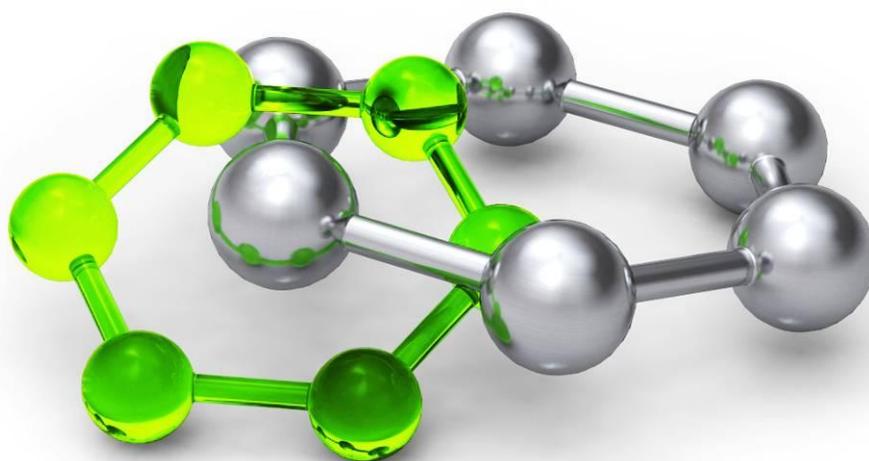


CEITEC MU Postdoctoral Programme: Status Report

Strategy and Science Department

January 2019



This report compiles information about postdoctoral researchers at CEITEC MU and summarises the activities dedicated to this group of researchers that has been initiated recently. It also includes a plan of activities for 2019 including available budget and suggests actions for the coming year(s).

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1. Postdoctoral Fellows at CEITEC MU

Postdoctoral researchers at CEITEC MU are highly valued employees who contribute to the overall success of the institution. A postdoctoral fellow, also called POSTDOC, participates in research carried out by the team and is responsible for the specifically assigned project. A postdoc is appointed for the purpose of training to develop the ability to reason in a scientific manner, formulate hypotheses independently, and to perform independent research. It is an excellent opportunity to fully develop the skills acquired throughout PhD studies.

The role of the postdoctoral fellow has been traditionally seen as a training position, bridging the gap between PhDs and a long-term group leader position or tenured academic position. As more PhD graduates are being produced, this traditional role of postdoctoral fellowship is also changing, because there are not enough tenured academic positions to accommodate all PhD holders. Many postdocs are aware of this situation and are seeking to develop technical and other skills with an eye to a career in industry, business or government, while many are still keen to progress to more senior academic positions. International mobility is another increasingly important factor for successful scientific career and CEITEC MU responded to this trend with the recently approved Career Plan.

There is a huge body of scientific evidence that happy team members produce better results. However, global research suggests that most postdoctoral researchers are stressed by peer pressure, high demands by their supervisors, potentially insufficient supervision and a high degree of uncertainty about their future career. CEITEC MU is aware of the challenges today's postdocs are dealing with and would therefore like to respond with development of a postdoctoral programme with emphasis on career development and job satisfaction. The goal of successful postdoctoral program should be to provide access to not only technical training within the research groups but also develop soft and transferable skills, facilitate and support mentoring activities, networking, funding opportunities, as well as provide safe space for postdocs to meet, socialize and provide peer support. This report describes current status of postdoctoral fellows at CEITEC MU and suggest strategies how to manage postdoctoral education in alliance with the overall strategy of CEITEC as a centre of scientific excellence.

1.1. Formal Requirements of Postdoctoral Fellowship at CEITEC MU

General minimum requirements for the postdoc position at CEITEC MU stated in Measure of the [Director No 2018/08](#) are as follows:

1. Sufficient publication activity corresponding to the current stage of the employee's career and to the field of research in which the employee publishes his/her work.

2. Ph.D. or similar degree
3. Max. 8 years after Ph.D. study (maternity/parental leave is not included in this period of time)
4. The postdoctoral internship must take place at a different institution from the one where the Ph.D. study took place. In exceptional cases, a second/additional internship at the home institution may be carried out after the competition of the first postdoc internship.
5. English knowledge at least at the level of B2, according to the European Reference Framework.

Employment agreement concluded in a definite time period of 3 years, with a possibility of extension for, typically, 3 additional years, subject to the current financial situation (in relation to implemented projects) and the scientific performance of the employee. The postdoctoral traineeship is a non-academic position.

