MILADA PAULOVÁ AWARD 2009—2016

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Overview of Milada Paulová Awards

MILADA PAULOVÁ AWARD FOR LIFELONG CONTRIBUTION TO CZECH SCIENCE

Established by the Czech Ministry of Education, Youth and Sports in 2009, the Milada Paulová Award is presented annually in cooperation with the National Contact Centre for Gender and Science of the Institute of Sociology, the Czech Academy of Sciences, to prominent Czech women researchers for their lifelong contribution to a selected field of science. The award is named after the Czech historian Milada Paulová, the first woman researcher to be granted the right to lecture at university level, and the first woman in the country to be appointed as a university professor.

The purpose of the Milada Paulová Award is to acknowledge and financially reward the work of eminent Czech women researchers, to offer support to women in science and to inspire young women researchers and students who are considering a career in research. The prize is awarded in order to recognize a contribution to the furthering of a field of research, including educational work and supervision of diploma and dissertation theses, as well as collaboration with civic organisations or the industrial sphere. The Milada Paulová Award has so far been awarded to women researchers in the fields of ecology and sustainable development, economy, chemistry, history, pharmacology and toxicology, civil engineering and architecture.

This publication showcases the laureates and women researchers shortlisted for the Milada Paulová Award between the years 2009 and 2016.

PROFESSOR

MILADA PAULOVÁ

For it is my absolute belief that if a woman is to dedicate her life to science, she must have the same conditions as a man

Though little known today, Milada Paulová is an eminent figure of Czech 20th century science. She was only the 75th woman to receive a doctorate at the Charles-Ferdinand University in Prague (1918) and the first woman to be granted the right to lecture there in 1925. She was also an associate member of the Royal Society of Sciences of Bohemia (1929) and the Czech Academy of Arts and Sciences (1946) and the very first woman on Czech territory to be appointed first associate (1935) and later full professor. The latter appointment took place in 1945, with retroactive effect to 1939.

Milada Paulová was one of the foremost Czechoslovak historians and scholars of Byzantinology. Her research was concerned with the history of the South Slavs, and above all the medieval history of South-East Europe and the Byzantine Empire. She was editor of the academic magazine *Byzantino-Slavica*, which, during her tenure, published articles by the world's most notable scholars in Byzantinology. She also pursued modern history, in particular the First World War resistance movements in the Balkans and on the territory of what would eventually become Czechoslovakia. Milada Paulová wrote a number of books as well as translating seminal texts into Czech. Her work won wide recognition abroad. For more than three decades she lectured at Charles University, Prague, nurturing generations of young historians, both men and women.

During the Second World War, Milada Paulová harboured the archive of Maffia, the principal organisation of Czech resistance movement during the First World War. Despite being interrogated by the Gestapo several times, she did not hand over the archive, which, thanks to her, escaped destruction. The aim of the prize which bears the name of this eminent figure is to draw attention to the contribution of contemporary woman researches as well as to honour the work of this outstanding figure of Czech 20th century scholarship.

LAUREATES AND RESEARCHERS NOMINATED FOR MILADA PAULOVÁ AWARD FROM 2009 TO 2016

LENKA ADAMCOVÁ

Science and scholarship are like a craft. If you have the opportunity to make your choice, and choose what you love, that in itself is fantastic.

Lenka Adamcová is an associate professor in the field of Development Economics, an area to which she has significantly contributed and developed in the Czech context. For a number of years she was one of a handful of researchers in Central Europe who pursued research in this field. Her systematic publication as well as research and organisational work won high regard internationally. Lenka Adamcová's research helped further understanding of the specificities of the dynamics of economic systems in developing countries and the nature of the fundamental changes which the global economy, and development economy in particular, underwent in the 1990s. It has also facilitated a better understanding of, and set up a more efficient working concept for, the Czech Republic's new foreign-trade strategies with regard to the economic systems of developing countries.

Lenka Adamcová was instrumental in launching a minor study programme in Development Studies at the Faculty of International Relations at the University of Economics, Prague, of which development economics is an inseparable part. Hundreds of young people have since graduated in this field, some of whom hold eminent positions in international organisations, state administration institutions, NGOs or the private sector, while others are active in the research of development economies.

"More and more young people are becoming interested in the issues of developing countries. This is due to the fact that they have opportunities to travel and get first-hand experience, but also this is perceived to be quite an exciting area, unlike European integration," Lenka Adamcová observes, regarding the attitudes of Czech students today. "It may also be due to the fact that these are the parts of the world that will define the nature of the world economy in a matter of decades." At present, Lenka Adamcová is a lecturer at the Metropolitan University Prague.

MILENA CÍSLEROVÁ

You need a degree of stubbornness. It is essential that you become passionate about your subject: it has to be worthwhile to pursue your aim in spite of all the obstacles.

Milena Císlerová is an eminent figure in the field of water resource management and water resource engineering both in the Czech and international arena. Her research focuses in particular on the area of hydropedology. She is the pioneer of mathematical simulation modelling of water drainage flow in soils and so-called preferential flows.

In the late 1970s Milena Císlerová developed what were at that time the most progressive numerical models for the simulation of two-dimensional flow of water in unsaturated soils. She was one of the pioneers of the application of geophysical methods in the analysis of spatial variability of hydraulic qualities of soils on a local scale. She initiated the use of non-invasive methods for the visualisation of water flows and the distribution of dissolved solids in soil samples. Her research is most relevant not only in terms of hydrology and water resource management, but also in terms of climate change and related changes in the water cycle, one of the fundamental mechanisms of the functioning of the natural environment.

Milena Císlerová is a professor at the Faculty of Civil Engineering at the Czech Technical University. During her tenure of many years at the faculty, her intense commitment has inspired interest in the field. Her dedication and consistent support of students and young researchers has helped nurture a number of internationally renowned experts. Throughout her career she has worked closely with international research teams, publishing with success in renowned international academic journals and she has been a longstanding member of a number of boards of expert and academic councils. "Friends and colleagues respect her for her wisdom, readiness to help, tenacity and optimism," says Professor Tomáš Vogel, who nominated Milena Císlerová for the Milada Paulová Award 2014.

PAVLA ČAPKOVÁ

Since I can remember, I just loved mathematics. I mean, LOVED it!

Pavla Čapková is engaged in the research and development of nanomaterials with purifying, filtering and antibacterial effects. These can be used for example in sewage treatment and for removing contaminants from wastewater and waste gases, or they can be added to plastic materials, construction materials and paints where, when activated by solar radiation, they dissolve noxious organic molecules. Pavla Čapková is the founder of the laboratories for molecular simulations at the Charles University Faculty of Mathematics and Physics (Prague) and at the Technical University of Ostrava, where she also founded the Nanotechnology Centre. At present she is a professor at the Department of Physics at the Faculty of Science at the Jan Evangelista Purkyně University in Ústí nad Labem.

She is the author of more than a hundred peer reviews, articles published in academic journals abroad and university textbooks. She has supervised or collaborated on dozens of research projects. Alongside working jointly with industrial partners who implement the results of her research projects in practice, she is also intensely active as an organiser, manager and lecturer. She supervises the graduation theses of students at all levels of the university study programme, and is the author of the successfully accredited study programme in Nanotechnologies at the Jan Evangelista Purkyně University in Ústí nad Labem. Since the 1990s she has held important decision-making posts in the administration of the university faculties she has been attached to in Prague, Ostrava and Ústí nad Labem. "Many people don't understand how you can dedicate so much time to solving a problem when you could be watching television or going out and having fun. I suppose it's a kind of obsession which is essential for the task," Pavla Čapková says.

There are good days and there are bad days, and according to Pavla Čapková this is something you have to take into account in research, as in life. All the greater is the joy of success. "I think it has to be said that research today is teamwork, on my own I would achieve nothing!" Pavla Čapková adds.

KATEŘINA DEMNEROVÁ

Laureate of the 2011 Milada Paulová Award for chemistry

Gentlemen, it's the microbes who will have the last word. — Louis Pasteur

Kateřina Demnerová's research focuses on areas of environmental microbiology which examine the qualities of biological agents, particularly bacteria and plants, and their ability to remove both inorganic and organic pollutants, and food microbiology, particularly the development and implementation of rapid methods of detection of food pathogens and the detailed characteristics of these microorganisms in order to better understand their functions and impact on the human body.

Kateřina Demnerová is a professor at the Department of Biochemistry and Microbiology at the University of Chemistry and Technology where she established an accredited testing laboratory of food microbiology and genetically modified microorganisms of which she was the head for a number of years. Over the course of her tenure at the University of Chemistry and Technology, she has supervised countless diploma works and doctoral theses. At present she teaches seven courses, two of which are in English for the school's international students. Kateřina Demnerová is a member of many academic and expert bodies, and the lead researcher of a number of Czech and international research projects in the area of food chemistry and environmental microbiology. She has published extensively on issues related to her field.

"Professor Demnerová has made a huge contribution towards the development of molecular-biology methods at Prague's University of Chemistry and Technology, including their implementation in practice in the area of quality assessment of agricultural products and food. She has introduced DNA analysis into practice, particularly for the identification of products using GMOs, and has taught a number of courses on this practice and shared her experience with colleagues working in the field. Her generosity makes her a tremendous colleague to work with", says Professor Václav Pačes, chairman of the Czech Society for Biochemistry and Molecular Biology.

JAROSLAVA DURČÁKOVÁ

All my life I have done something which brings me immense joy.

From the outset of her career, Professor Jaroslava Durčáková has pursued research in the area of international finance, in particular the subject of exchange rates. "In 1968, I succeeded in publishing an article about what things might look like in our country if the market was opened up. I promptly got a rap over the knuckles and in the years to come it became very difficult for me to get my work published," she comments. However, she continued to find the field of exchange rates and international finance fascinating, although at present she also focuses on research into financial markets and their regulation. Graduating in the field of finances and credit at the University of Economics, Prague, after 1990 she served successively as head of Department of Monetary Theory and Policy, Vice-Dean for International Relations and Vice-Rector for International Cooperation. Between 2000 and 2006 she served as Rector. At present, she is the Rector of the University College of Business in Prague.

Jaroslava Durčáková has made a major contribution towards the internationalisation of the study programme at the University of Economics, Prague, and its inclusion in a network of prestigious international universities. Her work and her experience have won her wide respect not only as a top ranking expert on the issues of tertiary education, but also as a renowned figure in the area of university economic management. She is the author of a number of publications and member of many international expert boards, organisations and societies. She has made a lasting contribution as an educator for almost fifty years.

"Economic problems have an impact on our everyday lives, and that's something people can see. What they may not have is enough information to identify what is important from a short-term perspective, and what may have an impact – and what kind of impact – in the long run. We live in troubled times, but I've always had a positive outlook on things," says Professor Durčáková.

MILADA GLOGAROVÁ

What you need is patience, resilience against frustration, and an unremittingly questioning mind.

Milada Glogarová is a professor at the Institute of Physics of the Czech Academy of Sciences, where she pursues research into the structure and properties of liquid crystals which find a wide range of use in LCD computer monitors, television screens and mobile phone technology among other devices. Her research focuses in particular on ferroelectric liquid crystals which represent a whole new area of research, the result of which may herald the improvement of current display devices. "I am thrilled with this medium. You see, all liquid crystals have an exquisite texture, it's research into beauty," Milada Glogarová comments on her field of professional interest.

Over fifty years of working in research she has succeeded in building a research centre of international significance and has become a respected authority in her field. As head of the research team in the section of condensed matter physics and Vice-Director of the Institute of Physics, she notably expanded collaboration with other research centres in the Czech Republic. In 2012, she became the first woman to be presented with the Ernst Mach Medal awarded by the Czech Academy of Sciences in recognition of her contribution to physics. She has authored and co-authored almost two hundred widely cited publications presenting her research results, which she has presented at dozens of guest lectures and prestigious international conferences.

