

# žurnál

Magazine of Palacký University Olomouc, 2016 / 1

theme

**Development of New  
Drugs and Diagnostics:  
Hope for a Better Life**



Palacký University  
Olomouc

*Genius loci...*



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## contents

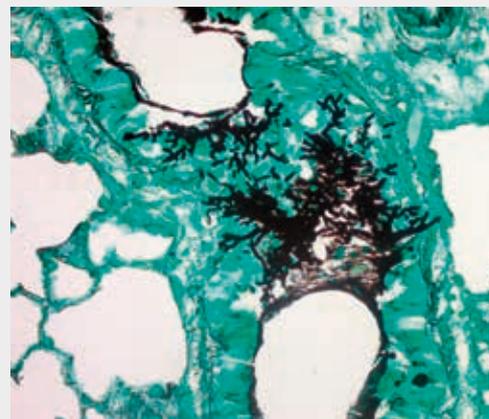
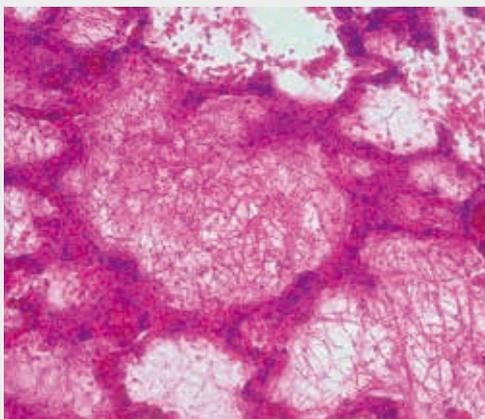
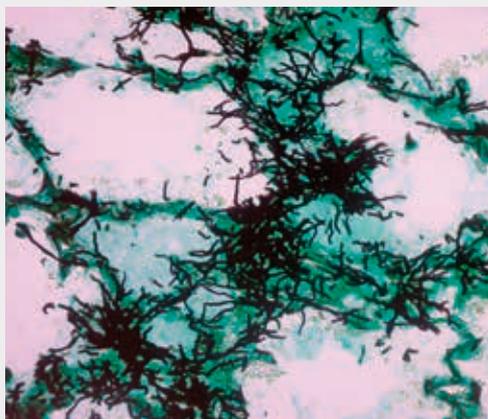
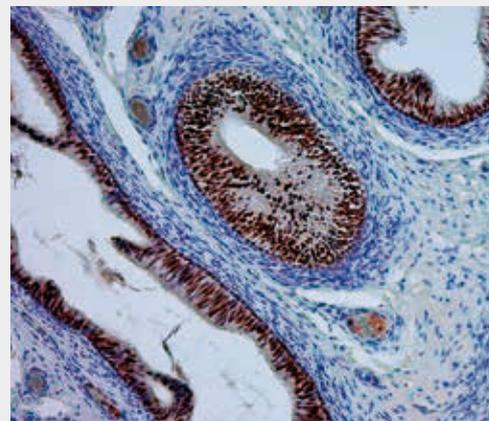
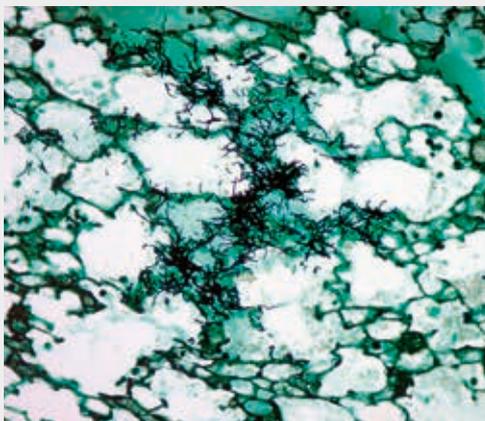
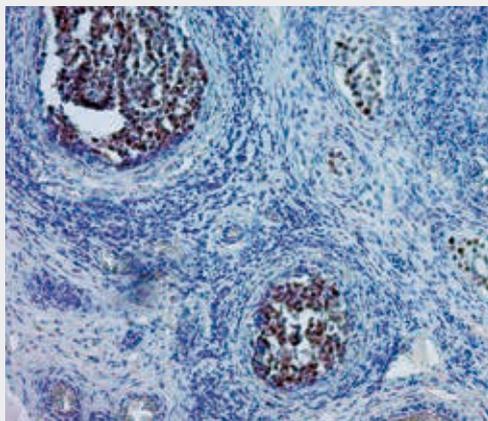
- 2 — Development of New Drugs and Diagnostics: Hope for a Better Life
- 6 — UN at UP – International Students in the Role of Diplomats
- 6 — New Course at the Faculty of Theology: Friars to Friars
- 7 — Deans: Milan Kolář Re-Inaugurated at the Faculty of Medicine and Dentistry. The Faculty of Law Senate Elects Zdenka Papoušková
- 7 — Conference Seeking Answers to Topical Questions in Obstetrics Today
- 8 — Successful Robotically-Assisted Surgery at the Department of Urology
- 8 — Natural Scientists Hear Lecture by Chemist Peter Sadler
- 9 — Accreditation Ensured for Almost All Programmes at the Faculty of Education until 2021
- 9 — Czech Academic Games 2015: Silver for Palacký University Olomouc
- 10 — U.S. Patent Confirms Significance of Anti-Cancer Substances Discovered in Olomouc
- 11 — UP Study Findings Contribute to More Effective Treatment of Resistant Hypertension
- 12 — Small Card Can Test Contamination of Drinking Water
- 13 — Profile – Ingeborg Fialová
- 16 — Kaleidoscope of Brief News
- 20 — Success
- 24 — University Mapping Creative Industries in Olomouc
- 28 — Student Counselling Centre – First Step to a Successful Career
- 29 — UP Endowment Fund Supports Talented Students
- 30 — Photostory – Olomouc: City of Animation
- 31 — Naděžda Calabová: In Jordan I Teach Physical Rehabilitation of War Injuries
- 33 — Vladimír Birgus: A Life with Photography
- 35 — Joy of Movement and Culture
- 36 — Sleep Out 2015: Trying Life on the Street
- 38 — Famous Mathematician from Haná
- 39 — Reflection – Studies in Olomouc: The Doors Are Open to Education
- 40 — University on the Net



Dear Readers,

Various 2015 world university rankings have testified to the well-known fact that Palacký University excels in science. Cutting-edge research in an entire spectrum of disciplines, the increasingly international nature of our academy, the steadily widening network of our partner academies, humanitarian activities in favour of the needy, as well as close contacts with our alumni across the globe. The combined effects of all these factors helped Palacký University to rise in the prestigious and highly esteemed Times Higher Education World University Ranking and US News & World Report Ranking. As one shepherding a major Central European academy, the results bring joy and satisfaction. Needless to say, our prime has yet to come. The English issue of UP Žurnál, however, covers some other achievements but I hasten to add: In 2015, we have done so much more.

Jaroslav Miller  
UP Rector



# Development of New Drugs and Diagnostics: Hope for a Better Life

To understand the underlying causes of cancer, infectious, and inflammatory diseases and to develop future medicines and diagnostics – this is the mission of the Institute of Molecular and Translational Medicine (IMTM), which develops excellent basic and applied biomedical research in Olomouc. The journey leading to the chance for patients with often fatal diseases is, however, a marathon journey, landscaped with millions of molecules, thousands of exacting experiments and endless hours in the laboratory.

The principle of molecular medicine is in finding answers to the basic question: How does the human body work in health and in illness? “We study diseases in terms of their pathogenesis, aiming toward the very basis of what is the cause of the disease. When you understand the cause, you can suggest correct treatment, or the most suitable diagnostics. On the molecular level, there is a potential targeted treatment that will fight the disease with the best proba-

bility and efficiency,” explains Marián Hajdúch, Director of the IMTM.

It is a study of diseases that may have similar mechanisms, so similar types of therapy or diagnostics may be applied. “Diseases resemble each other on the molecular-cellular level more than it seems. A similar pathophysiology can be found in a variety of diseases, only details or the localisation of the process may differ,” adds Hajdúch.

text & photo:  
Velena Mazochová  
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Žurnál UP

1	2	3
4	5	6

1. Immunohistochemical detection of the antibody Phospho-Rb (Ser807/811) (Cell Signalling) on a paraffin section of human tumour tissue. *Tenfold magnification.*
2. Demonstration of an *Aspergillus* mould in paraffin sections of immunosuppressed lungs of a rat (histologic coloration by Grocott staining). *Tenfold magnification.*
3. Immunohistochemical detection of the antibody Rb (4H1) (Cell Signalling) on paraffin section of human tumour tissue. *Tenfold magnification.*
4. Demonstration of an *Aspergillus* mould in paraffin sections of immunosuppressed lungs of a rat (histologic coloration by Grocott staining). *Twentyfold magnification.*
5. Hematoxylin–Eosin staining of a paraffin section of immunosuppressed lungs of a rat, infected by an *Aspergillus* mould. *Twentyfold magnification.*
6. Histological Grocott staining of a paraffin section of immunosuppressed lungs of a rat, infected by an *Aspergillus* mould. *Twentyfold magnification.*

The transfer of information from basic research to the patient is the task of translational medicine. “It is a closed cycle called the ‘bench to bedside and back approach’. It transfers the needs of clinical medicine into research, and at the same time it transfers projects that have relevant outcomes in research and may satisfy a relevant medicinal need into the validation phases of clinical studies as soon as possible – called ‘proof of concept’. This allows answering the question whether the chosen path is right or wrong,” says the IMTM Director.

### Discovery: It begins with a molecular target

During the development of new drugs, the IMTM scientists focus on the first two stages: drug discovery and preclinical research, which ends shortly before the first administration of the drug to human subjects. There are six research programmes for this purpose, starting with research of the molecular basis of diseases and molecular targets. “In order to have well-targeted drugs and good diagnostics, we must know our target. The first steps lead to its detection and identification – of the proper gene, protein or mechanism,” describes Hajdúch. “For example, once Prof Bártek’s (the programme leader’s) group

*“I appreciate that the study of mechanisms on the molecular level is used for the pursuit of potential preventive effects of new molecules. Besides, the IMTM is not acting alone at Palacký University – its research activities are linked with another two research centres at the UP Faculty of Science.”*

*Prof Jitka Ulrichová  
IMTM Science Director and  
UP Vice-Rector for Science  
and Research*

finds a new key protein or gene, active in the repair of nucleic acids, we can launch screening for identification of substances that are able to inhibit this molecular target, or to activate it. It depends on what the specific disease requires.”

Such discoveries in the area of the molecular basis of diseases facilitate finding possible medical strategies which are within the competence of other research programmes. One of them is Medicinal Chemistry, in the area of which large groups of chemists from the Czech Republic and abroad are collaborating, sending substances to Olomouc to have them tested for biological activity. The extensive chemical library in the IMTM currently consists of 120,000 compounds, occupying a chemical space of roughly 15 million molecules. “Other research groups then investigate how complicated the compound is to prepare or its pharmacological properties. The chemical structure has to be very often further modified and optimised for future medicinal application,” adds Hajdúch.

According to him, the main contribution of the IMTM research groups and programmes is in the close connection and continuity of their R&D activities, allowing the management of all key phases of the development of medicinal products.

“In order to have a competitive advantage against the rest of the world, we need yield from our combination of knowledge, interdisciplinary research, and unparalleled technologies. Excellent basic research is a necessity, but there is no guarantee that the findings will have practical applications,” sums up Hajdúch.

A good example of a complete research, from discovery to phase 1 clinical trial, is fenretinide, a drug with a potential use in the treatment of cystic fibrosis. It is able to partly regulate a metabolic disorder which is accompanied with vulnerability to certain types of infection that are eventually the cause of death for patients with this serious disease. Olomouc scientists developed fenretinide in collaboration with their colleagues in Canada, where the evaluation of a phase 1 clinical trial has been completed in 2015 with very encouraging results.

### Personalised medicine and tailored drugs

The development of drugs in the IMTM is closely connected to the research of biomarkers – molecular indicators used in in-vitro diagnostics – diagnostics in laboratory conditions. The goal is to develop biomarker assays, or ‘biomarker test kits’, used to identify specific diseases. →

theme

“For example, a special kit recently developed in our laboratories and certified for use in the European Union allows testing for the Her-2 gene amplification in highly degraded samples of breast carcinoma. It means that a patient with such amplification will receive a special treatment that may result in full recovery for some of these women,” explains Hajdúch.

By means of biomarkers, it is possible to identify a group of patients who are most likely to have a therapeutic response. “It is the principle of ‘treatment for the right patient’ – which I have been trying to promote in the Czech Republic with Prof Vladimír Mihál, Head of the Children’s Clinic at the UP Faculty of Medicine and Dentistry and the Olomouc Teaching Hospital since the 1990s. Such a treatment is maximum patient-friendly, has minimum side effects, and higher probability of therapeutic response. It works as a magic bullet – the drug hits a corresponding molecular target in the tumour. The target, in order to be hit, has to be present in the tumour tissue, and this is why it is necessary to be examined with an appropriate biomarker,” explains Hajdúch. “Personalised medicine and tailored drugs make it possible for the patients to receive what is best for them at the moment. This approach will undoubtedly dominate in medicine one day, because

administering drugs to targeted patient groups increases the efficiency and safety of the treatment. This principle is quickly spreading from oncology to other branches of medicine.”

