heeled shoes, a purse across her shoulder. This is how Karolína Nováková, a student at the UP Faculty of Physical Culture, used to be. Once you hear about the experiences she has had when travelling, it's a bit hard to believe. And she has lots to tell: she has sold cigars in the USA, spent Christmas on an island of cannibals, and not long ago she returned from a four-thousand-kilometre trip within South America.

She says that every journey broadens her mind, she always returns as a slightly different person. She discovered she had a yen for travel when in Thailand with her parents, although she had already been an au-pair in England. "That was a school unto itself. At first I cried every night. Not only that I had to take care of myself in a foreign country, but I also had to take care of others," says Karolína, who once wanted to be a manager at ČEZ, the largest utility company in Central Europe. She did not become one, however, admitting that another previous dream of hers might be more realistic – to volunteer in Kenya.

No cushy holidays

The list of countries she has visited so far includes Sri Lanka, South Africa, Singapore, and Egypt. She considers her trip to New Zealand two years ago to be the game-changer. Not only did she leave well-

paid, but the difficult work also got her over her being so "posh". "The very idea that I should go anywhere alone, walk dozens of miles, and be maybe two days without a shower, that was beyond all comprehension. Before, I had to buy new make-up every month, but now I leave it at home. I found out there are other ways," the Recreation and Leisure Studies student says.

She spent nearly a year in New Zealand and travelled the entire country with her boyfriend Tomáš. The best place according to her was the headland at French Pass, with its incredible views and dolphins, although it's not for everybody. "Of course, we worked. In addition to mind-ing children I also made money house cleaning. It's well-paid, people there don't like to clean. I also worked for a car rental agency. Although I'm not the mechanical type, a person can pick up the routine things pretty quickly," she says. She took the same approach a bit later when selling cigars in Florida. A non-smoker, she said at her interview that she could learn everything. The fact that she is not afraid of strange places, nor even rumours of cannibalism, is proven by her Christmas trip to Vanuatu in the Pacific. "They were very kind to us, and they all wanted to take a look at us, as we were a bit exotic to them. We're still in contact with the man who let us stay with him," Karolína adds. →

Karolína Nováková (b. 1995)

A student of Recreation and Leisure Studies at the UP Faculty of Physical Culture. She was born in Nový Jičín and now lives with her boyfriend in Olomouc. Since secondary school she has been working in the area of leisure activities, running children's summer camps and ski schools, she writes a blog with tips for activities with children, and invents games. She is also a lecturer in the project Health in Schools and she has made her living as an event manager in a large organisation. In addition to travel, her hobbies include sports – especially swimming – and cooking.

Trip through Patagonia

Their biggest adventure to date was a three-month trek from Ushuaia, Argentina to Santiago, Chile. They spent nearly €5000, although they were able to get half of that from a crowdfunding portal. They originally planned to cover about 2800 km in the national parks of Patagonia, but in the end they managed 4000 km. Their daily average distance walked was roughly 25 km; some portions of the journey they travelled on bikes, hitchhiking, and by boat. "I was ready to give up already on the first or second day. We started with a fortnight trip ahead of us, we were carrying all our food, and I was also humping tons of stuff I thought I was essential. On the first night, after walking all day, I was exhausted, I was shaking, I was in tatters. I wanted to go back," she remembers about the start of her voyage, during which they experienced the natural charms of the Andes. They also visited the mountains surrounding the town of El Chaltén, which Karolína reckons the most beautiful place in the world.

And they experienced the vagaries of the weather: icy cold in the South and heavy rains

and flooding in the North which wiped out bridges and destroyed villages. In such pervasive humidity it is hard to convince yourself to keep going when you have to put on wet boots. In addition to being as long as three weeks without hot water, one of their stories is about how a dry-cleaner's refused to take their clothing. "We had come in from the wilderness, our clothes dirty, damp, and smoky. The woman was angry because she would have to clean them several times until I explained that once was enough, and we'd be on our way," tells the Recreation and Leisure Studies student. And when asked the question which three items of equipment were the most important on the expedition, she immediately replied: "Does food count as equipment?" She added good hiking boots and a sleeping bag. "The most important thing is who you're with. Maybe it doesn't seem like it – but I really believe that if I hadn't been with Tomáš, I would have given up."

What do your teachers and parents think?

Karolína of course has many more experiences and knowledge gained from her trip,

and cannot imagine not being able to travel, whether because of a political regime or school duties. "I chose a great major, Recreation and Leisure Studies is open to gaining experience. Some of the teachers are glad when we're not sitting in classrooms all the time. Still, I have to fulfil my requirements," she says. And as for her parents, she says they're used to her trips by now. They used to worry about her, now sometimes they join in on her trips abroad.