"Her experience with scientific experimentation and her ability to articulate new problems make her both respected and well-liked among her colleagues. Her example is highly motivating for the younger generation of researchers," says Milada Glogarová's colleague, Karel Jungwirth, in a statement nominating her for the Milada Paulová Award 2015.

ZDEŇKA HLEDÍKOVÁ

Laureate of the 2012 Milada Paulová Award for history

The purpose of history is to know thyself.

Zdeňka Hledíková, Professor Emeritus at Charles University, Prague, is an internationally renowned Czech historian and university lecturer. She is active in the field of ancillary sciences of history and archival science, where she focuses mainly on the history of public administration and church administration in the Middle Ages. She has authored or co-authored more than 150 academic papers and books (e. g. *Biskup Jan IV. z Dražic* / Bishop Jan IV of Dražice; *Arnošt z Pardubic – arcibiskup, zakladatel, rádce* / Ernest of Pardubice – Archbishop, Founder, Counsellor; *Svět české středověké církve* / The Church in Bohemia in the Middle Ages) as well as being the author and editor of key monographs and editions on the subject of church history and administration. She has written a number of studies focusing on issues of the ancillary sciences of history, particularly palaeography and diplomatic. She is also a (co-)author of a number of teaching texts, such as *Dějiny správy v českých zemích do roku 1945* (The History of Administration of the Czech Lands until 1945).

Zdeňka Hledíková's career as a researcher and educator is linked with the Charles University Faculty of Arts, where, since 1965 she has nurtured several generations of Czech scholars and experts in the area of archive science and history. She has also made a tremendous contribution in terms of organisational and administrative activities. She has been the member of a number of Czech and international committees of scholars and editorial boards in the field of ancillary sciences of history and church history. In 1994, she became the director of the Czech Historical Institute in Rome, the institution which succeeded the Czechoslovak Historical Institute in Rome, which she re-established after an interval of over fifty years, thus renewing the tradition of research in Czech studies in the Italian and Vatican archives and libraries.

"Zdeňka Hledíková is distinguished by extraordinary modesty and kindness. She is both a wonderful person and an outstanding professional, who has always lived up to the highest moral criteria," says her colleague Karel Chobot, who nominated Zdeňka Hledíková for the Milada Paulová Award on behalf of the Czech Archive Society.

LIBUŠE HRABOVÁ

I never became interested in history; I have just lived history ever since I can remember.

Libuše Hrabová, Professor Emeritus at Palacký University in Olomouc, is a researcher in the area of medieval history, focusing above all on Czech-German relations in the Middle Ages and the history of the Elbe Slavs and other extinct ethnic groups in Europe. Among other subjects, she has researched the economy of the Diocese of Olomouc in the mid-13 century, and her research has helped shed light on issues of German colonisation of the Czech Lands. She is the author of the first Czech monograph on the history of the Elbe Slavs, titled *Stopy zapomenutého lidu* (Traces of the Forgotten People) which traces the representations of the history of this ethnic group in literature from the middle Ages to the 21st century. She has also published a number of studies in history, translated and edited the chronicle of Adam of Bremen, and co-authored several university teaching texts.

Libuše Hrabová was a respected scholar of medieval history in the 1960s, but during the period of "Normalisation" following the invasion of the Warsaw Pact Armies in 1968 she was banished from academia and instead retired to the Research Library in Olomouc. For twenty years she was banned from publishing and her works were inaccessible in Moravian libraries. After 1989 she returned to academia, becoming head of the Department of History at the Faculty of Arts of Palacký University in Olomouc, which she helped to modernize and build into a respected research centre. She has supported young historians, facilitating a range of valuable international contacts and scholarships abroad.

"Her erudition, enthusiasm, and passion as a lecturer has made her a tremendous influence on several generations of history students after 1989, inspiring many of them to become professional historians or history teachers," says Professor Jaroslav Miller, current head of the Department of History where Libuše Hrabová is currently active.

MAGDALENA HUNČOVÁ

Research in social economy is to me a space of freedom.

Magdalena Hunčová pursues research in social economy, that is, economics which puts the interests of people above the interests of capital. The field is concerned with, for example, employee ownership of companies, sheltered workshops, community work, volunteers work, the economic activities of non-profit organisations, as well as socially oriented support groups. According to Magdalena Hunčová, cooperatives, which form part of the social economy, were suppressed in the Czech Republic after 1989 as they were perceived as a relic of Communism. Successive governments after 1989 were oriented towards a capital-based economy and did not support other new forms of social enterprise. "The market economy is a driving force, while the social economy is a stabilizer. The whole system can only work when both function well," says Magdalena Hunčová, one of the first researchers in the Czech Republic to draw attention to this important sector, analysing its concepts and charting the status of its stakeholders.

Magdalena Hunčová has published extensively as well as being a member of international organisations and participant in a number of Czech and international research projects and conferences. At the Faculty of Social Economy at the Jan Evangelista Purkyně University in Ústí nad Labem she was instrumental in accrediting study programmes in financial management at both bachelor and master levels.

Magdalena Hunčová's greatest achievement is the recognition she has won internationally, and her presence in international research communities engaged in issues of social, cooperative and public economies. More significantly, perhaps, is her success in raising awareness of the social economy, a subject which initially faced much resistance and prejudice in the Czech Republic, among the expert public both in theory and practice.

KATEŘINA CHARVÁTOVÁ

History helps us understand life and the world around us. It's one of the fields that makes you think about the reasons things happen.

An outstanding Czech scholar in the field of medieval history and church history, Professor Kateřina Charvátová has for a number of years been attached to the Department of History and History Didactics at Charles University, Prague. Her main focus is the history of the Cistercian Order and its role in medieval European culture. She is the author of the three volumes of *Dějiny cisterciáckého řádu v Čechách 1142–1420* (The History of the Cistercian Order in Bohemia 1142–1420). At present she is working on the fourth volume. She has published dozens of research papers and books on the subject of church history in the Middle Ages, which attest to her meticulous work with primary sources. "To take a break from writing about monasteries, I sometimes dabble in political history. This is how I came to write my book about King Václav II, a biographical study of a ruler at the turn of the 13th and 14th centuries. Václav II is strongly connected to the Cistercians, since he gave them significant support, and founded the Zbraslav Monastery which later produced the Zbraslav Chronicle, the single most valuable testimony of the late 13th and 14th centuries. It all connects beautifully, such was the nature of that time," she says.

As a lecturer and tutor she is intensely committed to the students at her department as well as other university faculties, nurturing professional skills and attitudes to research and teaching history as well as inspiring passion and dedication. In recent years she has enthusiastically promoted the inclusion of local cultural history in school curricula as a means of cultivating in younger generations an interest in our cultural heritage and its custodianship. Her activities often transcend the limits of "pure" research to great effect. With a natural gift for making scholarship accessible, she communicates the results of her research through collaboration on documentary films on the Cistercians and their culture, as well as through lectures, discussion groups and texts. "We do not investigate history simply to satisfy our own curiosity, but so that our findings may serve as a source of knowledge and learning for society at large," she says.

HELENA JELÍNKOVÁ

Talent is important, but what is of key importance is focus, hard work and dedication, plus a good measure of patience when it comes to laboratory experiments.

Helena Jelínková is an internationally renowned researcher in the area of laser physics and technology. She is engaged in the development, design and construction of laser systems. Her research finds application mainly in medicine, particularly in dermatology and ophthalmology. In the latter area she is unquestionably a pioneering force in the Czech Republic. "The use of laser therapy in the treatment of eye diseases and disorders is in my view laser technology's greatest contribution to mankind. Laser therapy, that is, treatment with light that "resonates" with the visual system of the human eye, is something that cannot be substituted by any other device," says Helena Jelínková. She and her team have developed a laser for the removal of secondary cataracts, a laser for the removal of red skin marks (petechiae), a surgical laser, and a laser for dental treatment which can remove tooth cavities painlessly. She has also participated in the construction of laser satellite radars and thermonuclear systems.

Helena Jelínková is a professor at the Faculty of Nuclear Sciences and Physical Engineering at the Czech Technical University in Prague. She works in close collaboration with research teams from Russia, Poland, Italy, USA and Egypt, with experts in the area of the application of laser systems she develops, and also with local industry, specifically with the sole Czech manufacturer of laser crystals. Apart from research and development, she is also a prolific and widely published writer, member of a number of expert boards and engaged in teaching activities.

"She is distinguished by a rare ability to connect people and to communicate. While being honest and open, she demands high performance and efficiency from both her colleagues and students," says Dean of the Faculty of Nuclear Sciences and Physical Engineering, Professor Igor Jex, who nominated Helena Jelínková for the Milada Paulová Award 2015.

KVĚTUŠE JIRÁTOVÁ

I work with industrial manufacturers all the time.

Throughout her career Květuše Jirátová has been dedicated to the research and development of chemical substances used in the prevention or mitigation of environmental pollution. Among others, heterogeneous catalysts, the subject of her research, help reduce the sulphur content in oil products such as petrol, kerosene and diesel fuel or in residual oil. This helps to reduce the sulphur dioxide emissions of industrial production and traffic.

Working closely with the industrial sector, Květuše Jirátová succeeded in making a major contribution to the industrial utilisation of alum obtained from liquid waste in the process of industrial waste treatment of the environmental pollution caused by uranium mining in Stráž pod Ralskem. A patented procedure developed by Květuše Jirátová converts alum to fertilizer well-suited to growing rapeseed. Květuše Jirátová and her team have also developed a procedure for the removal of thallium, an impurity in alum, thus significantly expanding the possibilities of industrial usage of this mineral. She has published extensively, as well as participating in a number of international conferences. She and her team are holders of almost twenty patents. What Květuše Jirátová herself regards as her major achievement, however, is shedding light on the physical laws behind the formation of the structure and surface properties of aluminium oxide, one of the most important heterogeneous catalyst supports. She and her team have developed a patented procedure used to manufacture this catalyst support.

Květa Jirátová started her career in industrial research at the Research Institute for the Chemical Use of Hydrocarbons, to become an independent and later leading researcher at the Department of Catalysis and Reaction Engineering of the Institute of Chemical Process Fundamentals of the Czech Academy of Sciences, where she is active to this day.

VĚRA KLENEROVÁ

Courage is indispensable even in science!

Věra Klenerová is the head of the Laboratory of Neuropharmacology and associate professor at the Institute of Medical Biochemistry and Laboratory Diagnostics at the First Faculty of Medicine at Charles University. She launched her career in science while still a student – in 1962 she presented conclusive evidence of the existence of "passive smoking". Her discovery won wide recognition both at home and abroad. Věra Klenerová pursues research into the regulatory mechanisms of the brain and other organs, focusing on the role of neuropeptides. Neuropeptides are molecules used by neurons to communicate with each other, and they are involved in a wide range of brain functions as well as dysfunctions and diseases. The aim of Věra Klenerová's research is to apply neuropeptides in therapy, in the treatment of physiological dysfunctions, and psychological conditions such as stress, anxiety, fear, depression, attention deficit and memory disorders, as well as in the treatment of substance abuse. The results of her research include the discovery of stress and anxiety-reducing effects of some neuropeptides.

Věra Klenerová has published a wide range of scientific papers, books and teaching materials as well as texts communicating science. Apart from research, for several decades she has been a dedicated educator, offering support and supervision to young scientists in post-graduate programmes, both at Charles University, Prague, and at the Technical University of Liberec. She is the Chairwoman of the Subject Area Board of Pharmacology and Toxicology at Charles University and the Czech Academy of Sciences.

