A new call for applications has been announced!

Applicants can apply in 2024 for positions in projects announced by following faculties / institutes:

1. First Faculty of Medicine: 1 project
2. Faculty of Medicine in Plzeň: 3 projects
3. Faculty of Law: 4 projects
4. Faculty of Arts: 8 projects
5. Faculty of Science: 5 projects
6. Faculty of Mathematics and Physics: 5 projects
7. Faculty of Education: 2 projects
8. Faculty of Social Sciences: 4 projects
9. Faculty of Humanities: 3 projects
10. Center for Economic Research and Graduate Education: 1 project

Deadlines of submitting of applications you will find under each specific project. More detailed information about general conditions of applying for positions funded by JUNIOR Fund you can find on the website: [JUNIOR Fund (Post-doc)](JUNIOR Fund (Post-doc)).

First Faculty of Medicine

Title of the research project:

| CIRCULATING FREE TUMOR DNA ANALYSIS AND METHYLATION PROFILING IN COLORECTAL CANCER AS NOVEL TOOLS TO PREDICT TREATMENT RESPONSE AND GUIDE TARGETED THERAPY |

Project Annotation:

Colorectal cancer (CRC) is one of the most frequent malignancies and the cause of cancer-related mortality worldwide. Its clinical manifestation and treatment response are closely associated with its molecular background. A number of sequence variants and mutations with predictive and prognostic potential have been identified in CRC (1-3) but there is little information on their evolution during the disease course and application of specific therapies (4-5). Also, there is not much known about alterations of methylation patterns and their impact on disease development and treatment outcomes in advanced CRC (6-7). Interestingly, methylation profile shifts have been found in the very early phases of CRC and have been implemented into blood screening tests for CRC (8). It has also been suggested that changes in the methylation profile during the disease course may be responsible for the resistance to the applied therapy but there is scarce evidence so far.

The main aim of the project is to evaluate the complex molecular background of colorectal cancer, its evolution during the course of the disease and treatment, and the clinical implications. The project is based on our previous studies that have demonstrated the feasibility and utility of circulating free tumor DNA (ctDNA) analyses by next generation sequencing (NGS) in advanced colorectal cancer patients, and their potential to predict and monitor the treatment response. Patients with locally advanced rectal cancer or metastatic colorectal cancer have been enrolled in the study after ethical committee approval and the patient’s informed consent. A set of samples has been collected from every patient during the disease course, including primary tumor biopsy at the time of diagnosis, primary tumor sample after neoadjuvant therapy, metastatic tumor samples at the time of their removal, and patient plasma from diagnosis, before any surgery and every 3 months during and after therapy. The methodology will involve setup and optimization of methylation sequencing of primary and metastatic tumor samples and ctDNA from CRC patients. DNA sequencing at the level of a comprehensive cancer panel or whole exome sequencing will be carried out in parallel. In addition, the tumor samples will be analyzed by RNA and miRNA sequencing, and the feasibility of RNAseq and miRNAseq in liquid biopsy (circulating free RNA and miRNAs) will be exploited. The sequencing results will be evaluated in bioinformatic pipelines that will be developed and optimized to detect all relevant aberrations in highly specific manner. Other complex analyses will focus on the correlation between the findings in tumor samples and liquid biopsies, and on the molecular background evolution in relation to particular treatment regimens.
The main objective of the project is to assess the feasibility and reproducibility of methylation sequencing of tumor and cfDNA samples in CRC, correlate it with the results of DNA and RNA sequencing, describe the patterns and evolution of molecular genetic aberrations during the disease course and targeted therapy, and evaluate its clinical impact in the following settings: (i) prediction of the response to the neoadjuvant therapy in locally advanced rectal cancer; (ii) prediction of the completeness of the surgical resection and the risk of early postoperative relapse in locally advanced CRC; (iii) prediction of the treatment response to chemotherapy and targeted therapy in metastatic CRC. The results of the project should influence the current standard practice of CRC management and help to guide and individualize the treatment of patients with advanced CRC, especially in the case of therapy of higher lines.

**Key words:**
colorectal cancer, next generation sequencing, methylation profile, liquid biopsy, circulating free tumor DNA, circulating free tumor RNA, miRNA, prognostic factor

**References:**

**Qualifications:**
- PhD in molecular biology, biochemistry, biomedical technology or equivalent
- prior experience with NGS sequencing and bioinformatic analyses of high-throughput data is appreciated
- strong interest in molecular medicine and translational research

**Funding:**
Position will be co-financed from The National Institute for Cancer Research Project (Programme EXCELES, ID Project No. LX22NPO5102) - Funded by the European Union - Next Generation EU, and by grants MH CZ - DRO (Thomayer University Hospital – 00064190)

**Workplace:** Department of Oncology, 1st Faculty of Medicine, Charles University and Thomayer University Hospital, CLIP – Molecular Genetics, 2nd Faculty of Medicine and University Hospital in Motol, and Department of Molecular Biology of Cancer, Institute of Experimental Medicine, Czech Academy of Sciences, Prague

**Supervisor:** Ludmila Boublíková, MD, PhD

**E-mail of the supervisor:** ludmila.boublikova@fn.cz

**Position available from:** January 1, 2025

**Deadline date for applications:** July 26, 2024

Applicants must submit required documents to: Anna Jezberová anna.jezberova@if1.cuni.cz

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**Faculty of Medicine in Plzeň**

[1] Title of the research project:
ANTIBIOTIC RESISTANCE AND APPLICATIONS OF MASS SPECTROMETRY IN MICROBIOLOGY

Project Annotation:
The laboratory of Antibiotic Resistance and Applications of Mass Spectrometry in Microbiology deals with the epidemiology of antibiotic resistant gram-negative bacteria using Whole genome sequencing on different platforms (Illumina, Pacbio, Minion) and different bioinformatics tools in dealing with genomic data. Moreover, the lab uses proteomics (Mass spectrometry) in developing novel approaches to detect different resistance and virulence determinants associated with resistant bacteria. The lab wishes to apply RNA sequences to study operon expression in resistant bacteria in association with newly introduced antibiotics in clinical practices. So if you are a newly graduated Ph.D student and you are interested in AMR and its mechanisms, and would like to be participating in developing new and interesting ways in fighting AMR and have the basic experience as mentioned below, join our lab. We are an international group of Postdocs, Ph.D students and masters students working in a friendly atmosphere. To know more about the research facility and the group please visit the website (http://www.biomedic-plzen.cz/en/222-laboratory-of-antibiotic-resistance-and-applications-of-mass-spectrometry-in-microbiology).

Qualifications
• Ph.D. (or equivalent) degree in Microbiology or related sciences (Biology, Biochemistry, etc) max. 5 years from graduation.
• Excellent English communication skills both in written and oral form.
• Required: Basic skills in bacteria handling (culture, MICs, PCRs, sanger sequencing, WGS sequencing, DNA and Plasmid extraction, PFGE, blotting).
• Required: basic knowledge of bioinformatic analysis and using the terminal (Ubuntu).
• Desirable: RNA isolation, sequencing, data analysis, basic knowledge in R and/or Python.

Workplace:
Laboratory of Antibiotic Resistance and Applications of Mass Spectrometry in Microbiology
Supervisor: Asst. Prof. Ibrahim Bitar, Ph.D
E-mail of the supervisor: Ibrahim.Bitar@lfp.cuni.cz
Position available from: January 1, 2025
Minimal offered gross wage: 40 000,- CZK (approx. 1620 EUR)
Deadline date for applications: July 21, 2024
Applicants must submit required documents to: internationaloffice@lfp.cuni.cz and Ibrahim.Bitar@lfp.cuni.cz

Title of the research project:
LIQUID BIOPSY UTILISATION IN GYNAECOLOGICAL CANCER MANAGEMENT

Assessing Circulating Cell-Free Tumour DNA as a Non-Invasive Biomarker in Gynaecological Cancer Management

Input premise
The selection of an optimal cancer therapy is contingent upon a detailed analysis of the tumour genome to identify actionable molecular targets. The inherent spatial and temporal heterogeneity within the tumour poses significant challenges, as the molecular characteristics can vary depending on the specific location and timing of the tissue sampling. The molecular analysis of circulating cell-free tumour DNA (ctDNA) presents a new, minimally invasive technique that can be conducted at various times, potentially offering a more accurate reflection of the cancer’s current molecular profile. The assessment of ctDNA has several clinically valuable uses, including identifying molecular targets for cancer treatment, real-time monitoring of the tumor’s molecular profile, detecting new molecular abnormalities linked to resistance to specific therapies, and determining the cancer’s prognosis. Additionally, it aids in diagnosing cancer recurrence or progression.

The project aims to create a biobank dedicated to gynaecological cancers, particularly focusing on endometrial cancer, and to develop a novel, highly sensitive ctDNA analysis assay using digital droplet PCR (ddPCR) and next-generation sequencing (NGS). The ctDNA analysis from the peripheral blood of patients will serve as an independent prognostic tool for detecting minimal residual disease post-surgery, early identification of potential cancer relapses, and monitoring treatment responses. This initiative will involve establishing a biobank for endometrial cancer, where the successful candidate will be responsible for collecting and processing plasma, isolating ctDNA from plasma and available tissues (such as formalin-fixed paraffin-embedded samples), and detecting ctDNA using the ddPCR method. Additionally, the candidate will participate in sequencing the samples, utilizing next-generation sequencing technologies, interpreting the results, writing original research articles, and preparing grant applications.