### Taking the lead

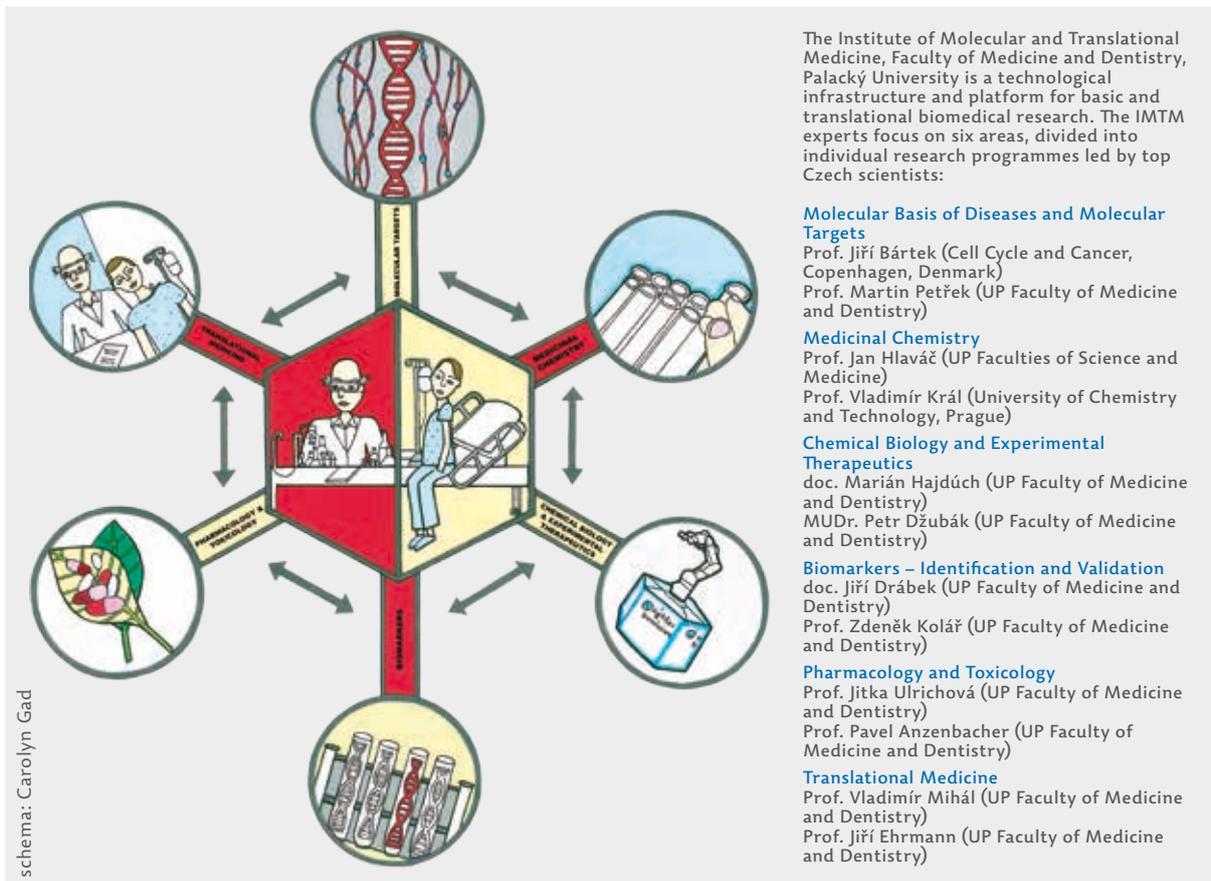
The array of successful research activities includes a number of new diagnostic methods within a broad spectrum of cancers. For instance, Olomouc scientists develop new biomarkers for identification of cancers of the colon, ovaries, prostate, and upper gastrointestinal tract – stomach, oesophagus, and pancreas. “Pancreatic cancer is almost always deadly, with a very short life expectancy – less than five percent of the patients survive for five years or more. The only chance for cure is a very early diagnosis. We also search for possibilities of earlier diagnosis of lung carcinoma, which can only be treated in the early stage, too,” underlines Hajdúch. These fascinating projects bring together researchers and their colleagues from the Surgical Clinic and the Tuberculosis and Respiratory Disease Clinic in Olomouc. New biomarkers are identified by means of tumours transplanted from the patient to a mouse with suppressed immunity. “The tumour and its treatment thus may be studied on the level of the whole organism, with

*In the last two years, the IMTM has had 174 publications in impact journals, with a cumulative impact factor of 764. Some of them were published in prestigious journals such as Cell and Nature Cell Biology. The IMTM was launched in 2012.*

*The IMTM infrastructure is equipped with cutting-edge technologies and essential devices used in bioinformatics, biostatistics, genomics, proteomics, cell biology, and animal models.*



Head of the Institute of Molecular and Translational Medicine is one of leading experts in the research of treatments and molecular ontology in the Czech Republic, docent Marián Hajdúch. He is the author or co-author of a number of scientific works and patents in the area of basic and applied biomedical research. He is also the chairman of the Board of National Directors of the European Infrastructure for Translational Medicine (EATRIS-ERIC).



the prospect of finding new diagnostic and therapeutic possibilities.”

Very promising are the programmes to screen brain tumours, infections, and other pathological processes. “Our colleague Miloš Petřík works on screening of insidious *Aspergillus* infection, which may be life-threatening for patients after bone marrow transplants. We also investigate screening of brain tumours, which will be further used in collaboration with the Copenhagen laboratory of Jiří Bártek in his research into brain tumours,” says Hajdúch.

One of the important prerequisites for a successful translational research is to identify in advance the potential problems in the patients before their treatment begins. This has been confirmed by a recent discovery of a new mechanism how cancer cells resist the olaparib treatment. This drug was approved in 2015 for patients with a hereditary type of ovarian cancer. “It was evident that there is a great medical future for olaparib and similar drugs and that it will very important to monitor the ways in which cancer cells will resist it. Last year’s publication of Prof Bártek’s team in the journal *Cell* identified one of these

mechanisms, which enabled us to look for ways how to go round this resistance. In other words, you need to have a solid lead,” explains Hajdúch.

### No false hope

The demanding research work requires knowledge and erudition as well as immense patience and endurance, thus being a permanent challenge for scientists. Despite many blind alleys that are often the outcome of basic research, “It is a complicated, yet for most of us a very intriguing and exciting process. You have to be really keen on science to be willing to go through what it takes,” confirms Hajdúch.

It also involves the responsibility for more or less real expectations on the side of the patients that are heard from even beyond the walls of research labs. All of the news in the media about a discovery or a promising treatment are always followed by a flood of letters – patients asking for help. “We’re trying to give our patients hope, but it cannot be false. Our goal should be deepening all our knowledge that makes their lives better and longer – and this is the vision we’re working on,” says Hajdúch.

*One of the most important experts in the IMTM is the most cited Czech scientist in Biomedicine and an alumnus of the UP Faculty of Medicine and Dentistry, Jiří Bártek, who is also Head of the Genome Integrity unit at the Danish Cancer Society Research Center and works in several prestigious European research laboratories. His team has currently made significant achievements in the treatment of brain tumours.*

8 faculties  
1 university



## UN at UP – International Students in the Role of Diplomats

Palacký University received a prestigious offer to host a Model United Nations conference, a simulation of U.N. committees. For the second time, Olomouc became the place where students from all over the world tried on the shoes of diplomats.

The Model United Nations conference is regularly organised and to a large extent sponsored by the National Collegiate Conference Association from the United

States. It takes place every spring in New York in the headquarters of the United Nations. Europe hosted this event for the first time in 2010 in Olomouc, while the second occasion took place in November 2015. The model conference was attended by 300 delegates.

“It is the most prestigious model of U.N. proceedings in the world. The privilege to organise this conference beyond the U.S. territory is a token of much ap-

preciation and trust. The choice of Olomouc is definitely based on our successful organisation of the first conference here. Equally important have been the achievements of our delegations at New York conferences, where our students regularly participate thanks to the support of Palacký University, bringing back home awards for their papers and performance,” said Jiří Lach, Dean of the UP Faculty of Arts. (map)

## New Course at the Faculty of Theology: Friars to Friars



A new course at the Sts Cyril and Methodius Faculty of Theology is designed for members of monastic orders and congregations. A series of lectures and workshops brought together 80 participants from the Czech Republic and Slovakia.

The public course Friars to Friars was created on the occasion of the Year for Consecrated Life, announced by Pope Francis. Lectures and workshops will be held by representatives of monastic orders and congregations among the Dominicans, Franciscans, Premonstratensians, the Salesian Society, and Jesuits.

This novelty, offered by the faculty within the Lifelong Education Programme, met with significant interest. The two-day meetings of friars will take place monthly in Olomouc until April 2016. (map)

photos: Gabriela Knyblová | Vělena Mazochová | Eva Hrudníčková

## Deans: Milan Kolář Re-Inaugurated at the Faculty of Medicine and Dentistry. The Faculty of Law Senate Elects Zdenka Papoušková.

The inauguration ceremony at the beginning of October 2015 confirmed Milan Kolář as Dean of the UP Faculty of Medicine and Dentistry, elected into his second term in office by the Academic Senate. The re-elected dean delivered his vision for the next four years as a complex of activities in education, science and research, and treatment and

prevention. “Our goal is to make our graduates capable of taking any medical specialisation. At the same time, our graduates must be able to be concerned with the personality and needs of the patient as much as with the disease,” emphasised Kolář.

The UP Faculty of Law will be chaired by Dean Zdenka Papoušková, as the mem-

bers of the faculty’s Academic Senate decided in mid-October 2015. “I hope to continue in the work of my predecessor, who has made significant progress possible for our faculty. I hope to take it further,” said Zdenka Papoušková. She will replace Milana Hrušáková, whose second term ended in January, so she could not be nominated any more. (mav, eha)

Dean of the Faculty of Medicine and Dentistry, Milan Kolář (left), and new Dean of the Faculty of Law, Zdenka Papoušková



## Conference Seeking Answers to Topical Questions in Obstetrics Today

Premature childbirth, screening of hereditary defects, and foetus monitoring were among the themes presented during the Moravian Conference of Maternal-Foetal Medicine, which took place in Olomouc in the autumn of 2015. The seventh year of this international academic event for physicians and midwives was organised by the Department of Obstetrics and Gynaecology at the UP Faculty of Medicine and Dentistry and by the Department of Midwifery at the UP Faculty of Health Sciences.

The academic meeting was attended by more than 400 participants from the Czech Republic and Slovakia. The programme consisted of lectures by experts from Moravian and Czech obstetrical institutes who specialise in the healthy development

of the mother and child during pregnancy and after childbirth.

“The conference involved a whole range of themes in maternal-foetal medicine and obstetrics, including care of the pregnant women as well as the foetus, post-natal care, and care of the newborns. For example, the problem of sepsis in midwifery and the use of ultrasound scanning during childbirth were discussed,” said Marek Lubušký from the Department of Obstetrics and Gynaecology in Olomouc. “We always try to reflect upon the most topical questions and issues in our programme, taking into consideration also the responses and wishes from previous participants,” explained Martin Procházka, Head of the Department of Midwifery at the Faculty of Health Sciences. (mav)

8 faculties  
1 university



## Successful Robotically-Assisted Surgery at the Department of Urology

The team of authors from the Department of Urology at the UP Faculty of Medicine and Dentistry was awarded the Best Video prize at the Central European Meeting of the European Association of Urology in Budapest. The awarded video was a recording of a surgical removal of kidney carcinoma assisted by a surgical robot, conducted by experts from the UP Robotic Centre in the Olomouc Teaching Hospital.

The awarded video entitled “Robotically-Assisted Partial Nephrectomy” captures the course of action of the Olomouc team during the surgical solutions following difficult localizations of a kidney tumour. “Thanks to modern methods such as ultrasound, computer tomog-

raphy, and nuclear magnetic resonance, more than fifty percent of kidney tumours up to four centimetres in size can be diagnosed. Tumours of this size may be removed by means of the robotic system, while the rest of the kidney is saved,” said Vladimír Študent, Head of the UP Department of Urology and a member of the awarded team.

This “kidney-friendly” surgery has the benefit of a precise surgical intervention and many more advantages. The surgery time as well as patient’s hospitalisation and convalescence are shorter, and the loss of blood, postsurgical complications, and the extent of side effects are also decreased. (mav)



## Natural Scientists Hear Lecture by Chemist Peter Sadler



A one-of-a-kind event in the Czech Republic, the Rudolf Zahradník Lecture Series, taking place under the auspices of the Regional Centre of Advanced Technologies and Materials (RCPTM) at the UP Faculty of Science, hosted another foreign top-class scientist. Peter Sadler from the University of Warwick presented new possibilities in cancer treatment by means of non-platinum transition metal complexes.

“The lecture series are meant to introduce important personalities in global science, and Prof Sadler is undoubtedly one of them. He is one of the leading representatives of bioinorganic chemistry. His research delves into organometallic compounds and their unique mechanism of anti-cancer activity: in comparison with commonly used platinum complexes, they may be more efficient in treatment of a large va-

riety of tumours, with fewer side effects,” said the RCPTM Director Radek Zbořil.