"Věra Klenerová is an outstanding organiser and a most hard-working, honest person of great integrity, as well as having a tremendous rapport with both her students and her colleagues. Her openness and generosity in sharing her technical knowledge and methodology has been the driving force enabling the launch of the careers of many of our present colleagues, some of whom hold prominent posts in medicine in the Czech Republic, USA, and other countries," says the Rector of the Technical University of Liberec, Professor Zdeněk Kůs.

ALENA KOHOUTKOVÁ

I work in engineering, a profession that brings me great satisfaction, in a technical field which I regard as most useful and rewarding.

Alena Kohoutková is an international researcher in the field of structural engineering. Her research results in the area of computational analysis and modelling of composite concrete structures, rheology of concrete structures, models for the breaking points of concrete and serviceability models, recycling of concrete, and aesthetics in concrete design are of worldwide relevance. She has made a ground-breaking contribution to the field, forming a "school" of colleagues, followers and disciples. Her work finds immediate application in the design and construction of a number of engineering structures, contributing to the development of progressive technologies and improving the sustainability of the life-cycle of building structures.

Alena Kohoutková pursues both applied and basic research. She says she is most proud of the achievements which combine both types of research: they are the results of a long-term process of realisation, from an initial idea followed by laboratory tests, theoretical analyses and computer simulation to realisation through testing and trials. These achievements include for example her innovative work in the area of prefabricated concrete structures.

Professor Alena Kohoutková is the Dean of the Faculty of Civil Engineering of the Czech Technical University in Prague, and the head of its Department of Concrete and Masonry Structures. Apart from outstanding achievements in research that have brought her international respect as well as a number of honours, she is a dedicated teacher and lecturer, member of a range of scientific boards, committees, societies and work groups. She also works intensely with the industrial sector, in the form of expert judgments, advisory appraisals, contract research, design work or educational activities. In addition, she works closely with the state administration and local authorities.

DARJA KUBEČKOVÁ

Structural engineering is a creative profession. It's not simply about architecture or design, it also involves responsibility and safety.

Professor Darja Kubečková pursues applied research in the area of physical aspects of architecture and civil engineering in the design of buildings, resolving issues particular to industrial facilities, their technical structure, conversion of buildings and their sustainability. She focuses mainly on assembly technologies, prefabricated buildings and composite systems. The results of her research in a number of areas have helped develop more efficient and enduring solutions in building construction. Darja Kubečková is the author of a number of civil engineering projects, construction projects, print publications and expert reports. She has supervised or collaborated on a number of research projects and educational projects focusing on a range of fields such as architecture, industrial facilities conservation, energetics and power engineering and multi-criteria assessment in redevelopment, or the commercialisation of academic research results.

Darja Kubečková has made a key contribution in the area of educational and organisational work. She was instrumental in founding the Faculty of Civil Engineering at the Technical University of Ostrava and has contributed to its development in the capacity of Vice-Dean and Dean. She has contributed to the founding of the Department of Building Construction, where she developed two study programmes of which she is guarantor. At present she is the Vice-Rector for Development and Investment Construction. Her experience and expertise make her an active member of a number of scientific, supervisory and editorial boards and evaluation committees.

"It is essential for the personal and professional growth of every successful individual to have a role model, such as we had in Professor Kubečková, who has never failed to support us in facing challenging tasks and situations," – nomination statement signed by eighteen former students.

HANA KUBOVÁ

One has to retain an insatiable curiosity and perhaps also some degree of imperviousness to scholarship. You must never start to think that you know all there is to know, or that things are indeed what you were told they were.

Hana Kubová pursues experimental developmental epileptology, i.e., research into the onset, spread and termination of epileptic seizures in children of various ages. She studies the effects of potential or extant anti-epileptics on the brain, and the differences in anti-seizure effects of this medication, analysing their side effects on brain function development. The results of her research have contributed to the clinical testing of new anti-epileptic medication simultaneously on adults and children, facilitating better, quicker access to the latest medication for young patients.

Hana Kubová is the head of the Department of Developmental Epileptology at the Institute of Physiology of the Czech Academy of Sciences, one of a handful of research centres worldwide to conduct research into this issue. Her work has significantly expanded the area of both methods used and questions investigated here. As she says, research into an immature brain is extremely challenging and exacting in terms of time, resources and methodology, and as a result little research is done into the issue worldwide, despite the fact that the most frequent occurrence of epilepsy is in children. The pharmaceutical industry is also largely reluctant to invest in the development of medication for such a small niche in the market. "As a result, children – our future – are at the very back of the queue," Hana Kubová comments.

Alongside research, Hana Kubová is a longstanding and successful supervisor of both pre-graduate and post-graduate projects for students in a variety of study fields. "She deserves our respect for her professional prowess, but above all for her humanity and generosity not only to the people around her, but also to animals, whose rights and welfare she actively helps protect," says Associate Professor Jakub Otáhal, who nominated Hana Kubová for the Milada Paulová Award.

JIŘINA LANGHAMMEROVÁ

It would be wrong to believe that traditions become alive, or live only in their archaic form.

Jiřina Langhammerová, an ethnographer and a historian, is a renowned emeritus researcher at the National Museum, where she has worked for more than forty years. Her main areas of expertise are folk costumes and folk traditions. "A folk costume is a traditional ethnological phenomenon. It provides a multi-layered testimony, being useful in documentation, science as well as a wider cultural and social context. It might be used, or misused, as a symbol." Folk traditions, according to Jiřina Langhammerová, remain intriguing, because they have not died out. While the traditions that were part of religious celebrations have been forgotten, or were stripped of their spiritual connections under communism, they were revived in various forms after the Velvet Revolution in 1989.

Jiřina Langhammerová has made an inventory of the museum's collection of approximately 200,000 items, and she has devoted her time to research, writing, teaching and popularisation activities. She has organised over 30 exhibitions, receiving wide public recognition, the symbolic culmination of her efforts being the establishment of a permanent exhibition of Bohemian, Moravian and Silesian traditional folk culture. This is displayed at *Musaion* at the Kinsky Folly, Prague, a building that was restored and opened to the public largely thanks to her efforts. In the 1990s she organised a petition to save the then-dilapidated structure, a process which led to the clarification of its ownership and eventual reconstruction, once again with Jiřina Langhammerová at the helm as she became the head of the Historical Museum's Ethnographic Department in 1993, remaining in charge for 15 years.

MILENA LENDEROVÁ

People are essentially ridiculous, and even their history sometimes seems ridiculous.

Milena Lenderová focuses her research on the 19th century, namely on the history of the everyday, the development of Czech-French relations in the 18th and 19th century, and the history of women, becoming one of the distinguished Czech female scholars of international renown. Her writings on the history and everyday life of women are of particular importance – far from being tedious scientific texts, they have aroused public interest, yet remained academically accurate. "I was inspired by the fabulous editions of *Histoire des femmes en Occident* that were published in French in the 1990s," says the author of a number of studies and monographs, adding, "In terms of history, Czech women were subjects of interest only as conscious crusaders of the 19th century, if at all. The only woman whose image became fully acceptable, albeit in a strongly distorted form, was Božena Němcová. So I tried to look instead through the prism of the everyday, life cycles and material culture."

Professor Milena Lenderová works at the Institute of Historical Sciences of the Faculty of Arts, University of Pardubice. After teaching at a secondary school and working as an archivist, she became a university teacher in 1990. She spent several years lecturing at the University of South Bohemia in České Budějovice, but she has devoted most of her time and efforts to her work at the University of Pardubice. Apart from her academic and educational activities, she played a crucial role in the establishment of the Faculty of Humanities, University of Pardubice, becoming its first dean. Milena Lenderová's academic work outside the University of Pardubice includes her participation in academic boards of several universities and faculties as well as in a number of expert associations.

HANA LIBROVÁ

I'm not competitive, and it's very hard for me to enter any competition.

Professor Hana Librová is one of the most prominent experts in the field of environmental humanities in the Czech Republic. In her research, she creatively combines her knowledge of natural science with philosophical and sociological analysis. She conceived a concept termed "voluntary modesty", which describes an eco-friendly lifestyle based on voluntary moderation and thriftiness. She finds an approach to nature which puts human interests at the centre superficial, believing instead that nature has an intrinsic valuable which does not depend on human needs, experience and evaluation. The focus of such a non-anthropocentric approach is the co-dependency of all components of the ecosystem.

Hana Librová founded the Department of Environmental Studies at Masaryk University Faculty of Social Sciences, where she still lectures. She is a highly respected university teacher who has nurtured many of her successors of both genders in academia, governance and the non-government sector. She has written a number of monographs and dozens of scientific texts published both in the Czech Republic and abroad. Her numerous articles in newspapers and magazines for a wider or environmentally oriented public are dedicated to spreading awareness about environmental studies. She works with many institutions whose aim is to protect the environment and is involved in projects endeavouring to save threatened eco-systems.

"With her attitude to life and her lifestyle, Professor Librová is an example of a scholar who lives in harmony with her beliefs and the focus of her research," says Professor Ladislav Rabušic, vice-dean for academic matters and former dean of the Faculty of Social Studies at Masaryk University in Brno, who nominated Hana Librová for the Milada Paulová Award 2009.

LENKA MALETÍNSKÁ

You know every step of the way that the results might lead to the complete abandonment of that particular avenue of research.

Lenka Maletínská's research focuses on peptides. "Just as any other hormones, peptides are able to influence receptors and to send signals to cells, causing a certain reaction. Their influence is goal-directed; they trigger cascade phenomena, basically serving as a regulatory mechanism," Lenka Maletínská says. She has devoted most of her research to the peptides that have an effect on food intake, exploring the mechanisms of their influence and developing chemically analogical, but much more stable, substances. Her research is especially important in regard to eating and metabolic disorders as well as for the potential treatment of obesity. Another area related to peptides and explored by Lenka Maletínská is the study of the connections between type two diabetes and Alzheimer's disease.

