
List of Post-Doctoral Fellowships (archive)

Archive - projects announced in 2019

Applicants could apply in 2019 for positions (available from 1. 1. 2020) in projects announced by following faculties/institutes:

- A. [Center for Economic Research and Graduate Education \(CERGE\)](#)
- B. [Third Faculty of Medicine](#)
- C. [Faculty of Medicine in Plzeň](#)
- D. [Faculty of Arts](#)
- E. [Faculty of Education](#)
- F. [Faculty of Science](#)
- G. [Faculty of Mathematics and Physics](#)
- H. [Faculty of Social Sciences](#)
- I. [Faculty of Law](#)
- J. [Post-doc positions at CEFRES](#)

Center for Economic Research and Graduate Education (CERGE)

Title of the research project:

[Economics of Innovation, Economic Geography, and Applied Econometrics](#)

CERGE UK seeks a postdoctoral candidate with focus on theoretically and empirically oriented research in microeconomics, economics of innovation, economic geography or applied econometrics. Preference will be given to candidates pursuing research spanning across the above fields. Applicants should demonstrate the capacity to pursue a research project at the frontier of current knowledge as well as the ability to achieve a strong publication record in leading scholarly journals.

Third Faculty of Medicine

Title of the research project:

[1. Mechanisms of action of ADP-dependent hexokinases on the cellular metabolism](#)

Background: Glucose phosphorylation is needed for all the modes of glycolysis; thus, hexokinases serve as key enzymes needed for a sufficient energy supply in human cells. In contrast to the better known ATP-dependent hexokinases, multiple organisms, including humans, express ADP-dependent hexokinases, the function of which is poorly understood. Despite that the function of ADP-dependent hexokinases is neglected, their presence in multiple taxa suggests their evolutionarily conserved role in cellular metabolism. Available evidence suggests their mutation in multiple cancers, which also calls for the exploration of their role in aerobic glycolysis. The proposed study of genetically engineered variants of ADP-dependent hexokinases should contribute essential fragments of the mosaic of cellular metabolism in health and disease, and make it less puzzled. Recently, we formed a pipeline allowing effective and straightforward analysis of enzyme kinetics of ATP-dependent hexokinases. We also substantially improved the precision of the state-of-the-art prediction methods, which are to be used in the proposed project. There is a synergy with institutional projects funded by the University, which already led to a preparation of a series of genetically engineered cell lines with the expression of ATP-dependent hexokinases modified by means of the CRISPR/Cas9 technology and allowed to conduct detailed analyses of diabetes and cancer-associated variations in hexokinases. This post-doc position is aimed to build upon these projects and uncover the roles of ADP-dependent hexokinases in human cell metabolism in health and disease. Details of this post-doc project are to be set up based on the interaction with the candidate and based on candidate's prior wet lab experience.

Supervisor: RNDr. Petr Heneberg, Ph.D.
Workplace: II. Internal Clinics

2. Re-harvesting split thickness skin grafts in extensively burned patients: molecular mechanism of healing and new therapeutic approaches of the donor site

Annotation: Although the increased risk of mortality at specialized burn centers represents burn size over 60% of total body surface area (TBSA) (Jeschke et Herndon 2014), burn injury has remained the third leading cause of unintentional injury and death in children less than 9 years of age (Palmieri 2016). The first step of severely burned patient management involves burn shock fluid resuscitation by restoration of intravascular volume leading to adequate organ perfusion with several specific modifications in the management of pediatric patients (Romanowski et Palmieri 2017). The second step includes skin repair, a period that may take months (Herndon 2017).

Whereas the epidermis represents the primary barrier between outer and inner environments, the dermal components contribute to the mechanical, viscoelastic, functional and cosmetic properties of the skin and resulted scars (Wainwright et Bury 2011). Therefore deep burns, following excision of the dead tissue, covered only with split-thickness skin grafts (STSG) may tend to contract while defects repaired with full thickness transplants demonstrate improved function and appearance. The most widely used and best studied artificial skin is Integra® that is composed of porous matrix of cross-linked bovine tendon collagen and glycosaminoglycan (chondroitin 6-sulfate) covered by a semi-permeable silicone layer (Yannas et al. 1980; Yannas et al. 1980; Dagalakos et al. 1980; Yannas et al. 1981; Burke et al. 1981; Heimbach et al. 2003).

The major issue of treatment in extensively burned patients represents rapid wound closure. Here STSG re-harvesting has remained the hallmark of skin repair where the intervals between procedures may take 3 to 6 weeks and depend on patient's condition (Barret-Nerin, Juan; Herndon, David N. 2004). Lack of donor sites as well as poor wound healing of the donor area increase the time period between repeated harvests and prolong overall treatment. Furthermore, with increasing time of donor area regeneration increases the frequency of serious complications such as infection and/or poor wound healing. From this point of view swift and efficient healing of the donor area is mandatory to improve healing and, thus closely related with the possibility of repairing in particular large body areas. In present case we have clearly shown that re-harvesting the scalp was possible within 12 days following complex treatment strategy involving NASC covered with XD whereas the routinely Grassolind® dressed donor site took 45 days to recover. All other donor areas were than covered with the biological sandwich technique and re-harvested in the range of 6 — 10 days.

Since the history of Prague Burn Centre is closely connected with the development and clinical applications of advanced biological wound dressing techniques, including keratinocytes cultured on acellular pig dermis (Matouskova et al. 1997; Dvorankova et al. 2003; Zajicek et al. 2011). In present project we therefore firstly plan to evaluate in cooperation with Institute of Molecular Genetics whether the expression profiles and course of skin healing at the STSG donor sites changes or remains its characteristic pattern with increasing number of repeated harvesting. Secondly, in cooperation with the Technical University in Liberec and Institute of Organic Chemistry and Biochemistry we plan to develop and test on experimental animal models and patients new active wound dressings preventing infections and improving regeneration of the STSG donor site.

Supervisor: MUDr. Robert Zajiček, PhD.
Workplace: Prague Burn Centre

Faculty of Medicine in Plzeň

Title of the research project:

1. Characterising immune cells in colorectal tumors

AIM: to assess composition of cytotoxic and immune inhibitory cells in precursor tumors to colorectal cancer (adenomas), in colorectal cancer and adjacent healthy mucosa and lastly in metastases. The results will help to understand the role of various immune cells at different phases of tumor development.