Sadler presented his research from the last 15 years. “Fifty percent of cancer patients are treated with platinum-based drugs. This treatment is however associated with resistance, so we need to search for drugs on different bases. Hence we experimented with other transition metals such as osmium and iridium,” said Sadler, the author of more than 500 publications, with more than 21,000 citations.

The lecture series has hosted a number of outstanding scientists in Olomouc, such as Josef Michl from the University of Colorado, Andrey Rogach from the City University of Hong Kong, Patrik Schmuki from the University of Erlangen-Nürnberg, and Adi Eisenberg from McGill University in Montreal. (srd)

## Accreditation Ensured for Almost All Programmes at the Faculty of Education until 2021

Study at the UP Faculty of Education has been constantly popular among applicants, however the UP Lifelong Education Programme has met with enormous interest.

“Since 2013 there has been a steady interest for study at our faculty, and we register almost 8000 applications annually. We can guarantee the validity of our study programmes, for the majority of our programmes have been accredited until 2021,” said Čestmír Serafin, The UP Faculty of Education Dean. The faculty’s share in the UP Lifelong Education Programme is also a sign of success: more than 6000 students applied in 2014/2015.

“We have also improved in international activities. Presently we offer 38 accredited programmes in foreign languages, and the numbers of incoming international students as well as our students and teachers studying and lecturing abroad are on the increase,” added Dean Serafin. (map)



## Czech Academic Games 2015: Silver for Palacký University Olomouc

A hundred medals and overall second position among all schools – this is the score of Palacký University from the Czech Academic Games in September 2015. The home grounds might have been an advantage, since the championship for Czech university students was organised by a

team from the UP Faculty of Physical Culture. Participants competed in 22 sport disciplines. In total scores, Charles University in Prague was at the very top, closely followed by Palacký University. Number three, with a few-dozen-point setback, was Masaryk University in Brno.

UP representatives won over 100 medals, of which forty were gold. The majority of UP champions succeeded in athletic and swimming disciplines, but they also included the women’s floorball, handball, and volleyball teams, plus Marek Talpa in bowling.

“Gold medallists were awarded for their successful representation of our university with a special sport stipend (CZK 2000) for every gold medal. The most successful UP athlete was a quadruple gold medallist, the swimmer Michal Rubáček. The most successful women were the fin-swimmers Barbora Sládečková, Markéta Svozilová, and Zuzana Svozilová and the athlete Andrea Holleyová – each gaining three gold medals,” enumerated Vítězslav Prukner, the coordinator of the UP team.

In addition to sports, the week-long Games included an extensive accompanying programme – parties, film projections, commented tours of Olomouc. At the opening ceremony, the organisation of the next Games was handed over to Vice-Rector of the University of Pardubice, which will host this largest Czech academic sport event in 2016. (vim)





science

text: Martina Šaradínová  
photo: Ota Blahoušek

# U.S. Patent Confirms Significance of Anti-Cancer Substances Discovered in Olomouc

After Olomoucine, Roskovitine, and Topoline, scientists from the Centre of the Region Haná for Biotechnical Agricultural Research (CRH) have discovered another group of substances derived from cytokinins, plant hormones with a distinct anti-tumour effect. The significance of their discovery has been confirmed by a recently granted United States patent, which is an important step for commencing the long journey for approval of a newly developed drug.

Olomouc scientists have managed not only to discover this new group of substances in plants, but also synthesise them. “The U.S. patent protects the structure of the substances as well as the method of their preparation and their biological activity. The substances are called cytokinin nucleotides and they show a broad spectrum of anticancer effects,” said one of the co-authors of the patent, Karel Doležal from the CRH.

## Hundreds of experiments

The anti-tumour effects were verified in vitro, in the artificial laboratory environment. “We happened to discover the anticancer activity of these substances quite incidentally, when we studied them as growth plant stimulators. We had to synthesise a large quantity of cytokinin nucleotides. The most difficult part was perhaps the preparation or precursors of these

molecules, needed for binding biologically active amines. We managed to perform this task in sufficient quantity and quality. And the subsequent reactions resulted in the production of target molecules that had to be cleansed by chromatography,” explained Marek Zatloukal, who made a major contribution to the synthesis of the substances. According to him, this achievement was preceded by hundreds of experiments performed by the scientists during a period of approximately five years.

## Long journey from effective substances to drugs

Long is the path from the discovery of effective substances to approval of development of a drug that helps patients. The U.S. patent is also crucial in negotiations with potential investors who would like to work further with the substances and reach the stage of clinical testing, for instance.

*“Being granted a U.S. patent is a big achievement. The whole procedure took five years, was very demanding financially, and we had to submit a number of proofs and refute many opposing opinions.”*

*Lucie Plíhalová, CRH*

“Being granted a U.S. patent is a big achievement. The whole procedure took five years, was very demanding financially, and we had to submit a number of proofs and refute many opposing opinions,” explained Lucie Plíhalová from the CRH. She further added that the U.S. patent is also a guarantee for foreign scientists that the discovery has been verified and may be considered new and unique. Experts appreciate it similarly, as proves the publication of an article in the prestigious journal *Nature*.

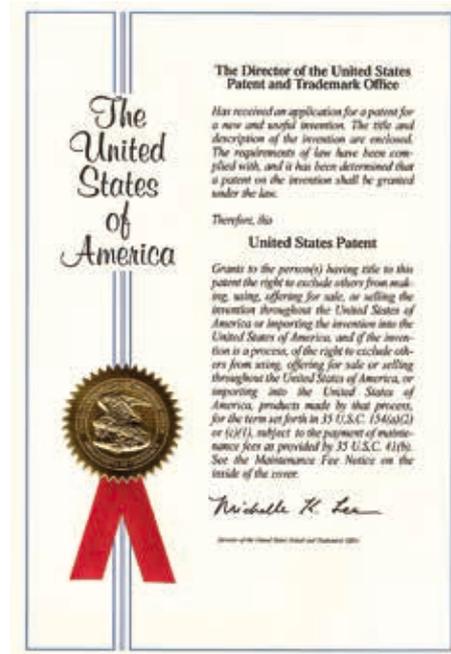
The significant potential of these substances is also proved by the fact that the U.S. patent was granted quite soon. The process usually takes from eight to ten years.

#### Many applications of cytokinins

Cytokinins are plant hormones that regulate the cell cycle in plants. They are used in agriculture and plant biotechnologies,

but they have a number of applications in medicine too. The Centre of the Region Haná, which is a joint facility of the Faculty of Science at Palacký University, the Institute of Experimental Botany at the Academy of Sciences of the Czech Republic, and the Crop Research Institute, has already gained several U.S. patents in the past. Most of them, however, involved plants.

Some of the cytokinin derivatives with anticancer activity, discovered by Olomouc scientists in the past, have reached the stage of clinical testing. The new substances promise to be even more effective in the treatment of tumour diseases than Roskovitine, successfully tested at present. “In addition to that, they combine more effects in one molecule, for example anticancer effects are complemented with immunostimulative ones,” explained another member of the research team, Miroslav Strnad.



## UP Study Findings Contribute to More Effective Treatment of Resistant Hypertension

An extraordinary advancement in the treatment of resistant arterial hypertension was brought about by an innovative study of a team from the First Internal Clinic at the UP Faculty of Medicine in Olomouc. Researchers supervised by Jan Václavík focussed on the effects of spironolactone, a drug used for decades in the treatment of heart failure.



There is currently limited data on which drug should be used in patients with resistant hypertension. “Such patients use at least three antihypertensive drugs, yet the desired values under 140/90 mmHg are impossible to achieve,” explained the main author of the study, Jan Václavík.

In order to verify its effectiveness, the Olomouc team conducted a randomised clinical trial, which enrolled patients who were divided into two groups for eight weeks. “The group of actively treated patients was administered spironolactone, whereas the control group received only a placebo. It was shown that spironolactone is an effective drug and its adverse effects are minimal,” said Václavík.

The UP Faculty of Medicine experts were the first to conduct such a randomised controlled trial with spironolactone, and their findings have been recommended by experts. “This has a significant

impact on common treatment – this drug is now prescribed to patients more often. Our findings have been confirmed in 2015 by another study in the United Kingdom,” added Václavík.

There are approximately 316,000 people suffering with resistant hypertension in the Czech Republic; the numbers globally are estimated at hundreds of millions. “If these patients used spironolactone, it could be expected that achieving better values of blood pressure would protect them against the development of myocardial infarction, cerebrovascular accidents, and untimely death,” Václavík pointed out.

The contribution of the Olomouc study for clinical practice was confirmed by one of the Discovery Awards, granted by the Novartis company to researchers under 40 years of age who have contributed to a substantial advancement in the field of medical and pharmaceutical research. (mav)

Discovery Award 2014 laureate, Jan Václavík, UP Faculty of Medicine



## Small Card Can Test Contamination of Drinking Water

Sometimes, we all feel the urge to test the quality of water that we have to drink. Such an idea has been, however, difficult to realise, as it is time-consuming and expensive. The new discovery made by chemists from the Regional Centre of Advanced Technologies and Materials at the UP Faculty of Science removes all such obstacles and offers an elegant solution: a small card that detects all contamination in drinking water, and in just a few moments.

This simple tester allows the determination of chemical, as well as microbiological, pollution. It will protect its user from serious health problems caused by contaminated water. Olomouc scientists began the development of this miniaturised system approximately two years ago.

“Our system resembles an identity card – a laminated card. You submerge into water and then just wait for the result. Similar test kits analysing urine or pregnancy tests can be purchased, so this drinking water test could be made available to the public commercially as well. You can use it to monitor the quality of your tap water or your own well,” said Jan Petr, the head of the research team.

### Minimal production costs

This “card” contains a system of channels with sensors detecting the basic chemical parameters of the tested water. Microbiological indicators are represented by another independent system of channels where the cultivation of potential unwanted microorganisms takes place. “The main plus of this system is its complexity – it analyses both chemical and microbiologi-

cal contamination. Another advantage is also its low price, just a few cents. The expenses are so low because the main materials used in the production of our system are paper and wax,” said Petr. The scientists have already addressed companies that may be interested in production.

### Testing by smart phone

The development of the tester is not over yet – the scientists hope to advance it even further. UP chemists have been currently working on the last step, which is providing the test results by means of smart phones. “The idea is that the user would only take a picture of the testing card and then click on the phone to receive information on whether the water is potable. Our software may even assess the degree of contamination,” added Petr. They expect the tester to get to potential users this year.

UP scientists have been exploring such miniaturised systems for detection of various substances for years. Together with their colleagues in Germany, they have found a way to detect the dangerous anthrax bacteria in its dormant form, as endospores.

A portrait of Ingeborg Fialová, a woman with short, wavy, light brown hair and glasses, wearing a dark blue blazer over a dark blue collared shirt. She is smiling and looking towards the camera. In the foreground, an open book is visible on a desk. The background is a blurred bookshelf filled with books.

profile

text: Ivana Pustějovská  
photo: Eva Hobzová

# Ingeborg Fialová

## German Studies

*Reviewing her life and family fortunes, one could learn much about the precipitous history of Central Europe in the 20th century. The story includes Germans, Czechs, Poles, the Holocaust, deportation, emigration, homesickness, and longing. But it also includes returnings, career, friends, joy, and love.*

### Ingeborg Fialová (b. 1961)

She graduated with degrees in Czech and German from the UP Faculty of Arts in 1986. A year later she emigrated to the former German Democratic Republic. She worked at the university in Saarbrück as an assistant professor in the Arbeitsstelle für Robert-Musil-Forschung and as a visiting lecturer at the university in Klagenfurt. In 1992 she returned to Olomouc as an assistant professor at the Department of German Studies at the UP Faculty of Arts. In 1998 she became a docent; in 2003 she was named a full professor. She took an active role in renewing the department, and was its chair for a number of years. Together with her former teachers Lucy Topolská and Ludvík Václavek, she founded the Research Centre for German Moravian Literature. She is also the founder of Department of Jewish and Israeli Studies – The Kurt and Ursula Schubert Centre of Jewish Studies.

Her fields of professional interest include Prague German literature, German Moravian literature, and literary expressionism. She lectures and leads seminars on various themes relating to German literary history and German literary studies. She takes part in the organisation of Olomouc Talks (Not Only) on German, at which she presents interesting personalities for whom German plays an important role in their professional and personal lives.

In 2007, she was the recipient of the Austrian Decoration of Honour for Science and Art. In 2010 she received the *Initiativpreis Deutsche Sprache* for her work at the Research Centre for German Moravian Literature.