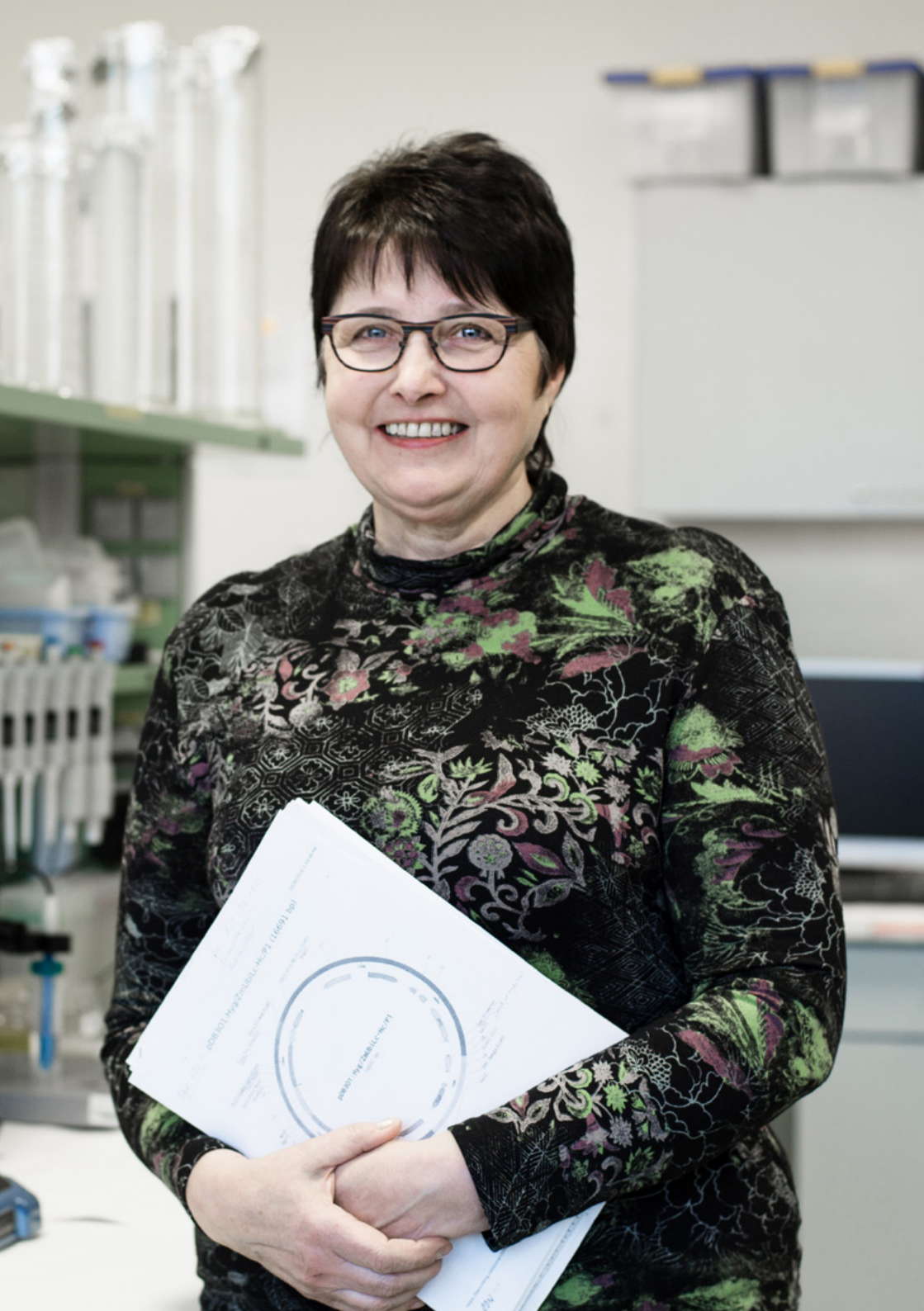
Lenka Maletínská works as head of the Anti-obesity Peptides group at the Institute of Organic Chemistry and Biochemistry of the Czech Academy of Sciences. She has lead grant projects and written books, devoting her time to research as well as to educating emerging female scientists and popularising science. "What I love most is that we do everything from scratch. You come up with an idea based on literature and your previous experience and you discuss it with your colleagues, or sometimes convince some of them to work with you. Then you apply for a grant, hoping to get it. When you describe your project, it helps if you already have some preliminary results, because you must have some certainty that you can fulfil the grant proposal." Thus, more than 50% of work is completed without making it to the grant stage. "It's basic research. You might have a hypothesis, but it doesn't work out, or you can't prove that the given substances work the way you expect. Really anything can happen… ," Lenka Maletínská explains.

ILONA MÜLLEROVÁ

It is essential to persevere, never to give up and just keep trying, time and time again.

Ilona Müllerová focuses on electron microscopy. She was a member of the team that designed and developed the innovation of a scanning electron microscope that has become an integral part of all instruments used for the imaging and analysis of volume samples with the highest possible detail resolution of 1 nanometre. The sample is seen using a bundle of slow electrons. "The difficult part was to keep the electrons, which tend to disperse in all directions, in a small, compact bundle. I managed to do it with the help of a simple electrostatic field. It seems an easy thing to do, but it caused a revolution in electron microscopy. Sample imaging became of much higher quality, enabling brand new analysing possibilities. It's been 25 years since I presented this innovation at a conference in Seattle; back then nobody, including experts on electron optics, believed that such a thing would work. Today, big conferences have sections devoted to discussing this particular subject," she says.

Ilona Müllerová is the director of the Institute of Scientific Instruments of the Czech Academy of Sciences; she has led a number of research teams and projects, organised many notable scientific events and has been a member of many expert panels and commissions. She has co-authored over 250 texts, spoken at many conferences and received prestigious awards. "We still don't understand much of what we see in an electronic microscope. There's still space for better quantification of signals, for better understanding, for comparison of the simulated and the measured; we still have some big questions waiting to be answered," says Ilona Müllerová, adding that she welcomes the fact that, at least in Brno, the seat of her institute, and other institutions that participate in research and development of this field, people have a degree of understanding about microscopy.



LUDMILA OHNOUTKOVÁ

I reveal the secrets of plants using patience and enthusiasm.

Ludmila Ohnoutková works as a scientist at the Faculty of Science of Palacký University in Olomouc and the Czech Academy of Sciences' Institute of Experimental Botany. She focuses on basic and applied research related to the use of new scientific findings in plant biotechnologies and their practical application in plant cultivation. She primarily explores the functions of genes and improves the characteristics of economically important plant species using genetic engineering and in vitro techniques.

She is the founder and innovator of modern cultivation of cereals through biotechnological methods, including transgenesis. She has designed and optimised methods focused on developing homozygous lines and interspecies hybrids in monocots. She works with research and cultivation institutions both home and abroad, participating in international and national projects. She is the author of several transgenic barley lines and a co-author of two spring wheat varieties. Her field trials with modified barley were among the first in the Czech Republic and Europe.

She teaches at the Faculty of Science of Palacký University in Olomouc and Mendel University in Brno, supervising bachelor and master theses. According to the students who nominated Ludmila Ohnoutková for the Milada Paulová Award, "Her strength lies in significant expertise, educational skills and patience. She is able to explain seemingly complicated things in a simple way."

Ludmila Ohnoutková is deeply involved in charity work. She is a co-founder and a deputy chair of Hloučela, an association aiming to preserve the natural landscape along the Hloučela River in Prostějov and to provide services in the field of environmental protection. She is also a member of the ProProstějov – věci veřejné Association (ForProstějov-Public Affairs) and of an orienteering club.

DRAHOMÍRA PAVELKOVÁ

My most important mission is to work with the young, energetically and ceaselessly.

Drahomíra Pavelková's research is devoted to company finances, performance management and, most of all, the cooperation of companies in clusters. The clustering of companies and other entities that work together despite being competitors often share a similar specialisation, and hope that clustering will advance their interest. "In Zlín there is a plastics cluster as well as a shoemaking cluster. Clusters are here to foster beneficial cooperation, for example in staff training, team research, capacity sharing, cluster acquisition, etc.," Drahomíra Pavelková explains.

Thanks to Drahomíra Pavelková, the Plastics Cluster cooperates with Tomáš Baťa University in Zlín, where she is the dean of the Faculty of Management and Economics. Her team collected and processed necessary data as an independent entity, and prepared a benchmark study comparing financial and non-financial performance indices of individual companies. The cluster representatives and other professionals devise the faculty strategy for research and cooperation with the business sphere.

Professor Pavelková was the first woman to become vice-dean, dean and vice-chancellor at Tomáš Baťa University. She is a manager, researcher and teacher, striving for better communication and interpersonal relationships as well as for the development of the university and the Zlín region. She considers working with an international team of renowned researchers of clusters and cluster initiatives to be her biggest success, but she believes that her main mission is to help educate the younger generation, to develop their teamwork skills and encourage them to be responsible citizens.

LYDIA PETRÁŇOVÁ

We are being deformed and suffocated by our media culture which is why there is a hunger for creative, free expressions of our past traditional culture.

Lydia Petráňová is an associate professor at the Czech Academy of Sciences' Institute of Ethnology, where she studies material culture and various areas and forms of traditional folk culture, for example, folk diet, folk devotional practices and seasonal customs. "If I want to study folk diet as a cultural phenomenon, searching in the diet of previous generations for something related to today's diet, I have to consider food sources, what crops were harvested, and to what extent, when, how and for whom Czech cuisine has been saturated with imports. I also notice the rhythm of food consumption during the course of the year, among different social classes, and in times of hardship and starvation. I also identify what meals were popular in various regions and the development of kitchen technologies and the forms this took," Lydia Petráňová says about her research.

Lydia Petráňová has become one of the most prominent figures of Czech historical ethnology, thanks to her writing and her reputation based on her key works. She has significantly contributed to extending the interest of ethnological research in the Czech Republic into the 21st century, and using interdisciplinary approaches to her work. Lecturing at universities and the preparation of textbooks is an integral part of her work, although Lydia Petráňová regularly speaks at conferences at home and abroad, co-edits major ethnological journal *Český lid* (Czech Peoples) and engages in the media. Apart from being a scientist, teacher and science promoter, she has distinguished herself by her hard-working attitude in organisation: she has held a number of key offices at the Czech Academy of Sciences, and she has served on the boards of academic institutions and grant agencies.

JANA PODHRÁZSKÁ

You can't cheat landscape. The way we treat it, well or badly, will sooner or later manifest – or come back to haunt us.

Jana Podhrázská explores the processes of water and wind erosion and the risks of these worsening due to poor husbandry of agricultural and forest soil. She also studies measures to protect soil and water, monitoring their effectiveness and using research results in practice. She works at the Research Institute for Soil and Water Conservation, where she has supervised a number of research projects, namely in soil, water and landscape conservation in the context of sustainable agriculture and land management. She has written a number of studies on anti-erosion and anti-flood protection in threatened or affected locations, and has worked on drafts of both simple and complex land adjustment for state governance. She has published methodical instructions and expert maps for ministries, state offices, designers, agricultural practice, all stakeholders and the public.

Jana Podhrázská has become a renowned expert on soil and water in agricultural landscape. She has been widely published in peer-reviewed journals at home and abroad and has presented her findings at national and international conferences. She is a member of the committee of the European Society for Soil Conservation and many other scientific associations and bodies. She is an associate professor at Mendel University in Brno where she teaches and supervises theses of all levels.

"Jana Podhrázská is a respected researcher with uncommon expert knowledge as well as organisational skills, broad horizons, determination and conceptual vision. Her selfless work greatly supports the development of agricultural research. She inspires the work and fosters the professional development of her peers in research projects, and, as a board member, influences the direction and development of the research institution," Michal Pochop says about his colleague.

MÁRIA REŽŇÁKOVÁ

I don't like stereotypes. I enjoy new things and changes.

Mária Režňáková studies company economics, namely financial management, financial resources in international capital markets and venture capital. "We have significant shortcomings in the areas of business activity and financial management," she says, when talking about the evidence of processes and activities in Czech companies. According to Mária Režňáková, another flaw is the limited capital available to them, "It causes high mutual indebtedness and leads to businesses no longer being able to pay off their loans. When managing a company, you have to set up strict rules and stick to them; they are necessary for successful business," she says.

An associate professor at the Faculty of Management and Business of the Brno University of Technology, Mária Režňáková devotes her time to teaching, organising and managing. She has led research projects and her studies have been widely published. She enjoys sharing her knowledge with her students and is proud of their achievements. She considers economics to be a varied science with a large scope, but is a critic of the tendency of the media to present a biased view on the subject. However, this state of affairs was to a large extent caused by the economics field itself, when overly optimistic expectations based on the development of financial markets were projected in prediction models, or when it leaned too much towards math, turning away from social sciences and psychology in the 1920s.

Associate professor Anna Putnová, the former dean of the Faculty of Management and Business of the Brno University of Technology, who nominated Professor Mária Režňáková for the Milada Paulová Award, says about her: "With her strong moral credibility, she is a role model for other teachers and students alike."

PAVLA ROVNANÍKOVÁ

I enjoy furthering our knowledge and putting the results into practice.

Pavla Rovnaníková is a renowned expert in the field of the chemistry of construction materials. She explores the development of new advanced materials and the corrosion of construction materials. Among her many interests is the renovation of surface layers of historical buildings. "I peruse old literature for information about the preparation and application of plasters, about technologies that are often forgotten and replaced by new technologies. I search for old books on construction to discover the methods used by our predecessors. It is sometimes said that the newly discovered is the old forgotten," she says of one of her many activities.