BACKGROUND: Mounting evidence indicates that the immune system plays a key role in protecting against cancer. Animal and human studies demonstrate that, under the pressure of immune surveillance, surviving tumor cells tend to selectively accumulate traits that help them evade immune destruction. A strongly immunogenic tumor in an immunocompetent host may result in optimal stimulation of the immune system and elimination of the tumor. Alternatively, mutated tumor cells selectively develop variants that have acquired insensitivity to immunologic surveillance (e.g., through increased tumor-induced immunosuppression) and that can expand in an unrestrained fashion. A general deterioration of an individual's immune defense may contribute to tumor escape. During first-line anti-tumor immune response, nascent tumors may be detected by lymphocytes of the innate immune system – including natural killer (NK) cells, monocytes, and natural killer T cells – which may lead to the destruction of some tumor cells, uptake and processing of their fragments by macrophages and dendritic cells, and secretion of pro-inflammatory cytokines that attract further

immune effector cells to the tumor site. Presentation of tumor-associated antigens to naive CD4+ T helper cells and CD8+ T cells activates adaptive immune response, and activated and antigen-specific cytotoxic T cells expand and home in to the tumor microenvironment, further facilitating tumor cell death. In general, cytotoxic CD8+ T cells and Th1-type CD4+ T (helper) cells exhibit antitumor activity. By contrast, FOXP3 expressing Tregs and myeloid-derived suppressor cells (MDSC) suppress anti-tumor responses and promote tumor progression and metastasis. Natural killer (NK) cells are sub-classified by their expression of CD56 and/or CD16 cell surface markers, and include cytotoxic and immune inhibitory subtypes. Immune cell types can be identified by immunohistochemistry using markers targeted to specific surface markers of these cells.

METHODS: The present project involves establishment of an immunohistochemical staining battery for the detection of the key immune cell types in pathological slides and frozen tissue samples. The battery will be applied on colorectal cancer related samples, maintained in Pilsen. These include fresh frozen tumor and adjacent mucosal samples, metastatic tumor samples and polyps of early adenomas. The results of cell composition are correlated with clinical and prognostic data.

Department: Biomedical Center, Faculty of Medicine in Pilsen, Charles University

Laboratory: Laboratory of Cancer Treatment and Tissue regeneration

Supervisor: Václav Liška, M.D., Ph.D., Associate Professor of Surgery

Title of the research project:

2. Hydrogen sulfide signaling leads to SIRT1-established epigenetic code in mammalian oocyte and embryo

The state of the art:

Hydrogen sulfide is a recently highlighted member of the gasotransmitter family, which release has been elucidated even in mammalian oocyte.^{1,2} One of hydrogen sulfide's molecular actions consists of S-sulfhydration, hydrogen sulfide-derived post-translational modification, modulating the activity and structure of various proteins. Based on recent knowledge, hydrogen sulfide leads to increasing activity of histone deacetylases, through S-sulfhydration. Accordingly, there is possible hydrogen sulfide action leading to epigenetic code, dynamically changed in oocyte and early embryonic development.³ The understanding of this molecular action offers the unique opportunity for further medical research and knowledge transfer to Reproductive Medicine.⁴

References:

1. Nevoral, J. et al. PLoS One 9, (2014).
2. Nevoral, J. et al. Nitric Oxide - Biol. Chem. 51, (2015).
3. Adamkova, K. et al. J. Anim. Sci. Biotechnol. 8, 83 (2017).
4. Nevoral, J., Bodart, J.-F. & Petr, J. Oxid. Med. Cell. Longev. 2016, 1730750 (2016).

Additional information at:

www.biomedic-plzen.cz/en/404-laboratory-of-reproductive-medicine

Department: Biomedical Center, Faculty of Medicine in Pilsen

Laboratory: Laboratory of Reproductive Medicine

Supervisor: Jan Nevoral, Ph.D.

3. Impact of diabetes mellitus to autonomic nervous system innervating cardiovascular system.

Input premise

Diabetes mellitus is a disease with high incidence and high socio-economic relevance. The prevalence of diabetes mellitus is an alarming global health issue. The cardiovascular system is among those organs whose functional and structural impairment during progression of this disease are limiting for life quality and survival.

Scientific activities of Laboratory of Laser Microdissection are mainly focused on study of effects of different physiological and pathological states on the heart innervation. The research projects aim to find mediators or their receptors responsible for symptoms of diabetic or cirrhotic cardiomyopathies. Methodological approaches, also, include analysis of gene expression and protein tissue distribution by means of RT-qPCR, Western blot, and immunofluorescence in separate heart compartments and autonomic ganglia. Additionally, laser microdissection is used in order to analyze effect of mentioned pathologies to cardiac ganglia.

The research will be focused on autonomic nervous system innervating the heart and vessels. Effect of type I and type II diabetes mellitus on these structures will be studied in animal models by means of real time PCR, immunohistochemistry and Western blotting.

Department: Biomedical Center, Faculty of Medicine in Pilsen
Laboratory: Laboratory of Laser Microdissection
Supervisor: Magdaléna Chottová Dvořáková, M.D., Ph.D., Associate Professor of Physiology

Faculty of Arts

Title of the research project:

Middle Ages in an Interdisciplinary Perspective

The Centre for the Study of the Middle Ages (css.ff.cuni.cz) is seeking a highly qualified international post-doc researcher who would join the interdisciplinary team of medievalists at the Centre for two years. The applicant should have a manifest interest in applying interdisciplinary approaches. The applicant should present an innovative project proposal in any aspect of medieval studies, which should go beyond a concrete case study. A particular motivation for conducting research in Prague (expected close collaboration with a particular researcher from the Centre for the Study of the Middle Ages, or a need of specific sources not available elsewhere) will be considered an asset. In addition to pursuing his or her own research agenda, the researcher will take active part in the Centre's endeavors. Based on his or her field, the researcher will be integrated into the relevant department of the Faculty of Arts, and will be expected to take part in the activities of the department, too.

The researcher is expected to take part in teaching and run four seminars per academic year (a basic course and a research based on the expertise and interests of the researcher each semester).

The researcher is expected to publish at least two high quality articles in a database journal (SCOPUS or Web of Science) per academic year. Submitting a project application on behalf of the Faculty of Arts (e.g., ERC) will be considered an asset. The researcher is also expected to take part in organizing international collaboration in medieval studies at the faculty.