Blood and tissue samples from endometrial cancer patients will be provided from the Gynaecology and Obstetrics Department. Additionally, research activities will be conducted at the Department of Pathology, under the supervision of Professor MUDr. Michal Michal, and at the Bioprická Laboratoř.
Qualifications

- Ph.D. (or equivalent) degree in medicine, life sciences, or related fields. Max. 5 years from graduation!
- Technical skills in molecular biology (e.g., reverse transcription-qPCR, digital PCR, tissue sectioning, immunohistochemistry, NGS)
- High motivation, ability to conduct collaborative research
- Track record of publications in peer-reviewed journals: at least 3 publications in IF journals (IF 1.5 or more), at least one as a first author
- Excellent English communication skills both in written and oral form

Workplace: Department: Obstetrics and Gynaecology, Medical Faculty in Pilsen. Laboratory: Department of Pathology and the Bioptická Laboratory
Supervisor: doc. MUDr. Jiří Presl, Ph.D.
E-mail of the supervisor: presli@fnplzen.cz
Position available from: January 1, 2025
Minimal offered gross wage: 40 000,- CZK (approx. 1620 EUR)

Deadline date for applications: July 21, 2024
Applicants must submit required documents to: internationaloffice@lfp.cuni.cz and presli@fnplzen.cz

Title of the research project:
IDENTIFICATION AND VALIDATION OF OXIDATIVE STRESS MARKERS IN DISEASE AND PHYSICAL STRESS USING MASS SPECTROMETRY AND OTHER ANALYTICAL TECHNIQUES

Input premise
Cellular and oxidative stress can accompany both the physiological response of the body to various types of stress and pathological processes leading to the development of diseases and tissue damage. Mass spectrometry can significantly expand the array of markers with predictive and diagnostic clinical significance. Application of other analytical methods (ELISA, other immunochemistry methods, including CLIA and ECLIA) can increase flexibility of the experimental design. The aim of the program is to analytically establish and select promising markers of oxidative stress and tissue damage (heart, lungs, brain, kidneys, liver), and subsequently validate them in groups of patients with cardiological, oncological, and inflammatory diseases. These results will then be compared with those from healthy subjects under various types of physical stress.

Qualifications

- Ph.D. (or equivalent) degree in Clinical Biochemistry or Laboratory medicine in general, max. 5 years from graduation
- Excellent English communication skills both in written and oral form

Workplace: Department: Institution of Clinical Biochemistry and Hematology. Laboratory: Clinical Biochemistry
Supervisor: MUDr. Daniel Rajdl, Ph.D.
E-mail of the supervisor: rajdl@fnplzen.cz
Position available from: January 1, 2025
Minimal offered gross wage: 40 000,- CZK (approx. 1620 EUR)

Deadline date for applications: July 21, 2024
Applicants must submit required documents to: internationaloffice@lfp.cuni.cz and rajdl@fnplzen.cz

Faculty of Law
Title of the research project:
HUMAN RIGHTS IN THE AGE OF AI: COMPARATIVE PERSPECTIVES

We are seeking a post-doctoral researcher to explore the intersection of human rights and digital world, with a focus on privacy, freedom of expression, and equitable digital engagement. The research may involve comparative analysis of legal frameworks and cultural perspectives on digital rights across various regions, along with the development of case studies to illustrate the impact of digitalization and/or AI development on human rights.

Key areas of interest might include, but are not limited to, data privacy, surveillance, censorship, online harassment, participatory democracy, and the digital divide. The researcher will have the flexibility to identify and explore additional challenges and opportunities, such as ethical AI practices, content moderation, anti-censorship tools, and inclusive digital policies.
The role offers significant scope for the researcher to shape the direction of the study according to their interests and expertise, allowing for both theoretical research and the development of policy recommendations.

**Workplace:** Department of Constitutional Law  
**Supervisor:** doc. JUDr. PhDr. Marek Antoš, Ph.D., LL.M.  
**E-mail of the supervisor:** marek.antos@prf.cuni.cz  
**Position available from:** January 1, 2025  
**Deadline date for applications:** July 17, 2024  
**Applicants must submit required documents to:** international@prf.cuni.cz and marek.antos@prf.cuni.cz

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**Title of the research project:**  
**Contemporary Issues of Refugee and Migration Law**

Annotation: In the field of migration and refugee law, several fundamental topics are currently under discussion, offering rich avenues for research both independently and in their interconnections. These include (among others) issues such as temporary protection, sovereignty, human rights, migrant smuggling, or territorial asylum. We invite researchers to join us in exploring these issues. The Czech Republic stands out among Central and Eastern European countries for having one of the highest proportions of foreigners. Additionally, it hosts the highest number of Ukrainians with temporary protection per capita. This presents an opportunity to explore issues arising from a global, regional, or specific Czech context.

**Workplace:** Centre for Migration and Refugee Law (Faculty of Law, Charles University, Prague, Czechia)  
**Supervisor:** JUDr. Věra Honusková, Ph.D.  
**E-mail of the supervisor:** honuskova@prf.cuni.cz  
**Position available from:** January 1, 2025  
**Deadline date for applications:** July 17, 2024  
**Applicants must submit required documents to:** international@prf.cuni.cz and honuskova@prf.cuni.cz

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**Title of the research project:**  

We seek a candidate with an excellent research background to join our Department of Economics and Empirical Legal Studies team. The department is fully integrated into the international ELS community, with members playing a pivotal role in establishing the European Society for Empirical Legal Studies and the European Journal of Empirical Legal Studies. We aim to develop our legal research team further.

The successful candidate is expected to bring in and develop their own, internationally competitive, research agenda and collaborate with department members on their suitable existing research projects, such as field experiments on discrimination, laboratory experiments on human-machine transactions and contract design, disparities in judicial decision-making, penal policy, and other policy-relevant topics.

Candidates should possess a PhD or JSD with solid training in research methods (economics, law, or related social science). A law degree or substantial legal training would be an advantage.

**Workplace:** Department of Economics and Empirical Legal Studies  
**Supervisor:** doc. Ing. Josef Montag, Ph.D.  
**E-mail of the supervisor:** montagj@prf.cuni.cz  
**Position available from:** January 1, 2025  
**Deadline date for applications:** July 17, 2024  
**Applicants must submit required documents to:** international@prf.cuni.cz and montagj@prf.cuni.cz

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**Title of the research project:**  
**Security Incident in the Health Care Sector**

Annotation: Advancing digitisation of health care systems, including the ever-increasing role of telemedicine, artificial intelligence, or the so-called cyber physical systems (digital systems that combine computational and physical
capabilities) renders a changing paradigm of medicine. High quality care in many health care settings has already been supported by the outlined digital technologies. Alongside many potential benefits, this shift towards the crucial use of digital technologies also introduces significant serious risks. Health data is highly valuable on the illegal markets and cyberattacks on health facilities may directly endanger lives and health of numerous patients. Additionally, challenges related to interoperability, privacy, and security have surfaced, while the legal response to these issues remains under development.

The post-doc research project aims to propose a robust legal framework to address cybersecurity issues in healthcare and define solutions to emerging risks. By integrating theoretical insights with practical solutions, this project will significantly contribute to shaping the legal landscape in the critical area of health care cybersecurity.

**Workplace:** Department of Medical Law  
**Supervisor:** doc. JUDr. Petr Šustek, Ph.D.  
**E-mail of the supervisor:** sustek@prf.cuni.cz  
**Position available from:** January 1, 2025

**Deadline date for applications:** July 17, 2024  
**Applicants must submit** required documents to: international@prf.cuni.cz and sustek@prf.cuni.cz

### Faculty of Arts

[1] Title of the research project:

<table>
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<tr>
<th>ARISTOTLE’S COGNITIVE SOUL AND (THE LIMITS OF) HYLOMORPHISM</th>
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**Description of the project:** The Department of Philosophy and Religious Studies is seeking a post-doc researcher capable of teaching and carrying out research in ancient philosophy and/or contemporary philosophy of mind. The researcher is expected to focus on (i) Aristotle’s (or Aristotelian) theory of the cognitive soul (perception, phantasia, nous) and/or (ii) hylomorphism within contemporary philosophy of mind – its promises and limits. The successful candidate is expected to carry out independent research in Prague in collaboration with the ancient philosophy group, to co-organize workshops and conferences, to teach two seminars per semester on average, and to publish during the two-year period at least one article in a top journal. We especially invite applications from candidates willing to eventually extend their research stay in Prague. During the time of this project the Department will apply for a larger grant on a closely related theme. The successful candidate will also be expected to submit individual grant application for a follow-up project during the second year of the fellowship.

**What do we offer?**

- The post includes a two-year contract in Prague (i.e., 2025 and 2026) under competitive financial conditions
- Teaching and co-teaching experience
- Collaboration with a large ancient philosophy community
- Perspective of a follow-up project

**Profile of an ideal candidate:**

- Completed Ph.D degree (max. 5 years since its award);  
- Excellent command of English;  
- Strong background in ancient philosophy and/or contemporary philosophy of mind;  
- Ability to carry out excellent research;  
- Teaching experience is welcome;  
- Due to tax specification, the candidate cannot be employed in any other country than the Czech Republic in course of the postdoctoral period.

**The applicants should submit:**

All documents required by the Charles University’s Junior Fund  
Research proposal (max. 1000 words)  
Brief motivation letter

**Salary:** Equivalent to 2000 EUR/month  
**Workplace:** The Department of Philosophy and Religious Studies (https://ufar.ff.cuni.cz/en/department-2/)  
**Supervisor:** dr. Robert Roreitner  
**E-mail:** robert.roreitner@ff.cuni.cz  
**Phone:** +420 221 619 306  
**Position available from:** January 1, 2025

**Deadline for applications:** 15. 7. 2024  
**Applicants must submit** required documents to: robert.roreitner@ff.cuni.cz
Title of the research project: ART AND ARCHAEOLOGY OF ROMAN WORLD

Description of the project: The Institute of Classical Archaeology is seeking post-doctoral researcher to join our team for two years (2025-2026) with his/her own project focused on art and/or archaeology of the Roman World. The researcher will be also encouraged to get involved in other activities of the Institute and to teach several courses in his/her field of specialisation. Specialisations currently represented in our Institute cover the Bronze Ages and the Early Iron Age in the Aegean and the Balkans, the Hellenistic world in Central Asia, Roman Thrace, Iron Age Italy and Central Europe, with field and research projects in Uzbekistan, Bulgaria, Northern Macedonia, Greece, Turkey, Croatia, and France. We thus seek an early career researcher who will both match the varied profile and interests of the Institute and explicitly complement it with his/her erudition in Roman archaeology.