1.2. Gap Analysis Results

PhD and Postdoc Survey was performed at CEITEC MU as a part of the HR Award Gap Analysis in December 2017. In the scope of this survey 26 postdocs answered the quantitative part of the survey and 18 postdocs answered the qualitative part of the study. This chapter provides quick summary of responses of CEITEC MU postdocs.

According to the results of the qualitative survey, postdocs assess their overall experience more positively than PhD students. Based on the analysis, the most important variables for postdocs are **a stimulating and motivating work environment, clear career track at CEITEC, clear definition of what is expected from postdocs (including clarification of reasons) and mutual agreement on what should (and should not) be a part of their job, being informed of their rights and responsibilities as a CEITEC employee, having functional lab management, including health and safety rules that are not only well-defined, but also properly implemented.**

The table below summarizes the results of the quantitative survey conducted as a part of the Gap Analysis.

Table 1: Distinctly positive and negative items as perceived by postdocs

Distinctly positive item results	Distinctly negative item results
<ul style="list-style-type: none"> • Ethical standards and practices are followed accordingly • Research relevant to society, not duplicating research previously carried out elsewhere 	<ul style="list-style-type: none"> • Internal communication needs changes • Mobility (having opportunity) • Unclear career track • Being aware of job opportunities

<ul style="list-style-type: none"> • On-boarding (by supervisor) • Gender equality during recruitment process • Appropriate amount of autonomy 	<ul style="list-style-type: none"> • Competences in grant area • Work-life balance • Child support • Representation of group interests • Job description / real job • Instability regarding employment contract and conditions • Training for postdocs
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Below is the summary and interpretation of the qualitative part of the survey – open end questions.

Negative Aspects: Regarding postdocs, they most frequently mentioned **Work Justice and Lack of information (n = 4; 19.04 %)**. Postdocs almost did not mention Relations with colleagues and Free time (n = 1; 4.76 %) and did not mention Work governance at all. However, as stated before, postdocs could dislike things they did not mention as they were asked to report the most negative thing(s).

Positive Aspects: Regarding postdocs, they also most frequently mentioned **Relationship with colleagues and Research environment (n = 5; 23.81 %)**. And they did not mention Supervisor guidance, Job opportunities, CEITEC Reputation, Management perception and Job satisfaction at all. However, as stated before, postdocs could like things they did not mention as they were asked to report the most positive thing(s).

Top Down Negative Topics: Regarding postdocs, they most frequently mentioned **Working conditions (n = 9; 42.86 %)** and **Career system, supervision and training (n = 7; 33.33 %)**. Postdocs almost did not mention Internal culture and governance and Job satisfaction (n = 1; 4.76 %). However, postdocs could dislike things they did not mention as they were asked to report the most negative thing(s).

The qualitative part of the survey found out that primary topics of insufficient **career development, work injustice, job insecurity and lack of information** co-occur more often for postdocs than PhD students.

In overall, it should be noted that cluster analysis is usually done on a larger dataset. Even though around 10 % of the CEITEC junior research staff participated in the survey, one should treat these analyses with caution. We should not generalize these results without any further confirmation through other analyses or focus groups. These results are only hints therefore other evidence is of great importance.

As the next chapter will suggest, postdoc demographics are changing continuously and so might be changing the needs of the target group. Part of proper management of postdoctoral programme is constant dialogue with the target group backed by quick and strategic actions that are in coherence with the overall strategy of CEITEC MU.

1.3. Current Postdoc Demographics at CEITEC MU

Currently (January 2019), there are in total **47 postdocs at CEITEC MU (39 foreigners; 46 Czech). Internationalization rate is 77 %**. Genders are very well balanced: 24 female and 23 male. Postdoctoral researchers at CEITEC MU comprise of 16 nationalities (Australia, Czech Republic, China, Finland, Croatia, India, Iran, Italy, Canada, Germany, Poland, Russia, Greece, Slovakia, Slovenia, and Spain). **The average age of our postdoc is 35 years**; the oldest is 50 (unprecedented) and the youngest 29 years old. The length of the postdoctoral work on the current sample at MU CEITEC is three years on average, with a maximum of seven years. 14 postdocs staid at CEITEC MU longer than three years, and six postdocs longer than five years. Postdoctoral researchers are represented in all the CEITEC MU research areas (Table 1). An updated list of postdocs at CEITEC MU is prepared by HR department twice a year (31.12 and 30.6) and serves for communication purposes with the target group and related issues.