Professor Rovnaníková works at the Institute of Chemistry of the Faculty of Civil Engineering at the Brno University of Technology. Her results have been published in journals and presented at conferences at home and abroad. She is a (co-) author of 400 published texts and a number of books. She has organised conferences and seminars, cooperated with foreign universities and the industrial sector. She is a member of several Czech and international professional organisations. Pavla Rovnaníková's teaching activities are no less important. She has participated in launching and developing new study programmes and subjects, encouraged the development of dozens of study texts, supervised theses on all levels, and last but not least, lectured on monument renovation. Apart from the development of material engineering in the preservation of historic buildings, she considers her biggest achievement to be successfully combining studies of construction material design with other areas of the construction industry which has contributed to the complex resolution of a number of scientific issues.

MILENA RYCHNOVSKÁ

Laureate of the 2009 Milada Paulová Award for ecology and sustainable development

The science of ecology is the economics of nature.

Milena Rychnovská is an emeritus professor at Palacký University in Olomouc. Her research focuses on landscape ecology, primarily on the role of meadow growth in landscape. She is an important advocate of the ecosystem approach, which considers plant ecology in the wider context of water management, agriculture and human interventions in the landscape.

In the 1960s and 1970s, she led her team in cooperation with the International Biological Program (IBP) and UNESCO's Man and the Biosphere (MAB) project. The results of these ecosystem research projects were later published in several books she edited and in international monographs. In addition to research, she distinguished herself by her teaching activities. When, for political reasons, she was not permitted to teach, she initiated and led the Summer Eco-School for high school students. In the 1990s, she played a key role in creating study plans for bachelor, master and doctoral studies at the Department of Ecology of the Faculty of Natural Science at Palacký University in Olomouc. She is author or co-author of a number of textbooks and methodological brochures and a very active lecturer.

Professor Milan Chytrý, chairman of the commission of the 2009 Milada Paulová Award, describes her thus: "Professor Milena Rychnovská is a great scientist who enjoys a unique reputation at home and abroad thanks to her immense knowledge and achievements in terms of research results she and her team have achieved, as well as thanks to her exemplary moral qualities: honesty, modesty, adherence to her principles, and friendly and forthcoming relationships with her peers and students, whom she is always willing to help. Her research, teaching and organisational activities have had a profound impact on three generations of ecologists and environmentalists."

JANA ŘEPKOVÁ

Each cultural crop has its disadvantages which we'd like to eliminate

Jana Řepková has devoted over 30 years to agricultural research, namely non-traditional and innovative approaches that could make cultivation more effective. She is a renowned specialist exploring the use of hybrid and molecular methods to cultivate fodder crops and cereals. She explores the transference of significant signs of wild-growing clover, such as resistance or endurance, to its cultured variety. In the identification of persistence genes in barley or protein quality genes in clover, she uses molecular methods, developing their DNA markers.

Řepková is an author widely published in peer-reviewed journals and her research has brought unique results, for example sets of markers which are protected by a patent or utility pattern. She significantly contributed to the cultivation of a new variety of Pramedi clover, which is unique, perennial, generally more resistant and sprouts more root offshoots. "Clover belongs to the family of plants that fix nitrogen. In fact, it produces its own fertilizer, enriching the soil, which thus doesn't need to be fertilized," she explains.

Jana Řepková is an associate professor at the Faculty of Natural Science of Masaryk University in Brno where she teaches and supervises bachelor, master and doctoral theses. She has also given public lectures and works with state institutions. "I always knew I wanted study genetics, even back in high school," she recalls, adding, "What you need is motivation, kind of a driving force. I never give up until I find a solution to the problem. Single-mindedness and ability to get one's teeth into a problem are very important in science."

EVA STEHLÍKOVÁ

Theatre is extremely close to life; neither is here forever and neither is easily described.

Professor Eva Stehlíková is one of the most renowned figures of classical philology and theatre science in the Czech Republic. She is known as a dedicated interpreter of ancient and medieval theatre culture, which she has presented in a number of monographs, translations, afterwords, comments, prefaces, essays and studies. Eva Stehlíková's way of thinking and writing is highly original, bringing new points of view to theatre science and philology. Her bibliography amounting to over 400 items proves her extraordinary diligence shown in her research, collaboration with theatre institutions and the media, and in her lectures for students and the public.

Her crucial works include: *Řecké divadlo klasické doby, Římské divadlo* (Ancient Greek Theatre, Roman Theatre, And What If It's Theatre?), a book about Latin Medieval Theatre. In the book *Divadlo za časů Nerona* (The Theatre At The Time of Nero), she vividly portrays life and drama during Nero's reign. Her other valuable works include *Antické divadlo* či *Alfréd Radok mezi filmem a divadlem* (Ancient Theatre Or Alfréd Radok Between Film And Theatre). For nearly 20 years, Eva Stehlíková has taught at Charles University, Masaryk University and Palacký University and has lectured at the Academy of Sciences and abroad.

"Eva Stehlíková hasn't lost her moral integrity whatever the circumstances; before 1989, she stood up to the regime and often showed a great deal of courage, helping her friends and colleagues through hard times in their lives and careers and working with other artists and scientists who opposed the regime," states her nomination for the Milada Paulová Award, signed by the representatives of four prominent theatre and classical studies institutions.

MARIE STIBOROVÁ

It's always great when you learn something new, when you have it published and when you can use it to benefit your patients.

Professor Marie Stiborová explores xenobiochemistry, or molecular mechanisms that are connected to cancer development, and the metabolic processes of environmental waste matter, medicaments and other substances foreign to the body. She has proven chemical causes behind interstitial nephropathy, caused in nature by the common aristolochic acid, and identified enzyme systems responsible for the acid's toxic effects. She has explained the mechanism behind 3-Nitrobenzanthrone (a substance resulting from fuel combustion in diesel engines), which is carcinogenic and damages the genetic information in cells. She has also discovered the mechanism of the action of ellipticine, an anti-tumour medicament, which led to the development of a number of new generation cytostatics.

"For me, science is addictive. I love research. Maybe it's because of that very elusive feeling of happiness when you manage to find something new to help mankind and society," says Marie Stiborová who works at the Department of Biochemistry of the Faculty of Natural Science at Charles University, where she re-launched the discipline of xenobiochemistry, significantly widening its scope.

Apart from her teaching activities, Marie Stiborová is a successful (co-) researcher of a number of scientific projects. She has published over 200 articles in international journals, and has worked with international research teams. The importance of Marie Stiborová's research is reflected in her membership in dozens of advisory, supervisory and decision-making bodies as well as national and international expert commissions and scientific associations. Professor Stiborová popularises science, writing articles and presenting public lectures.

VIERA STRAŠKRABOVÁ

I wanted to study those phenomena that are actually present in nature.

Viera Straškrabová is a founder of the internationally recognised Czech school of the microbial ecology of water. Regarding microorganisms, bacteria and their relations in lakes and reservoirs, she primarily explores free-living non-pathogenic bacteria in water eco-systems and surface water self-cleaning. Her research has significantly contributed to the understanding of one of the essential links in the water ecosystem food chain, or microbial loop. This is a process whereby organic substances released through organisms' metabolism, or their dead bodies, re-enter the food network in bacterial form.

Viera Straškrabová's activities and achievements are numerous. She has written dozens of articles and books, edited 5 collections, led and taken part in many national and international projects. She has organized several international conferences and served in countless expert and scientific commissions and national as well as international associations. She has been an expert witness in the field of water management and water microbiology, the chair of the Czech network for long-term ecosystem monitoring, and played a part in starting the Faculty of Natural Science of the University of South Bohemia in České Budějovice. In the 1990s, she was the head of the Czech Academy of Sciences' Hydrobiology Institute. She is still involved in activities of both these institutions.

"Dr. Straškrabová's activity, vitality and zest are exemplary. Her single-mindedness is admirable," says professor František Sehnal, a Czech entomologist and former director of the Academy of Sciences' Biology Centre, who nominated Viera Straškrabová for the Milada Paulová Award.

ZDEŇKA SVOBODOVÁ

Laureate of the 2016 Milada Paulová Award for agriculture

Toxicology is very interesting; it's the work of a detective.

Professor Zdeňka Svobodová's research focuses on aquacultures, in particular the toxicology of fish. She is author or co-author of many books on aquatic toxicology, diseases of freshwater and aquarium fish, water quality, the health of fish, and veterinary toxicology in clinical practice. She is a lecturer at the University of Veterinary and Pharmaceutical Services in Brno, where she shares her knowledge with her students, but at the same time she has been intensively involved with the practical side of her field. She and her colleagues have prepared several methodologies for fishing enthusiasts and trained the public in preventing poisoning and water environment protection. Her expert knowledge is often sought after by fisheries and veterinary doctors to deal with poisoning cases that cause death in animals.

She has discovered the mechanism behind the autointoxication of fish with ammonia and written a methodology to prevent its occurrence. Autointoxication occurs during a sudden drop in temperature or oxygen concentration in water. This effectively slows the metabolism, reducing the fish's ability excrete ammonia, the final product of protein metabolism in fish, which leads to poisoning. Today, Zdeňka Svobodová studies the contamination of water caused by drugs, pesticides, hormonal products and other synthetic substances used in cosmetics and cleaning products and its possible effect on fish organisms.

"Professor Svobodová's persistent, highly valued research as well as her opinions and attitudes in everyday life that combine impeccable professionalism and resilience with profound humanism, willingness to help and unusual modesty have always been a great inspiration to us," says associate professor Josef Velíšek of the Univesity of South Bohemia, who was one of those who nominated Zdeňka Svobodová for the 2016 Milada Paulová Award.

EVA SYKOVÁ

In research, you need imagination; your work must bear an imprint of your point of view and character.

Professor Eva Syková is a scientist of international renown in the field of neuroscience and regenerative medicine; as such, she is one of the most cited Czech scientists. Her work has resulted in essential findings in the field of information transmission in the brain and spinal cord, degenerative brain diseases, stem cells, biomaterial and tissue engineering. Eva Syková has described the origins, mechanism and importance of the changes in the nervous system that occur in such diseases as multiple sclerosis, brain tumours, Alzheimer's disease, or Parkinson's disease. She is proud of the fact that she has managed to connect her basic research with practice, making it possible to use the very first methods of cell therapy in direct treatment, and thus starting to cure diseases that have so far remained incurable.

Eva Syková is the director of the Institute of Experimental Medicine of the Czech Academy of Sciences, the founder of the Institute of Neurosciences of the 2nd Faculty of Medicine of Charles University, Prague, the head of the Centre for Cell Therapy and Tissue Repair of Charles University, and the chair of the civic association Cell Therapy, Czech Neuroscience Society, and Czech Society for Gene and Cell Therapy of the Medical Association of J. E. Purkyně. She has also set up the Innovation Biomedicine Centre, with the aim of supporting newly established companies to commercialise scientific outputs in the field of biomedicine in collaboration with the business sector.

"I've always worked hard. I've spent 15 or 20 years focusing on my research. Those work the most, who are the most resilient and achieve better results will gain an international reputation, and that is the secret of success," says Eva Syková, who has written over 700 texts and is an author significant scientific outputs.

JIŘINA SZÁKOVÁ

I'm interested in the impact of individual chemical substances on individual environmental segments."

Professor Jiřina Száková works at the Department of Agro-Environmental Chemistry and Nutrition of the Czech University of Life Sciences in Prague. Her research explores the interactions of organisms in agricultural ecosystems, focusing on the reception, accumulation and metabolism of both harmful and beneficial substances. Her results help evaluate, for instance, the effects of high levels of lead in soil, caused by the extraction of lead ore, on plant growth and plant development in the affected area, and subsequently the impact on animal and human health. Apart from monitoring the risk factors of contaminants such as selenium, arsenic, or lead, she looks for ways to eliminate their negative influence. Some contaminants are biodegradable, others are not. In the latter case, Jiřina Száková seeks out processes and measures which increase soil absorption capacity in order to immobilise those elements, preventing them from being released into water and entering food chains.