The proposed project should geographically fall broadly within the frame of the Roman Italy and Roman provinces. It should show innovative approaches within one (or more) of the following specialisations:

- Art and iconography
- Material culture
- Architecture and urban studies
- Landscape archaeology
- Digital humanities
- Archaeological sciences
- Process of ‘Romanisation’

In addition to conducting research on the candidate’s proposed project, the successful applicant will teach one course per semester on an M.A. level based on his/her research (1 course = 12 weeks x 90 minutes of instruction per week). The courses might combine lecture (frontal teaching) and seminar (a course involving active interaction with the students); all courses are to be delivered in English. The applicant is also welcome to be involved in MA and PHD students' seminars (once in two weeks during the semester). The applicant is expected to publish results of the conducted research in at least three papers submitted in SCOPUS-ranked peer-reviewed journals.

The successful applicant is expected to move to the Czech Republic and actively participate in the everyday activities of the Institute in Prague, which provides a collegial and highly collaborative environment. We strongly believe in synergies between our projects. Should the collaboration be mutually satisfying, we will encourage the postdoctoral fellow to apply for additional project funding, thus securing continued involvement with our institute.

What do we offer?
- The post includes a two-year contract in Prague (i.e. 2025 and 2026) under competitive financial conditions.
- Suitable conditions for your own research.
- Inclusion to the ongoing projects and activities of the Institute of Classical Archaeology.
- Teaching opportunities and students’ supervision.

Profile of an ideal candidate:
- Completed PhD degree (within the last 5 years since graduation).
- Excellent knowledge of English (FCE equivalent or better).
- Background in Classical archaeology or Mediterranean archaeology.
- High motivation and ability to conduct collaborative research.
- Previous participation in international projects is welcomed.
- Previous experience in teaching at an undergraduate and/or graduate level is welcomed.
- Due to tax specification, the candidate cannot be employed in any other country than Czech Republic in course of the postdoctoral period.

The applicants should submit:
All documents required by the Charles University’s Junior Fund
Cover letter introducing yourselves (max. 600 words).
Description of the proposed project (max. 1200 words).
Sample syllabi of two of the proposed lectures/seminars.

Salary: Equivalent to 2000 EUR/month
Workplace: Institute of Classical Archaeology, Charles University (Celetná 20, Prague 1)
Supervisor: Assoc. Prof. Jan Kysela, Ph.D.
E-mail: jan.kysela@ff.cuni.cz
Phone: +420 605954828
Position available from: January 1, 2025
Deadline for applications: July 3; all the applicants will be notified by July 15 and selected ones will be invited for online interview on July 23.

Applicants must submit required documents to: jan.kysela@ff.cuni.cz

[3] Title of the research project:

<table>
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<tr>
<th>MEDIEVAL STUDIES</th>
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The Centre for the Study of the Middle Ages is seeking a highly qualified international post-doc researcher who would join the interdisciplinary team of medievalists at the Centre for two years. Any competitive topic in the field of Medieval Studies is welcome. In addition to pursuing his or her own research agenda, the researcher will take active part in the Centre’s endeavours. 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.

What do we offer?
- The post includes a two-year contract in Prague (i.e., 2025 and 2026)
- Participation in the ongoing projects of the Centre for the Study of the Middle Ages (css.ff.cuni.cz)
- Teaching opportunities in relevant courses
- Training in Digital Humanities connected to the project work

Profile of an ideal candidate:
- Ph.D. degree in field relevant for Medieval Studies such as medieval history, philosophy, literature and languages, latin studies, art history, archaeology, musicology etc. (less than 5 years since graduation)
- Research interest and publication track record
- Experience in Digital Humanities is welcome
- Teaching experience is welcome
- Excellent knowledge of English (FCE equivalent or better)
- Strong research skills, creativity, motivation and ability to participate in large research networks
- Due to tax specification, the candidate cannot be employed in any other country than Czech Republic in course of the postdoctoral period

The applicants should submit:
All documents required by the Charles University’s Junior Fund
Research proposal (max. 5 standard pages)
Sample syllabi of two proposed courses/seminars

Salary: Equivalent to 2000 EUR/month
Workplace: Faculty of Arts, Charles University
Supervisor: Prof. Mgr. Lucie Doležalová, Ph.D. / Prof. PhDr. Jan Čermák, CSc. / Doc. PhDr. Tomáš Klír, Ph.D.
E-mail: tomas.klir@ff.cuni.cz
Phone: +420 221 619 306
Position available from: January 1, 2025

Deadline for applications: 15. 7. 2024
Applicants must submit required documents to: tomas.klir@ff.cuni.cz

[4] Title of the research project:

<table>
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<tr>
<th>MODERN GREEK LITERATURE</th>
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Description of the project: The Institute of Greek and Latin Studies (Faculty of Arts, Charles University) is seeking a highly qualified international postdoctoral researcher to work on modern Greek literature in the comparative perspective of Balkan literatures. Particularly desirable are topics dealing with the reflection of modern Greek and Balkan history, especially the question of Greek identity, social crises and conflicts, in modern Greek literature. In addition to his/her own research agenda, the researcher will actively participate in the activities of the Institute.

What do we offer?
- A two-year contract in Prague (i.e. 2025 and 2026).
- Cooperation with colleagues at the Institute of Greek and Latin Studies (or other Institutes of the Faculty of Arts), especially those involved in the project Beyond security: The role of conflict in building resilience (CoRe) and in the University Research Centre Language, Image, and Gesture: Forms of Discursivity.
- Teaching opportunities in relevant courses.
Profile of an ideal candidate:
- Ph.D. degree in the field of Modern Greek Literature or Comparative Literature (less than 5 years since graduation).
- Research interest and publication track record.
- Teaching experience.
- Excellent knowledge of English (FCE equivalent or better).
- Strong research skills, creativity and motivation.
- Due to tax specification, the candidate cannot be employed in any other country than Czech Republic in course of the postdoctoral period.

The applicants should submit:
- All documents required by the Charles University’s Junior Fund.
- Research proposal (max. 5 standard pages).
- Salary: Equivalent to 2000 EUR/month
- Workplace: Faculty of Arts, Charles University
- Supervisor: PhDr. Konstantinos Tsivos, Ph.D. / doc. Lucie Pultrová, Ph.D.
- e-mail: konstantinos.tsivos@ff.cuni.cz / lucie.pultrova@ff.cuni.cz
- Phone: +420-776 211 740 / +420-777 008 525
- Position available from: January 1, 2025
- Deadline for applications: July 15, 2024
- Applicants must submit required documents to: konstantinos.tsivos@ff.cuni.cz

[5] Title of the research project:
SUMER TO BABEL: BABYLONIAN IDENTITY AND
THE RECEPTION OF MESOPOTAMIAN COLLECTIVE
MEMORY

Description of the project: Scholars of ancient Mesopotamia have long recognized the continuity of its religious and
intellectual traditions. Even in the twilight of cuneiform culture in the Hellenistic Age, Babylonian specialists copied
sources of ancient Mesopotamian history and folklore, from fantastic tales of kings like Gilgamesh and Sargon of Agade,
to more mundane accounts of the past in king lists, chronicles, and royal inscriptions. They also continued to study
Sumerian texts and performed rituals with Sumerian incantations, even as Sumerian died out as a vernacular language.
However, very few elements of this ancient past were retained after the extinction of cuneiform as a written medium.
Polities such as Sumer and Akkad, now considered foundational to world history, were essentially forgotten until the
advent of modern archaeology, and even figures pivotal to the rise of Babylon like Hammurapi had faded from collective
memory.

This project will explore this paradoxical reception (or rather, lack of reception) of the Mesopotamian remote antiquity
by exploring its conceptions according to the last custodians of cuneiform culture, as well as in classical, biblical, and
Late Antique histories that had no direct access to cuneiform sources. In particular, it will explore the work of Hellenized
Babylonian historian Berossos as a conduit between cuneiform-literate and cuneiform-illiterate communities, as it was
informed by the former community and disseminated among the latter. Moreover, it will contextualize the reception
of these sources in the conditions of the Mesopotamian cityscape as encountered in archaeology and contemporary
literature, thereby contrasting the way history was recounted in texts versus the way it was encountered in daily life.
This project will also consider the dissemination of alternative historical traditions through text and the oral tradition,
particularly as the cuneiform tradition became more and more restricted to a small temple elite.

What do we offer?
- Teaching opportunities in relevant courses;
- Participation in the ongoing projects of the Institute
- The post includes a two-year contract in Prague (January 2025 – December 2026)

Profile of an ideal candidate:
- Ph.D. degree in field relevant for ancient Near Eastern studies (philology, history, archaeology, religion)
- Research interest and publication track record in the relevant field
- Teaching experience is welcome
- Excellent command of English (FCE equivalent or better)
- Strong research skills, creativity, motivation and ability to participate in research networks
- Due to tax specification, the candidate cannot be employed in any other country than Czech Republic in course of the post-doc period

The applicants should submit:
- All documents required by the Charles University’s Junior Fund
- Research proposal (max. 5 standard pages)
- Sample syllabi of two proposed courses/seminars
Salary: Equivalent to 2000 EUR/month  
Workplace: Institute of Ancient Near Eastern Studies (Faculty of Arts, Charles University), https://uspv.ff.cuni.cz  
Supervisor: Prof. PhDr. Jana Mynářová, Ph.D. (Head of the Institute)
E-mail: jana.mynarova@ff.cuni.cz  
Phone: +420 221 619 751  
Position available from: January 1, 2025  
Deadline for applications: 15. 7. 2024  
Applicants must submit required documents to: jana.mynarova@ff.cuni.cz (project supervisor)

Title of the research project: TOWARDS A CONTRASTIVE FUNCTIONAL GRAMMAR FOR NON-NATIVE LEARNERS: TACKLING THE FUNCTION IN SLAVIC LANGUAGES

Description of the project: The Institute of Ancient Near Eastern Studies is seeking a highly qualified international post-doc researcher in the field of linguistics and/or Czech/Slavic Studies. The researcher is expected to focus on the theoretical framework for comparative functional grammar for non-native learners of Czech and Polish. The main research task will be description of grammatical means in terms of their communicative functions. The researcher should be ready to take part in the activities and ongoing projects of the Institute, especially in the organisation of workshops and conferences in 2026. The successful candidate is expected to carry out independent research and teach two courses per semester in English. At the level of the research, the researcher is expected to publish at least one high quality article in a database journal during the project. Moreover, by the end of the project, the successful candidate will be encouraged to apply for a research grant (to be further discussed with the host institution) to continue our collaboration.