Table 2: Distribution of postdocs among Research Programmes (RP) and Research Groups at CEITEC MU

RP1	2
Lenka Zajíčková	2
RP3	21
Jaroslav Koča	1
Jiří Nováček	1
Jiří Šponer	1
Konstantinos Tripsianes	1
Lukáš Trantírek	1
Pavel Plevka	4
Peter Josef Lukavsky	2
Petr Skládal	1
Radek Marek	5
Radovan Fiala	1
Richard Štefl	1
Robert Vácha	1
Štěpánka Vaňáčková	1
RP4	13
Hélele Robert Boisivon	2
Jan Hejátko	1
Karel Říha	4
Martin Lysák	1
Michal Šmída	1
Ondřej Slabý	1
Tomasz Nodzynski	2
Zbyněk Zdráhal	1
RP5	9
Dalibor Blažek	2
Dmitriy Chudakov	1

Mary O'Connell	3
Panagiotis Alexiou	1
Šárka Pospíšilová	2
RP6	2
Michal Míkl	1
Milan Brázdil	1
Total	47

2. Postdoctoral Programme Strategy

Department of Strategy and Science is currently responsible for the management of issues related to postdoctoral fellows at CEITEC MU. We acknowledge the strategic importance of this target group, because of their direct influence on PhD students and group leaders alike. Postdoctoral fellows possess already substantial research experience and are at the same time adaptable and open to learn new skills and adopt new practices. This makes them a very important group of scientific employees who can serve as pilots for any desired institutional change, as for example in the areas of technology transfer or open science.

In November 2018, CEITEC MU invested into the career development of postdocs. Fifteen postdocs participated in the Professional Development Course for Young Scientists with emphasis on self-leadership. The three-day course run by experienced coaches from HFP Consulting (Heidelberg) was packed with valuable multidisciplinary content, based on models used in psychology and management, such as transactional analysis, goal setting, motivation, prioritisation, delegation, and negotiation. All tools were directly applied through group exercises and practical applications into the context of a scientific institute. Participants from this course formed the foundation for the **CEITEC Postdoc Peer Committee** with the aim of identifying and solving needs of CEITEC MU postdocs. Feedback from this course, which can be found in the attachment, was extremely positive.

2.1. Communication with Postdocs

Department of Strategy and Science recently created a web site dedicated to [Postdoctoral Programme](#) with the aim to attract new qualified applicants for postdoctoral fellowship to CEITEC MU and to direct CEITEC MU postdocs to other relevant information sources. This website serves as a first gateway for communication with external as well as internal audience and should be continuously updated to serve as an evidence that CEITEC MU is highly attractive and globally competitive research institute.

The Department of Strategy and Science with collaboration with the PR Department and Post Peer Committee recently finalized the promotional flyer for Postdoctoral Programme at CEITEC MU. The electronic and printable version of this flyer can be used by research group leaders and the HR department for the promotion of vacant postdoctoral posts at CEITEC MU.

Following channels are used for internal communication with the CEITEC MU postdocs:

- **Emailing List:** updated list of all CEITEC MU postdocs allows to address this target group regarding important job related matters concerning this target group postdocs@ceitec.muni.cz

- **Facebook Group:** [CEITEC POSTDOCS](#) has been created and serves as an informal communication platform for CEITEC Postdocs. Content relevant to postdoctoral career development, interesting events and interesting information concerning life in Brno is being regularly updated. Postdocs also use this Facebook group to inform each other about upcoming interesting social gathering. All CEITEC MU postdocs were invited to join this group.
- **Postdoc Peer Committee:** Postdoc Peer Committee is currently fully functioning peer organisation that meets once per month and serves as an excellent channel for delivering of more complex institutional content.
- **CEITEC MU Postdocs Microsite:** The Postdoc Peer Committee was calling for establishment of an internal microsite that would consolidate all information concerning postdocs at CEITEC MU. The postdocs feel that such consolidated information source is currently unavailable and would greatly contribute to transparency that seems to be currently not sufficiently communicated. The microsite is currently under preparation.