Salary: ca. 2,000 EUR

Department: Centre for the Study of the Middle Ages

Supervisor: Jan Čermák

Faculty of Education

Title of the research project:

1. Professional vision of future teachers (noticing and knowledge-based reasoning)

Pre-service teachers must develop a range of skills, including a certain type of noticing skill that is different from lay people's skills. When observing a mathematics lesson, either live or on video, they are expected to notice aspects of the lesson that are deemed important for the development of pupils' knowledge. Yet the complexity of a mathematics lesson is such that if they direct attention to something, they do so at the expense of something else. Much research has been undertaken in recent years focusing on what it is that student teachers do and do not notice in a mathematics lesson, how they make sense of it and how their professional vision (noticing ability and knowledge-based reasoning) can be developed. In the Department of Mathematics and Mathematical Education, we have used and investigated an impact of reflection based programmes such as Lesson Study and video-clubs. Thus, we offer a cooperation on research aimed at reflection-based teacher education in general and on the possibilities of video-based courses for the development of professional vision in particular.

Workplace: Department of Mathematics and Mathematical Education

Contact person: doc. RNDr. Nad'a Vondrová, Ph.D.

Title of the research project:

2. Communication in and about mathematics teaching and learning

Communication between actors in mathematics classrooms represents one of the important issues influencing not only the course of lessons but also their outputs. There are various variables whose role in the teaching and learning process can be researched, e.g., the type and form of questions posed by the teacher, the participation of individual actors or groups of actors in the communication, the active or passive role of actors in the communication, the organization of the lesson supporting pupils' creative approach, use of interdisciplinary approach etc. One of components of the communication in a classroom is the language used as language of instruction. Nowadays, many pupils are taught mathematics in a language different from their mother tongue. It concerns both teaching mathematics to a linguistically homogeneous class (Content and Language Integrated learning or bilingual education) or heterogeneous classes (e.g. minority or migrant pupils).

Thus, we offer a cooperation on research aimed at communication in mathematics lessons in general and at teaching in a foreign language and in multicultural contexts in particular.

Department: Department of Mathematics and Mathematical Education
Contact person: doc. RNDr. Naďa Vondrová, Ph.D.

Title of the research project:

3. Biotechnology and Ethics: Central Europe Teacher Candidates' Opinions about Eugenics

Biotechnology in connection with ethics is important topic of present-day science. Development in biotechnologies using affecting the genomes of different organisms have raised need to solve and communicate numerous problems of ethical status of eugenics. Whereas genetics is an integral part of science (biology) curriculum at ISCED 2 and ISCED 3 schools, it is important for teachers' educators to know opinions of prospective science (biology) teachers in order to effectively implement ethical topics to genetics or didactics courses.

Department: Department of Biology and Environmental Studies
Contact person: RNDr. Lenka Pavlasová, Ph.D.

Title of the research project:

4. Measurement of non-cognitive skills among students: the use of the anchoring vignette method

Non-cognitive skills like persistence, reliability, and self-discipline strongly influence schooling decisions and also affect wages, as stated by the Nobel prize laureate James Heckman. In current educational research, there is a growing body of studies dealing with the measurement of non-cognitive skills and also the comparison of non-cognitive skills among different groups of students. Most measures of non-cognitive skills are based on self-assessment questions in questionnaire surveys. However, it has been shown that the accuracy of self-reported data can be hindered by the differences in the way different groups of students use scales. For example, two students with the same actual level of self-discipline can self-assess their self-discipline differently: one student can assess his/her self-discipline as high and the other student as average. It is crucial to take these differences in the scale usage among different groups of students (cultures, countries, socio-economic groups, etc.) into account since they can lead us to misleading results.

Innovative methodological approaches have been proposed to solve problems with scale usage. One of the methods is the anchoring vignette method. The Educational Research Anchors Center at the Department of Education in the Faculty of Education of the Charles University (contact researcher: Hana Vonkova) focuses on the statistical development of this method and also the use of this method in the field of educational research. We have published several innovative studies using the anchoring vignette method concerning the following topics: students' motivation to learn, school discipline, students' ICT self-assessment, students' English language self-assessment, students' life satisfaction, teacher classroom management, and teacher support behavior. We also received grant support for our research from the Czech Science Foundation.

We currently seek an excellent postdoctoral researcher who would cooperate with us on the topic of the measurement of students' non-cognitive skills and the use of the anchoring vignette method in educational research. We require excellent knowledge of both quantitative and qualitative research methods in education and experience with measurement of non-cognitive skills.

Department: Department of Education
Contact person: doc. RNDr. PhDr. Hana Voňková, Ph.D. et Ph.D.

Title of the research project:

5. Assessment of student teachers at the end of their studies

The research will focus on the current ways of assessment of teacher trainees at the end of their studies. Teachers in the Czech Republic complete their university degrees as fully qualified teachers. Their final evaluation should reflect theoretical knowledge as well as student teachers' performance in situations that resemble the current and future teaching practice as much as possible. Implemented approaches need to be continuously evaluated. This research will focus on the development of research tools and the subsequent evaluation of existing practice in the student teachers' assessment.

Department: Department of Pre-primary and Primary Education
Contact person: PhDr. Jana Stará

6. Value added assessment in education, longitudinal data analysis and structural equation modeling based on CLoSE datas

The Czech Longitudinal Study in Education (CLoSE) realized by Institute for Research and Development of Education, at Charles University offer a rich panel data of about 6000 students for analysing the links between cognitive and non-

cognitive outcomes of students at the level of lower-secondary and upper-secondary education (age 11-18). Data follow on cohort of 4th graders from TIMSS&PIRLS 2011 study and thus allow also for international comparison. The aim of post-doc position will be to work in the team on the analysis of various research questions related to CLoSE data, with an emphasis on students self-concept, motivation and other student level variables in a Czech school system that uses early tracking and student achievement. Sampling allows to compare academic track with mainstream education. At the school/class level analysis of classroom climate and its relation with students achievement and grades in Math, Czech language and Reading will be also in focus. We currently seek an excellent postdoctoral researcher who would be able to apply advanced statistical analysis (preferably using R, MPlus software) of longitudinal data in social sciences.

Department: Institute for Research and Development of Education

Contact person: David Greger, Ph.D.

Faculty of Science

Title of the research project:

1. Modelling and laboratory investigation of bentonite for nuclear waste repositories

Postdoctoral position in geology in Prague, Czech Republic

Hypoplastic model for unsaturated expansive clays has recently been implemented into an inhouse finite element code SIFEL developed at Czech Technical University. It has been used successfully in simulating behaviour of bentonite buffer in planned nuclear waste repositories. Recently a European framework funded project BEACON has been setup to investigate the process of homogenization of bentonite blocks and pellets to guarantee adequate sealing properties of the buffer. In the proposed project it is planned to both investigate the behaviour of the buffer in laboratory experiments and to numerically model its behaviour. Laboratory testing will be performed on newly acquired THM unsaturated oedometric apparatus, enabling to perform tests up to 150 °C. Numerical modelling will be done using SIFEL finite element code with hypoplastic constitutive model. The project will thus stimulate both laboratory and numerical skills of the applicant, while he will have a freedom to decide specific orientation of the project depending on his/her interests.