What do we offer?  
• Teaching opportunities in relevant courses

Profile of an ideal candidate:  
• Ph.D. degree in linguistics, corpus linguistics or Czech/Slavic studies (less than 5 years since graduation)  
• Research interest and publication track record particularly in the field of linguistics and Slavic Studies  
• Strong background in linguistics and Czech/Slavic studies  
• Teaching experience is welcome  
• Excellent knowledge of English (FCE equivalent or better)  
• Strong research skills, creativity, motivation and ability to participate in large research networks  
• Due to tax specification, the candidate cannot be employed in any other country than Czech Republic in course of the postdoctoral period

The applicants should submit:  
All documents required by the Charles University’s Junior Fund  
Research proposal (max. 5 standard pages)  
Sample syllabi of two proposed courses/seminars
Salary: Equivalent to 2000 EUR/month  
Supervisor: Prof. PhDr. Jana Mynářová, Ph.D. (Head of the Institute)
E-mail: jana.mynarova@ff.cuni.cz  
Phone: +420 221 619 751  
Position available from: January 1, 2025
Deadline for applications: 15. 7. 2024  
Applicants must submit required documents to: jana.mynarova@ff.cuni.cz (project supervisor)

Title of the research project: CORPUS APPROACH TO SIGN LANGUAGE RESEARCH

Description of the project: The Institute of Ancient Near Eastern Studies is seeking a highly qualified international post-doc researcher in the field of linguistics of sign languages. The researcher is expected to focus on the theory of sign language and employ a corpus approach to analyse Czech Sign Language. The main research task will be the description of the variability of Czech Sign Language. The researcher should be ready to take part in the activities and ongoing projects of the Institute, especially in the organisation of workshops and conferences in 2026.

The successful candidate is expected to carry out independent research and teach two courses per semester in English or International Sign System. At the level of the research, the researcher is expected to publish at least one high quality article in a database journal during the project. Moreover, by the end of the project, the successful candidate will be encouraged to apply for a research grant (to be further discussed with the host institution) to continue our collaboration.

What do we offer?  
• Teaching opportunities in relevant courses

Profile of an ideal candidate:  
• Ph.D. degree in linguistics, corpus linguistics or Czech/Slavic studies (less than 5 years since graduation)  
• Research interest and publication track record particularly in the field of linguistics and Slavic Studies  
• Strong background in linguistics and Czech/Slavic studies  
• Teaching experience is welcome  
• Excellent knowledge of English (FCE equivalent or better)  
• Strong research skills, creativity, motivation and ability to participate in large research networks  
• Due to tax specification, the candidate cannot be employed in any other country than Czech Republic in course of the postdoctoral period

The applicants should submit:  
All documents required by the Charles University’s Junior Fund  
Research proposal (max. 5 standard pages)  
Sample syllabi of two proposed courses/seminars  
Salary: Equivalent to 2000 EUR/month  
Supervisor: Prof. PhDr. Jana Mynářová, Ph.D. (Head of the Institute)
E-mail: jana.mynarova@ff.cuni.cz  
Phone: +420 221 619 751  
Position available from: January 1, 2025  
Deadline for applications: 15. 7. 2024  
Applicants must submit required documents to: jana.mynarova@ff.cuni.cz (project supervisor)
article in a database journal during the project. Moreover, by the end of the project, the successful candidate will be
couraged to apply for a research grant (to be further discussed with the host institution) to continue our collaboration.

**What do we offer?**
- Teaching opportunities in relevant courses
- The post includes a two-year contract in Prague (i.e., 2025 and 2026) under competitive financial conditions;
- Training in using corpus methods in analysis.

**Profile of an ideal candidate:**
- Ph.D. degree in linguistics, corpus linguistics or sign language pedagogy (less than 5 years since graduation)
- Research interest and publication track record particularly in the field of linguistics and sign languages
- Strong background in linguistics and singing languages
- Teaching experience is welcome
- Excellent knowledge of English (FCE equivalent or better)
- Strong research skills, creativity, motivation and ability to participate in large research networks
- Due to tax specification, the candidate cannot be employed in any other country than Czech Republic in course of
  the postdoctoral period

The applicants should submit:
- All documents required by the Charles University’s Junior Fund
- Research proposal (max. 5 standard pages)
- Sample syllabi of two proposed courses/seminars

**Salary:** Equivalent to 2000 EUR/month

**Workplace:** Institute of Czech and Deaf Studies (Faculty of Arts, Charles University): [https://ubn.ff.cuni.cz/](https://ubn.ff.cuni.cz/)

**Supervisor:** Mgr. Adrian Jan Zasina, Ph.D. (Head of the Institute)

**E-mail:** adrian.zasina@ff.cuni.cz

**Phone:** +420 221 619 262

**Position available from:** January 1, 2025

**Deadline for applications:** July 7, 2024

Applicants must submit required documents to: adrian.zasina@ff.cuni.cz (project supervisor)

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**Title of the research project:**

<table>
<thead>
<tr>
<th>BORDER STUDIES WITHIN CENTRAL EUROPEAN AND BALKAN REGIONS</th>
</tr>
</thead>
</table>

Description of the project: Institute of Ethnology and Central European and Balkan Studies is seeking a qualified postdoctoral researcher oriented towards high quality research in border studies, focusing on the Central European and Balkan regions.

The conceptual understanding of borders has recently undergone significant changes. Following the processual shift in the 1990s, there has been an increasing necessity to critically analyze and reevaluate the current state of the debate surrounding the concept of borders. The concept of borderscape has significantly contributed to this discussion, as it connects the spheres of high politics with the domain of communities and individuals who are affected by and negotiate it. The current border studies are closely tied to an ethnological/anthropological perspective through which the border is conceived both as a place where the sovereignty of the state ends (where cross-border culture has been historically instrumentalized for national political purposes), and as a place of cross-border relations and opportunities that lead to the transformation of national culture and to new (non-national) forms of identity emerging. The border also becomes a place to study the power relations between the state and its citizens, in which case it is seen as a place of conflict and tension where various illegal activities and migrations take place. However, borders are studied also from the bottom up, with a focus on the border narratives and experiences of individuals and their local border knowledge.

The project is expected to focus on the topics that form part of aforementioned research areas from an anthropological perspective, with an emphasis on the Central European and Balkan regions. The researcher is expected to publish at least one high-quality article in a database-indexed journal per academic year, take part in teaching at the Institute of Ethnology and Central European and Balkan Studies with one course per semester, and actively collaborate with the researchers from the project Between "East" and "West" – border experiences and narratives on the Czech-Slovak and Slovak-Ukrainian state borders in which the Faculty of Arts Charles University is a co-investigator.

**What do we offer?**
- Teaching opportunities in relevant courses;
- The post includes a two-year contract in Prague (i.e., 2025 and 2026) under competitive financial conditions;
- Participation in the ongoing projects of the Institute Between "East" and "West" – border experiences and narratives on the Czech-Slovak and Slovak-Ukrainian state borders.

**Profile of an ideal candidate:**
- Completed Ph.D degree in anthropology/ethnology (max. 5 years since its award);
- Excellent command of English;
- Proficiency in at least one additional language relevant to the Central European and Balkan region (e.g., German, Hungarian, Polish, Serbian, Croatian, Bulgarian, Romanian, Albanian, etc.).
- Ability to carry out collaborative research;
- Teaching experience is welcome;
- Due to tax specification, the candidate cannot be employed in any other country than the Czech Republic in course of the postdoctoral period).

The applicants should submit:
- All documents required by the Charles University’s Junior Fund
- Research proposal (max. 5 standard pages)
- Sample syllabus of one proposed course/seminar
- Salary: Equivalent to 2000 EUR/month
- Workplace: Institute of Ethnology and Central European and Balkan Studies
- Supervisor: PhDr. Adam Horálek, Ph.D.
- E-mail: adam.horalek@ff.cuni.cz
- Phone: (+420) 221619623
- Position available from: January 1, 2025

Deadline for applications: 15. 7. 2024
Applicants must submit required documents to: adam.horalek@ff.cuni.cz

Faculty of Science

[1] Title of the research project:

| SYNTHEZITING CATALYST IN SILICO: NEURAL NETWORK POTENTIALS FOR REACTIVE RARE EVENT SIMULATION VIA DATA-DRIVEN COLLECTIVE VARIABLES |

Project:
Heterogeneous catalysis is heavily used in industry and is pivotal in our efforts to make chemical processes greener and more efficient. Direct experimental identification of the catalytically active sites and reaction mechanisms in heterogeneous catalysts is challenging, hindering the ability to design catalysts for particular application [1]. Our recent work [2-3] on microporous zeolitic catalysts using biased ab initio molecular dynamics highlighted the fluctuation nature of the catalyst surface, challenging the conventional view of these catalysts as being static under solvation. However, achieving such computational results for realistic catalytic systems is either extremely costly using ab initio treatments only or is plainly unattainable due to unsuitability/unreliability of available empirical force fields. These are the reasons for the continuing Maddox “scandal”, i.e., that it still remains impossible to predict the structure of even the simplest crystalline solids from first principles based only on a knowledge of their chemical composition. Therefore, the methodological objectives of the project are:

a) Develop and/or fine-tune general machine learning potentials (MLPs), that will accelerate exploration of catalyst configurational space by few orders of magnitude while retaining ab initio accuracy. This will include the adoption and development of various active learning strategies, allowing for continuous improvement of MLPs, as well as deployment of the delta-learning approach for improvement of the MLP accuracy for the systems and/or reactions of interest. Importantly, we have already made a significant progress along this direction [4-5], providing important use cases on how this aim can be realized.