2.2. Administrative Support for Postdocs

As already the Gap Analysis indicated, effective administrative support provided by the institution is highly valued by postdoctoral fellows. Several administrative departments are supporting postdocs at CEITEC MU and the Department of Strategy and Science and collecting feedback on ongoing basis to improve their quality and efficiency.

- **Strategy and Science Department** – the department implements the concept of education and postdoc trainees support programme. It ensures communication with trainees, organizes regular workshops focused on career development including transferable, interpersonal and managerial skills. The department and supports organization of other scientific activities and social events. It provides the trainees with all relevant information and support.

*Administrative Guarantor of Postdoctoral Programme – Kateřina Ornerová
Training Coordinator and Secretary of the Postdoc Peer Committee - Ester Jarour*

- **HR department - Welcome Service** – provides international workers with relevant information and support. It helps them to cope with the red tape burden so as they can fully concentrate on their research activities. The service is available prior to their arrival to CEITEC as well as during their whole stay. Furthermore, the HR helps with admission procedure, appraisal of postdocs, etc.

*Welcome service – Zdeňka Bártová
HR activities – Tereza Klejdová*

- **Grant Office** – provides consulting services with the aim to use European grant schemes for the development of international research cooperation. It ensures a comprehensive service in the field of support of the science focused on active creation and identification of opportunities, the establishment of new contacts, preparation of projects and their management in the phase of realization. The department also regularly organises course on grant writing specifically for this target group.

Grant support – Ladislav Čoček

2.3. Postdoctoral Peer Committee

CEITEC MU has recently established the Postdoc Peer Committee (PPC). The role of scientific guarantor was accepted by research group leader Michal Šmída who has wide experience with postdoctoral training. The first kick-off meeting was held in December 2018. The aim of this meeting was to introduce the members, to prepare SWOT analysis of postdoctoral fellowship at CEITEC MU, and to elect the leaders of PPC (chair and co-chairs). The goal of PPC is to hear the voice of CEITEC MU postdocs, to understand their needs and jointly seek for solutions to problems that can be solved. Postdocs are drawn to grass-roots activism to create better working conditions for themselves and their peers. In doing so, they can pick up and polish skills such as negotiation, time management, communication and leadership that aid their own career development. The Postdoc Peer Committee identifies institutional strengths and weaknesses, suggest and jointly with the administration implements solutions that fit the postdoc needs. The committee can suggest which soft and transferable skills courses will be offered to postdocs at CEITEC MU, which scientific and social events for postdocs will take place so that the no one feels isolated and interdisciplinary collaborations can flourish. General tasks, responsibilities, schedule and other rules of PPC will be set up by PPC in 2019. The list of members including their role is provided in Table 3.

Table 3: Members of Postdoctoral Peer Committee Including Roles

First Name	Last Name	Research Group	Role at PPC	Position
Michael	Owen	Robert Vacha	Chair	PostDoc
Cina	Foroutan-Nejad	Radek Marek	Co-chair	PostDoc
Jaclyn	Quin	Mary O'Connell	Co-chair	PostDoc
Tina	Catela Ivkovic	Ondřej Slabý	Co-chair	PostDoc
Marek	Sebesta	Richard Stefl	Member	PostDoc
Selvaraj	Chandrabose	Jaroslav Koča	Member	PostDoc
Aswathy	Jayasree	Jan Hejátko	Member	PostDoc
Andrea	Simeunovic	Helene Robert Boisivon	Member	PostDoc
Klara	Mareckova	Milan Brázdil	Member	PostDoc
Ondřej	Jurček	Radek Marek	Member	PostDoc
Marketa	Zdarska	Jan Hejatko	Member	PostDoc
Maria	Zlobina	Peter Lukavsky	Member	PostDoc
Vojtech	Bystry	CF Bioinformatics	Member	PostDoc
Carina	Büttner	Pavel Plevka	Member	PostDoc
Pezhman	Zarabadi Poor	Radek Marek	Member	PostDoc
Michal	Šmída	Michal Šmída	Scientific Guarantor of the PPC	RGL
Kateřina	Ornerová	administrative	Administrative Guarantor	Head of Strategy and Science Dpt
Ester	Jarour	administrative	Secretary	Strategy and Science Dpt
Ladislav	Čoček	administrative	Grant support	Head of GO
Tereza	Kejdová	administrative	HR support	HR dptm
Zdeňka	Bártová	administrative	Welcome manager	HR dptm

