

<b>Masaryk University</b>	
<b>Faculty</b>	Faculty of Science
<b>Procedure field</b>	Genomics and Proteomics
<b>Applicant</b>	Mgr. Petra Procházková Schrumpfová, Ph.D.
<b>Applicant's home unit, institution</b>	Faculty of Science, Masaryk University
<b>Habilitation thesis</b>	Functions of Plant Proteins Associated with Telomeric Repeats and Telomerase
<b><u>Board members</u></b>	
<b>Chair</b>	prof. RNDr. Zbyněk Zdráhal, Dr. <i>Faculty of Science, Masaryk University</i>
<b>Members</b>	prof. Mgr. Martin Lysák, Ph.D., DSc. <i>CEITEC, Masaryk University</i> prof. RNDr. Viktor Žárský, CSc. <i>Department of Experimental Plant Biology, Faculty of Science, Charles University</i> doc. Ing. Lenka Burketová, CSc. <i>Institute of Experimental Botany of the Czech Academy of Sciences</i> Prof. Dr. Andreas Manfred Houben <i>Leibniz Institute of Plant Genetics and Crop Plant Research, Gatersleben, Germany</i>

## **Evaluation of the applicant's scholarly/artistic qualifications**

Dr. Petra Procházková Schrumpfová graduated in "Molecular Biology and Genetics" at Masaryk University in 2002 receiving the title Mgr. She extended her skills by "Education Training for Teachers" at Brno University of Technology, which she finished in 2003 and she obtained a Ph.D. degree in "Molecular and Cellular Biology" at Masaryk University in 2006. During her PhD thesis she focused on characterization of telomere-binding proteins and telomere biology became the centre of her research activities up to now. She developed herself in independent researcher with deep experience in different aspects of plant telomere research.

She also proved her skills during her two-year postdoctoral stay at the Department of Plant Physiology, Technische Universität Kaiserslautern in Germany.

She established several other international collaborations, allowing her to extend her methodological skills, e.g., with Prof. Klaus Grasser from Cell Biology & Plant Physiology Department of Regensburg University, Germany (Role of HMGB proteins in Chromatin dynamics and telomere maintenance in *A. thaliana*) or Prof. Daniel Schubert from Institute of Biology of Berlin Freie University, Germany (working together on TRB protein family). She also has a rich national collaborative network (e.g. Prof. David Honys, IEB CAS in Prague, Prof. Aleš Pečinka IEB CAS in Olomouc or Dr. Eva Sýkorová, IBP CAS in Brno). She participated as a PI, or research team member in 5 national and 1 international research projects.

At the time of submission of the habilitation thesis, she was the author or co-author of 20 scientific articles in journals (WoS), 1 article in proceedings and 1 software. Her work was cited – at the time of submission – 363 times in the WoS database. She also participated in organization of three scientific meetings. She regularly participates in scientific conferences and she already presented 4 invited lectures in international meetings.

Currently, she is one of the key research scientists at the group Molecular Complexes of Chromatin led by Prof. Jiří Fajkus, Mendel Centre for Plant Genomics and Proteomics, and Laboratory of Functional Genomics and Proteomics, National Centre for Biomolecular Research (NCBR), Faculty of Science, Masaryk University, Brno.

**Conclusion:** The applicant's scholarly/artistic capabilities **meet** the requirements expected of applicants participating in a habilitation appointment procedure in the field of Genomics and Proteomics.

## **Evaluation of the applicant's pedagogical experience**

Next to her research activities, Dr. Petra Procházková Schrumpfová dedicates a substantial part of her time to teaching and supervising students. She has started with her pedagogical activities in 2008. Since that time, she has participated or established 8 lectures (e.g. Molecular Mechanisms of Cell Aging, Methods in Genomics), 2 practical courses (e.g. Chromatin Structure analysis) and 2 seminars in Czech or English. Since 2018, she regularly teaches at the Technische Universität Kaiserslautern in Germany. She has been involved as a PI or team member in 3 projects focused on establishing new subjects.

Up to date, she has supervised 1 (and co-supervised 2) doctoral, 5 master's and 13 bachelor's students who successfully defended their thesis. She currently supervises 1 doctoral and 1 master's student. Her skills are reflected in the Dean's award for her PhD student for publication of outstanding results.

She co-authored a textbook and actively participated in public outreach activities such as the University of Third Age.

**Conclusion:** The applicant's pedagogical capabilities **meet** the requirements expected of applicants participating in a habilitation appointment procedure in the field of Genomics and Proteomics.

**Habilitation thesis evaluation**

The habilitation thesis “Functions of Plant Proteins Associated with Telomeric Repeats and Telomerase” covers current knowledge in the field of plant telomeres with special focus to telomere-binding proteins. It is based on 18 publications where Dr. Petra Procházková Schrupfová is mostly the first or corresponding author. The thesis is logically structured into several sections and subsections covering all important aspects of telomere biology. The thesis has been evaluated by three internationally recognised scientists in the fields related to the thesis topic - Prof. RNDr. František Marec, CSc. (Biology Centre CAS, Institute of Entomology, České Budějovice, Czech Republic), Prof. Ing. Petr Smýkal, Ph.D. (Department of Botany, Faculty of Science, Palacky University, Olomouc, Czech Republic) and Prof. RNDr. Ľubomír Tomáška, DrSc. (Department of Genetics, Faculty of Natural Sciences, Comenius University Bratislava, Bratislava, Slovakia).

All three reviewers positively evaluated the thesis and concluded that the thesis fulfils all requirements expected of a habilitation thesis in the field of Genomics and Proteomics. The reviewers expressed satisfaction in answering all their questions which Dr. Petra Procházková Schrupfová answered either during her public lecture or in a written communication. The members of the committee fully share the opinions of the reviewers.

**Conclusion:** The applicant's habilitation thesis **meets** the requirements expected of habilitation theses in the field of Genomics and Proteomics.

### Secret vote results

Voting took place: electronically

Number of board members		5
Number of votes cast		5
of which	in favour	5
	against	0

### Board decision

Based on the outcome of the secret vote and following an evaluation of the applicant's scholarly or artistic qualifications, pedagogical experience and habilitation thesis, the board hereby submits a proposal to the Scientific Board of the Faculty of Science of Masaryk University to **appoint the applicant associate professor** of Genomics and Proteomics.

In Brno on 17.03.2024

prof. RNDr. Zbyněk Zdráhal, Dr. ....