b) Develop and fine-tune data-driven bias-free dimensionality reduction schemes in which the good collective variables accelerating rare events, i.e., chemical reactions, will be selected automatically. Starting with a few known configurations (final catalyst, initial reaction mixture or some stable long-living intermediate), this scheme will allow us to effectively explore optimal low-dimensional representation of catalyst configuration space focusing on the most likely (trans)formation paths. It will enable routine open-ended searches of complex (trans)formation in catalytic systems resolving metastable configurations and overcoming the barriers between them. Again, we have already made a significant progress along this direction [6-7], providing important use cases on how this aim can be realized. These new tools will enable predicting structures of catalysts from a knowledge of their chemical composition and synthesis conditions. The successful candidate will be able to build on accumulated knowledge base in our group both with respect to development of machine learning potentials and generation of data-driven collective variables. The main application side of the project is to showcase this general-purpose approach on an industrially extremely important class of catalysts with a particularly challenging configurational space, the zeolites. The grand application challenge will be the realistic atomic-level modelling of zeolite synthesis, a long-standing unresolved problem with many competing hypotheses. By charting the configurational space of transformation process from reaction mixture to a zeolite framework the successful applicant will not only settle the long-standing debate but will open new routes to novel or improved zeolitic materials by modifying existing synthetic procedures.
The development and application of oxide-supported metal single atom and small cluster nanocatalysts has seen a surge of interest in recent years, due to high specific activity, and improvements in synthetic and characterization techniques. Nevertheless, in situ characterization, and in the case of catalytic processes, operando characterization remains limited, due to the small size, high fluctuation and complexity of the system. This hinders the goal of knowledge-led, targeted synthesis of novel catalytic nanomaterials for future scientific and industrial purposes. Computational characterization has similarly been hindered by the high computational expense of calculating the electronic structure of metals, a lack of proper sampling of possible structures, the dynamic reconstruction of the system under reactive stress, and the limited realism of model systems.[1] This limitation can be lifted by acceleration of simulations via machine learning methods, which we have developed in recent years.

This work will involve big data-driven representations. In: *Chemical Society Reviews* (IF=40.1), 22, 8307-8348

Existing collaborations related to the topic:
1. Rafael Gomez-Bombarelli (MIT, US) - supported by the MIT Global Seed Fund
2. Ben Slater (UCL, UK) - supported by the Johnson Matthey company
3. Sharon Ashbrook and Paul Wright (St. Andrews University, UK) - supported by the Johnson Matthey company
4. Alexander O'Malley (University of Bath, UK)
5. Tereza Blasco (ITQ, Valencia, Spain)
6. Joachim Sauer (Humboldt University, Berlin, Germany)

**Qualifications:**
Required - PhD. in Chemistry, Physics, Material Science or a related field; good knowledge of English; experience in programming (ideally Python or similar)
Advantageous, but not required - background in Machine Learning, Statistics, Statistical Mechanics and Quantum Chemistry/Physics; experience with molecular simulations, high-performance computing (including GPU accelerated one) and Linux.

**Salary:** co-founding 1000 EUR/month is ensured

**Co-founding resources:** Department of physical and macromolecular chemistry budget

**Department:** Department of physical and macromolecular chemistry

**Supervisor:** Assoc. Prof. Lukáš Grajciar

**E-mail:** lukas.grajciar@natur.cuni.cz

**Phone:** +(420) 221 95 1298

**Position available from:** January 1, 2025

**Deadline date for applications:** 24th July, 2024

Applicants must submit required documents to: lukas.grajciar@natur.cuni.cz (project supervisor) and in a copy to pavla.pouskova@natur.cuni.cz (International Department)

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**Project:**

**ACCURATE ML MODELLING OF SUPPORTED METAL NANOALLOY CATALYSTS IN OPERANDO: FROM ATOMISTIC STRUCTURE TO LONG-TERM KINETICS**

The development and application of oxide-supported metal single atom and small cluster nanocatalysts has seen a surge of interest in recent years, due to high specific activity, and improvements in synthetic and characterization techniques. Nevertheless, in situ characterization, and in the case of catalytic processes, operando characterization remains limited, due to the small size, high fluctuation and complexity of the system. This hinders the goal of knowledge-led, targeted synthesis of novel catalytic nanomaterials for future scientific and industrial purposes. Computational characterization has similarly been hindered by the high computational expense of calculating the electronic structure of metals, a lack of proper sampling of possible structures, the dynamic reconstruction of the system under reactive stress, and the limited realism of model systems.[1] This limitation can be lifted by acceleration of simulations via machine learning methods, which we have developed in recent years.

**Overview:** The project will combine the development and application of machine learning-based simulation methods to probe the nature of oxide-supported catalytic (sub)-nanoscale metal clusters and single atom catalysis under *Operando* conditions, going beyond traditional limitations of timescale and complexity. This work will involve big data-driven atomistic investigations of dynamical and reactive processes, via unbiased structure sampling techniques, accelerated reactive free energy methods, and experimental characterization, to bridge the materials gap, in combination with experimental support.

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**Title of the research project:**

**ATOMIC STRUCTURE TO LONG-TERM KINETICS**

**ACCURATE ML MODELLING OF SUPPORTED METAL NANOALLOY CATALYSTS IN OPERANDO**
The objectives of the work are threefold:

a) Development and refinement of state of the art, multi-elemental equivariant neural network-based interatomic potentials (NNIP), taking into account electronic structure, charge, spin and variable oxidation states on noble mono- and binary metallic and metal-oxo clusters, in addition to relevant surface and environmental conditions, (including water, common poisons, and reactant/product species for selected catalytic processes). This task will include the implementation of active, delta and transfer learning techniques that have been developed within the group in recent years[6-7].

b) Implementation of an ML-driven kinetic modelling pipeline, including self-learning kinetic Monte Carlo, in order to bridge the time gap and connect stable configurations to long time kinetic stability/aging of selected nanocatalysts under operando conditions.

c) Application of trained NNIP (in support of PhD and masters students) towards: i) unbiased global structure elucidation and energy landscape characterization under realistic and reactive environments, for mono and binary metal/metal oxo particles in the single atom to 2 nm size range, ii) dynamical modelling of particle migration, growth and deactivation pathways under reactive stress on complex supports (oxidation/reduction environments), iii) catalytic reaction pathway investigation and tuning for archetypal thermocatalytic oxidation/reduction chemistry (e.g. C₂H₂ partial oxidation, CO₂ reduction) via NNIP free energy simulation techniques. This will be performed alongside direct two-way collaboration with experimental collaborators for tuning of potentials, prediction of properties, screening and characterization of catalytically relevant particles via various techniques (e.g. XPS, LEED-IV, EXAFS, HRTEM, TOF-MS).

Ultimately, the tools developed in this work will allow for an unprecedented degree of atomistic understanding of a valuable and growing class of nanomaterials, along with direct application towards truly rational catalyst design at the atomic level. These tools will be made available for generalization to other nanomaterials for extended implementation in the field. The successful candidate will be able to build on accumulated knowledge base in our group, both with respect to development of machine learning potentials and application of computational methods towards experimental catalytic applications.

Publications of research group related to this topic:


Existing collaborations related to the topic:

1. Nanocatalysis group (Prof. Stefan Vajda – Heyrovsky Institute, Czech Academy of Sciences)

2. Collaboration network within COST Action – COSY (COST CA201101)

3. Prof. David Wales (Cambridge)

4. Gareth Parkinson (TU Wien)

Qualifications:

*Required* - PhD. in Chemistry, Physics, Material Science or a related field; good knowledge of English; experience in programming (ideally Python or similar) and molecular/materials modelling.

*Preferred* - background in Machine Learning, Statistics, Statistical Mechanics, Quantum Chemistry/Physics, solid state physics; experience with high-performance computing (including GPU accelerated) and Linux.

Salary: co-founding 1000 EUR/month is ensured

Co-founding resources: 1000 EUR/month is ensured

Co-founding 1000 EUR/month is ensured

Department: Department of physical and macromolecular chemistry budget

Supervisor: Assist. Prof. Christopher Heard

E-mail: heardc@natur.cuni.cz

Phone: +(420) 892 589 332

Position available from: January 1, 2025

Deadline date for applications: 24th July, 2024

Applicants must submit required documents to: heardc@natur.cuni.cz (project supervisor)

and in a copy to pavla.pouskova@natur.cuni.cz (International Department)
Title of the research project: EXPANDING OUR UNDERSTANDING ON THE MAJOR ASPECTS OF SEX CHROMOSOME EVOLUTION IN VERTEBRATES

Project:
Recent genomic studies revealed a large variability of sex chromosomes in vertebrates, and challenged the role of previously assumed general evolutionary drivers and other aspects of the sex chromosome differentiation process. The long-term plan of the team is to expand our knowledge and clarify the role of sexual antagonism, repetitive elements, chromosome rearrangements, gene dose regulatory mechanisms and function of sex determining loci in the differentiation rate of sex chromosomes, and to test traditional and novel hypothesis in a comparative phylogenetic framework, examining vertebrate lineages that independently co-opted the same genomic regions for the role of sex chromosomes. The ideal candidate should have solid working knowledge on bioinformatics with emphasis in genomics, transcriptomics and/or proteomics analysis. Previous working experience with vertebrates or the evolution of sex chromosomes is important, but not mandatory.