2.4. SWOT Analysis

This SWOT (Table 4) was conducted together with the CEITEC MU postdocs in December 2018 with the aim to fulfill the goal of the **Postdoc Peer Committee – to hear your voice, to understand your needs and jointly seek for solutions to problems that we can solve** - during the kick-off meeting of the PPC. SWOT analysis (or SWOT matrix) is a strategic planning technique that we use to help us identify CEITECs internal (institutional) strengths and weaknesses, and external opportunities, and external threats related to our activities (this could be EU postdoc policies, funding and grant rules, etc.). This SWOT was presented to the director of the institute together with draft action plan during the first official event of the PPC with the title POSDOCS MEET DIRECTOR. The event took place in January 2019, with aim to discuss with Director the hot issues of postdoc group. The Department of Strategy and Science together with the Chairs of Postdoc Peer Committee will review the progress every six months and define new priorities for the next period. Postdocs are being motivated to embrace attitude of positive change in the spirit of Socrates: **“The secret of change is to focus all of your energy not on fighting the old, but on building the new”**, to avoid counterproductive complaining. We strive to create culture of responsibility and empowerment where each postdoctoral fellow can contribute to the success of CEITEC MU.

Table 4: SWOT analysis of postdoc position at CEITEC MU (Dec 2018)

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none"> • Infrastructure and core facilities • Freedom of research • Support services – such as HR, welcome office, grants, training • CETIEC on a good path to dynamic growth • A good portfolio of lectures by international speakers • Excellent network of international collaborators • Special praise to grant office support 	<ul style="list-style-type: none"> • Lower wages than in other countries • High degree of bureaucracy • Poor internal communication (postdocs feel isolated) • Lack of vision and direction or very poor communication of the vision to the staff • Limited teaching opportunities • Lack of industry connections and collaborations • Lack of nurturing people • Insufficient lab space • Time-limited postdoc contracts result in lack of time to develop ideas • No equal treatment, lack of equal opportunities, relations dominate over transparent rules (could be the only result of insufficient communication) • Postdocs are not included in communication regarding CEITEC as a whole • Limited usage of English in teaching • Insufficient networking opportunities for postdocs from various labs, other institutes • Not enough emphasis on career development of postdocs • Ill-defined role of a postdoc at CEITEC MU • Lack of information about research taking elsewhere • Limited career mentoring opportunities

	<ul style="list-style-type: none"> • Poor working conditions • Not enough connection between various CEITEC groups – especially between CEITEC VUT and CEITEC MU • Insufficient PR and visibility on the European and international level • No common social space for postdocs • Dependence on grants and RGLs goodwill
OPPORTUNITIES	THREATS
<ul style="list-style-type: none"> • Brno as a popular destination • Location of CEITEC in the middle of Europe with good access to other European destinations 	<ul style="list-style-type: none"> • Instability of the postdoc post – job insecurity • Tight regulations regarding mobility are not always optimal for obtaining high-quality results • Uncertain future of postdocs • No long term prospects • Lack of postdoc funding • Difficulty to obtain national funding for international postdocs

2.5. Action Plan

This Action Plan (Table 5) was prepared during the kick-off meeting of the Postdoc Peer Committee in December 2018, to demonstrate our willingness to respond to the needs of CEITEC MU postdocs. Many activities are already under preparation and Postdoc Peer Committee is being actively involved in shaping these activities to ensure that the postdoc demands will be met.

Table 4 Proposal of activities for postdocs for 2019

Title of the Activity	The goal of the Activity	Date	Responsible Department/Person
Meeting with the Director	Understand how CEITEC works, communicate postdoc concerns and seek solutions	January 31	Strategy and Science, Kateřina Ornerová
Postdoc Career Development Training	Making effective career choices and self-awareness, self-analysis, self-presentation, networking, coaching interviews	February 27	Strategy and Science, Ester Jarour
Science Communication Course: Present Your	Increase presentation skills Getting to know fellow	March 7	Strategy and Science, Ester