As an accomplished scientist, Jiřina Száková teaches university students of all levels. Her texts are widely cited and encompass a number of issues: she has written over 200 published studies, primarily abroad, a number of contributions for national and international conferences. She has rich experience working with foreign partners and taking part in Czech and international projects.

"Professor Száková is an extraordinary scientist and teacher. She is very intelligent and well-read, yet also modest and humble without lacking forcefulness when needed," writes Professor Iva Langrová in her nomination letter.

JANA ŠAFRÁNKOVÁ

The Sun is a tiny yellow point somewhere in the distance, yet it is so essential for us.

A professor at the Faculty of Mathematics and Physics of Charles University in Prague, Jana Šafránková is an important scientist in the field of cosmic plasma. For over 30 years she has explored processes that take place on the Sun, phenomena near planet Earth, such as aurora or disruptive effects caused by discharges of sun matter (power failure, communication network or gas pipeline failure). "At first, we mainly developed apparatuses without being overly concerned in the phenomena that they were supposed to explore. Later, we started to install our measuring instruments on Russian satellites. Today, our instrument to measure solar wind brings in fantastic results. When we first published them, we were sent a message from the scientific community in the USA; they thought we had made a mistake. But step by step, we have succeeded in convincing the scientific community that we are right," the astronomer says.

Jana Šafránková's academic activity is extraordinary. She is author or co-author of over 200 frequently-cited texts published in international journals. She has been the lead researcher in many grant projects at home and abroad. For many years, she has served as an editor of The European Physical Journal D, where she is in charge of the section devoted to plasma physics. Prof. Šafránková is also a teacher, primarily working with PhD students.

When asked why it is interesting to study solar wind, she says, "Because of those questions the phenomena compel us to ask, such as: how does the Sun affect us? What does it cause? And how does this happen? There are plenty of things we still don't know. And those questions are waiting to be answered."

SOŇA ŠTRBÁŇOVÁ

Without a historical analysis we cannot understand either the current state of science, or the social role of science and how it permeates society.

Soňa Štrbáňová is one of the most prominent Czech experts on the history of science: her pioneering work on women in science broke ground at international level. She focuses on the history of chemistry, biochemistry and biotechnology, and the texts she has published have filled in many blanks in this area. She has written about Bohuslav Rayman, the 19th century Czech biochemist, as well as about one of the first female biochemists of the first half of the 20th century, Marjory Stephenson. In 2012, she received the Czech Academy of Sciences Award for outstanding scientific achievement for her work resulting from the project *Czech Scientists in Exile 1948–1989*.

Soňa Štrbáňová has, in her position of associate professor, worked with international teams, taught at universities both at home and abroad and has led a number of grant projects. She is also an accomplished organiser and has (co-)hosted dozens of national and international conferences, represented Czech historical science in many international organisations and associations. In 2010, she was elected president of the European Society for Science History.

In the 1990s, Soňa Štrbáňová started her involvement in civic and non-profit activities. As a coordinator of the United States Agency for International Development, and later the American International Health Alliance, she worked on a number of non-profit projects, in particular related to health care (in the Czech Republic as well as in other Central European countries), prepared the legislative framework for non-profit organizations, and assisted at the Pangea Foundation.

ALEXANDRA ŠULCOVÁ

Laureate of the 2013 Milada Paulová Award for pharmacology and toxicology

Pharmacology is the branch of biomedicine, not to be mistaken with pharmaceutics as so often happens even among professionals.

Alexandra Šulcová's fields of expertise are experimental and applied neuropsychopharmacology, research of the neuropsychiatric disorders which cause behavioural changes. She has discovered the mechanism behind the effects of benzodiazepine, which used to be frequently prescribed to patients suffering from anxiety, fear or insomnia, and the functioning of which had been previously unknown. She was the first scientist in the Czech Republic to set up pre-clinical research of drug addiction, which she continues to develop with her team. Apart from cannabinoids, she has focused on methamphetamine, searching for possibilities to use pharmacology to increase the success rate of drug rehabilitation. Today, Alexandra Šulcová also researches endocannabinoids, or substances that are naturally present in organisms and that have a significant impact on the perception of pain, suppression of stress responses, emotions, motor control, food intake and other important functions, thanks to their connections with cannabinoid receptors.

Professor Šulcová is the head of the CEITEC research group Experimental and Applied Neuropsychopharmacology at Masaryk University in Brno. In the years 1990–2011, she was the head of the university's Pharmacology Institute at the Faculty of Medicine. She has been a mentor of many highly successful PhD graduates in medical pharmacology, whose accreditation she oversaw. Alexandra Šulcová's research spans a wide spectrum of issues and is highly valued at international level. She is often invited to join the executive committees of prestigious international associations, has been widely published in prominent journals and spoken at international forums. Her contribution to the field is without doubt extraordinary.

MIROSLAVA TRCHOVÁ

To be successful under good conditions is not heroic. When you have good conditions, it's almost a duty; there's nothing heroic about it.

Miroslava Trchová is an associate professor at the Department of Vibrational Spectroscopy of the Institute of Macromolecular Chemistry of the Academy of Sciences'. Since the 1990s, she has studied spectroscopy, the field of expertise which measures spectra and explores their characteristics based on the interaction of electromagnetic radiation with a sample of the selected substance. She claims to have started developing her scientific career rather late. First, she taught physics at the Faculty of Mathematics and Physics of Charles University. Later she worked at the Department of Macromolecular Physics, where she primarily focused on teaching. At the turn of the century, she started working at the Academy of Sciences.

Over the last ten years, Miroslava Trchová has written nearly 200 original scientific studies. She often presents her research at international conferences. In the course of her career, she has written almost 20 popularizing or educational publications; she is the author of a brochure on spectrometer use and, with her students, she launched vibrational spectroscopy as an educational programme. Miroslava Trchová chairs and is a member of a number of committees, societies and expert councils; she is an organiser of international scientific and expert events. Despite having left the university, She continues to mentor and supervise students of all levels.

"It's a great advantage when you no longer feel you have to pursue your career. I no longer need to report any results whatsoever, which is fantastic, because I can say it was my PhD student, who was the presenting author of the study on which I worked with her. Because nobody will care if I was the presenting author or not," Miroslava Trchová says.

JITKA ULRICHOVÁ

If you enjoy what you do, and if you are surrounded by those who also work with enthusiasm, it's an unmitigated joy!

Jitka Ulrichová works in the field of medical chemistry and biochemistry. Her research concerns the positive and preventive effects of plant and animal substances on human health. For example, she explores the effects of cranberries in the prevention of urinary tract infection in men, the effects of flavonolignans, or substances contained in seeds of one species of thistle used in natural healing to prevent diseases of the digestive tract, but she also studies the safety and side effects of some alkaloids with anti-inflammatory and anti-microbial effects used in dental hygiene or as additives in farm animal fodder.

Professor Jitka Ulrichová is the founder in 2002 of the Laboratory of Cell Cultures at the Faculty of Medicine of Palacký University in Olomouc which she steered since. While working at the university, she became a respected teacher, who nurtured a number of experts of both sexes. She enjoys the diversity of her work. As the vice-rector for science and research, and apart from teaching and supervising her students and research, she participates in the implementation of large projects that are of strategic importance for the development of the university. Jitka Ulrichová is also an active member of the Czech Chemical Society and Czech Society for Biochemistry and Molecular Biology.

"To list all her activities in research, education and organisation would require reams of paper, yet we would still run the risk of leaving out something important," says Professor Juraj Ševčík, Dean of the Faculty of Natural Science of Palacký University in Olomouc, one of those who nominated Jitka Ulrichová for the Milada Paulová Award 2016.

MARIE URBANOVÁ

Physics is everywhere, yet still it remains by and large unnoticed.

Marie Urbanová's research explores biophysical studies of molecules, such as proteins and saccharides among others. "Most complex molecules exist in two forms, just as we have both right and left hands. But in a living organism, we find only one of the forms. We have, for example, only laevorotatory amino acids, only dextrorotatory saccharides and so on. And just as a right glove fits perfectly only on the right hand, not the left, biologically significant interactions are based on a similar principle," she says. That is why it is important to know the characteristics of these substances in order to use them in, for example, the development of medicaments.

Marie Urbanová considers her biggest professional achievement to be the use of vibrational circular dichroism, a method that explores the above mentioned characteristics of biomolecules, in chemical and biophysical research in the Czech Republic, and the establishment of the only facility in Central Europe to use this method in research. She is a widely published author and a conference speaker, but she also continues to devote her time to teaching. "I enjoy working with PhD students. When we discover this or that and I feel that they are happy to see that something worked out just right, that we managed to explain a mystery, it is a very nice feeling. But I enjoy teaching beginners, too," she adds.

Marie Urbanová is a professor at the Faculty of Chemical Engineering at the University of Chemistry and Technology, Prague, where she became the first woman to hold the office of dean. "Her ability to complete tasks and solve problems with great precision, system and responsibility is almost incredible," says Professor Melzoch, rector of the University of Chemistry and Technology, Prague.

HANA URBÁŠKOVÁ

Good architecture creates an environment that has a positive effect on us and influences the quality of our lives.

As a researcher, lecturer and architect, Hana Urbášková focuses on the sustainable development of rural areas and the environmental aspects of architecture and urban planning. She is a professor at Faculty of Architecture at the Brno University of Technology, where she holds the post of Vice-Dean for creative activities and doctoral studies. She brings a sustainable development perspective to her work supervising student projects and diploma works, and organising international workshops, seminars and conferences. She is the recipient and supervisor of major grant projects which have contributed to the innovation of the university's study programmes and improvement in the quality of the doctoral program, and played a part in the development of the field of architecture and urban planning.

Hana Urbášková is also active in designing buildings that comply with the following five criteria: energy efficiency, economic efficiency, environment-friendliness, aesthetics and ethical realisation. In addition to serving as a practical example for her students of how to build a "passive house", her work in this field has won prizes in several competitions. "A house is not something you build to last just twenty years, or just one lifetime. It should be flexible enough to absorb the future changes in family lifestyle with minimum rebuilding," says Hana Urbášková about her approach to architecture.

"Her true passion for architecture and urban planning, dependability, commitment, erudition and wide knowledge of the issue as well as her ability to inspire passion in her students and talent for leadership make her indispensable in our faculty team," say Dean Emeritus of the Brno University of Technology Professor Josef Chybík and Vice-Dean and Assistant Professor Iva Poslušná in their joint letter of nomination.

ALICE VALKÁROVÁ

Laureate of the 2015 Milada Paulová Award for Physics

One should have three anchors in one's life: work, the people around you, and hobbies. Building your life on research alone is a hazard in terms of balance and peace of mind.

Alice Valkárová is an eminent figure in the Czech physics community. Her research focuses on particle physics, specifically the study of the processes of diffraction in electron-proton interactions. "Diffraction can be visualized as a collision of two snooker balls that bounce off one another without any damage, yet a number of other particles emerge in the process," she says of her field of research, which defines the processes taking place during the collision of particles, and by extension throws light on the nature and structure of matter as such.

In the years 2006–2014 Alice Valkárová was active as chairwoman of the Czech Physics Society and member of the board of the Union of Czech Mathematicians and Physicists. From 2014 she has held the post of Deputy Chairwoman of the Czech Physics Society and since 2007 she has also been the Deputy Chairwoman of the Czech committee of the International Union of Pure and Applied Physics. She wrote or co-wrote more than three hundred articles and papers with her citation index of nearly ten thousand.

Alice Valkárová is extraordinarily gifted as a team leader and her erudition has won her the respect of the science community. She is also active as a lecturer. She lectures at the Charles University Faculty of Mathematics and Physics, as well as supervising theses of students at all levels of the university programme. She takes part in competitions of young physicists and a range of other activities.