There is a chunk of Silesianness inside of her, the temperament of people from Silesia, from the area around Třinec, the landscape between the hills, where nobody ever had it easy. They speak Polish, German, and “our own language” there. In addition, she carries within her the tradition of an Olomouc patrician Jewish family. Rich industrialists from the Haná plains. She is proud of this mix, adding in the same breath that it was not of her doing. “I think that my ancestors lodged the legacy of the old monarchy inside of me. The Silesians on my mother’s side refused to define themselves ethnically, unless they were forced to by one of the terrorist regimes. History marched through the Silesian family – first Poles, then Germans, then the deportation of the Germans, then the Czechoslovak Republic.... And the Fürsts? My father’s family, wealthy Jews, who came to Olomouc in 1848 and completely assimilated. My grandfather, who perished in the concentration camp, was baptised Catholic.” In addition to these more or less conscious traces of history somewhere in her soul, she was blessed with one absolutely positive aspect – being bilingual since childhood. “Both families spoke German as their first language. Even though I grew up in socialist Czechoslovakia, as a child I spoke German with my grandparents – and a little bit of Polish, too. I learned Czech once I got to school.”

### Olomouc – Herzsache

She considers Olomouc as an affair of the heart. For the Faculty of Arts is actually where her parents met. As teachers, they were sent to Rýmařov. “I was four or five, when my mother got divorced, and we moved to western Bohemia, to Ostrava nad Ohří. My step-father was a Czech Brethren

minister, so I was raised as an evangelical.”

When it came to decide her major, she chose Czech. But in combination with what else? It was easiest to study what she knew best – German. She entered the UP Faculty of Arts at the beginning of the 1980s. “A complete transformation took place – I got caught up in German, and Czech just went its way...” When she speaks of teachers who made an impression on her, those whom she liked best – two names come up, again and again: Ludvík Václavek and Lucy Topolská. She remembers her studies fondly, she found a group of similarly-minded people who would meet in the popular student wine bar at the time – “Študáč” – to debate, say, the finer points of the Old Testament. “It was the time when I got to know who I really was, what I stood for, what I wanted out of life, who were my friends, and who were my foes.”

### Saarbrücken – Emigration

At the end of her studies, she considered continuing in a doctoral programme in what was then the German Democratic Republic, but disillusionment followed. What she considered laughable at the start of her studies no longer applied. “From what I heard, they had accepted me then so that the regime could point to me and say that even the children of ‘padres’ can study at the university.” But in 1986 nobody needed to use anybody as an example, and they put an end to her prospects of further study. “So I decided at that time that I wouldn’t stay here,” she says, remembering the moment when they ejected her from exams on Marxism, forcing her to make a big decision – emigration. Just a few months later, she really did leave. Partly legally, and – as was common at the time – her departure had a tragicomic flavour. At that time part

of her displaced family lived in West Germany, and her grandmother could send her an official invitation – which she did. And then her grandmother came to Olomouc for a visit. And died. In Olomouc. Inge thus travelled through the Iron Curtain on the invitation of a dead grandmother, and she spent the entire journey in the train in trepidation that somebody would catch her out. She only told a few people that she was not coming back. “Not even my parents knew. They would have tried to convince me not to go.”

She spent the beginnings of her emigrée life with her relatives in a village in the north of Germany. Pronouncing the multisyllabic name of the village sounds as cheerful as pouring a sack of rusty nails out onto the ground. After a few months she pulled herself together and decided that she wanted to do what she could not do at home – study. She arrived in Saarbrücken after a chequered journey, and after many twists and turns she finally managed to get into the university and study German.

### Olomouc – Return

When November 1989 came around, she did not think twice about returning. Although she had her own existence in Germany, including a permanent employment position, she decided to come back. To Olo-

mouc, to the Faculty of Arts, to the Department of German Studies. “I had the feeling that if I were to do something academic, then the people to read it, to appreciate it, would be here.” She took part in the renewal of the department, and was its chair for a number of years. She remembers the 1990s as a time full of enthusiasm and energy. An unbelievably hectic time. “We reformed the study programme after the German fashion and created an elite German department, which at that time was far and away the best in the country. We had help from colleagues who came from Germany, from those who wanted to change things, and we also had Ludvík Václavěk and Lucy Topolská, who had the expertise and kept the continuity.”

But not even the good will of German Studies scholars the whole world over could prevent what happened to German – students were losing interest in the subject. The universal language became English. “This is now my big theme – I’m fighting to keep the German language alive in the Czech Republic. It’s a battle which is worth it,” she says, and adds factually, “It will never be a subject for the masses, and German will never again be the lingua franca of Central Europe. That’s the truth.”

It bothers her that German is disappearing as a language of the Academy. “As a lan-

guage of communication, of course it will survive, that’s obvious. What bothers me for instance is that there will be a congress in Germany, where there are almost all Germans and a few Americans who dedicate themselves to German themes, and they’re speaking... English! In Germany today for example the natural sciences are taught almost entirely in English. That means that certain streams of knowledge and thinking are disappearing – what is called *Naturwissenschaften* has a slightly different approach to the world than the Anglo-American version. And I am not even talking about how studying Czech history without a knowledge of German is practically impossible. It’s too bad, because when a language disappears, a way of looking at the world disappears with it.”

When asked how she sees herself, she takes a sip of mineral water and an unexpectedly long pause. “I’m content. I’m content with how the department is running, I know that today it is not easy, and I am happy that our Research Centre for German Moravian Literature is working. I don’t think I am so competitive anymore, I’ve calmed down, thanks also to my partner, who gives me support. Suddenly I have time for projects, like the talks on German, for teaching, which I love, for translating, for reading.... Now I have time for living life.”

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**“This is now my big theme – I’m fighting to keep the German language alive in the Czech Republic. It’s a battle which is worth it.”**



**Ludvík Václavěk**  
Professor Emeritus

Prof Ingeborg Fialová-Fürstová started her studies at the UP Faculty of Arts during the time of Normalisation. She was one of those students who met with politically “discarded” teachers. After her return from emigration she developed and expanded her intensive activities, not only as a successful teacher and very prolific literary historian. On her typical initiative, inherited from the Fürsts, came not only her founding impetus (The Research Centre for German Moravian Literature, the Department of Jewish and Israeli Studies), but also her adept and successful leadership of the Department of German Studies (13 years). Her “student temperament” brings her close to students both undergraduate and post-graduate; her “philosophical world” brings acknowledgement and admiration from colleagues both here and overwhelmingly abroad.



**Marie Krappmann**  
Department of German Studies

I got to know Inge Fialová well as a student and as a member of her project team, the goal of which was research into German Moravian literature. The result of that project is the *Arbeitsstelle für deutschmährische Literatur*, a university institution unique in Europe, which has explored that theme throughout a number of publications. Another project initiated by Inge Fialová developed in a similar way: The Kurt and Ursula Schubert Centre of Jewish Studies. Today it is a both an independent study programme and a high-level academic institution, one which already has a number of successful projects and quality publications behind it. In terms of academic experts, Inge Fialová is, in the first place, one of the most significant Czech German Studies scholars today; and as her (by no means former) student, I must emphasise that for her, students have always occupied first place.

### Summer School for Chinese Students at the UP Faculty of Education



Four dozen students from four Chinese universities participated in the Summer School of European and Czech Culture. The four-week programme consisted of courses in Drama Therapy, Music Education, and Arts Education. The participants had the opportunity to improve their English skills, which impressed Yuhang Zhou from Leshan Normal University.

“In China, language is taught for the sake of passing school tests, not for using in real life. I was able to learn a lot here by playing various games, and

I’ve improved my comprehension as well as pronunciation,” commended the student from China.

According to Vojtěch Regec, Vice-Dean for International Relations, it was an innovative pilot project. “We offered a selection of courses that can be studied in English.” (map)

### Peter Singer’s Czech Debut Talk – at Palacký University!



Peter Singer, one of the world’s most eminent philosophers, had his first lecture in the Czech Republic. He talked about his latest book *The Most Good You Can Do* and about his previous bestseller *Animal Liberation*.

“I am proud that Peter Singer chose to lecture at Palacký University. Other Czech universities have not had the privilege,” said Head of the Department of Philosophy at the UP Faculty of Arts, Tomáš Nejeschleba. Some of Singer’s arguments and conclusions one might argue about, but they cannot be ignored, pointed out Nejeschleba.

“We need to come to terms with his ethical requirements and be able to consider them. They lead us to more profound reflections, most of which result in ethical action,” added Nejeschleba.

Peter Singer, professor of Bioethics at Princeton University and the University of Melbourne, is one of the personalities whose opinions are often controversial. He promotes the ideas of effective altruism, advocates animal rights and promotes euthanasia, abortion, and terminating the lives of infants born with serious disabilities. (map)

### Inspiring Project at the Fortress of Knowledge: Do Not Repeat the Past!

Twenty-six years after the Velvet Revolution, the interactive museum Fortress of Knowledge hosted a popularisation project “Communism Before the Fall”. The purpose was to give an idea, by means of experiential education, about the everyday joys and struggles in the 1980s in socialist Czechoslovakia. The project also cautions against repeating the mistakes of our past. The organisers, from the Guild of History Students in Olomouc, also prepared a debate on the theme of growing up in socialism and performed dramatic adaptations of speeches by communist statesmen and personalities who dared to challenge the regime openly. (ciz)



Kryštof Zlatník in the role of the former General Secretary of the Central Committee of the Communist Party of Czechoslovakia, Milouš Jakeš.

### Cardinal Duka Calls for Joint Responsibility



The topical continuance of the philosophical inheritance of J.L. Fischer and his era in Olomouc – those were the themes of the 22nd lecture to honour the first rector of the re-established Olomouc university, held by Cardinal Dominik Duka in the crowded Archbishop's Palace in Olomouc.

Dominik Duka was welcomed to Olomouc by UP Rector Jaroslav Miller, who mentioned the cardinal's contacts with Palacký University. "In the mid-1990s, until 1998, you were giving lectures in Bible Studies at the Faculty of Theology. So welcome back to campus, Your Eminence," he said in his address.

The Cardinal quoted several ideas of the first rector and placed them into the context of social, political, and cultural development of the twentieth century – including two world wars and two dictatorial regimes. In connection with the burning issues of democracy and totalitarianism, he highlighted the ongoing validity of Fischer's reflections on the principles of the development of society. "He said that development is directed by the principle of preservation and the principle of development. We seem to often forget today that not only the progressive, but also the preservative, conservative approach is vital and indispensable," pointed out Duka.

The invitation by Palacký University was deemed by Duka as both an honour and challenge. "We could perhaps concur that from the position of the Church, this is offering a hand... in order for us to be aware, in this country and especially at this time, that we have to take a responsible approach to our homeland, our culture, and our civilisation. We built it together, and despite all the catastrophic moments that have been a part of our history, we are still here – and we can judge our history critically and truthfully, based on mutual respect," added Duka. (mav)

### Pharmacologist Jan Strojil and Haematologist Vít Procházka – Fulbright Scholars in the U.S.A.

Vít Procházka, docent at the Department of Haemato-Oncology at the UP Faculty of Science, became a visiting scholar at the University of Minnesota since September 2015, as a grantee of the Proshpek-Fulbright Programme. His goal is testing pilot data and hypotheses, elaborated with-in multidisciplinary research of prognostic factors in the treatment of Hodgkin's lymphoma on a control group of American patients. "It involves setting up a similar team, parallel to the one working in Olomouc," said Procházka.

At the same time the clinical pharmacologist and Chair of the Academic Senate of the UP Faculty of Medicine, Jan Strojil, took off for a scholarship stay at the University of Southern California. Thanks to the Fulbright-Masaryk Scholarship, he will explore pharmacokinetic modelling of antibiotic therapy in severely ill patients. "Such an assessment is still relatively trivial in the Czech Republic. The institute where I'll work is one of the best in the world," said Strojil. Vladislav Ralavský, the first vice-chair, will replace him in the Senate during the eight-month stay. (mav, caf)



photos:

Eva Hobzová | Milada Hronová  
Velena Mazochová | Pavel Konečný

## British Expert Introduced Current Trends in the Research into Palliative Care



Nancy Preston from the International Observatory on End of Life Care at the University of Lancaster was the keynote speaker at Lecture Day at the Department of Nursing at the UP Faculty of Health Sciences. The European expert, who specialises in symptom control in the last year of life and integrated palliative care, talked about the development of nursing research in the United Kingdom and introduced methods and approaches that could be used in the Czech Republic. She also mentioned special guidelines that have been prepared for palliative care research.

“Since these patients are dying, the research involves a number of complications, which the new guidelines address,” explained Preston. (mav)

## She Traded Horses for Controlled Vibrations and Won

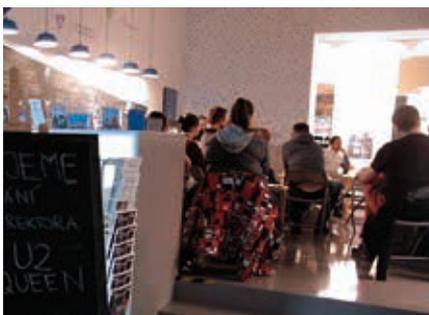
The doctoral student Hana Bednářková from the Faculty of Physical Culture entered the new academic year victorious. Her MA thesis at the Department of Physiotherapy was the best master’s degree thesis at the physiotherapeutic conference in Ghent, Belgium.

Her work evaluated a specific proprioceptive exercise with Redcord Stimula device in patients with chronic lumbar spine pain. Controlled vibrations of this device are used to reduce the pain’s intensity.

“It was a coincidence. Horses are my secret love. My BA thesis was on hippotherapy, and I hoped to further develop my research in my MA thesis, but the clients that I needed were not available at that time,” confessed Bednářková.