Plans with a dependent

There is one more person in the equation. Karolína returned from Chile expecting a child and wondering how a baby would impact the plans of its parents. Will they manage their planned trip by car from Alaska to Argentina, or will they be rather seeing the sights of the Czech Republic and neighbouring countries? Whatever the case, Karolína Nováková, who once called herself a posh little lady, says this about travelling: "You've got to try. If you're considering travelling, then go for it. The worse that can happen is that you will find out it's not for you."



"The very idea that I should go anywhere alone, walk dozens of miles, and be maybe two days without a shower, that was beyond all comprehension."



photo:
Eva Hrudníková

Thirty-four-year-old **Fodé Traoré's** home is in Bamako, the capital of Mali. He swapped his native Bambara language for English and headed to Olomouc, where he studies in the Master's programme International and European Law at the Faculty of Law.

Tubabula ye ko folo ne fè, ne ya ye kafo a ni mali te kelin ye togo cila so gnuman caman, bolimafin baadin, siraba caman wa yoro bè jèlin do. Mali ni tubabula te kelin ye kada fin caman kan i nafo misalila malila duuba de ka ca, i be a soro mogo tan walima mogo mugan o be duu kelin kono wa o mogobè ka doni dalin be mogo kelin de kan.

Ka soro tubabula o tè, duu man bo wa a mogo man ca.

Olomouc ye dugu sanumanba ye waa dugu cègnumani do, seko ni dongo dugu do min be badalaa moravie camancè kono.

Olomouc ye dugubaa duuranan ye cèki dugu kan wa a done do ni a ka kuunko konola cègnumani u ye ,sigi ka nogo a duugu ni kono ka da kan so ka nogo, duumuni ka nogo fin bè ka nogo.

Cèki dugu denw ye mogo gnumanw ye minuu laadamune do, adama den ya be u laa, niongon dèmè a ni dunan ladon wa baara kèla u do.

Palacky kalanso min be chariya kan o ye bolo fara segin do ye Olomouc dugu kono min ka baara kèra ka doniya di kalandew ma min sinsin le bè kilin ne ya, adama den ya ani fasoden gnuma ya kan.

Palacky ka layini ye ka doniya gnuma di a ka kalandew ma min be u labin ka baara gnuma soro jigné kono amin yèlèma ka ca.

Palacky kalanso a ni a bolo fara seguin kono kalan be kè kan caman laa i nafo n'glè kan, cèki kan a ni kan were u. Kalan be se ka kè wati dafale laa walima wati kilancè laa, wa kalandew be se ka sugantili kè bolo fara caman laa niongon fè .

Ka soro malila sanfè kalanso te fansi fo na kèra duuguba ye wa kalanden min be a kono o ka ca ni mogo ba kèmè ye wa kalanso dèse be malila.

Kalan bolofara man ca , o kèra sababu ye kalanden ba caman be ta sira kelin fè wa ni u tilara u te baara soro kada u jama caya kan. Ola a befo ko mali kalanso u be baarakè bali u de guilan.

Wa farafina duugu caman la hali ni kalana kosobe ni te mogo don, i te joyoro foyi soro kada yuruku yuruku kan.

When I first arrived in Europe, it was the spring, two years ago, I realised the huge difference between the two continents. Especially between the developed European countries and destitute Mali. Things were different at first sight: different architecture, modern cars, fine roads, it's clean everywhere... but cold. Mali is different also in the way common families live. We live under one roof in big families, consisting of up to twenty family members. The whole family is often supported by one family member, the only one who has a job.

Compared to Africa, life in Europe, in Czechia, in Olomouc is comfortable and easy. I think it's not too expensive here, everything is available – food, housing, services, and transportation. I was not used to that. And the people in Olomouc? I've met nice people here, colleagues, schoolmates, as well as erudite experts. Before I came here, I was told about how the Czechs are unsociable, but I don't believe that anymore. On the contrary, I have experienced openness, willingness to listen and help, and I was nicely surprised by the hospitality of local people.

The quality of education in Mali is not too high, that's why many young people wish to study abroad, mainly in Europe. And I have fulfilled this dream of mine thanks to the Palacký University Olomouc Faculty of Law. I am surprised by the range of study programmes, their combinations, and the possibilities of studying in foreign languages, offered by faculties in Olomouc.

At the moment, I have completed a substantial part of my studies, so I can evaluate. Classes at the Faculty of Law are demanding, we're working in small groups, systematically, and our teachers are top experts. By contrast, in Bamako, where I attended university, the timetable was often invalid, and there were no classrooms for large groups of students.

They say the University of Bamako produces the unemployed. They offer only a few programmes, in which too many students graduate, and the market becomes oversaturated. In Africa, you can have a degree in an interesting discipline from a high-quality school, but still it is no guarantee of work. Because you need to know a person in the right position. Alas, corruption is huge in our country.