Minimal salary: equivalent of 2000 EUR/month

Workplace: Institute of Hydrogeology, Engineering Geology and Applied Geophysics, Charles University, Faculty of Science

Project supervisor: doc. RNDr. David Mašín, Ph.D

Title of the research project:

2. The role of gut microbiota in the evolution of murine rodents

Project description:

Based on the hologenome theory, animal genomes and metagenomes of their microbiota co-evolve together and their fitness is aligned as they form a joint phenotype, the holobiont. It follows that host-microbiota co-evolution can play important role in many evolutionary processes, including speciation. It is, however, not clear how well the hologenome theory assumptions fit mammals-gut microbiota relationship.

We study gut microbiota evolutionary patterns across a wide range of rodent phylogeny – Murinae subfamily. We also focus on the role of gut microbiota in speciation by studying its composition and introgression across two rodent hybrid zones. Important novelty of our project lies in extending the holobiont concept to gut bacteriophage community. Bacteriophages represent important regulators of gut microbiota, but divergence of this community across different host species has not been studied yet. Our research is funded by Czech Science Foundation project no. 19-19307S: „Evolutionary patterns of gastrointestinal microbiota on murine rodents example“

Research goals:

The postdoctoral researcher will integrate metagenomic data from wild rodent populations together with in vivo laboratory experiments to study:

- 1) gut microbiota evolutionary patterns across Murinae subfamily
- 2) possible role of gut microbiota in speciation in murine hybrid zones
- 3) maternal and social transmission of bacteriophage community
- 4) co-evolutionary links of bacteriophage community to murine hosts and their gut microbiota

The researcher will participate on study design, experimental procedures, data analyzes as well as on the preparation of publication outputs. Detailed focus of the postdoctoral project will be fine-tuned considering her/his previous expertise and research interests.

Requirements:

We are looking for a highly motivated postdoctoral researcher with both theoretical and practical expertise in microbiology, evolutionary biology and/or community ecology. Experience with (meta)genomic data analyzes, independent creative thinking and significant background in statistical modeling is highly desirable.

Minimal salary: equivalent of 2000 EUR/month
Department: Department of Zoology, Faculty of Science
Contact (for informal inquiries): Jakub Kreisinger (PI of the project)

Title of the research project:

3. Bioelectroanalytical Methods for High-Throughput Screening and Sensitive Determination of Environmental Pollutants

Rapid in situ monitoring of detrimental organic xenobiotic compounds in both the living and working environment is one of the most important tasks of modern analytical chemistry. Electrochemical techniques, being connected with modern flow injection or batch injection sampling systems, become suitable tools for high-throughput screening of electrochemically active xenobiotics because they are inexpensive, sufficiently sensitive, and they present an independent alternative to so far prevalent spectrometric and separation assays. Additional added value is obtained by combining electrochemical techniques with biorecognition elements (DNA, enzymes, antigens/antibodies) and various signal-enhancing nanoparticles to provide highly sensitive and selective electrochemical biosensors for environmental toxicity screening.

The aim of the proposed post-doc project is the preparation, development, and subsequent testing of new electrochemical (bio)sensors for high-throughput screening and sensitive determination of selected environmental pollutants (chemical carcinogens, pesticides, drugs, etc.). Flow injection analysis (FIA) and/or batch injection analysis (BIA) are planned to provide fast sampling systems for electrochemical detection, where non-traditional electrode materials (e.g., silver amalgam, boron-doped diamond, micro-structured forms of carbon) will be used for construction of newly designed miniaturized detection cells. Special attention will be paid to increasing sensitivity and selectivity of the developed (bio)sensors using: (i) utilization of host-guest interactions between the analyte and the biorecognition element (DNA, enzyme, antigen/antibody), (ii) incorporation of various signal-enhancing nanomaterials (carbon-based nanostructures, metal nanoparticles) on the electrochemical transducer surface, and (iii) application of modern preliminary separation and preconcentration techniques (micro solid-phase extraction, single-drop micro-extraction, gas-diffusion micro-extraction, hollow-fiber extraction).

Minimal salary: Equivalent of 2000 EUR/month
Workplace: UNESCO Laboratory of Environmental Electrochemistry, Department of Analytical Chemistry, Faculty of Science, Charles University, Hlavova 8, 128 43 Prague 2, Czech Republic
Contact person and supervisor of the project: Assoc. Prof. RNDr. Vlastimil Vyskočil, Ph.D.

Title of the research project:

4. Synthesis of Chiral Helical Hydrocarbons for Material Science

Chiral helical compounds are a class of aromatic hydrocarbon substances with defined 3D structure and are potential advanced intermediates for preparation more complex compounds with potential application in organic electronics and optics.

The project is focused on development of new class of such compounds: helical 5,8-di(spirofluorenyl)-indeno[2,1-c]fluorenes (DSFIF) and their helical congeners with extended π -systems. These compounds combine properties of helicenes (aromatic compounds with a rigid helical scaffold) and compounds with spiro-junction (so called spiro effect that essential for desirable photophysical properties such high fluorescence).

As the main route to this class compounds will be explored intramolecular catalytic cyclotrimerization by using chiral transition metal complexes that should yield directly products with the defined chiral scaffold. Further transformations should give rise to the target aromatic compounds. The integral part of the project will be also studies regarding evaluation of their photophysical, as well as other physical properties (tunable fluorescence emission, quantum yields, emission of circularly polarized light, etc.). These studies will performed with the in house equipment. As far as other synthetic modifications are concerned, it is expected to expand the developed methodology for synthesis of the hitherto unknown helically chiral metalloorganic compounds that should have improved photophysical properties. Preliminary experiments by using model compounds have provided sufficient evidence to confirm feasibility of the project: a) cyclotrimerization proceeds with high yields, b) the products are highly fluorescent, c) products are configurationally stable, d) they emit circularly polarized light, and last but not least e) the target compounds can be access with high overall yields in 5-6 steps.