She accepted an offer from David Smékal from the Department of Physiotherapy to work with the aforementioned device. The findings of the study, with 14 respondents, proved that vibration is a suitable means of pain reduction therapy. “The patients also confirmed that their perception of their body is better,” added Bednářková.

Her work has been acknowledged at Palacký University – she received the second prize Rector Award in February 2015. In her postgraduate studies she came back to all the pretty horses – that is, the impacts of hippotherapy on selected movement aspects in children with cerebral palsy. (vim)



## UP Guest in UPoint

The UPoint, Palacký University Information Centre and Shop on Olomouc’s Upper Square, broadened its activities. It has lately become a place of informal sessions with academic personalities. The programme called UP Guest had its premiere with a talk by UP Rector Jaroslav Miller. (ipu)

### Neurologist Školoudík – Another Vice-Dean at the Faculty of Health Sciences



In the new academic year, David Školoudík joined the management of the Faculty of Health Sciences as a new vice-dean for study programmes in foreign languages, doctoral study programmes, and project activities. “My goals are to improve our publications and grant activities, enhance the cooperation with other faculties, and help launch English study programmes in Nursing, Midwifery, and Physiotherapy,” said Školoudík. His specialisations are at the Department of Nursing are cerebrovascular diseases and their diagnostics – neurosonology. (mav)

### Graduation after Fifty Years for Golden Alumni of Two Faculties

Since the autumn of 2015, almost eighty former students of the Faculty of Science and more than 70 former students of Medicine may boast with the title Golden Alumnus or Golden Alumna. They remembered their student years after fifty years together with the current management of their respective faculties. According to Vice-Dean of the Faculty of Science, Roman Kubínek, the golden graduation is a living reminder that the faculty is still their alma mater. “Our alumni certainly appreciate being invited to the event, and we are happy they enjoy it. Their chorus version of Gaudeamus Igitur resounded in the assembly hall in a way seldom heard,” complimented Kubínek.



“You have dedicated your whole lives to helping others, and it is no cliché that your discipline and you yourselves are truly worthy of respect. One must bear this in mind all the more in these moments when the Czech and European public argue over the fundamental values of our culture and civilisation,” stated Vice-Rector Petr Bilík in his welcome speech to former medics. (srd, mav)

### Jan Štěpán becomes Honorary Professor in Katowice



The University of Silesia in Katowice named Jan Štěpán from the Department of General Linguistics and the Department of Philosophy an Honorary Professor. The Polish Institute of Philosophy at the Faculty of Social Sciences thus sealed its long-term collaboration with the scholar from Palacký University.

“It is an award for the twenty-five years of working together with the University of Silesia. I am very happy – and I am even allowed free entry to all facilities of the university,” said Prof Štěpán from the Faculty of Arts. (map)

photos:  
Velena Mazochová  
Martina Šaradínová  
Ivana Pustějovská  
Hana Bednářková archive  
Jan Štěpán archive

success

Veronika Tomoszková presented with her certificate from US Ambassador to the Czech Republic, Andrew Schapiro (on the right).



## Second Fulbright Program Ambassador at UP

**Palacký University has two Fulbright Honorary Ambassadors among its employees. Veronika Tomoszková from the UP Faculty of Science joined this elite company, consisting of Rector Jaroslav Miller only until now. Her mission will be to promote the Fulbright Program and look for suitable candidates for prestigious stipends granted by the Fulbright committee every year.**

Veronika Tomoszková and 9 other colleagues received the certificate from Ambassador Andrew Schapiro at the United States Embassy in Prague in September 2015. “It is a great honour for me,” said the new Fulbright Ambassador. Her nomination was made by the Czech Fulbright Commission in cooperation with the U.S. Embassy and The Ministry of Education, Youth and Sports of the Czech Republic. Only selected Fulbright alumni may

become Ambassadors. “I knew I wanted to remain active after my scholarship at Washington and Lee University in Virginia ended. This nomination made my dream come true,” added Tomoszková. She will be seeking applicants at Palacký University and helping them to succeed. “They can contact me immediately. I will send them all necessary information and help them with applications and project preparations,” she specified. (eha)

## Vít Voženílek Elected Vice-President of International Cartographic Association



A Czech representative became part of the top management of the International Cartographic Association (ICA). Head of the Department of Geoinformatics at the UP Faculty of Science, Vít Voženílek, became Vice-President of this global non-governmental association of cartographers. He is only the second Czech among the highest executives in the history of the organisation.

Voženílek, an expert on atlas cartography, will hold the post for the next four years. It was decided at the end of August 2015 by representatives of 71 member states at the International Cartographic Conference in Rio de Janeiro.

“I’ll be in charge of leading several commissions and my goal will be to ensure good cooperation with the representatives of Central and Eastern Europe.

I am also the coordinator of a group taking care of activities associated with the International Map Year, announced by the ICA for the year 2015/16. More tasks will follow,” said Voženílek. His new post opens new opportunities for scientists and students from Olomouc. “Our department’s activities in cartography and geoinformatics have reached beyond the Czech Republic, and we need to develop our contacts with foreign partners. Our research includes unique eye movement monitoring with eye-tracking technology and 3D printing in cartography, and we also have excellent results in atlas making,” said Voženílek. His personal goals include finishing the concept of atlas cartography, which he has been working on for 15 years. Nothing similar is yet available in the world. (srd)

# Palacký University in the Global Academic Elite

Palacký University is one of the world's top universities. This has been confirmed by two successive prestigious international rankings published in the United Kingdom and in the United States.



The first good news arrived in the beginning of October 2015: Palacký University has been listed in the prestigious international Times Higher Education World University Rankings 2015–2016. UP has joined the ranks of the 800 most respected universities from 70 countries. The list, published since 2010 by the UK journal *The Times Higher Education* (THE), is one of the three most renowned global rankings of universities and higher education institutes. “This is a phenomenal success for us. It also means that we will have more visibility, because millions of people, academics, and students from all over the world, study these rankings. We have joined an elite club. It is a great motivation for the future: we have to keep moving upwards,” said UP Rector Jaroslav Miller.

THE World University Rankings judge universities in several areas, such as the quality of teaching, science and research, citations, the university's international environment, and co-operation with the corporate sector. The core factors in the overall evaluation are related to scientific

performance, including teaching, research, and citations (altogether 90 per cent). These aspects of the THE rankings are based on the analysis of data drawn from Elsevier's Scopus database. One of the indicators was also the Reputation Survey, conducted among global academics, who rate a university's reputation for research excellence and teaching quality.

The evaluation in the monitored areas was made on the basis of collected data, provided directly by the universities to the THE. The data concerned the number of domestic and international students, academic and scientific staff, international staff, the number of doctoral students, alumni, etc. The THE ranking also inquired into the finances allocated to science and research. Palacký University placed among the 501st–600th positions. “It is a reward for thousands of our colleagues at Palacký University who have contributed to this achievement. These are, in the first place, our academics and scientists, who constitute the university and give it its trademark. And last but not least, it also includes our staff, who are in charge of all the administrative work and processing of necessary data, which is a Sisyphean and invisible task. I want to express my gratitude to all of them,” concluded Rector Miller.

Czech universities made a breakthrough in the THE in 2015 – altogether nine universities were included in these prestigious rankings.

## More good news from the U.S.

Only a few days after succeeding in *The Times Higher Education*, yet another success was announced by the journal *U.S. News & World Report*, featuring the world-renowned U.S. News Best Global Universities Rankings. Palacký University already appeared there in 2014, but its placement in 2015 represents an improvement. UP has stepped up to the 473<sup>rd</sup> position, jumping fifteen positions compared to last year. In comparison with other Czech universities, Palacký University has demonstrated its dynamic development, since Charles University and Czech Technical University in Prague, also included in the 2014 rankings, went down last year. Masaryk University in Brno has been listed for the first time and placed as number 622. These rankings are based on data and metrics provided by Thomson Reuters InCites™ research analytics solutions as well as on data submitted by the universities themselves. The rankings employ 12 indicators that measure academic research performance and international collaboration. A reputation survey is also taken into account, similarly to the THE rankings. (ipu)

Czech university	2014	2015
Charles University	179	204
Czech Technical University	371	399
Palacký University	488	473
Masaryk University	–	622

## Project E-Safety from the Faculty of Education Wins National Qualification: EU Contest Ahead



Educational activities for parents and children aimed at safe use of the internet, solutions for network cyberbullying, and an on-line advisory centre – these are the most important activities of teachers from Palacký University who are participating in the E-Safety project. The importance and great successes of their work were confirmed by the gold medal won on the national level of the prestigious competition European Crime Prevention Award 2015. E-Safety will now represent the Czech Republic in Luxembourg.

The project of the Centre for Prevention of Risky Virtual Communication has become widely recognised in the Czech Republic due to its strong emphasis on the safe behaviour of children and youths on the internet. “I am very pleased that the work of my colleagues has received such a prestigious award, and will represent our country abroad. It is an achievement on behalf our entire faculty,” said Čestmír Serafín, Dean of the UP Faculty of Education. (map)

success



## Karel Frömel Awarded in Morocco for His Contribution

Prof Karel Frömel (on the right), one of the academic pillars of the UP Faculty of Physical Culture, received an award for his contribution to the development of Physical Culture at the congress of the International Federation of Physical Culture in Rabat, Morocco, in November 2015.

“I appreciate it very much; however, as I said during the ceremony, this award acknowledges, in the first place, my research team, my colleagues, and our

faculty as well as the fact that we deal with issues that are not priorities today, although they should be,” said Prof Frömel.

Karel Frömel is Head of the Institute of Active Lifestyle at the Faculty of Physical Culture. He became the first laureate of the faculty’s Hall of Fame for his contribution to the development of physical culture. Two decades ago, his team established cooperation with foreign ex-

perts – especially James Sallis from the University of California, San Diego – allowing them to introduce international research techniques in the Czech Republic. Thanks to global collaboration and the research project “Movement Activity and Inactivity of Inhabitants of the Czech Republic in the Context of Behavioural Changes”, the UP faculty has currently become the leading institute in Czech Physical Culture. (vim)

## Unique Jean Monnet Centre of Excellence Launched at UP, Dealing with EU Legal Issues



The UP Faculty of Law now hosts an elite Centre of Excellence for the study of European Law. It is a one-of-a-kind institution in the Czech Republic, specifically engaged in key legal problems in the European Union. This achievement was made by the team of Naděžda Šišková from the Department of International and European Law. Their project succeeded in the European Commission call within the prestigious Jean Monnet programme.

“We will focus on the solution of current legal problems in connection with the future development and reform of the European Union. The project is designed for the whole university,” said Naděžda Šišková. The main activities of the Centre will consist of conferences, expert meetings, and de-

bates with members of the EU Parliament, European Commission members, and judges from the European Court of Justice and the European Court for Human Rights. “We want to address teachers and students of our university as well as the lay public,” added Šišková. The project also includes research activities in the form of a collective monograph, published abroad in English.

The Jean Monnet Centre of Excellence is a three-year project with the option of further extension. A highly qualified team of UP Faculty of Law experts on European Law, consisting of Ondrej Hamulák, Michal Petr, and Blanka Vitová, will be employed, along with experts with practical experience, and externally also renowned experts from abroad. (eha)

Naděžda Šišková runs the new Centre of Excellence.

# Olomouc Scientists Awarded for Development of Veterinary Vaccine against Lyme Disease

One of the four Technology Agency of the Czech Republic (TACR) Awards for Applied Research 2015 was awarded to the project of a special veterinary vaccine against Lyme disease. Its preparation was also made possible thanks to the Department of Immunology, UP Faculty of Medicine and Dentistry. The technology of its preparation was aimed at transferring the results into industrial production.

For the construction of the vaccine, scientists had to verify how appropriate were the selected antigens. “We have created recombinant protein constructs, which link

the immunologically dominant sections of antigens of the main representatives of *Borrelia* occurring in Europe. These recombinant proteins are the basis of the new vaccination,” said Milan Raška, Head of the Department of Immunology, explaining the principle behind the award.

The samples of the preparation were successfully tested on laboratory animals and now are being optimised biotechnologically for preclinical testing. If the results are promising, the registration process will be started, resulting in a modern veterinary drug. The next stage of the re-

search will concentrate on preparation and production of a human vaccine against Lyme disease.

The awarded project “Synthetic multi-epitope vaccine against Lyme disease for veterinary applications” won in the category “Solutions for Life Quality”. Olomouc experts collaborated with their colleagues from the Veterinary Research Institute in Brno, the Institute of Organic Chemistry and Biochemistry and the Institute of Physics at the Academy of Sciences of the Czech Republic in Prague, and Bioveta Inc., from Ivanovice na Hané. (mav)



Authors of the awarded project at the TACR Award ceremony.

# Top Plastic Surgeon and UP Alumnus Bohdan Pomahač Receives National Award

The Medal of Merit in Science was given by the President of the Czech Republic to the world-renowned plastic surgeon Bohdan Pomahač. One of the most important alumni of Palacký University, and a laureate of the UP Doctor Honoris Causa, received this state award at Prague Castle during celebrations of the establishment of Czechoslovakia on October 28.