You should appreciate the outstanding universities you have here and the opportunities you have thanks to your university degree.

Patron of the Olomouc university

Cardinal-Archbishop Rudolph Johann Habsburg-Lorraine, Archduke of Austria (1788–1831)

Emperor Leopold II Habsburg-Lorraine fathered four sons and eight daughters in his marriage to Maria Luisa of Spain. While his eldest son Francis inherited the imperial throne after his father's death in 1792, his youngest son, Rudolph Johann, born 8 January 1788 in Florence, was intended by his emperor-brother at first for a military career and for a short time was in charge of the Austrian 14th Infantry. Health problems – he suffered from rheumatism and epilepsy – finally led him to forge a spiritual path.

He was privately educated in the Klosterneuburg Monastery and at the Vienna Theological Faculty, and on 12 March 1805 received the tonsure and lower ordination, and on 24 June of that year was named coadjutor (assistant to the bishop with the right to succeed to bishop) to Olomouc Cardinal-Archbishop Anton Theodor von Colloredo-Waldsee-Mels. When Archbishop Colloredo died on 12 September 1811, his coadjutor Rudolph Johann, due to his youth, relinquished the right to ascend the archbishop's throne, which was then assumed by Cardinal Maria Thaddäus von Trautmannsdorff.

Olomouc Cardinal-Archbishop

Upon Trautmannsdorff's death, Rudolph Johann at the age of 31 was postulated by the Olomouc Chapter to become the Archbishop of Olomouc, and on 4 June Pope Pius VII conferred the dignity of Cardinal-Priest of the titular Church of St Peter in Montorio upon him, and on 29 August he was ordained a priest. He was ordained as archbishop on 26 September 1819. Cardinal-Archbishop Rudolph Johann, also well-known as a connoisseur and a collec-

tor of fine art, chose the Archbishop's Chateau in Kroměříž as his main seat.

Patron of the Olomouc university

On 11 June 1826, a deputation from the Royal and Imperial Lyceum in Olomouc (Rector Clemens Schwarzer and one professor from each subject) visited Cardinal-Archbishop Rudolph Johann in Kroměříž and handed him a request addressed to Emperor Francis I to elevate the lyceum to the category of university (the Royal and Imperial Lyceums in Lviv, Innsbruck, and Graz had already been granted university status). The request was supported by the President of the Moravian-Silesian Provincial Government at that time, Antonín Bedřich Count Mitrovský of Mitrovce and Nemyšl. The cardinal-archbishop intervened with his emperor-brother in favour of the proposition, but it was only on 11 March 1827 that the emperor approved the request, and on 17 March, Rector of the lyceum, Joseph Höchsmann, received the imperial decree. The following day, a Sunday, he gathered the entire academic body of the lyceum to give thanks to Cardinal-Archbishop Rudolph Johann in the Archbishop's Palace. On 2 April 1827, the university asked the emperor if it could bear his name (Francis I Royal Imperial University), on 24 June a torch procession was arranged in honour of Cardinal-Archbishop Rudolph Johann, and on 15 September 1827 the request was granted by the monarch.

On 11 February 1828, an opening celebration for Francis I Royal Imperial University Olomouc took place. University studies were renewed at three faculties: the Faculties of Philosophy, Law, and The-

ology, and Medical-Surgical studies were opened, taught by bonesetters and midwives. The university had 24 professors and 639 students, and the annual income for scientific and study purposes came to about 30,000 guilders.

The first rector of Francis I Royal Imperial University was Theol. Dr. Ignaz Feigler. The ceremony for the restoration of the university in its decorated building (now the building of the Sts Cyril and Methodius Faculty of Theology, 22 Univerzitní St) was capped by the handing over of four university maces from the hand of the provincial commissioner, Olomouc regional governor Antonín Alois Glass, to the rector, and proclaiming the glory of the monarch by singing the anthem "Gott erhalte Franz den Kaiser!" (God Save Emperor Francis!).

Olomouc Cardinal-Archbishop Rudolph Johann Habsburg-Lorraine, Archduke of Austria, died 23 July 1831 at the age of 43, in the spa town of Baden near Vienna. His body was interred in the imperial cemetery below the Capuchin church in Vienna, but according to his will, his heart was placed in the crypt of St Wenceslaus Cathedral in Olomouc.



Johann Baptist von Lampi the Elder (1751–1830):
Olomouc Cardinal-Archbishop Rudolph Johann Habsburg-Lorraine,
Archduke of Austria, decorated with the insignia and star with crucifix
of the Hungarian Order of the Holy Crown of St Stephen and with the
insignia and star of the Order of the Crown of Saxony.
Oil painting on canvas, 1819–1830, Museen der Stadt Wien.



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