Minimal salary: equivalent of 2000 EUR/month
Workplace: Faculty of Science, Department of Organic Chemistry, Charles University
Project supervisor: Prof. RNDr. Martin Kotora, CSc

Title of research project:

5. New deglaciation chronology of the North American Ice Sheet Complex

Abstract:

The North American Ice Sheet Complex (NAISC) covered northern North America during the last glacial. As the largest ice mass in the Northern Hemisphere, the NAISC was the main contributor to the late-glacial sea level rise and its meltwater was implicated in the abrupt climate fluctuations at the Pleistocene-Holocene transition. Moreover, the NAISC formed the main obstacle on the route along which the humans settled the Americas. Since the publication of the last NAISC deglaciation chronology 15 years ago, new dating methods, cosmogenic nuclides exposure dating and optically stimulated luminescence, allow for direct dating of the ice retreat instead of dating the onset of the deposition of organic material (as with C-14). New data have also become available on the extent of the ice sheet, in particular for the areas of the continental shelf. This has significantly changed the view of the NAISC at the Last Glacial Maximum compared to the early 2000s when the last version of the ice retreat chronology was published. It is therefore timely to produce a new ice margin chronology for the NAISC.

Objectives:

- To produce a new ice margin chronology for the NAISC using radiocarbon, cosmogenic nuclides, and optically stimulated luminescence ages.
- To reconstruct not only the best estimate but also the minimum and maximum extent for each time step in order to adapt the data for use in numerical modelling.

Salary: equivalent of 2000 EUR/month

Workplace: Department of Physical Geography and Geoecology

Project supervisor: Martin Margold

Title of the research project:**6. Reverse engineering of ribosomal peptidyl transferase center**

Postdoctoral position in biochemistry in Prague, Czech Republic

A postdoctoral position is available at a research group at Faculty of Science of Charles University in Prague (located at a new campus in Biocev, www.biocev.eu). The group is focused on protein structure evolution and the studied themes are very interdisciplinary with relevance in origins of life and astrobiology. The goal of the postdoc project will be protein reverse evolution of the most ancient ribosomal part, the peptidyl transferase center (PTC). The postdoc will be expected to perform a detailed bioinformatic analysis of the available structural data of this region, to design and work with variant protein libraries using synthetic biology approaches and perform structural/functional characterization of protein-RNA complexes.

Minimal salary: equivalent of 2000 EUR/month

Department: Department of Cell Biology, Biocev Campus, Charles University in Prague, Faculty of Science

Project supervisor: Klára Hlouchová PhD

Faculty of Mathematics and Physics

Title of the research project:**1. Call for PostDoc Position in the area of Interval methods for global optimization**

Post-doc position for one-year period from 1st January 2020

Research Project

Applications are invited for a postdoc position at Department of Applied Mathematics, Charles University in Prague, Czech Republic. The position is for one year, and the starting date is January 1, 2020, with possibility of one renewal.

Interval methods play a crucial role in designing algorithms for solving global optimization problems. They are used for handling numerical errors, finding bounds on objective functions, computing tight convex enclosures of nonconvex functions, and reduction of feasible domain, among many others. The research of this project will be conducted in particular in some of the following directions:

- interval linear algebra for global optimization
- properties of interval matrices, complexity issues
- theory and methods for checking properties of functions on feasible domains
- convex underestimators and the corresponding relaxation properties
- investigation of enclosing objects, relaxation on these objects

Candidates should have a completed PhD in Mathematics or Computer Science, and demonstrate strong potential for excellence in research. It is expected to have strong background in optimization. Skills in interval computation, matrix analysis, operations research and programming are appreciated as well.

Contact person: doc. Mgr. Milan Hladík, Ph.D., Charles University, Faculty of Mathematics and Physics, Department of Applied Mathematics

Title of the research project:

2. Call for PostDoc Position in the area of Mathematical analysis of models of chemically reacting mixtures

Post-doc position for one-year period from 1st January 2020

Research Project

We look for a postgradual research fellow to join the project focused on mathematical analysis of systems of partial differential equations describing chemically reacting mixtures.

A Ph.D. degree in mathematical analysis or applied mathematics connected with mathematical analysis of partial differential equations is required, knowledge in continuum mechanics, thermodynamics or chemistry is welcome.

The project will be supervised by Dr. Milan Pokorný, associate professor at the Mathematical Institute of Charles University together with dr. Michal Pavelka from the same institute.

Contact person: doc. Mgr. Milan Pokorný, Ph.D., Charles University, Faculty of Mathematics and Physics, Mathematical Institute of Charles University

Title of the research project:

3. Call for PostDoc Position in the area of Banach Space Theory – Descriptive Set Theory

Post-doc position for one-year period from 1st January 2020

Research Project

Applications are invited for a postdoc position at Department of Mathematical Analysis, Faculty of Mathematics and Physics, Charles University, Czech Republic. We look for a postgradual research fellow to join the group of researchers at Department of Mathematical Analysis working in Banach Space Theory and Descriptive Set Theory. A Ph.D. degree in a related field is required. The research of this project should focus on the following topics and their mutual relationships:

- Ramsey Theory,
- definable equivalence relations, and
- geometry of Banach spaces.

Candidates should demonstrate strong potential for excellence in research. The project will be supervised by Miroslav Zelený, associate professor at Faculty of Mathematics and Physics, Charles University together with Jiří Spurný, professor at the same department.

Contact person: doc. RNDr. Miroslav Zelený, Ph.D., Charles University, Faculty of Mathematics and Physics, Department of Mathematical Analysis

Title of the research project:

4. Call for PostDoc Position in the area of Quantum Gravity and Analogs

Post-doc position for one-year period from 1st January 2020

Research project

The Bekenstein bound on the entropy of any physical system, never greater than the entropy of a suitable black hole (BH), indicates that the ultimate fundamental Hilbert space might be finite dimensional, see, e.g., [1]. Recently, implications of the latter for BH evaporation were considered by our research group at the Faculty of Mathematics and Physics of Charles University, leading to a picture where both fields and spacetime are emergent phenomena [2]. Such picture is inspired by, and might find realization in certain condensed matter analog systems, such as Dirac materials, following a research line initiated by our group (see [3], for a review, and [4], for some recent results).

The post-doctoral scholar we are seeking, will be working in this area. Henceforth, the ideal candidate has to show proved expertise of the foundational issues of quantum field theory, both in its condensed matter and particle physics declinations, both in curved and flat spacetimes. Many directions are currently being developed, and the candidate will be exposed to all of them.

Nonetheless, one specific and particularly important line we would like to pursue with her/him, is related to the inequivalent quantizations occurring for different phases of matter, see, e.g., [5].

Indeed, a milestone theorem of quantum mechanics (Stone-von Neumann) establishes that, for finite degrees of freedom, all representations of the canonical commutations (quantizations) are equivalent, up to a unitary transformation. For quantum fields, being the number of degrees of freedom infinite, the theorem can be overcome. Thus, the infinite degrees of freedom allow for spontaneous symmetry breaking, hence for different, non equivalent phases stemming from the same Hamiltonian/Lagrangian. In particular, when such representations are those associated to an inertial frame, one, and to an accelerated frame, the other, we know that the above nonequivalence manifests itself as the Unruh effect [6]. This is at the root of phenomena like the Hawking effect, and in turn, of the BH thermodynamics.