“It was a very dignified ceremony, and the President had an excellent speech. It was a pleasure to meet so many interesting people. It was a very positive experience for

every one of us, I think, and I believe that everyone fully deserved their awards,” said Bohdan Pomahač.

After graduation from the Faculty of Medicine and Dentistry in 1996, Pomahač was employed at the Brigham and Women’s Hospital Boston, where he became the medical director of the BWH Burn Center, housed within the division of Trauma, Burn and Surgical Critical Care in 2007. His team performed the first complete face transplant in the United States. (mav)



# University Mapping Creative Industries in Olomouc

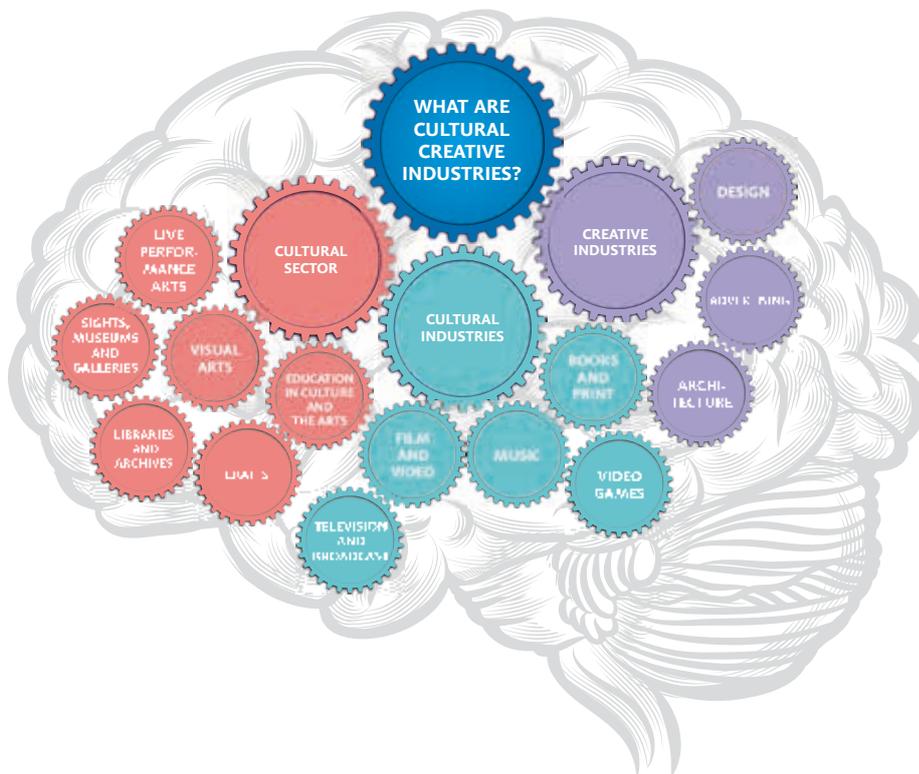
Palacký University, in cooperation with the City of Olomouc, has launched a project that is unparalleled in the Czech Republic. Its goal is to map in detail cultural and creative industries and obtain valuable data on how successful theatres, audio-visual artists, architects, graphic designers and others are in Olomouc. Information gathered on the number of such active “creative professionals” and their economic contribution to the city and region will then serve for a better understanding of what the needs are for these individual branches, as well as for better and more targeted support of activities that are developing in the city.

The university management and city representatives consider the area of cre-

ative and cultural industries to be very promising in the context of the current and future development of Olomouc. “It is evident that creative industries have already contributed and will further contribute, perhaps to an even larger extent, to the economic development of the city, may play a significant role in the field of innovations and the tourist industry, and are an important source of employment for the city and the region. Thus we are determined to pay increased attention to this area and appreciate that the city has a similar vision,” said UP Vice-Rector for External Relations, Petr Bilík. Palacký University and the City of Olomouc have signed a memorandum to confirm the collaboration on mapping. Another partner is

the Prague Art Institute, which has been working on the methodology of such mapping in recent years.

Since September 2015, a team under the supervision of Radek Palaščík has started the mapping. They will have to work through several stages of research in the first several months. “First of all, we need to check out and add available statistical data on individual subjects, firms, entrepreneurs, and contribution-based and non-profit organisations active in the mapped industries. Only then we will be able to proceed to investigation of other important factors – such as what is their share in employment in Olomouc and what is their economic contribution to the city,” explained Palaščík.



text: Martina Šaradínová  
photo: Kristýna Erbenová

interview

# Let's Prepare for an Uncertain Future

Helping others is Pavel Nováček's daily bread. This UP Faculty of Sciences expert's specialisation is Development Studies. With respect to his knowledge of the developing world and global environmental problems, he is aware that difficult challenges are in store for humanity. And which? Find out in the following interview.

**Pavel Nováček (b. 1961)**

He studied Environmental Protection at the UP Faculty of Science, where he now heads the Department of Development Studies. He specialises in Development Studies, global environmental problems, and sustainable development and foresight. He is a member of the managing board of the Millennium Project and head of the Czech Association of the Club of Rome.



Pavel Nováček with the former South African ambassador, Noel N. Lehoko.

— You are a member of the international non-governmental organisation, the Millennium Project, which attempts to identify the most serious global challenges and predict their likely development and future. Before we receive its 2015 report, may we ask you a personal question? Are you an optimist or a pessimist?

I consider myself as an optimist. But it is true that with the advancement of time, I see development on this planet more and more sceptically. It does not have to have a bad ending, but most likely we will see huge transformations, which will be painful.

— The Millennium Project uses its State of the Future Index as an indicator of the quality of life on Earth – which is continually improving. Isn't that a reason for optimism?

It depends on which of its 28 indicators we take into consideration. If we take the statistics as a whole, then yes, we see the global situation as slightly improving, although not as quickly as was the case in the 1990s. But a situation can also occur when one factor overtakes all others. For example, if terrorist attacks spread, as we have seen recently in France, and become the norm for contemporary life in Europe, then that one

change – terrorism and organised crime – can outweigh the other factors.

— Let's look now at the areas which are improving...

The worldwide gross domestic product is on the rise, though one has to keep in mind that the indicator of economic production is not equal to quality of life. Today the world economic product is 80 trillion dollars, or 10 thousand dollars per person, which is not a small sum. Even so, many people are in conditions which we would not be happy with. Definitely positive are the indicators in health care and education, such as the decreasing percentage of malnourished people, the increasing average age and school attendance, etc.

— Where do you see the problem areas?

Unemployment. It is possible that in the developed countries robots and machines will take over the work. A narrow, educated group will have well-paid jobs, but there will be a number of people whose labour will be not needed. I saw this twenty years ago when I was in India, where so many people live in the slums and suburbs without work. This is perhaps the worst thing – that we are saying to them that they are not needed. This can also happen in many developed countries. Automation

and robotics have their plusses, but this is a great challenge when we are talking about human labour.

Another negative factor is the ever-rising greenhouse gas emissions. We are unable to turn this negative trend around. It really bothers me that the “contribution” of the Czech Republic to reducing emissions is its breaking of the limits on brown coal mining. In the near future this evidently will not change; just as the perception of corruption in the public sector, which is unequivocally worsening, as well as the inequality of wages. These are followed by problems such as dwindling forests and sources of drinking water. And the growth of terrorist attacks is becoming a huge problem. For example in 1995, globally there were 3079 known terrorist attacks, and the forecast for 2025 is 30,367 attacks – a tenfold increase, which says something.

— What does it say to you?

Well, I would say that we have four big challenges before us which humanity must solve. One of them is the growth of terrorism and organised crime, which are often tightly linked. And the wave of migration is tied to this. I would also not underestimate the oil peak. That is the time when we are unable to satisfy the demand for oil. Which will go hand in hand with a lack of food, or high food prices.

— Let's return to a very timely theme – the migration crisis. Is this something that you experts expected?

In all seriousness, yes – we've been talking about it for roughly 20 years. But nobody knew what the trigger mechanism would be. Now it is the war in Syria, but the problem is not confined there. We expected that a wave of migration would occur in relation to climate change. When the subtropical areas have a drought, then many people have only two possibilities: live in hardship, or leave on foot. What we are seeing now, in my opinion, is just a portent of much bigger migration waves. I am rather an opponent of "welcome" politics and it bothers me that we allowed such a chaotic, uncontrolled tide of millions of people. If we put migration into the context of climate change, then we have to take into account that we, the people of developed countries, have made these changes in the production of carbon dioxide, by burning fossil fuels. Now we find ourselves in the position where we are trying to prevent people from going where life can be lived well. We are perhaps entering a time of chaos, where the future is hard to predict. When Europe will be the target of tens of millions of immigrants, Europe will change – substantially.

— When speaking of migration, we hear about the failure of developmental aid. What do you think?

I partially agree. Helping people in need may seem trivial, but it is not easy. Developmental cooperation may have partially failed, but so too (and probably even more) did the receivers of aid fail – in this case, the governments. It is time to stop apologising for the legacy of colonialism and time to stop shrugging our shoulders. Wide-scale fraud is going on and it is difficult to stop it. Developmental aid is something we still do not know how to provide effectively, nor do we know how to fight corruption.

— Is developmental aid changing now?

I don't know. It's possible that the current situation is like that of the USA after 2001. There are three priorities: security, security, and security. It's possible that Europe is going to aim at security first and that other priorities, including developmental aid, are going to take a backseat. Similarly, I fear that in the consequence of climate changes we will choose to prioritise this area only, while resigning on many other projects.

— Do you have some recipe for change?

There are three main views on why some regions are poorer. One is the theory of dependency, that the periphery is always dependent on the centre. Second, that there are geographic and environmental factors – but that does not explain everything. The third is the one that I place the most emphasis on, that there is something called cultural determinism. In other words, the complexity of the ethical system, the ability to work hard and save, and not spend everything on food. And I would add my own view, which is that prosperity to a certain extent develops from the ability to think about the future and make appropriate decisions based on that. Both for the individual and for society as a whole. With my colleagues from Slovakia, we are trying to create a Future Oriented Thinking Index. But I think that nobody today has a fool-proof solution for how to provide developmental aid effectively. Perhaps we should take inspiration from the Marshall Plan, which is probably the only one in modern times which worked. But I am still (more and more) sceptical about whether such an experiment could be repeated.

— With respect to what has just been said, are things going to get better, according to the Future Oriented Thinking Index?

It's already better. Now. I do not want to be the announcer of catastrophic tomorrows, but we should accept and prepare psychologically that in material terms, things might get worse. It will be a great challenge, especially for today's younger generation, the university students. We don't yet want to think about it, but it could happen, and though it does not necessarily have to be a catastrophe, it may require a basic transformation of society, which will have its growing pains. At present we are ignoring this possibility, but it does not mean that it will disappear. Perhaps we will go through a period of frustration, anger and resentment against our thwarted hopes. And only afterwards will we perhaps try to do something constructive.

— In one of your articles you write that to some extent, the future of the world is up to each one of us. What is the role of the individual?

That role is quite limited and quite differentiated. But if we resign ourselves to that fact, nothing will get better. I like the quotation from Edmund Burke: "Nobody made a greater mistake than he who did nothing because he could do only a little."

### **The Millennium Project**

*Under the auspices of this international NGO there are research nodes in 56 countries around the world, which follow and evaluate the state and development of fifteen key global challenges – for example sustainable development, availability of drinking water, population growth, raw material sources, democratisation, uneven distribution of wealth, energy, health care, education, conflict resolution, etc. The Millennium Project publishes an annual State of the Future Index and biennial State of the Future.*

For more information:  
[www.millennium-project.org](http://www.millennium-project.org)  
[www.stateofthefuture.org](http://www.stateofthefuture.org)

careers



text: Ivana Pustějovská  
photo: Milada Hronová

## Student Counselling Centre – First Step to a Successful Career

Studying at the university, and considering your future career at the same time – is it possible to do both? It is, in Olomouc. Palacký University has launched its Student Career and Counselling Centre.

### Student Career and Counselling Centre

Biskupské náměstí 1  
Olomouc  
kariernicentrum@upol.cz  
www.kariernicentrum.upol.cz

Students are offered courses, workshops, lectures and inspirational meetings with successful managers. “We are focussed on professional career counselling. Every student who visits us will get some basic information, such as how to write a good CV, but we will offer much more. We have contacts with companies who are sending their intern and job offers to us,” explains Jitka Janečková Motková, who runs the Centre (in the middle of the photograph).

To succeed in today’s job market, it is necessary to excel in one’s own profession as well as to handle many other skills – such as letting the world know about yourself and your qualities. “This is why we also offer a simulation of a job interview and advise how to work with social networks such as LinkedIn and so on. We are also preparing courses on time management,” summarised Jitka Janečková Motková.

Students who will take advantage of the services of the Centre will not leave empty-handed. “Our website contains students’ portfolios. These special forms can be printed, and all internships, workshops, and courses attended during their study, plus their curriculum, can be confirmed in the form. Once they leave for work experience, they will have a file containing a number of recommendations about their activities and abilities. Employers in most professions today can choose from many applicants. Offering something extra may be crucial here,” reminds the head of the counselling centre located in the UP Armoury (Zbrojnice).