Salary: co-founding 1000 EUR/month is ensured
Co-founding resources: GACR project 23-07347S
Department: Dept. of Ecology, Faculty of Science, Charles University
Supervisor: Michail Rovatsos
E-mail: rovatsom@natur.cuni.cz
Phone: Position available from: January 1, 2025
Deadline date for applications: 24th July, 2024
Applicants must submit required documents to: Michail Rovatsos (rovatsom@natur.cuni.cz) and in a copy to pavla.pouskova@natur.cuni.cz (International Department)

Title of the research project: DEVELOPMENT OF ADVANCED NMR METHODS USING OPTIMAL CONTROL AND ARTIFICIAL INTELLIGENCE

Project:
We are an international research group focusing on the development of advanced solid-state NMR experiments through computer optimizations. In solid-state NMR, structural information is obtained from correlations between atoms established via intriguing interplay of radiofrequency pulses and fast sample rotation, which modulates orientation dependent anisotropic interactions. By application of optimal control theory, we have demonstrated a significant enhancement in the sensitivity of each magnetization transfer step within high dimensional experiments essential for resonance assignment in protein applications, with gains on the order of x2-3 per transfer.

We are looking for a postdoctoral fellow to carry on the quest to improve the sensitivity and ease of use of magnetic resonance spectroscopy.

The proposed project aims to mitigate the adverse effects of hardware properties of (ultra)fast-spinning MAS probes, including spatial rf field distributions and pulse transients. Computer optimizations will use adaptive algorithms accounting for multi-spin effects in proton dipolar networks. Innovative techniques will exploit the concept of sensitivity enhancement via coherence order transfers in multidimensional correlation experiments. Implementing non-traditional transfers will require new data processing techniques, supported by artificial intelligence and machine learning algorithms, to streamline the interpretation of spectroscopic data.

Depending on the primary interest of the candidate, the research will be carried out in close collaboration with the groups of Bernd Reif, Technical University of Munich, Germany (focusing on biological samples), or Niels Chr. Nielsen, Aarhus University, Denmark (focusing on pulsed DNP), or Jiří Čejka, Charles University, Prague (focusing on NMR of zeolites). Interested candidates should have a solid background in either physical chemistry, quantum mechanics, or math. Theoretical and practical experience with NMR will be an advantage. Competitive remunerations are offered.

Applications to MSCA fellowships will be supported

References:
Salary: co-founding 1000 EUR/month is ensured
Co-founding resources: NMR laboratory, Chemical section, GAČR 24-13437L
Department: Department of physical and macromolecular chemistry
Supervisor: RNDr. Zdeněk Tošner, Ph.D.
E-mail: zdenek.tosner@natur.cuni.cz
Phone: +420 221 95 1323
Position available from: January 1, 2025
Deadline date for applications: 24th July, 2024
Applicants must submit required documents to: zdenek.tosner@natur.cuni.cz (project supervisor) and in a copy to pavla.pouskova@natur.cuni.cz (International Department)

Title of the research project:
AMPHILIC PEPTIDOMIMETICS CONTAINING METALLACARBORANES AS A DESIGN STRATEGY FOR FUTURE ANTIBIOTICS

The rise of multi-drug resistant (MDR) pathogens poses a serious threat to global public health, underscoring the urgent need for new antimicrobial agents. This research aims to innovate in this field by exploring boron-based compounds to discover new classes of antibiotics. Our project focuses on creating novel materials by integrating cationic amphiphilic polypeptides with boron clusters (BCs), optimizing them for antimicrobial applications. This study involves the synthesis and detailed characterization of these functionalized polypeptides and their conjugates with BCs. We will conduct a thorough investigation of their self-assembly behavior in solutions and perform a systematic analysis to understand how the architecture of these polymers affects their solubility, self-assembly, and antimicrobial activity. The effectiveness of these BC-conjugated polypeptides as potent antibiotics will be assessed through interactions with model lipid membranes and extensive biological testing in collaboration with international partners.

This research offers a unique opportunity for postdocs to contribute to a critical area of public health by developing innovative antimicrobial strategies and addressing the urgent challenge of MDR pathogens.

References:

Salary: co-founding 1000 EUR/month is ensured
Co-founding resources: Soft Matter Group, Department of Physical and Macromolecular Chemistry
Department: Department of Physical and Macromolecular Chemistry, Faculty of Science
Supervisor: Mariusz Uchman, Ph.D.
E-mail: uchman@natur.cuni.cz
Phone: +420 221 951 292
Position available from: January 1, 2025
Deadline date for applications: July 20, 2024
Applicants must submit required documents to: uchman@natur.cuni.cz (project supervisor) and in a copy to pavla.pouskova@natur.cuni.cz (International Department)

Faculty of Mathematics and Physics

[1] Title of the research project:

PURE AND APPLIED MATHEMATICS

Applications are invited for a postdoc position at School of Mathematics, Faculty of Mathematics and Physics, Charles University in Prague, Czech Republic. The position is for two years starting from January 1, 2025.

We are looking for strong candidates in any area mathematics, including logic and algebra (broadly interpreted), number theory, geometry, harmonic analysis, functional analysis, ordinary and partial differential equations and dynamical systems, descriptive set theory, mathematical modelling, numerical analysis, high-performance computing, stochastics, econometrics, financial mathematics, machine learning/artificial intelligence with applications in continuum thermodynamics / theory of partial differential equations.
The candidate has to have PhD in the relevant area not longer than 5 years and he/she cannot be the holder of the citizenship of the Czech Republic. More details at https://cuni.cz/UKEN-178.html

**Workplace:** School of Mathematics, Faculty of Mathematics and Physics, Charles University, Sokolovská 83, Prague  
**Contact person:** Pavla Kučerová  
**E-mail:** kucerova@karlin.mff.cuni.cz  
**Position available from:** January 1, 2025  
**Deadline date:** July 15, 2024  

**Applicants must submit** required documents to: kucerova@karlin.mff.cuni.cz (project supervisor) and in a copy to ovzs@dekanat.mff.cuni.cz (faculty coordinator of the Junior Fund)

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**Title of the research project:**

| 2 | DYNAMICAL ASPECTS OF QUANTUM CRITICAL PHENOMENA |

**Post-doc position for a two-year period from 1 January 2025**  
Applications are invited for a postdoc position at the Institute of Particle and Nuclear Physics, Faculty of Mathematics and Physics, Charles University, Prague, Czech Republic. The position is for two years starting from 1 January 2025.

**Research Project**  
The quantum critical phenomena refer to abrupt changes in the properties of large systems as control parameters (like external fields or internal coupling strengths) vary. These phenomena have a major impact on areas of strong scientific interest, such as adiabatic quantum computing and quantum technologies. The criticality manifests itself in static and dynamical properties as nonanalyticities in the quantum level density and related quantities, in the quantum quench or driven dynamics, in the thermodynamics, or in the chaoticity of the system [1].  
This theoretical project will focus on studying the quantum criticality in the time domain of nonrelativistic quantum many-body systems. It will involve a detailed analysis of the complex-extended survival probability [2] in models of interacting spins and bosons with variable interaction range and strength in order to distinguish and characterise individual dynamical quantum phases. Further interesting aspects to explore is the influence of parity and parity breaking, the sensitivity on the choice of the initial state, and the dependence on the chaoticity of the dynamics. The theoretical conclusions will be accompanied by computer numerical simulations and visualised by appropriate tools and methods, such as Wigner or Husimi functions.

We are looking for a motivated and creative researcher with experience in theoretical quantum many-body physics, proven by a strong publication record in the relevant areas. The postdoc will join our small research group composed of senior and junior researchers. The candidate must have a PhD for not longer than 5 years and must not hold Czech citizenship.

**References:**  

**Workplace:** Institute of Particle and Nuclear Physics, Faculty of Mathematics and Physics, V Holešovičkách 2, Prague, Czech Republic  
**Contact person:** Pavel Stránský  
**e-mail:** pavel.stransky@matfyz.cuni.cz  
**Position available from:** 1 January 2025  
**Deadline date:** July 15, 2024  

**Applicants must submit** required documents to: pavel.stransky@matfyz.cuni.cz (project supervisor) and in a copy to ovzs@dekanat.mff.cuni.cz (faculty coordinator of the Junior Fund)

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**Title of the research project:**

| 3 | NANOSCOPIC SUPERCONDUCTING HYBRIDS |

Applications are invited for a postdoc position at School of Mathematics, Faculty of Mathematics and Physics, Charles University in Prague, Czech Republic. The position is for two years starting from January 1, 2025.

**Research Project**  
Nanoscopic superconducting hybrids such as quantum dots coupled to several superconducting and possibly also normal metal leads constitute a fascinating and timely research topic with a possible application to the emergent quantum technologies. Before the application stage, it is still necessary to understand the basic physical processes involved in their behavior in order to reliably model and design new hybrid devices to be used in the future quantum electronic circuits. Due to the relevance of many-body Coulomb interaction caused by miniscule dimensions of such hybrids such modelling constitutes a highly nontrivial theoretical task at the very edge of current capabilities.
We are looking for a postdoc in theoretical condensed matter physics with expertise in strongly correlated systems, ideally for nanoscopic superconducting hybrids, to join our team with ample experience in such modelling of nanoscopic superconducting hybrids supported by several national grants so far. The team on the Czech side consists of 4 experienced researchers (2 from the Department of Condensed Matter Physics of the Charles University and 2 from the Czech Academy of Sciences) and tightly collaborates with two Polish groups from Poznan and Lublin and more loosely with several groups in Germany, Slovenia, and Denmark.

Necessary requirements: knowledge of interacting impurity models and/or mesoscopic superconductivity, with methods ranging from (semi)analytical tools (many-body perturbation theory, renormalization group) to heavy numerics such as NRG or QMC. Ab-initio methods only are NOT sufficient prerequisite to join the project!