Within this scenario, the candidate will focus on the puzzling problem of how the nonequivalent quantizations, necessary for the Hawking phenomenon, could arise even if the quantum fundamental system has a finite number of degrees of freedom, as the Bekenstein bound appear to imply [1].

- [1] J. D. Bekenstein, Universal upper bound on the entropy-to-energy ratio for bounded systems, Phys. Rev. D 23 (1981) 287; R. Bousso, The holographic principle, Rev. Mod. Phys. 74 (2002) 825.
[2] G. Acquaviva, A. Iorio, M. Scholtz, On the implications of the Bekenstein bound for black hole evaporation, Ann. Phys. 387 (2017) 317.
[3] A. Iorio, Curved spacetimes and curved graphene: A status report of the Weyl symmetry approach, Int. J. Mod. Phys. D 5 (2015) 1530013.
[4] A. Iorio, P. Pais, (Anti-)de Sitter, Poincaré, Super symmetries, and the two Dirac points of graphene, Ann. Phys. 398 (2018) 265.
[5] N. N. Bogolyubov, A. A. Logunov, A. I. Oksak, I. T. Todorov, General principles of quantum field theory, Kluwer, 1990; H. Umezawa, Advanced field theory: Micro, macro, and thermal physics, Amer. Inst. Phys., 1993.
[6] L. C. B. Crispino, A. Higuchi, G. E. A. Matsas, The Unruh effect and its applications, Rev. Mod. Phys. 80 (2008) 787; S. Takagi, Vacuum noise and stress induced by uniform acceleration: Hawking-Unruh effect in Rindler manifold of arbitrary dimensions, Prog. Theor. Phys. Suppl. 88 (1986) 1.

Contact person: doc. Mgr. Alfredo Iorio, Ph.D., Charles University, Faculty of Mathematics and Physics, Institute of Particle and Nuclear Physics

Title of the research project:

5. Call for PostDoc Position in the area of Low Temperature Physics and Superfluidity

Post-doc position for one-year period from 1st January 2020

Research Project

Superfluid helium has many unique properties among which is the existence of quantum turbulence, a category of flows bearing striking similarities to classical turbulence while differing dramatically in other aspects. Quantum turbulence may be probed, e.g., by visualization techniques, by dedicated devices such as second sound generators/detectors, or using micro- and nano- scale mechanical resonators. The proposed research project is focused on the applications of such resonators to probe quantum turbulence in superfluid ^4He at very low temperatures down to 10 millikelvin, reached on a dilution refrigerator. At higher temperatures, traditional techniques such as second sound attenuation will be used to provide further insight.

The successful candidate will join the superfluidity group in Prague, and will be primarily responsible for the design and operation of cryogenic experiments related to investigations of quantum turbulence in superfluid ^4He using nanowires and other lithographically produced structures as part of the ongoing research activities. Applicants with a background in numerical simulation will be encouraged to continue our previous work on modeling of quantum turbulence using the vortex filament technique. As an option, training in nanofabrication techniques is feasible in collaboration with our partners.

An applicant should have a doctoral degree in physics, cryogenics, fluid dynamics, or related disciplines. Previous experience with low temperature experiments is highly recommended. The candidates ought to be familiar with:

- Low temperature experimentation, cryogenics (previous work on superfluidity is an advantage)
- Basic electronics-related skills, standard lab instrumentation and automation techniques (LabVIEW programming is an advantage)
- Systematic data analysis using tools such as Python or Matlab

Informal inquiries concerning the position are welcome, specific suggestions for research projects by the candidates will be considered as well.

Contact person: prof. RNDr. Ladislav Skrbek, DrSc., Charles University, Faculty of Mathematics and Physics, Department of Low Temperature Physics

Title of the research project:

6. Call for PostDoc Position in the area of Studies of jets and charmonia in heavy-ion collisions at the Large Hadron Collider

Post-doc position for one-year period from 1st January 2020

Research project

Heavy-ion collisions at the Large Hadron Collider (LHC) allow to study a hot and dense matter composed of quarks and gluons, which is often called quark-gluon plasma (QGP). The QGP is similar to a matter present in early stages

of the evolution of universe. Studying QGP should bring better understanding to aspects of strong interaction that are currently not understood from the first principles, such as the transition from quarks and gluons to hadrons or collective aspects of strong interaction.

Two broad classes of phenomena were observed in heavy-ion collisions which can be highlighted. First of them are flow-like phenomena which are observed as significant azimuthal anisotropies of soft particle production. The flow phenomena are universally present in proton-proton, proton-ion, and ion-ion collisions. Flow phenomena are related to collective aspects of strong interaction and are most commonly modeled using tools of relativistic fluid dynamics. Second class of phenomena are quenching phenomena which are observed as significant suppression of production of high transverse momentum jets (collimated showers of hadrons) and various particle species. The quenching phenomena persist to unexpectedly high energies of a TeV scale and reflect the microscopic parton dynamics. More recently, LHC energies also brought possibility to study processes in electromagnetic interactions of ultra-peripheral heavy-ion collisions. This brought the first direct observation of the light-by-light scattering and allowed putting more stringent limits to production of axions, new hypothetical particles predicted by some of theories aiming to address physics beyond the Standard model of particle physics.

The team at Charles University works on analyses mainly involving jets and charmonia using data from the ATLAS experiment. In the past ten years, the team has lead or significantly contributed to several key measurements in the field of heavy-ion collisions done using ATLAS, namely measurement of the dijet asymmetry, measurements of the inclusive jet production, and measurements of the jet fragmentation. The team also works on phenomenological modeling of jet quenching and charmonia suppression as well as on developing new methods for efficient mitigation of large backgrounds present in both proton-proton and heavy-ion collisions at the LHC.

The candidate is expected to contribute to the phenomenological modeling of jet quenching and/or charmonia suppression as well as to the effort of analyzing the data from the ATLAS experiment. The candidate is expected to have a PhD degree in the field of high-energy physics or high-energy nuclear physics and good programming skills in C++ and Root.