What she most loves about her work is "getting to the bottom of a problem". "When you crack a problem, you have something completely new, something that has not been here before. Naturally this requires immense effort, often over many years. You can't get anywhere without that," says Alice Valkárová, laureate of the 2015 Milada Paulová Award.

IRENA VALTEROVÁ

Research is alternately thrilling and frustrating."

Irena Valterová works at the Institute of Organic Chemistry and Biochemistry of the Czech Academy of Sciences as the head of the Infochemicals research team, focusing mainly on chemical ecology. "Chemical ecology studies the chemically mediated interactions between living organisms," says Irena Valterová, specialising in the pheromones-based chemical communication of insects.

Apart from working as head of a research team and being the recipient and supervisor of a number of grant projects, Irena Valterová is an associate professor and lectures at the Charles University Faculty of Science and at the Czech University of Life Sciences. She is also a science communicator and works in close connection with small businesses. This collaboration has resulted in, for example, a patent for the horse-chestnut leaf miner pheromone used in manufacturing pheromone traps to protect horse-chestnut trees from the parasite. Irena Valterová is the author of more than a hundred original Czech science works and holder of several patents. She regularly peer-reviews manuscripts for international science magazines as well as evaluating international projects. She is member of the Czech Chemical Society, Czech Society for Biochemistry and Molecular Biology, and the International Society for Chemical Ecology. A nature lover, she is also an amateur ornithologist and member of the Czech Society for Ornithology.

Although Irena Valterová graduated in organic chemistry, she pursues research about insects: "I have to learn new things all the time, right now I am reading up on molecular biology," says Irena Valterová who feels she is neither a chemist nor a biologist. "I am more like a former chemist dabbling in biology," she comments on her allegiance (or lack of) to a specific field of science. In her view research brings both thrills and frustration. What is most exciting is that there are always new impulses. "I love seeing a project develop – you discover something, but that is not the end, each new answer always provokes new questions."

NATALIE VENCLOVÁ

Archaeology has immense potential for what you may call the adventure of knowledge and discovery.

Apart from traditional archaeology of the Iron Age Natalie Venclová focuses on the technology of iron, glass and other material production in the Iron Age and other eras. Among other things she has conducted research into women's bracelets made of sapropelite, their manufacture, the origin of the material, variations between the bracelets, the context of workshops where they were manufactured, as well as their geographical occurrence. In her research she uses methods of surface survey, invasive survey, geology, petrography and palynology. As she comments, today the field of archaeology is much closer to natural sciences than history. One of her latest projects investigating prehistoric glassmaking using a method based on isotopes of strontium was concerned with the provenance of raw material for glass making.

Natalie Venclová works at the Institute of Archaeology of the Czech Academy of Sciences in Prague. The results of her research have been published in specialized science magazines and anthologies, and since the 1990s also in monographs. Her broad knowledge and experience contributed to the monumental eight-volume *Archeologie pravěkých Čech* (Archaeology of Prehistoric Bohemia), seminal for a whole generation of researchers, which she co-edited as well as being the main author of two volumes. In addition to her research she is also an active organiser and editor. She co-founded the Czechoslovak Group for the research of the Iron Age. She has organised conferences, seminars and exhibitions as well as being a science communicator. For a number of years, she has lectured at the Department of Archaeology at the University of West Bohemia in Pilsen and at Charles University, Prague, as well as tutoring doctoral students. Her erudition and her contribution to the field are widely recognised both in the Czech Republic and abroad.

RŮŽENA VINTROVÁ

Laureate of the 2010 Milada Paulová Award for Economy

Economics concerns everyone, but it can't stand on its own.

Růžena Vintrová was an eminent Czech economist and macroeconomics analyst. She focused on the comparison of Czech economics and the economies of countries in transition, issues of European economic integration and aligning of the Czech economy with the economies of developed European Union countries. In recent years she also focused on analysing the impact of economic recession on the position and competitiveness of the Czech Republic and new EU countries.

According to Vintrová, at the beginning of the economic crisis the Czech Republic was not in an economic position necessitating broad cuts in public funding to achieve a balanced budget at all costs. "Presenting the dismantling of the welfare state as the way out of crisis is the worst mistake you can make, going against the interests of everyone. At this point we no longer have to struggle to overcome the consequences of state-run socialism, now we need to address the failures of capitalism that are at the bottom of the current crisis," she said.

Understanding the economy helps us answer the questions people ask today, said Vintrová. "But you can't be blind to what is going on beyond the narrow framework of economics. Economics on its own is not enough. The insights it brings must be seen in a broader social context." This was one of the reasons why Růžena Vintrová was a vocal critic of the most frequently used indicator of the state of economy – gross domestic product, the informative value, which she regarded as insufficient. Instead she advocated for a more comprehensive approach, relying on alternative indicators of national accounts and other sources. Růžena Vintrová was active at the Czech Statistical Office, the Prognostic Institute of the Czech Academy of Sciences, and most recently at the Centre for Economic Studies of the University of Economics and Management, Prague, where she was a prominent lecturer, driving force behind establishing new study fields and author of university textbooks. Up until her death in 2013 she was a prolific and widely published writer, cooperating with a number of partners abroad and active in a number of professional organisations.

JAROSLAVA VRÁBLÍKOVÁ

Ecology is respect for life: it is not only mankind that is at stake, but also everything around us.

Professor Jaroslava Vráblíková focuses on ecology, sustainable forms of farming and revitalization of landscapes damaged by human activity. A researcher and lecturer, she is also actively engaged in providing practical support to environmentally friendly approaches to the landscape. She works in cooperation with the Czech Agrarian Chamber for the region of the city of Ústí nad Labem as well as with mining organisations. She is a member of the Society for Sustainable Living and organiser of seminars and conferences for the public focusing mainly on people working in the agriculture sector. Her experience and expertise are utilised by the government and the public sector, ranging from universities to the judicial system.

Her activities in the area of education are also noteworthy. Jaroslava Vráblíková made a key contribution towards the foundation of the Jan Evangelista Purkyně University in Ústí nad Labem as well as being instrumental in founding its Faculty of the Environment where she is professor and lectures to this day. She has supervised approximately one hundred BA and diploma theses. Many of her former students today work in public administration, research or lecture at universities. She has written about three hundred papers, published in prestigious magazines, anthologies or monographs. She says she never worked as a laboratory scientist, but instead focused on doing science for people, the main focus of which is practical implementation. She has developed a variety of methods for the revitalisation of specific areas in North and West of Bohemia (e. g. Podkrušnohoří).

"Revitalisation is not just about soil. It's about landscape as a whole, including people's jobs. We are not simply after revitalisation, but also re-socialisation: we seek to return people to the landscape. That should be the ultimate aim, to reclaim the disastrous 1970s landscape and restore it to its original beauty, to turn it into a place where people come to rejuvenate," says Jaroslava Vráblíková.

VĚRA VRTÍLKOVÁ

My personal record means more to me than a rung in a hierarchy.

Věra Vrtílková is an eminent Czech specialist in the area of the corrosion of metals used in nuclear power plants. Her research conducted over more than forty years focuses on the study of corrosion of zirconium alloys in regular operation and emergency operation of nuclear reactors. Not only has her research made a major contribution to the understanding of the processes of corrosion as such, but also towards articulating conclusions that have direct applications in practice, for example in the Westinghouse nuclear fuel licensing process, or in establishing the new safety criteria used in security analyses of nuclear reactor breakdowns resulting in the loss of cooling agent.

Věra Vrtílková's research is largely classified. The results of her unclassified research have been published in more than two hundred research papers both in the Czech Republic and abroad. She has attended a number of international conferences, and coordinated work on several international research projects. Each year she organises workshop-seminars with lecturers from Czech universities and research institutes of the Czech Academy of Sciences. What she most loves about her work is looking for connections when one is struck with an unorthodox idea, and also teamwork. "It's fantastic to see an idea born out of nothing, ex nihilo. That's just wonderful!" she says. While supervising research projects she has nurtured a number of researchers. When tutoring students, she helps boost their confidence: "I can boost students' confidence for example by showing how silly I am: that I may not have an opinion, I may be wrong, I may make mistakes, and that's normal."

Věra Vrtílková, inspired in her youth by Jaroslav Heyrovský and Marie Heyrovská, set out on her professional career in Jaslovské Bohunice in Slovakia. At present she works at the Institute of Nuclear Fuels, where she holds the position of head of the zirconium alloy team.

BLANKA WICHTERLOVÁ

Science and research are just like any other job. You need to work hard if the results are to be any good.

Blanka Wichterlová works at the J. Heyrovský Institute of Physical Chemistry at the Czech Academy of Sciences where she focuses on the analysis and development of catalysts for chemical processes necessary for fuel production, petrochemical products and other substances which transform noxious air pollutants of the chemical industry and transfer into harmless nitrogen. Catalysts change the speed of a chemical process: they can trigger it or produce a certain by-products. They are substances which interact in chemical processes without changing substances themselves.

"Highly selective catalysts are necessary for advanced environment friendly technologies in oil refinement, synthesis and transformation of hydrocarbons as well as for the transformation of pollutants into harmless substances in the exhalations of combustion engines and chemical processes," says Blanka Wichterlová regarding the uses of her research. With such wide application, Blanka Wichterlová collaborates with refineries and companies producing chemical products in the Czech Republic.

Blanka Wichterlová has written more than 150 articles published in prominent international science magazines, a number of survey works, as well as being the author of a number of patents. She is a member and founder of several science associations and a member of editorial boards of international magazines. In her research, Blanka Wichterlová has developed a comprehensive approach to the problem of heterogeneous catalyses, introducing a number of new spectral and diffraction techniques, which serve to analyse the connections between the structure and activity of catalysts at molecular level. She has nurtured a whole generation of young scientists who successfully pursue research in the area of catalysis.

OVERVIEW OF MILADA PAULOVÁ AWARDS

MILADA PAULOVÁ AWARD 2016 RESEARCH IN AGRICULTURE

The UN General Assembly declared 2016 the International Year of Pulses to heighten public awareness of the nutritional benefits of pulses as part of sustainable food production. In addition, 2016 marked the 95th anniversary of the first women graduating in Agriculture at the Czech Technical University. In June 1921, Marie Kuklová and Anna Horynová graduated summa cum laude. Two women students from Yugoslavia – Ljerka Filipović and Jelica Radosavljevic – also graduated in the same year.

Laureate

Zdeňka Svobodová
Faculty of Veterinary Hygiene and Ecology, University of Veterinary and Pharmaceutical Sciences, Brno

Nominees (in alphabetical order)

Ludmila Ohnoutková, *Faculty of Science, Palacký University Olomouc*
Jana Podhrázská, *Research Institute for Soil and Water Conservation and Mendel University, Brno*
Jana Řepková, *Faculty of Science, Masaryk University, Brno*
Jiřina Száková, *Faculty of Agrobiology, Food and Natural Resources, Czech University of Life Sciences, Prague*

Evaluation Committee

President
Jaroslava Domkářová, *Potato Research Institute, Havlíčkův Brod*

Members (in alphabetical order)
Eva Matalová, *Institute of Animal Physiology and Genetics, Czech Academy of Sciences, Brno*
Vilém Podrázský, *Faculty of Forestry and Wood Sciences, Czech University of Life Sciences, Prague*
Hana Štěpánová, *Veterinary Research Institute*
Vladimír Večerek, *Faculty of Veterinary Hygiene and Ecology, University of Veterinary and Pharmaceutical Sciences, Brno*
Ivan Wilhelm, *Ministry of Education, Youth and Sports*

MILADA PAULOVÁ AWARD 2015 RESEARCH IN PHYSICS

The Milada Paulová Award 2015 is awarded in the field of physics (including astronomy, space research, optics and other related fields) to commemorate the outstanding figure of Czech physics Professor Adéla Kochanovská (1907–1985). The year of 2015 commemorated the 30th anniversary of her death, as well as the ground-breaking dissertation of astronomer Cecilia Payne-Gaposchkin (1900–1979), which, 90 years ago, disputed the then-received theory that stars are made of heavy metals, proving instead they are made of hydrogen and helium. The year 2015 was also declared by UNESCO as the International Year of Light and Light-Based Technologies.