Workplace: Department of Condensed Matter Physics of the Charles University, Faculty of Mathematics and Physics, Charles University, Ke Karlovu 5, 121 16 Prague
Contact person: doc. RNDr. Tomáš Novotný, Ph.D.
E-mail: tomas.novotny@matfyz.cuni.cz
Position available from: January 1, 2025

Deadline date: July 15, 2024
Applicants should submit required documents to: tomas.novotny@matfyz.cuni.cz (project supervisor) and in a copy to ovzs@dekanat.mff.cuni.cz (faculty coordinator of the Junior Fund)

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Applications are invited for a postdoc position at School of Mathematics, Faculty of Mathematics and Physics, Charles University in Prague, Czech Republic. The position is for two years starting from January 1, 2025.

Research Project
Excited state energy transfer in molecular devices, solar cells and photosynthetic systems have been extensively studied over the past few decades by ultrafast non-linear spectroscopy. Most of the studies, both theoretical and experimental, have focused on the single-excitation regime. The higher-excited states, coupling to collective double-excitations states, play however also a significant role in photosynthesis, as they harvest non-negligible portion of the sunlight energy[1]. Recently, novel spectroscopic techniques became available that allow separation of single- and multi-excitation signals in spectroscopy[2]. The research project aims at formulating a theoretical description of the multi-excitation dynamics and the corresponding signatures in nonlinear spectroscopy. The project is predominantly theoretical, with application to particular available experimental data.


The applicants should have experience with open quantum systems dynamics applied to molecular excitons, and theory of nonlinear spectroscopy. A necessary condition is a Ph.D. degree in a relevant study area from a university outside Czech Republic, no more than 5 years after graduation.

Workplace: Institute of Physics of the Charles University, Faculty of Mathematics and Physics, Charles University, Ke Karlovu 5, 121 16 Prague
Contact person: Pavel Malý/Tomáš Mančal
E-mail: pavel.maly@matfyz.cuni.cz, tomas.mancal@matfyz.cuni.cz
Position available from: January 1, 2025

Deadline date: July 15, 2024
Applicants should submit required documents to: pavel.maly@matfyz.cuni.cz, tomas.mancal@matfyz.cuni.cz (project supervisors) and in a copy to ovzs@dekanat.mff.cuni.cz (faculty coordinator of the Junior Fund)

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[4] Title of the research project:

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<th>MULTI-EXCITATION DYNAMICS FOR NONLINEAR SPECTROSCOPY</th>
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<th>QUANTUM RESEARCH: ELECTRON TRAPPING</th>
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Research Project
The project focuses on developing a novel radio-frequency signal detection scheme using free electrons as detectors and laser-cooled ions for information read-out. The successful candidate will work on creating a quantum mechanically coupled system housed in a special ion trap to detect single photons of electromagnetic radiation. This project is high-risk-high-gain and involves pioneering research at the intersection of applied and fundamental sciences.

Objectives
- Develop an efficient and tunable radio-frequency signal detector using trapped electrons and laser-cooled ions.
- Design and fabricate planar trapping technology from scratch, including the development of circuit board materials.
- Advance the quantum-mechanical understanding of the coupled system to uncover additional avenues for signal information.

Qualifications
- Ph.D. in quantum optics, quantum chemistry, plasma physics, or a related field obtained within the last 5 years.
- Advanced programming skills for developing stand-alone programs, with proficiency in C++, Python, and adaptability to other languages as needed.
- Familiarity with automation, electronics design, lasers, CAD (Computer-Aided Design), and vacuum technology.
- Strong problem-solving abilities and a track record of high-quality research.

Workplace: Department of Surface and Plasma Science, Charles University, V Holešovičkách 2, Prague 8.
Contact Person: Dr. Michal Hejduk
Email: michal.hejduk@matfyz.cuni.cz
Position Available From: January 1, 2025
Deadline date: July 15, 2024
Applicants should submit required documents to: michal.hejduk@matfyz.cuni.cz (project supervisor) and in a copy to ovzs@dekanat.mff.cuni.cz (faculty coordinator of the Junior Fund).

Faculty of Education

[1] Title of the research project:

EDUCATIONAL AND SCHOOL PSYCHOLOGY

The Department of Psychology at our institution is dedicated to understanding the mechanisms of school learning and the underlying processes relevant to educational and school psychology. Our research encompasses various groups, including students, teachers, parents, and school psychologists, and covers topics such as cognition, communication, identity, and development.

We invite proposals for postdoctoral research projects that align with our department's focus and complement our existing research activities (for further information please see kps.pedf.cuni.cz). We encourage proposals that explore the needs of different groups of actors, identify critical areas, analyze changes, compare Czech and other national data, and/or test the effectiveness of learning, teaching, counseling, or diagnostic practices.

Possible areas of research include, but are not limited to:

What do we offer?
- Learning and metacognition
- Psychological factors in school success and failure
- Social climate in groups
- Parental regulation of risky behaviors, such as overuse of digital technologies
- Teacher professional development and self-reflection enhancement
- Psychological factors in the development of reading, writing, or mathematical skills
- Student well-being, belonging, and social identity
- Gender identity and sexual orientation
- Neurodiversity in education

We look forward to receiving innovative proposals that will advance our understanding and support the improvement of educational practices. We prefer proposals with a direct connection to current research projects running in the Department of Psychology.

Workplace: Department of Psychology, Faculty of Education, Charles University
Contact Person: doc. PhDr. Irena Smetáčková, Ph.D.
Email: irena.smetackova@pedf.cuni.cz
Position Available From: January 1, 2025

Deadline date: July 15, 2024
Applicants should submit required documents to: irena.smetackova@pedf.cuni.cz (project supervisor) and in a copy to eliska.smerdova@pedf.cuni.cz (faculty coordinator of the Junior Fund).

Faculty of Social Sciences

Title of the research project:

| 2 | Title of the research project: |

**PRE-PRIMARY AND PRIMARY EDUCATION**

The aim of the research is to provide rich and structured insights into children's (aged 5-10) understanding of society. The identification of these beliefs is crucial to the design and implementation of interventions in preschool and primary school curricula in the areas of learning about past and present society. These areas are part of the pre-school and primary school curriculum. However, little is known about contemporary children's preconceptions about society and how the curriculum must, therefore, be conveyed to them for effective learning to occur. A better understanding of this area may lead to interventions that will improve pupils' future education and develop their conceptual understanding of society more effectively.

We anticipate that the postdoctoral fellow will design research to investigate children's epistemic beliefs about fundamental aspects of society and conduct the study in the Czech Republic (in cooperation with the supervisor and other department members) and in another selected country. The postdoc is expected to build on the work of K. C. Barton, L. S. Levstik, A. L. Halvorsen, J. Brophy, J. Aleman, J. Hauver, C. N. Cassaithe and others.

Workplace: Department of Pre-primary and Primary Education
Contact Person: doc. PhDr. Jana Stará, Ph.D
Email: jana.stara@pedf.cuni.cz
Position Available From: January 1, 2025

Deadline date: July 15, 2024
Applicants should submit required documents to: jana.stara@pedf.cuni.cz (project supervisor) and in a copy to eliska.smerdova@pedf.cuni.cz (faculty coordinator of the Junior Fund).

**RESEARCH ON ONLINE EXTREMIST COMMUNITIES**

Men and boys are progressively exposed to international online extremist communities espousing extreme misogyny and anti-establishment views. Despite the contemporary emphasis on manospheric online communities, important challenges remain in harmonising different yet potentially complimentary theoretical frameworks and integrating allied measurements. Synthesising theoretical frameworks across diverse domains of scientific knowledge and integrating their related measures into a cohesive analytical model may subsequently lead toward a greater understanding of how and why such manospheric communities have and continue to develop. Additionally, it is important to translate a unique blend of theoretical knowledge with practical application.

A distinguishing feature of competitive applicant will be their ability to bridge academic research and real-world applications, translating complex theories and findings into actionable insights. This translational skill is crucial for generating policy-relevant insights to inform government policies or commercial products, such as emerging insights into counter violent extremism policy and practice. Applicants with a strong academic track record and at least some experience translating research into tangible outcomes, whether through policy recommendations, innovative strategies, and impactful projects, are highly encouraged to apply.

Workplace: Institute of Political Studies (Faculty of Social Sciences, Charles University)
Supervisor: doc. PhDr. Vít Střítecký, M.Phil., Ph.D.
Email: vit.stritecky@fsv.cuni.cz
Position available from: January 1, 2025 (24 months)
**Title of the research project:**

**THE DISCURSIVE CONSTRUCTION OF PEACE**

With Europe being more and more confronted with armed conflict at (and within) its borders, peace has become materially, but also conceptually elusive, often only negatively defined—as war’s opposite—without much substance. This project is embedded in the discursive-constructionist approaches to war (e.g., Jabri 1996) in order to study a particular conflict-related setting to better understand how peace is defined, as, for instance, an unreachable utopia or a legitimization of war.

**Workplace:** Institute of Communication Studies and Journalism (Faculty of Social Sciences, Charles University)

**Supervisor:** doc. Nico Carpentier, Ph.D.

**E-mail:** nico.carpentier@fsv.cuni.cz

**Position available from:** January 1, 2025 (24 months)

**Deadline for applications:** July 26, 2024

Applicants must submit required documents to nico.carpentier@fsv.cuni.cz

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**Title of the research project:**

**AFFECTIVE POLARIZATION IN THE TIMES OF EUROPEAN POLYCRISIS**

The current European landscape is marked by a series of interlinked crises, often referred to as a ‘polycrisis.’ These include economic instability, migration challenges, public health emergencies like the COVID-19 pandemic, climate change, and geopolitical tensions. Each of these crises has had profound impacts on European societies, political systems, and citizen behavior. Affective polarization, characterized by the growing emotional and social distance between political groups, has become a significant concern in this context. The project should aim to understand how these crises exacerbate affective polarization and how this polarization, in turn, affects democratic processes and social cohesion. We are searching for a post-doc candidate that would focus on the general topic of affective polarization in its complexity, but the candidate should eventually focus on specific aspects of this large phenomenon. The candidate is expected to be equipped with a strong theoretical and methodological background.