Contact person: doc. Mgr. Martin Spousta, Ph.D., Charles University, Faculty of Mathematics and Physics, Institute of Particle and Nuclear Physics

Faculty of Social Sciences

Title of the research project:

1. AI and social sciences, joint research project of Institute of Communication Studies and Journalism and Institute of Political Studies

In an effort to establish and further develop expertise in the nexus between AI and social sciences, the Department of Journalism and the Department of Security Studies jointly seek a post-doctoral candidate in this field. The candidate is expected to exhibit a proven track-record linked to one or more of the following themes: artificial intelligence, machine learning, big data — all in relation to the field: of social science(s). In the aforementioned context, the preferred research focus could include e.g. social media, disinformation, propaganda, political revisionism or radicalization. We seek innovative scholars with experimental leanings, willing to cross disciplinary boundaries, and especially able bridge the divide between the technological and the social domains. Expected outcomes of the post-doctoral fellowship include two high-quality journal articles (Jsc or Jimp), involvement in the training of Ph.D. candidates and mutually enriching interaction with other members of the participating departments. Upon further agreement, the post-doctoral fellow will also have an opportunity to be involved in teaching activities: the participating departments specifically envision a general course on AI-social domain nexus and/or data science (B.A.) and a more specialized course reflecting the principal research focus of the scholar (M.A.).

Contact: doc. Mgr. et MgA. Filip Lab, Ph.D

Title of the research project:

2. International relations in the time of uncertainty

During several previous decades, world politics rested on an evolving, but still rather persistent type of an international order. This order was to a large extent based on the dominant position of the United States (USA). Yet it also involved several important normative elements, represented by liberal principles, intensive global economic cooperation, or international institutions. To a high extent, the US-led order was sustained by the demand coming from the other states, which saw it as an enabling arrangement for dealing with global problems such the spread of weapons of mass destruction, terrorism, global economic crises, or environmental degradation.

At this moment, this order that has so far characterized international politics is facing several important challenges. One of the factors that weaken it is the increasing activism and influence of some of the developing countries. Those

countries often hold different views about the appropriate form of international order, putting a greater emphasis on the principles of sovereignty and justice. The unipolar arrangement is also questioned by the changing distribution of power in the international system, marked by the decreasing position of the USA and the strengthening of the so-called rising powers. Last but not least, a part of the turbulent development can be attributed to social and ideological changes taking place in the developed countries.

Within this topic, we are searching for a post-doc candidate that would identify and explore an important issue that has to do with the contemporary transformative processes in international politics. The candidate should definitely dispose with a strong theoretical and methodological background. This background should enable him/her to contribute to the international academic debates. As for a concrete research topic, we are rather flexible. The concrete topic would need to be in some way connected with the changing characteristics of world politics. In this context, we welcome proposals that may deal with the cooperative, as well as conflictual aspects of world politics. In terms of issue areas, we are ready to consider proposals that may be concerned with security issues, international economic relations, or any other substantive field of the contemporary international relations.

Contact: doc. PhDr. Jan Karlas, M.A., Ph.D.

Title of the research project:

3. The Dynamic of Relations of the Visegrad Countries with Israel following the Rise of Nationalist Parties in Central Europe, Institute of International Studies

This project aims to analyse current foreign-policy relations between the Visegrad countries and Israel following the rise of nationalist parties in the region. Since 1990, relations between the four Central European countries have been intense. Especially the Czech Republic and Poland have a very intense level of cooperation with Israel in various fields, including defence and security. Among the EU countries, Central European countries are considered to be in the camp of pro-Israeli countries. After the rise of the nationalist parties in Hungary and Poland, the relations with Israel became more complicated. On the one hand, a strong focus on security, an ethnic character of a state, and anti-Muslim positions of those nationalist parties make Israel their natural partner. On the other hand, controversial past events, especially a position of Polish and Hungarian populations towards the Jews during the Holocaust and shortly after the end of World War II, an aim to get a support among voters with nationalist, and often even anti-Semitic, inclinations have a negative impact on the bilateral relations with Israel. The refusal of the Polish government to return private Jewish property, the law criminalizing certain statements related to Poles and Poland during World War II, so-called the Holocaust Law, or a negative reception of the new Holocaust museum in Budapest among Hungarian Jews and international Jewry who criticize its aim to whitewash and rewrite history concerning Hungary's role in the murder of Jews during WWII, are examples which had a negative impact on the bilateral relations with Israel.

Contact: doc. PhDr. Tomas Nigrin, Ph.D.

Title of the research project:

4. Postdoc in Economics, Institute of Economic Studies

We are looking to hire a postdoc in the field of economics to carry on research activities in some of the following topics: public economics, international economics, development economics, economic geography, political economy, and public finance. The postdoc will be part of the Institute of Economic Studies at Faculty of Social Sciences, Charles University and will become an active member of the Institute as well as the broad economics and finance community at Charles University. In addition, the postdoc will support teaching and research activities of the department.

Charles University currently ranks in global top 100 in Economics, top 200 in Finance (both Shanghai Ranking's Global Ranking of Academic Subjects 2018), and 111th in Economics and Business (the US News Global Ranking of Universities 2019). For an overview of the Institute Economic Studies, kindly visit: <http://ies.fsv.cuni.cz>
Starting date: January 1, 2020.

The candidate should hold a Ph.D. in Economics by the date of the application or at least have a defense scheduled until the end of October 2019. The funding is for 2 years. Applications include CV, a job market Paper, a short research statement, a single letter of reference, and a copy of the PhD diploma or a document about dissertation defense. Deadline for applications is July 19, 2019. Candidates should be available for a Skype interview.

Contact: Mgr. Petr Jansky, M.Sc., Ph.D.

Title of the research project:

5. Current Development of Democracy in Central Europe - New Phenomena, New Approaches, Institute of Sociological Studies

During the first twenty years following the revolutions in Central Europe (here in the sense of the four Visegrad countries) in 1989, we witnessed and analysed the consolidation of democracy (construction and stabilization of institutions, the institutionalisation of the parties and the party system, and so on). During this period, political science research focused mainly on questions such as transformation from the communist regime to democracy, on Europeanisation, and so on. But during the last decade, delineated approximately by the beginning of the economic and financial crisis, but also strongly influenced by the migration crisis, we face some new questions. Therefore, we are provided with the opportunity to study new themes and to change the scope of research. New phenomena have developed within the four Visegrad countries, including but not limited to novel concepts such as illiberal democracy; or some renewed ones, such as populism in its various forms.

We are searching for a post-doc candidate that would focus on the general topic of the evolution of Central Europe from one or more national point(s) of view. The candidate should focus on specific aspects of this large phenomenon, such as political institutions in a broad sense, political actors (especially political parties) and political processes (including for instance the depoliticization of societies).

The candidate should be equipped with a strong theoretical and methodological background and be able to do field research in the considered countries. We can consider comparative research with some other relevant Western European cases, but the crux of the research has to lay within the Central European region.

