

<b>Masaryk University</b>	
<b>Faculty</b>	Faculty of Science
<b>Procedure field</b>	Genomics and Proteomics
<b>Applicant</b>	doc. RNDr. Jan Hejátko, Ph.D.
<b>Applicant's home unit, institution</b>	Faculty of Science, Masaryk University
<b><u>Board members</u></b>	
<b>Chair</b>	prof. RNDr. Jiří Fajkus, CSc. <i>CEITEC, Masaryk University</i>
<b>Members</b>	prof. RNDr. Eva Zažímalová, CSc. <i>Institute of Experimental Botany of the Czech Academy of Sciences</i> prof. RNDr. David Honys, Ph.D. <i>Institute of Experimental Botany of the Czech Academy of Sciences</i> Prof. Dirk Inze <i>VIB-UGent Center for Plant Systems Biology, Ghent, Belgium</i> Prof. Dr. Dorothea Bartels <i>Institute of Molecular Physiology and Biotechnology of Plants, University Bonn, Germany</i>

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

Jan Hejátko received Ph.D. in Genetics from Masaryk University (MU) in 2004. During his Ph.D. studies, he spent two years working in the Max-Delbrueck-Lab, under the supervision of Professor Klaus Palme at the Max Planck Institute for Plant Breeding, Cologne, Germany. In 2005 he became the Head of the Laboratory of Plant Molecular Physiology in the Department of Functional Genomics and Proteomics at the Faculty of Science, MU. Since 2011, he has been independent group leader of the Functional Genomics and Proteomics of Plants research group at CEITEC, MU.

In 2012 he was appointed Associate Professor of Molecular Biology and Genetics at the Faculty of Science, MU after successful habilitation. Since the beginning of his independent research career, he has focused on the plant hormone regulations, particularly the molecular mechanisms and roles of cytokinins in plant developmental processes and stress responses. To date, he has published more than 30 papers on this topic, contributing to a total of 57 publications listed in the Web of Science. In 37 papers, he is the main author (either the corresponding or the first author) and 41 papers are original papers.

A distinctive feature of Dr. Hejátko's work is its multidisciplinary approach, which encompasses molecular biology, genomics, proteomics, advanced microscopy, structural biology, and plant phenotyping. He has also developed novel bioinformatic tools for the analysis of phenotyping data. Over the past decade, he has made significant contributions to integrating plant hormone signaling research with plant epigenetics, aiming to understand the interplay between these two regulatory mechanisms.

Recently, Dr. Hejátko has led a major research project titled Signal Integration and Epigenetic Reprogramming for Plant Productivity (SINGING PLANT), which not only integrated multiple research areas but also fostered collaboration among various research groups at the Mendel Centre, CEITEC MU. This project also resulted in the development of a fruitful research partnership with industry, particularly with Photon Systems Instruments, Ltd., the primary commercial partner of the project.

In connection with the candidate's research interests and their multidisciplinary addressing, Assoc. Prof. Hejátko has established a rich and productive network of research collaborations, as evidenced by his co-authorship of numerous collaborative papers, involvement in joint projects, and strong recommendation letters from peers. Without reducing his achievements to mere metrics, it is noteworthy that nine of his papers have received more than 100 citations. He is the corresponding author on two of these (with 166 and 229 citations, respectively) and the first author on another (191 citations). These achievements highlight his focus on research topics that have a significant impact within the scientific community. Furthermore, nearly all of his publications have appeared in journals ranked in the top quartile of their respective Web of Science categories.

In addition to his research papers, Dr. Hejátko has co-authored two patents, contributed to three book chapters, and edited a complete book. A significant aspect of his career has been his public engagement, particularly through his active role in the European Food Safety Authority (EFSA) Panel on Genetically Modified Organisms (GMO). In this capacity, he has co-authored 138 scientific opinions and risk assessments for the European Parliament, many of which have been published in the EFSA Journal (in addition to his 57 scientific papers).

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

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### Evaluation of the applicant's pedagogical experience

Jan Hejátko is the guarantor and lecturer of three semestral lecture courses – Genomics and Developmental biology, and Science communication. He participates in several other lecture courses – Advanced biochemistry and its methods, Advances and challenges in current biology, and Advanced methods in current genomics and proteomics. In addition, he guarantees practical course – Principles of genomics - a practical training, and participates in Principles of proteomics – training. He further acts as one of teachers in the Seminar of the Department of Functional genomics and proteomics, and Mendel Centre Seminars in Bio-omics.

Concerning educational activities and university bodies, Assoc. Prof. Hejátko is a member of two Ph.D. programme boards at the Faculty of Science, MU – Genomics and Proteomics, and Life Sciences. He also serves as a member of the Commission for State final exams in Biochemistry master programme, the field of Genomics and proteomics.

Jan Hejátko supervised 11 PhD students who defended their thesis and currently supervises 3 PhD. students. He also served as consultant of 2 PhD students. In addition, he was supervisor of 12 undergraduate students and consultant of 23 undergraduate students, all defended.

He has authored a book recommended as a resource for teachers and students in plant sciences (Hejatkó, J., Hakoshima, T. (2018) Plant structural biology: hormonal regulations. Springer), produced several textbook chapters and e-learning materials for his semestral courses “Genomics” and “Developmental Biology”.

History of Jan Hejátko pedagogical experience has started since 2005 and he participated in the preparation and establishment of two study programs – the Ph.D. program Genomics and Proteomics (2009) and Master study specialisation Genomics and Proteomics (2011). Overall, pedagogical activities became integral part of his activities at Masaryk University.

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

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#### **Evaluation of the applicant as a respected and recognized scholarly or artistic figure in a given field**

In addition to the above summarized research and pedagogical activities, the applicant documents recognition by the scientific community with the following data:

He has been selected and served as a panel 501 member of the Czech Science Foundation (2019-2023), works as evaluator for the Research Executive Agency, namely in the MSCA projects, and as a member of European Food Safety Authority (EFSA) GMO Panel. He co-organized three international conferences (EMBO conference on “Signalling in plant development”, 2015, Plant Vascular Development, 2012, and Auxins and Cytokinin in Plant Development – International Symposium, 2009). He has established numerous long-term international collaborations, and was a holder of 12 research grants as PI or Co-PI, in 5 of these with foreign partners. Strong letters of recommendation by his peers further underline this recognition.

Conclusion: The applicant is a respected and recognized scholarly figure in his/her field. The applicant has made a significant contribution to the development of his field. The applicant constitutes a leading figure in his field of scholarship or research.

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### 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 role as a respected and recognized scholarly or artistic figure, the board hereby submits a proposal to the Scientific Board of the Faculty of Science of Masaryk University to **appoint the applicant professor** of Genomics and Proteomics.

In Brno on 03.03.2025

prof. RNDr. Jiří Fajkus, CSc.