Research Results with Confidence	postdocs from other groups Create peer mentoring spirit		Jarour
Meetings with Industry – Life After PhD	Getting to know the local industry and available jobs and expectations	TBD	Strategy and Science, Ester Jarour
Career fair	Getting to know the local industry and available jobs and expectations	TBD	Strategy and Science, PR
Industrial Collaborations – Information Access	Organize presentation with information about life science and material science industry in the region in collaboration with TTO and JIC	TBD	Strategy and Science, Daniela Tršová
Industrial Internships for Postdocs	Give postdocs the opportunity to be exposed to the industry	TBD	Strategy and Science
Networking events designed for postdocs (ideally beyond CEITEC MU)	To prevent the feeling of isolation, meet postdocs from other research groups	TBD	Strategy and Science, PR
Information access – internal communication	Keep postdocs informed about relevant events and opportunities (career development, grants, collaboration with industry, scientific presentations in English)	Continuously	Strategy and Science, Ester Jarour

3. Current Projects / Financial Resources for Postdoctoral Programme

3.1. NPUII

Realization: 1.2.2016 – 31.12.2020

Activities including timeline and milestones: Visiting programme: support of early-stage researchers for visiting of companies/institutions, travel to job-related fairs, e.g. International career fairs from Nature Careers, support of events such as *Life after PhD*

Budget: For reasonable activities according to the internal budget rules.

3.2. LIBRA

Realization: 1.10.2015 – 31.3.2019

Seminar series *Meeting with...* This event provides the opportunity to meet scientists employed outside of academia, and to talk about the specific requirements and advantages of industrial careers with an emphasis on work-life balance and gender. The goal is to introduce various career tracks suitable for life science Ph.D. holders.

Seminar series **My Life in Science** – another seminar series with an invited speaker from academia to talk about work-life balance, dual career, success stories how should researchers cope with combining the desire to fulfill their career dream in research and on the same time having a balanced family life. The aim to show that everyone struggles, but the key is to keep going and not to give up.

Career development program for postdoctoral researchers – workshop organized by Institute Currie, mentoring included

Speakers:

- Michal Kostka – Deputy of CEO, BioVendor
- Luiza Bengtsson – Science Communication, Max-Delbrück-Centrum für Molekulare Medizin, Berlin, Germany
- Klára Panzarová – Researcher, PSI (Photon Systems Instruments)
- Martina Plisová – R&D director of Medicem (Czech-based start-up company focused on developing ophthalmic hydrogel implants)

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- Václav Matoušek – Founder of CF Plus Chemicals (ETH-Spin-Off company focused on commercialization of reagents for electrophilic and nucleophilic fluoroalkylation)
 - Fatima Gebauer – Research Group Leader at CRG, Barcelona, Spain
 - Juan Valcarcel - Research Group Leader at CRG, Barcelona, Spain
 - Sarah Blackford - Science Career Consultant (planned – February 27, 2019)

Activities including timeline and milestones:

Career development program: 07/2017, 10/2017

Budget:

Meeting with....: approximately 1 000 CZK per event.

My Life in Science: approximately 1 000 CZK per event. expenditures for travel and accommodation of the speaker

Career development program: expenditures for travel and accommodation for postdoctoral researchers

3.3. MEDGENET

Realization: 1. 1. 2016 – 31.12.2018

Activities including timeline and milestones: Course - Self Leadership and Career Development for Young Scientists (course delivered by HFP Consulting), 6.-8.11.2018,

Budget: 12 000 €

3.4. OP VVV Capacity Development

Realization: 1.1.2018 – 31.12.2022

Activities including timeline and milestones: Website and Facebook profile, postdoc flayer, 4x group training for soft / transferable skills

Budget: 150 000,- Kč

4. Conclusions

We are striving to develop truly successful [postdoctoral program](#) with a strong emphasis on career development and overall job satisfaction of our postdocs. Career development needs will be met via our continuously developing [training](#) portfolio adapted to postdocs preferences and reflecting the global life science labour market requirements, as well as through implementation of our 365 CEITEC mentoring program (under preparation). Job satisfaction will be achieved through ongoing dialogue and activities developed in collaboration with CEITEC MU Postdoc Peer Committee, that reflect current need of CEITEC MU postdocs. The ultimate goal of our postdoctoral programme is to provide fair, transparent, flexible and supportive environment for postdocs to ensure ideal conditions for excellent research. We strive to build and spread good reputation of our postdoctoral programme in order to attract qualified postdoctoral fellows to CEITEC MU. We hope that outgoing postdocs will remember CEITEC MU as an institute that supported their professional and personal development and they will recommend CEITEC as the ideal place for postdoctoral fellowship to others. We plan to continuously monitor the success of our postdoctoral programme and to spread the concept across the CEITEC consortium if successful.