Contact: doc. Michel Perottino, Ph.D.

Faculty of Law

Title of the research project:

Climate change and the Law

The Faculty of Law of Charles University seeks a highly qualified postdoctoral candidate with the interest in environmental law research, especially focusing on the area of legal issue related to climate change. Climate change is an important task of contemporary environmental law research, requiring a high degree of knowledge in many fields. Applicants should demonstrate their understanding of the complexity of this newly recognized legal issue and consequently their ability of the interdisciplinary approach to such a topic.

The research itself should cover all legal tasks related to responding to climate change. The researcher is expected to examine the legal aspects of climate change mitigation (reducing), focusing on the climate and energy law, as well as climate change adaptation, focusing on the legal measures to adapt land and nature, forest, water and soil to the changing climate.

This newly opened postdoctoral position is fully scientific and research, tightly connected with publication activity, thus a strong ability of publishing in scholarly journals is presumed. The intended outcome of the two-years stay at the Faculty of law shall be an extensive monograph. The researcher is expected to actively participate in the activities of the Department of Environmental Law but not to take part in teaching. The candidate should be entirely concentrated on the research with no work duty other than her or his work at the Faculty.

Workplace: Department of Environmental Law of the Faculty of Law

Supervisor: Prof. JUDr. Milan Damohorský, DrSc.

Post-doc positions at CEFRES

CFA: TWO POST-DOCTORAL POSITIONS AT CEFRES – CHARLES UNIVERSITY

Two post-doctoral positions at CEFRES cofounded by the Charles University

Deadline for submission: 2 August 2019

Period: January 1, 2020 - December 31, 2021

Application Language: English

Address for submission: jerome.heurtaux@cefres.cz (please copy the email to adela.landova@cefres.cz)

Two post-doctoral researchers will be recruited from January 1, 2020 for two years at CEFRES. They will be both affiliated to CEFRES and to a relevant department for their research at Charles University. Both post-doctoral researchers will be recruited on the basis of the quality of their research project.

The results will be published in October 2019.

Title of the research project:

1. CEFRES research areas

The first post-doctoral position is intended for researchers whose research project can be part of one of CEFRES's three research areas:

Research area 1 – Displacements, “Depaysements” and Discrepancies: People, Knowledge and Practices

Research area 2 – Norms & Transgressions

Research area 3 – Objects, Traces, Mapping: Everyday Experience of Spaces

For equal scientific quality, preference will be given to a project on the social, economic and political transformations of contemporary Central Europe.

Title of the research project:

2. Research project: TANDEM program

A specific competition to recruit a second post-doctoral researcher whose work covers one out of three possible topics listed below. The selected candidate will work in association with a researcher from the Czech Academy of Sciences (CAS) and a researcher assigned by the CNRS within the frame of the TANDEM program.

Topic 1: "Adverbial Experience: The Aesthetics of Contemporary Czech and French Art"

This research project will associate the post-doctoral researcher with CAS researcher Tomáš Koblížek (Institute of Philosophy, Czech Academy of Sciences).

Description: The project will focus on contemporary art (literature, music, plastic art, photography etc.) from the perspective of today aesthetics. The candidate will work in the domain of aesthetics and/or the history of art. Applicants may contact **Mr. Koblížek** before applying for any relevant questions on their application at Koblizek[at]flu.cas.cz.

Topic 2: "Peace and Environment: Alain Touraine, Eastern Europe and Analysis of Social Movements under Communism"

This research project will associate the post-doctoral researcher with CAS researcher Doubravka Olšáková (Institute of Contemporary History of the CAS).

Description: Candidates from across social sciences and humanities are invited to explore social movements in Eastern Europe in the second half of the 20th century. They can also dedicate their research to Alain Touraine's research under the perspective of sociology or history of science.

Applicants may contact **Ms. Olšáková** before applying for any relevant questions on their application at olsakova[at]usd.cas.cz.

Topic 3: "The Europe of Resentment and Rubble: a Confederation of the Vanquished?"

This research project will associate one post-doctoral researcher with CNRS researcher Michèle Baussant (Institute of Political Social Sciences, University Paris Nanterre).

Description: Mapping interior frontiers, silenced pasts and living memories of displaced post-imperial (European) minorities (ie. Sudeten and Bukovina Germans, Ukrainians from Poland, Italians from Istria, Europeans of Algeria...). Applicants may contact **Ms. Michèle Baussant** before applying for any relevant questions on their application at michele.baussant[at]cnrs.fr.

Application Package

Applicants must submit the complete application package consisting of the following elements:

The application form duly filled in: download [HERE](#). The application form includes the description of the research project which must:

- Specify the name of the TANDEM research project or the CEFRES research area you want to apply to and explain how your research benefits it.
- Include an explanation on the methodology and inputs of your own research, as well as a selected bibliography (max. 1 page-long).
- Include expected outcomes (publications, conferences, and so forth):
 - A letter of reference from the former PhD supervisor: download [HERE](#). The letter must mention the title of the PhD, the date of defence etc.
- A detailed CV
- A list of publications
- A copy of the PhD diploma

Application packages must be submitted by **August 2, 2019** electronically in an e-mail entitled "YOUR LAST NAME_CEFRES-UK" at: jerome.heurtaux@cefres.cz (send a copy to his assistant: adela.landova@cefres.cz). Please send the application form in both PDF and as a Word-document. Applicants are welcome to contact the PIs of the research projects they apply to before sending their application.

Eligibility Criteria

- be high-level young researchers from abroad (non-Czech), who defended their PhD no more than 10 years prior to the application deadline in a university outside the Czech Republic
- conducting a research befitting one of the research projects described above (or CEFRES research areas)
- good command of English is mandatory

Framework of the Charles University (UK) and CEFRES co-financed post-doctoral position

As a partner of CEFRES Platform, Charles University recruits 2 high-quality post-doctoral research fellows who are non-Czech and you have defended their dissertation outside the Czech Republic. They will be assigned to CEFRES, within the frame of the Charles University's International Post-Doc Research Fund.

These two positions are renewable one-year fixed-term contracts and start on 1 January 2020 at CEFRES. **The gross monthly salary is 32 000 CZK.** UK-CEFRES post-doctoral researchers will be affiliated to both CEFRES and a relevant department of one of the faculties in social sciences and humanities of the Charles University according to their main discipline. They are expected to:

- contribute through their own research to the research project they apply to
- take part in the scientific life of CEFRES
- submit a yearly report on their research advances to the director of CEFRES
- come to live in Prague from 1 January 2020.