Students will be able to learn about other counselling services at various faculties, where experts on law, psychology, professional counselling, special needs, and spirituality will offer their help.

# UP Endowment Fund Supports Talented Students

**The aim of the Endowment Fund, founded by Palacký University in 2015, is to support talented and gifted students. The first eleven students have received a financial contribution in order to realise their projects within one year.**

For Nikol Neplechová, studying at the Department of International Humanitarian and Social Work at the Sts Cyril and Methodius Faculty of Theology, the support of the UP Endowment Fund represents a great experience for her. “By means of interviews with experts, I plan to find out what led prominent British humanitarian organisations to found a joint fundraising platform, and how they see this collaboration with hindsight,” she says about her project. Her sponsored research will lead to a closer linking of the university with the non-profit sector of Czech humanitarian aid.

Alena Svobodová, studying Physiotherapy, has focussed on an entirely different area. She will use a major part of her contribution from the UP Endowment Fund to acquire a professional medical translation of the examination protocol of the Neurobehavioral Assessment of the Preterm Infant. This scale is used globally and allows assessing the relative maturity and neurobehavioral condition of the newborn. “We could also use it to detect non-ideal development of infants in the Czech Republic in time, such as

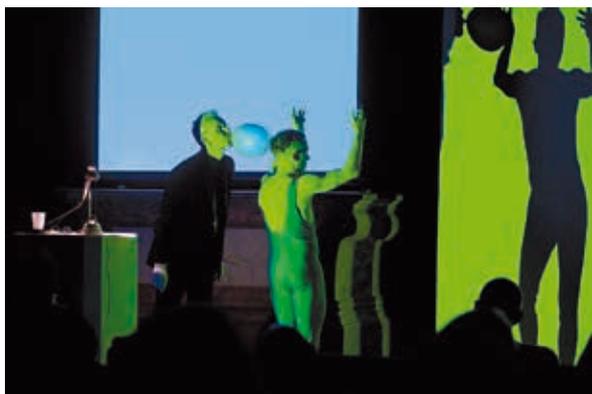
motor coordination disorders, attention deficit disorder, hyperactivity, and learning disabilities. All these problems may originate in the early postnatal period,” claims Svobodová, a student at the Faculty of Health Sciences.

“In the first year, the UP Endowment Fund distributed €30,000, however, we want to acquire even more funds to support the student projects,” says the Fund coordinator, Dita Palaščáková. The first financial contribution came from the Česká spořitelna bank; more companies and individuals will be approached now. In addition to financial support of student projects, the Fund will also support the competency of students in communication science. In collaboration with the Student Career and Counselling Centre and the Fortress of Knowledge, a series of workshops with Czech and foreign lecturers will be organised in order to show students how to present the purpose and goal of their scientific research in a comprehensible way.

More information on the Palacký University Endowment Fund is available at [www.fond.upol.cz](http://www.fond.upol.cz).



Alena Svobodová (on the left) and Nikol Neplechová, successful applicants from the first call.



### Olomouc: City of Animation

The beginning of December 2015 in Olomouc was dedicated to animation. The fourteenth year of PAF, the Festival of Film Animation and Modern Art, took place in the city. Five sections hosted 70 film projections, talks, presentations, sound and visual performances, concerts, workshops, and exhibitions. The festival presented a fusion of historical forms of animation and illustration with the most recent experiments with sound, light, and space, unparalleled in the Czech context.

Updated information on festival activities is available on the website [www.pifpaf.cz](http://www.pifpaf.cz).

text: Milada Hronová  
photos: NC archive

experience

# Naděžda Calabová: In Jordan I Teach Physical Rehabilitation of War Injuries

It is not enough to save lives; one must also make them tolerable. This is the reason why the physiotherapist Naděžda Calabová travelled to Jordan. Together with a team of doctors from the Olomouc Teaching Hospital, she went to the Muslim charity hospital in Amman, where thirty Syrian refugees were undergoing surgery. The majority of them then underwent physical rehabilitation under the supervision of the physiotherapist from Olomouc. With one goal: to get back into everyday life. →

## Naděžda Calabová

is a physiotherapist at the Rehabilitation Department of the Olomouc Teaching Hospital, and an assistant professor at the Institute of Physiotherapy at the UP Faculty of Health Sciences.



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**The humanitarian programme MEDEVAC is realised by the Czech Ministry of the Interior in close cooperation with the Ministries of Health and Foreign Affairs. Five Czech hospitals are taking part in the programme. The first group included two top specialists in traumatic limb surgery, two anaesthesiologists, and a physiotherapist. In November, Naděda Calabová was joined by orthopaedic and plastic surgeons from Prague. The third mission to the charity hospital in Jordan is planned for the spring of 2016.**

For fifteen days, Saturday through Thursday, from 8 am until 5 and sometimes 7 pm, Naděda Calabová was in the hospital in Amman, Jordan. In its eastern, poorer quarter, she dedicated herself to refugees wounded in the war, whose physical state required operations and subsequent physiotherapy.

“I’ve been working on traumatic injuries for the past fifteen years, and in the last nine years I have been focussing mostly on rehabilitation of hands,” says Calabová. And she explains the sense of her mission: “A successful operation is just the beginning. In order for the patient to live like they were used to living before the injury – if at all possible – one must begin with rehabilitation right after the operation, in most cases.”

Jordan was the first such mission in which she has taken part. She did not prepare for her stay in any special way. There simply wasn’t time. She and the doctors learned about the situation there on the spot.

“I spent most of the first two days in the operating room. I saw up close the inter-

ventions which would require further rehabilitation. For the most part these were surgeries on already healed stabbing and gunshot wounds, amputations, and removal of osteosynthetic materials from the body. Doctors also addressed complications of bone inflammations in some cases,” described Calabová.

She had to deal with quite different working conditions in Jordan than she is used to at the Olomouc Teaching Hospital. The charity hospital in Amman in which the Czech team worked was not equipped to European norms, with some operation equipment sixty years old. But, as Calabová admits, it was something other than the working environment which surprised her most.

“It was as if after taking a three-hour flight, I arrived in a different time-space continuum. The people there understand time in an entirely different way. They don’t think about what they will do in a week’s time, let alone two years from now, but they are able to live each individual day with more calm than we are. The European must compromise on the concept of ‘right now’. In their way of thinking, many things have to wait for their own time. They don’t rush about like we do in Europe. First I had a problem adjusting to their conception of time, but when I returned, I had a similar problem adjusting to our European pace. I realised that time in the world does not run so quickly as we think. It forced me to think about what is important in life and what isn’t,” says the physiotherapist with her custom smile. At the same time she admits that their conception of time has its drawbacks.

“You agree with a patient on ten a.m. – and he shows up at eleven-thirty. And does not see a problem with that. Furthermore, in Jordan it is not so easy for a woman to explain something to a man, what he should and should not do, because the place of women in that society is different from that of Europe. Communication in Arabic was readily helped by the local personnel. Sometimes I could agree on something with a patient, sometimes I didn’t even try. I felt that the cultural clash would be too great,” Calabová explains.

She considers her mission as one which was useful. In the charity hospital she was able to introduce acute post-operative rehabilitation care. Thanks to the support of the Czech Ministry of the Interior, the hospital was able to partially equip the rehabilitation area. The Olomouc Teaching Hospital will provide doctors’ care and rehabilitation in future missions as well. The second mission took place at the end of November, when Prague orthopaedics and plastic surgeons also took part. As did Naděda Calabová.



text: Ivana Pustějovská  
photo: Viktor Chlad

alumnus

# Vladimír Birgus: A Life with Photography



**Good photography, he says, should have its share of mystery. Because it offers the viewer the chance to let their fantasies run free and create their own story of the characters which he or she sees there. The historian, university professor, publicist, curator, Palacký University graduate – but first and foremost, the photographer: Vladimír Birgus.**

He was ten years old, attending the fourth grade in Příbor, when his parents loaned him their Flexaret camera. He made his first pictures, and he's never stopped since. As a child he already tried to capture every opportunity to not only improve himself as an artist, but also to delve deeper into the theory and history of photography. When his family moved at the turn of the nineteen-sixties and seventies from the village of Příbor to the city of Olomouc, and he attended the gymnasium in Olomouc-Hejčín, a fellow student asked him to prepare photographic exhibitions in the nearly underground Galerie v podloubí (Gallery in the Arcade). In this miniature vaulted space on Denisova Street he introduced who were at that time young, unknown artists, now recognised as giants in the field: Dana Kyndrová, Jindřich Štreit, Jaroslav Kučera, Viktor Kolář, and many more. He also had his own first solo exhibition there.

## Olomouc studies

When, at the beginning of the nineteen-seventies, he decided on what he wanted to study at the university, something to which he had assiduously applied himself – photography – and it did not exist. Palacký University, where he had decided to go, did not offer it. “So in the end I entered the Facul-

ty of Arts in the major of Literature-Theatre-Film. This was started on the initiative of the painter, photographer, and art theoretician, Václav Zykmund, who however was no longer working there at the time of my studies, due to political reasons. But I met him thanks to Alena Nádvorníková, travelling to Brno to see him. He wrote several texts for me for catalogues and magazines, but of course he had to publish them under various pseudonyms,” Birgus remembers.

There were only seven students in that field in his class-year. “My classmates were Taťána Lazorčáková, today professor at the UP Faculty of Arts, Department of Theatre and Film Studies; the writer Richard Crha, who became editor-in-chief of the magazine *Mladý svět* after November 1989; and Vladimír Puhač, former chief director of the Olomouc theatre. And there were a number of other talented students at the faculty then, such as the musician Jiří Pavlica; the film historian Pavel Taussig; artists such as Václav Stratil, Oldřich Šembera, Zbyněk Janáček, Petr Jochmann, and Ilona Chvátlová; the architecture historian Rostislav Švácha; theatre historians Jan Dvořák and Jiří Štefanides; and the historian Ivo Barteček, former Dean of the Faculty of Arts. I maintain friendships with many of them to this day.” →

### Photography was his fate

Vladimír Birgus remained dedicated to photography and already during his studies in Olomouc he began studies at FAMU, the Film and Television School of the Academy of Performing Arts in Prague. And if that were not enough, he also wrote articles for photography magazines, and organised and reviewed exhibitions. And in 1978 he began teaching at FAMU.

A list of Birgus's activities would fill several densely written pages – over sixty of his own exhibitions, three dozen books, countless projects promoting Czech and Slovak photography here and abroad, his academic and teaching career.... Out of the list of exhibition projects to which his name is attached as curator, he himself singles out the exhibition “Modern Beauty – Czech Photographic Avant-Garde” which toured Barcelona, Paris, Lausanne, Prague, and Munich. “We were able to gather rare originals from many domestic and foreign collections and convincingly show to foreign audiences how Czech artists significantly enriched the development of world photography. One of its strengths was that the catalogue in English was published by one of the best universities in the world, the Massachusetts Institute of Technology, which gave it truly global distribution. Of my own shows, I like best the one we made a few years back with Štěpánka Bielešová at the Olomouc Museum of Art.”

### A good teacher has nothing to fear

Since the nineteen-nineties, the name of Vladimír Birgus has also been connect-

ed to the Institute of Creative Photography at Silesian University in Opava, which he runs. “In 1990, when it started, in the entire post-Soviet bloc there were only two departments of Photography – at Prague’s FAMU and at the Academy for Visual Arts in Leipzig. Today in the Czech Republic alone there are seven universities where students can study photography as an independent discipline. We could have attached ourselves to the Institute of Creative Photography, which existed at the Association of Czech Photographers, but otherwise we did not have anything, everything was built gradually – the atelier, darkrooms, library, computer lab. Most importantly, we gathered a number of excellent teachers – Jindřich Štreit, Jiří Siostroznek, Ján Šmok, Miloslav Stibor, Pavel Mára, Václav Podestát, Štěpánek Stein and more, to whom we gradually added outstanding graduates such as Tomáš Pospěch, Dita Pepe, Rafał Milach, and Karel Poneš,” he says, describing the beginnings of the school, which now boasts seventeen teachers, including two professors and three docents.

And not for a second does he entertain the notion that as an artist and at the same time a teacher, he has been training his own competition, revealing the secrets of his own artistic expertise to them. “If I feared students a priori as future competitors and did not help them where I could, then I would be a bad teacher. I truly concur with the idea that a good teacher is joyful when his student outgrows him. And I also learn a lot from my students,” adds the photographer Vladimír Birgus.

### Vladimír Birgus (b. 1954)

Czech photographer, teacher, photography historian, and curator. He graduated from the Literature-Theatre-Film Department at the UP Faculty of Arts and from the Photography Department at the Film and Television School of the Academy of Performing Arts in Prague (FAMU). In 1978 he began teaching as an assistant professor at FAMU. In 1994 he became a docent, in 1999 he became a full professor. From 1998–2002, he was the chair of History and Theory of Photography Studies in the Photography Department at FAMU. Since 1990, he has been running the Institute of Creative Photography at the Faculty of Philosophy and Science at Silesian University in Opava. He is the author of three dozen books, as a photographer he has had over sixty solo shows both at home and abroad. His photographs are represented in collections such as the European House of Photography in Paris; the Museum of Fine Arts, Houston; and the Tokyo Metropolitan Museum of Photography.