**Workplace:** Institute of Political Studies (Faculty of Social Sciences, Charles University)

**Supervisor:** doc. Michel Perottino, Ph.D.

**Email:** michel.perottino@fsv.cuni.cz

**Position available from:** January 1, 2025 (24 months)

**Deadline for applications:** July 26, 2024

Applicants must submit required documents to michel.perottino@fsv.cuni.cz

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**Title of the research project:**

**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 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. Furthermore, developing countries often hold different views about the appropriate form of international order, putting a greater emphasis on the principles of sovereignty and justice. Simultaneously, a part of the turbulent development can be attributed to social and ideological changes taking place in the developed countries. Last but not least, Russia’s invasion of Ukraine challenges the basic respect for the principles of collective security.
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.

**Workplace:** Institute of Political Studies (Faculty of Social Sciences, Charles University)  
**Supervisor:** doc. PhDr. Jan Karlas, Ph.D.  
**Email:** jan.karlas@fsv.cuni.cz  
**Position available from:** January 1, 2025 (24 months)  
**Deadline for applications:** July 26, 2024  
Applicants must submit required documents to jan.karlas@fsv.cuni.cz

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**Title of the research project:**

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<th>PSYCHOPHYSIOLOGICAL SIGNATURES OF DYSPAREUNIA IN WOMEN</th>
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Painful sexual intercourse is a common female sexual health problem (Binik, 2005). It is defined clinically under the term “dyspareunia,” and is often intermixed with vulvarvaginal pain (vulvodynia), clitoral pain (clitordynia), and painful spasms of the pelvic floor muscles surrounding the vagina (vaginismus). The pain can be superficial or deep, primary or secondary, generalized or specific, and lifelong or situational. Primary dyspareunia is diagnosed when the pain begins with any sensory stimulation of the genitilia, whereas secondary dyspareunia is diagnosed when pain develops after a period of non-painful genital stimulation. The prevalence of dyspareunia varies from 3 to 18% worldwide, and it can affect 10 to 28% of women during their lifetime (Bornstein et al., 2015). For a substantial number of women, the expectation of genital pain and associated hypervigilance, catastrophization, and anxiety, become a barrier to successful treatment, even after physiological root causes are removed (e.g., lichen planus, lichen sclerosis, psoriasis, proliferation of pain receptors (A? nerve fibers) in the clitoral sheath or vaginal introitus, inflammation of the vaginal mucosa, etc). A coherent understanding the basic psychological and cognitive nature of the anticipatory genital pain response is lacking in the literature. The proposed research for the postdoctoral position will utilize a comprehensive psychophysiological and cognitive battery of tests patterned after more classical neuropsychological assessments of head trauma, to establish a predictive psychophysiological “signature” of anticipatory dyspareunia that can be used for better assessment and treatment outcomes.

The postdoctoral position would be filled by a recent PhD in psychology or related discipline with an interest in female sexual health and dyspareunia, and some training in cognitive psychophysiological assessment tools. The candidate will use real-time psychophysiological measures of general arousal (electrodermal response and heart rate), genital arousal (photoplethysmography), and electroencephalography (EEG), along with subjective screening tools to measure sexual function (Female Sexual Function Index (FSFI)), catastrophizing (Pain Catastrophizing Scale (PCS-CF; PCS1)), pain-related fear (Pain Anxiety Symptoms Scale-20 (PASS-20)), and hypervigilance to pain during intercourse (Pain and Vigilance Awareness Questionnaire (PVAQ)), interoceptive awareness (Multidimensional Assessment of Interoceptive Awareness), and alexithymia (TAS-20). These will be measured in populations of both dyspareunic (consisting of the three subtypes) and non-dyspareunic women (N=40 per condition), before and after exposure to visual sexual stimuli depicting vaginal penetration with either a partner or a toy. These depictions will be presented on a computer screen set up for cognitive assessments of eye-tracking with the primes presented for 5 sec, followed by a blank screen for 10 sec. Sexual pain will be either explicit or implicit (penetration + pain expression vs. penetration + neutral expression). Participants will fill out subjective scales before and after the visual stimulus presentations. Questions to be addressed are:

1) Does low interoception compromises sexual stimuli processing?  
2) Does low interoception induce a low sexual concordance? We know the opposite is true, that good interoceptive abilities facilitate sexual concordance.  
3) Does low sexual concordance impact on perceived pain?  
4) Does the improvement in interoception ameliorate the sexual concordance? May improved sexual concordance reduce pain?  
5) Do women exhibit a generalized attentional bias on pain-related information (e.g., shifting attention away or orienting attention toward pain)?  
6) Is the attentional bias correlated to other factors (such as interoception awareness, fear of pain, catastrophising) in women with dyspareunia relative to non-dyspareunic women?
The specific instruments utilized are part of a collaborative psychophysiological test battery that is being set up at the Center for Sexual Health and Interventions of the Czech National Institute of Mental Health in Klecany. Specific requirements set by the Department of Psychology and Life Sciences FHS UK:

The postdoctoral candidate will be able to work independently and will bring new experience and ideas to our team. The candidate should have reasonable experience with, and workable knowledge of, the psychophysiological, cognitive, and subjective measurement techniques, along with behavioral observation skills and advanced training in statistical analyses.

Faculty: Faculty of Humanities
Department: Department of Psychology and Life Sciences
Supervisor: James G. Pfaus, PhD., IF (assist: Kateřina Klapilová, PhD., ECPS)
E-mail: jim.pfaus@fhs.cuni.cz, katerina.klapilova@fhs.cuni.cz

Deadline date: July 22, 2024
Position available from: January 1, 2025
Submit applications with all other documents to Research Administration Office: veda@fhs.cuni.cz (CC: jim.pfaus@fhs.cuni.cz, katerina.klapilova@fhs.cuni.cz)

Title of the research project:

|2| DIGITAL ANTHROPOLOGY (WITH FOCUS ON GENAI)

We invite applications for a 2-year postdoctoral researcher position specializing in digital anthropology with a focus on generative AI (GenAI) at the Faculty of Humanities, Charles University in Prague, Czech Republic. This position offers the opportunity to join a young, dynamic, and interdisciplinary team within the AI Institutional Transformation Research Group.

Project Scope: The successful candidate will conduct a project that investigates the social, cultural, and institutional dimensions of GenAI technologies. The project should provide in-depth analysis and empirical evidence of how GenAI systems impact human experiences, social dynamics, and cultural practices across various domains. Potential research areas may include, but are not limited to, the influence of GenAI on creativity, labor, education, communication, and social inequalities. Ethical aspects of GenAI, such as fairness, transparency, and the equitable distribution of benefits and risks, may be integral to this research.

Candidate Profile: We seek a candidate with a Ph.D. in social/cultural anthropology, ethnology, cultural studies, science and technology studies (STS), sociology or related fields. The candidate should have a strong background in digital anthropology with experience in anthropological fieldwork, including online and offline ethnography. Expertise in the study of AI, particularly GenAI, and its sociocultural implications is highly desirable. A working knowledge of GenAI technology and its applications in various domains are expected. Previous teaching experience and excellent English skills are desired.

Benefits of the Position: As a member of our team, the postdoc will gain professional development opportunities, including publishing and presenting in high-profile venues and being involved in teaching activities (one course per semester). You will work in a collegial and supportive environment. We are an equal opportunity employer and strongly encourage applications from underrepresented groups in academia. We are committed to fostering a diverse and inclusive academic community.

Faculty: Faculty of Humanities
Department: Department of Social and Cultural Anthropology
Supervisor: Mgr. Martin Heřmanský, Ph.D.
E-mail: martin.hermansky@fhs.cuni.cz

Deadline date: July 22, 2024
Position available from: January 1, 2025
Submit applications with all other documents to Research Administration Office: veda@fhs.cuni.cz (CC: martin.hermansky@fhs.cuni.cz)

Title of the research project:

|3| SECULAR FUNERAL RITES, GRIEF, MARTYRDOM AND COMMEMORATIVE PRACTICES
The Department of Historical Studies at the Faculty of Humanities invites applications for a postdoctoral fellow in the research area of death studies, funeral rites and commemorative practices in the 20th century. The position is for two years starting from January 1, 2025.

Secularization process went differently in European countries, and one of the last domains it touched were funeral rites. We invite research focused on spreading of secular funeral practices in European context in the 20th century, preferably with relation to communist ideologies. Proposed research might focus either on development of secular funerals in the Central and Eastern Europe, or on similar processes in the Western Europe. Comparative perspective is more than welcomed. Research area can include theme of political violence, war, military martyrs, creation of secular grieving and commemoration practices. It can also focus on ideologies and proponents of civil funerals during the 20th century in different parts of Europe.

An ideal candidate has a PhD in history, excellent research skills, and a proven ability to conduct independent research at a post-doctoral level, as well as the ability to publish in international journals. We also await she/he would have an excellent knowledge of English. Expected outcomes of the post-doctoral fellowship include one high-quality journal article per year.

Faculty: Faculty of Humanities  
Department: Department of Historical Studies  
Supervisor: Mgr. Olga Nešporová, Ph.D.  
E-mail: olga.nesporova@fhs.cuni.cz  
Deadline date: July 22, 2024  
Position available from: January 1, 2025  
Submit applications with all other documents to Research Administration Office: veda@fhs.cuni.cz (CC: olga.nesporova@fhs.cuni.cz)

Center for Economic Research and Graduate Education

Title of the research project:

| CULTURE AND HEALTH BEHAVIOR: SURVEY AND EXPERIMENTAL EVIDENCE |

CERGE UK seeks a postdoctoral candidate with focus on empirically and experimentally oriented research in political economy, development economics, or health economics. 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.

Supervisor: doc. Marek Kapička, Ph.D.  
E-mail: hr@cerge-ei.cz  
Position available from: January 1, 2025  
Deadline for applicants: July 26, 2024  
Applicants must submit all required documents to hr@cerge-ei.cz.