Laureate

Alice Valkárová

Faculty of Mathematics and Physics, Charles University, Prague

Nominees (in alphabetical order)

Pavla Čapková, *Faculty of Science, J. E. Purkyně University, Ústí nad Labem*
Milada Glogarová, *Institute of Physics, Czech Academy of Sciences*
Helena Jelínková, *Faculty of Nuclear Sciences and Physical Engineering, Czech Technical University*
Ilona Müllerová,*Institute of Scientific Instruments, Czech Academy of Sciences*
Jana Šafránková, *Faculty of Mathematics and Physics, Charles University, Prague*
Marie Urbanová, *Faculty of Chemical Engineering, University of Chemistry and Technology, Prague*

Evaluation Committee

President
Dana Drábová,*State Office for Nuclear Safety*

Členové a členky (dle abecedy)
Petra Adamová, *Institute of Geophysics, Czech Academy of Sciences*
Lucie Augustovičová, *Faculty of Mathematics and Physics, Charles University*
Janurová Eva, *Faculty of Mining and Geology, Technical University of Ostrava*
Michaela Kozlová, *Institute of Physics, Czech Academy of Sciences*
Martina Miková, *Faculty of Science, Palacký University Olomouc*
Hana Lísalová (Vaisocherová), *Institute of Photonics and Electronics, Czech Academy of Sciences*
Ivo Kraus, *Faculty of Nuclear Sciences and Physical Engineering, Czech Technical University*
Ludvík Kunz, *Institute of Physics of Materials, Czech Academy of Sciences*
Miloslav Zejda, *Faculty of Science, Masaryk University, Brno*
Ivan Wilhelm, *Ministry of Education, Youth and Sports*

MILADA PAULOVÁ AWARD 2014 CIVIL ENGINEERING AND ARCHITECTURE

In 2014 the Milada Paulová Award was awarded in the field of Civil Engineering and Architecture in memory of the centennial of the first woman to study architecture in the Czech Lands – Milada Pavlíková-Petříková (1895–1985). The aim of the award in 2014 was to support growing public interest in issues related to the formation and cultivation of public space, its transformations and development, and to highlight the efforts of outstanding Czech women researchers in the field of science and technology.

Laureate

Alena Kohoutková
Faculty of Civil Engineering, Czech Technical University, Prague

Nominees (in alphabetical order)

Milena Císlerová, *Faculty of Civil Engineering, Czech Technical University, Prague*
Darja Kubečková, *Faculty of Civil Engineering, Technical University of Ostrava*
Pavla Rovnaníková, *Faculty of Civil Engineering, Brno University of Technology*
Hana Urbášková, *Faculty of Architecture, Brno University of Technology*

Evaluation Committee

President
Rostislav Drochytka, *Faculty of Civil Engineering, Brno University of Technology*

Members (in alphabetical order)
Pavlína Janová, *Department of Research and Development, Ministry of Education, Youth and Sports*
Jana Kaštánková, *Czech Chamber of Architects*
Iveta Merunková, *Czech Association of Civil Engineers*
Martin Pospíšil, Fakulta architektury, *Faculty of Architecture, Czech Technical University, Prague*
Renata Zdařilová, Fakulta stavební, *Faculty of Civil Engineering, Technical University of Ostrava*

MILADA PAULOVÁ AWARD 2013 PHARMACOLOGY AND TOXICOLOGY

The Milada Paulová Award 2013 was awarded in the field of pharmacology, experimental and clinical pharmacology and toxicology, in commemoration of the work and activities of Professor Helena Rašková, icon of Czech and international pharmacology. The year of 2013 marked the centennial of her birth. The Milada Paulová Award 2013 also wished to commemorate the work of Professor Hedvika Zemánková-Kunzová, first woman to become head of the Institute of Pharmacology at the Palacký University in Olomouc. 2013 marked the 60th anniversary of her passing.

Laureate

Alexandra Šulcová

Central European Institute of Technology / CEITEC, Masaryk University, Brno, head of jury

Nominees (in alphabetical order)

Věra Klenerová, *First Faculty of Medicine, Charles University, Prague*

Hana Kubová, *Institute of Physiology, Czech Academy of Sciences*

Lenka Maletínská, *Institute of Organic Chemistry and Biochemistry, Czech Academy of Sciences*

Marie Stiborová, *Faculty of Science, Charles University, Prague*

Jitka Ulrichová, *Faculty of Medicine, Palacký University, Olomouc*

Evaluation Committee

President

Jaroslav Květina, *Faculty of Pharmacy, University of Veterinary and Pharmaceutical Sciences, Brno*

Members (in alphabetical order)

Pavel Anzenbacher, *Faculty of Medicine, Palacký University, Olomouc*

Pavlína Janová, *Department of Research and Development, Ministry of Education, Youth and Sports*

Olga Lenčová (Popelová), *Faculty of Medicine, Charles University, Prague*

Helena Mertlíková-Kaiserová, *Institute of Organic Chemistry and Biochemistry, Czech Academy of Sciences*

MILADA PAULOVÁ AWARD 2012 HISTORY

The Milada Paulová Award 2012 aimed to raise awareness of research by eminent Czech historians, and the unique legacy of the outstanding historian and Byzantinologist Professor Milada Paulová (1891–1970). In 2012, the award highlighted the importance of history for the future development of our society and the preservation of our collective memory.

Laureate

Zdeňka Hledíková
Faculty of Arts, Charles University, Prague

Nominees (in alphabetical order)

Libuše Hrabová, *Faculty of Arts, Palacký University Olomouc*
Kateřina Charvátová, *Faculty of Education, Charles University in Prague*
Jiřina Langhammerová, *National Museum*
Milena Lenderová, *Faculty of Arts and Philosophy, University of Pardubice*
Lydia Petráňová, *Institute of Ethnology, Czech Academy of Sciences*
Eva Stehlíková, *Faculty of Arts, Masaryk University, Brno*
Soňa Štrbáňová, *Institute of Contemporary History, Czech Academy of Sciences*
Natalie Venclová, *Institute of Archaeology, Czech Academy of Sciences*

Evaluation Committee

President
Eduard Maur, *Faculty of Arts, Charles University, Prague a Faculty of Arts, Pardubice University*

Members (in alphabetical order)
Jan Gruber, *Union of History, Faculty of Arts, Charles University, Prague*
Antonín Kalous, *Faculty of Arts, Palacký University Olomouc*
Alena Křížová, *Department of European Ethnology, Faculty of Arts, Masaryk University, Brno*
Miloslav Pojsl, *Sts Cyril and Methodius Faculty of Theology, Palacký University Olomouc*
Marie Ryantová, *Faculty of Philosophy, University of South Bohemia, České Budějovice*
Jiří Stočes, Fakulta právnická, *Faculty of Law, University of West Bohemia, Pilsen*
Stanislav Stuchlík, *Faculty of Philosophy and Science, Silesian University in Opava*
Daniela Tinková, *Faculty of Arts, Charles University, Prague*

MILADA PAULOVÁ AWARD 2011 CHEMISTRY

The year of 2011 was declared the Year of Chemistry by the UN, so the Milada Paulová Award 2011 was awarded in the field of chemistry, with the aim of highlighting the importance of the field for society and environment protection.

Laureate

Kateřina Demnerová
Faculty of Food and Biochemical Technology, University of Chemistry and Technology, Prague

Nominees (in alphabetical order)

Pavla Čapková, *Nanotechnology Center, Technical University of Ostrava*
Pavla Rovnaníková, *Faculty of Civil Engineering, Brno University of Technology*
Marie Stiborová, *Faculty of Science, Charles University, Prague*
Miroslava Trchová, *Institute of Macromolecular Chemistry, Czech Academy of Sciences*
Jitka Ulrichová, *Faculty of Medicine, Palacký University Olomouc*
Irena Valterová, *Institute of Organic Chemistry and Biochemistry, Czech Academy of Sciences*
Věra Vrtílková, *Institute of Nuclear Fuels*

Evaluation Committee

Honorary President
Jiří Drahoš, *President of the Czech Academy of Sciences*

Members (in alphabetical order)
Pavel Jungwirth, *Institute of Organic Chemistry and Biochemistry, Czech Academy of Sciences*
Helena Kalová, *SYNTHOS Kralupy, a.s.*
Josef Koubek, *Rector of the University of Chemistry and Technology, Prague*
Miroslav Mašláň, *Rector of the Palacký University Olomouc*
Ladislav Novák, *Director of the Association of Chemical Industry of the Czech Republic*
Lucy Vojtová, *Central European Institute of Technology, Brno Institute of Technology*
Naděžda Witzanyová, *Department of International Cooperation in Research and Development, Ministry of Education, Youth and Sports*

MILADA PAULOVÁ AWARD 2010 ECONOMICS

The Milada Paulová Award 2010 was awarded in economics with the aim of highlighting the importance of the field and the change of paradigm that has been taking place as a result of the current economic crisis.

Laureate

Růžena Vintrová

Centre for Economic Studies, University of Economics and Management, Prague

Nominees (in alphabetical order)

Lenka Adamcová, *Metropolitan University Prague, Department of International Business*
Jaroslava Durčáková, *Faculty of Finance and Accounting, University of Economics, Prague*
Magdalena Hunčová, *Faculty of Social Economics, Jan Evangelista Purkyně University, Ústí nad Labem*
Drahomíra Pavelková, *Faculty of Management and Economics, Tomáš Baťa University, Zlín*
Márie Režňáková, *Faculty of Business and Management, Brno University of Technology*

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Ilona Švihlíková, *Department of Political and Social Sciences, University of International and Public Relations*

MILADA PAULOVÁ AWARD 2009 ECOLOGY AND SUSTAINABLE DEVELOPMENT

The Milada Paulová Award 2009 was awarded in the field of ecology and sustainable development. The choice of field was motivated by its interdisciplinary nature, the absence of gendered connotations of a division into hard and soft sciences and the high political and social profile of the field, attributed to it also by the National Research, Development and Innovations Policy for 2009–2013.

Laureate

Milena Rychnovská
Faculty of Science, Palacký University Olomouc

Nominees (in alphabetical order)

Květuše Jirátová, *Institute of Chemical Processes, Czech Academy of Science*
Hana Librová, *Faculty of Social Studies, Masaryk University, Brno*
Věra Straškrabová, *Institute of Hydrobiology, Czech Academy of Sciences*
Eva Syková, *Institute of Experimental Medicine, Czech Academy of Sciences*
Zdeňka Svobodová, *Faculty of Veterinary Hygiene and Ecology, University of Veterinary and Pharmaceutical Sciences Brno*
Jaroslava Vráblíková, *Faculty of Environment, Jan Evangelista Purkyně University, Ústí nad Labem*
Blanka Wichterlová, *J. Heyrovský Institute of Physical Chemistry, Czech Academy of Sciences*

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Jan Frouz, *Faculty of Science, Charles University, Prague*
Iva Lekešová, *Department of International Cooperation in Research and Development, Ministry of Education, Youth and Sports*
Michal V. Marek, *Global Change Research Institute, Czech Academy of Sciences*
Kateřina Ptáčková, *Green Circle – association of ecological NGOs*
Josef Seják, *Faculty of Environment, Jan Evangelista Purkyně University, Ústí nad Labem*
Boris Vyskot, *Institute of Biophysics, Czech Academy of Sciences*

MILADA PAULOVÁ AWARD

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Jilská 1, 110 00 Praha 1
phone number: +420 210 310 217
e-mail: prodej@soc.cas.cz

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