Vladimír Birgus, Miami Beach, 2014



life style

text: Martin Višňa  
photo: Daniel Mikeška

# Joy of Movement and Culture

Jogito Ergo Sum, Fresh Air, UP Bike, Rekola, Park It!. Are these names familiar to you? No wonder. They have already become synonyms of sporting and cultural events for people associated with Palacký University as well as for Olomouc residents. What activities exactly do they cover?

The paraphrase of the famous saying of Descartes conjures up rapid heartbeats and sweaty T-shirts. Jogito Ergo Sum is the name of a programme at the UP Faculty of Physical Culture that offers group running training to UP students and employees. They meet every Wednesday at 6 pm at the athletic stadium.

“Trainings are made as entertaining and beneficial as possible. In order to warm up, we begin with jogging for 3 to 4 kilometres, followed by dynamic and other stretching exercises and basic athletic exercises. Then the main part is on: one Wednesday we run on the track, the next one in the park, running shorter or longer distances, up hills,

sometimes up and down stairs. Our goal is always for people to improve. Besides, our participants make a great team,” says the Jogito coach, Jan Brtník.

## Hiking and biking in the open air

An older activity, run by the faculty in Olomouc-Neředín and the team around the website Joy of Movement and offered to university employees as well as the public, are hiking trips called Fresh Air (Větrání). Dates and other information are available at [www.radostzpohybu.cz](http://www.radostzpohybu.cz).

The same address hosts the virtual home of the project UP Bike. UP faculties have been equipped with tools for basic service of bicycles, while more serious damage by university students and employees can be repaired with discounts provided by partnering bicycle services Bajkazyl, Moolbike, and Cyklo u Matesa.

Students may also apply their fifty-percent discount in bikesharing. Pink “Rekola” city bikes may be rented by

registered users for rides in the city; two dozen are cruising Olomouc streets today, including a new tandem bike. “Students pay 150 CZK till the end of the season, or 75 CZK per month. The season begins in the spring and ends at the end of November, or even later if the weather is good and our clients are interested,” said Eduard Vaněk from Connect, an organisation that runs Rekola bikesharing in Olomouc.

## Park It! rocks

The most visible brand from the above-mentioned initiatives is Park It! (Zaparkuj), organised by Palacký University with the City of Olomouc and Flora Exhibition Grounds. Night dances, film projections, and a number of other events have brought life to Olomouc parks and other public spaces and have been attended by thousands of visitors. The film showings alone had audiences of between three to four hundred.

# Sleep Out 2015: Trying Life on the Street

Endless rain. It's the middle of November, just before midnight, six degrees Celsius. Tereza Mühlová and Kristina Jochmannová are slowly getting ready for bed. Outside. Together with another 14 brave souls, these students from Palacký University decided to take part in Sleep Out, supporting homeless people at the same time.

“When someone finds themselves without a roof over their head, it certainly does not have to mean that it was their doing. Sometimes a person can wind up on their knees due to unfortunate circumstances or accidents,” said Kristina Jochmannová, a student of Cultural Anthropology and Journalism, with understanding. She decided with her fellow student Tereza to sleep outside, and also help organise the event.

Sleep Out is not just about “sleeping”. The organisers – the UP Faculty of Arts, the City of Olomouc, and the social firm SocioFactor always prepare a programme for incoming participants which acquaints them with the life of homeless people. From various perspectives. This year there was theatre in which some of the performers were people who had actually lived on the street; there was also music and films.

*Groups of university students in England – mostly in London, Cambridge, and Oxford – started organising Sleep Out many years ago. In 2011, 650 people took part in the event in Great Britain. The first Czech Sleep Out (Noc venku) took place in November 2012 in Ostrava.*



Kristina Jochmannová and Tereza Mühlová decided to spend a night sleeping out. To support homeless people.



During the evening, visitors enjoyed live performances by the improv group O.Li.V.Y. and the theatre group Úlet.



“I didn’t have the time to stop and think about whether I was cold or not. Late in the night, after the concerts, theatre, lecture, and art workshop, I was completely exhausted and fell right asleep,” added Tereza. She and her friend had at least a little while to think about everyday life on the street – without heat, a safe environment, or comfort.

As in Olomouc, volunteers could sleep outside in another 17 cities. “We were able to create a fantastic atmosphere. And we were able to do some good. And the volunteers who did not spend the night outside took part in the events and brought food, hygiene supplies, and clothing – mostly socks and gloves. There were several hundred pairs, which we gave to Caritas Olomouc,” summarised Eva Klimentová from the Department of Sociology, Andragogy and Social Anthropology.

And Tereza and Kristina? “The majority of those who slept out were on an

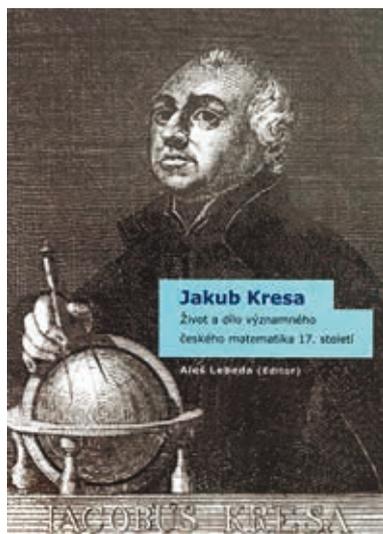
outside podium, under a canopy. I ended up sleeping inside an army tent, because there was no room on the podium. While we slept on cardboard boxes and foam mats, in warm clothes and quality sleeping bags, the homeless people around us slept only on cardboard, with a blanket over them. I really admire the charity workers who try to help them,” said Kristina. Both university students agree: “After this experience, we see homeless people in a different way. And if we get the chance, we’d definitely like to take part in Sleep Out next year. It’s an event with a purpose.”

The certificate Sleep Out 2015 was given to sixteen sleepers early in the morning of November 20, 2015. They survived the 6° night. One hundred and twenty people came out to support the homeless, bringing five hundred items of help, weighing 100 kg, with them. Long live Sleep Out 2016!

# Famous Mathematician from Haná

## Local farmer's son became a mathematician of European renown: P. Jakub Kresa, SJ (1648–1715)

The 300<sup>th</sup> anniversary of the death of P. Jakub Kresa, SJ, on July 28, 2015, was the impulse for Prof Aleš Lebeda from the Department of Botany at the UP Faculty of Science and the Smržice Municipality to organise an academic seminar and publish its proceedings in a volume entitled *Jakub Kresa – Life and Work of an Important Czech Mathematician of the 17th Century (Smržice 2015, 156 pp)*.



### Roots in a Haná village

Jakub Kresa was born on July 29, 1648, in Smržice, a village in the region of Haná near the city of Prostějov. As a descendant of peasants subject to the aristocracy in Plumlov, Jakub Kresa could only climb the social ladder due to his extraordinary talent. He studied at the Jesuit Gymnasium in Brno, where he joined the Society of Jesus on September 30, 1667. After novitiate in Brno he graduated from the Philosophical Faculty in Prague and was ordained a priest in 1680.

### At the Jesuit University in Olomouc

In 1682 Kresa became Professor of Hebrew at the Theological Faculty of Olomouc University and taught Mathematics at the Philosophical Faculty in the years 1682–1684. Kresa's next workplace was the Philosophical Faculty in Prague. As noted in the official diary of the Rector of the college and schools of the Society of Jesus in Olomouc, P. Jiří Weis, SJ, on November 11, 1685 Kresa arrived in Olomouc from Prague, and on November 13 he visited the estate of the Olomouc Jesuit College in Rokytnice near Přerov together with the Pater Regent (the head of the Jesuit Convictorium). Meanwhile the Jesuit P. Paolis arrived in Olomouc and informed Kresa that he was being sent to the Jesuit College in Brno and ordered to stay there until continuing along his journey to Spain.

### In Madrid and Cádiz

Kresa's mathematical and cartographical renown, along with his competence in languages and theology, convinced his su-

periors in the Society to send him from the Clementinum in Prague to the Jesuit Academy at the Jesuit College in Madrid (Colegio Imperial de Madrid). The Academy in Madrid gave him the position of “cosmographer” to the Royal Navy. He gave lectures in arithmetic, fractions and logarithms, planar and spherical trigonometry, astronomy, algebra, and even construction of fortresses. After two years Kresa was transferred to the Jesuit College and Academy in the port of Cádiz, where Royal Navy helmsmen were trained. In order to make the study of geometry easier for them, Kresa translated Euclid's *Elements* into Spanish (printed in Brussels, 1689). Kresa's most important work, *Analysis speciosa trigonometriae sphaericae...*, was published posthumously in Prague in 1720 – Kresa was the first to introduce algebraic sums into trigonometry.

### Gone, but not forgotten

In 1714, after his second stay in Spain, Kresa returned to his alma mater, the Jesuit College in Brno, where he died on July 28, 1715 and was buried in the crypt of the local Jesuit Church of the Assumption of the Virgin Mary (his remains are still kept in a glass coffin, alongside P. Martin Středa, SJ, one of the leading defenders of Brno against the Swedes in 1645). Jakub Kresa rightly is one of the European scholars who stood at the beginnings of modern natural science. On October 9, 2015, the Smržice Municipality unveiled a renewed commemorative plaque on the front façade of the house where according to tradition once stood the family farm of P. Jakub Kresa, SJ.



## Marko Petsiukh | Volodymyr Malskyi | Marián Kurylo

Three theologians, preparing for the priesthood at the Sts Cyril and Methodius Faculty of Theology and the Olomouc seminary, who came to Olomouc from the Ukrainian Greek Catholic eparchy in Stryi in western Ukraine. This year, they are preparing to conclude their six-year study of Eastern Liturgy and Spirituality, a portion of which was financed by the Olomouc Archbishopric.

### Навчання в Оломоуці – відкриті двері для освіти

Як для нас, Оломоуц є одним з найдивовижних міст. Перебуваючи в ньому, ти відчуваєш пражьку величність і водночас моравське умиротворення. Вражень багато, тому почнемо по порядку: Архітектура. Це щось неймовірне, в одному місті є можливість захоплюватись різномірними фонтанами в стилі барокко та вежами катедр св. Вацлава, ну і, звісно, неперевершена Колона Пресвятої Трійці, котра сіяє як і вдень, так і ввечері у самому центрі міста та ще багато інших культурних пам'яток, котрі збагачують цінну історію Оломоуці.

Освіта. Ми вельми вдячні Богу, що маємо можливість навчатись у цьому вищому закладі в Оломоуці. Дякуючи освіченим викладачам, починаємо розуміти якість подання науки. Крім завжди відкритих та доступних для кожного студента бібліотек з шаленою кількістю книжок, нас дуже тішить відкритість та готовність викладачів співпрацювати зі студентами. Ініціатива проведена студентом ніколи не ігнорується, в іншому випадку делікатно пояснюється неможливість тих чи інших дій. Щодо розвитку інтелектуальних можливостей тут відкриті двері для всіх, просто треба бути трошки більш відважним та йти до своєї цілі.

Люди. Люди тут інакші... чому? На це банальне питання є проста відповідь – ментальність. У багатьох речей наші погляди збігаються але в деяких речах ми не можемо бути настільки демократичні як це проявляється у європейців.

### Studies in Olomouc: The doors are open to education

For us, Olomouc is a most unusual city. We feel the grandeur of Prague here, but at the same time the peace and quiet of Moravia. So many impressions, so let's place them in order: Architecture. That a single town could so captivate us... by diverse Baroque fountains... the towers of St Wenceslas Cathedral... the unsurpassed Holy Trinity Column, shining day and night in the very centre of town... and the list of cultural monuments goes on, emerging from the rich and uncommon history of Olomouc.

Education. We are enormously grateful to God that we can study at the theological faculty in Olomouc. Thanks to the excellent teachers here, we are beginning to fully understand the materials presented. In addition to all the open libraries and the unbelievable amount of books available to any student, we are grateful for the openness and willingness on behalf of the teachers to cooperate with students. They never ignore any initiative on the students' part, sometimes only explaining why something cannot be done. When talking about developing one's intellectual capabilities, the doors are open to everyone. It only takes a little courage in order to reach one's goals.

People. Yes, they are different here. Why? There is a simple answer to that simple question: the mentality. On some questions, we share the same opinions; but on other questions, we are not able to be as democratic in our views as Central Europeans.



*You are holding in your hands the paper version of Palacký University's Žurnál. Pages with letters and pictures. A classic. A tradition. A beauty. But the world is no longer limited to what we hold in our hands. We are virtual. We are on the net. We write on-line, and they write on-line about us. Look up the page – Facebook, Twitter, YouTube – and many more. That's fine. We can know about each other, we can talk with one another, and we can shorten our longing for the next paper beauty... together. So come with us to the net.*

Ivana Pustějovská  
UP Media Editor-in-Chief



pray for paris

Olomouc, Astronomical Clock  
photo: Kristýna Erbenová

"In the name of Palacký University, I would like to express our deep concern for those who were affected by the terrorist attacks in Paris. The goal of terrorism is to cripple society by fear. We will not let that happen!"

Prof Jaroslav Miller, UP Rector



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## Endowment Fund of Palacký University

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