Evaluation Board Decision on the Nomination for Appointment to Professor

Masaryk University	
Faculty	Faculty of Science
Procedure field	Plant Physiology
Applicant	doc. RNDr. Miroslav Vosátka, CSc.
Applicant's home unit, institution	Institute of Botany, Czech Academy of Sciences
Board members	
Chair	prof. Ing. Miloš Barták, CSc.
	Faculty of Science, Masaryk University
Members	Assoc. Prof. Katalin Posta, DSc.
	Szent Istvan University, Faculty of Agricultural and Environmental Sciences
	prof. Ing. Robert Pokluda, Ph.D.
	MENDELU
	prof. RNDr. Michael Komárek, Ph.D.
	Česká zemědělská univerzita v Praze
	doc. RNDr. Pavel Cudlín, CSc.
	Ústav výzkumu globální změny AV ČR, v.v.i.

Evaluation of the applicant's scholarly/artistic qualifications

The applicant, Assoc. Prof. M. Vosatka might be considered highly qualified for the academic degree: Professor.

First of all, it must be mentioned that his research activity and number of publication is very high. Most of his papers relate to the topics associated with mycorrhizal symbiosis. Until now, he has published 124 paper indexed in the Web of Science database. Majority of his scientific papers are highly-cited by the international scientific community. Apart from scientific activities resulting in the above-mentioned number of research paper, the applicant has been efficient in the application of the scientific results. He has obtained several patents, certified technologies/methodologies and industrial designs.

His scientific work has an international dimension since he has participated at numerous international congresses and conferences, typically with oral and poster presentation. He has been active in international research programmes as well. In this respect, at least his participation in the COST Action must be mentioned.

There is no doubt that the applicant, Assoc. Prof. Miroslav Vosátka is a valuable expert in the field of mycorrhizal symbiosis.

Conclusion: The applicant's scholarly/artistic capabilities **meet** the requirements expected of applicants participating in a professor appointment appointment procedure in the field of Plant Physiology.

Evaluation of the applicant's pedagogical experience

Pedagogical activities of the applicant reflects his main field of study, i.e. mycorrhizal symbiosis. In the period of 2016-2019, he has been conducting regular teaching at the Charles University (Prague) and the Masaryk university (Brno). His teaching activities have comprised both lectures and practical training of the students attending the courses. Apart of regular courses, the applicant has supervised several bachelor and master theses. He has been supervising doctoral students as well. His Ph.D. students originated mainly from the Charles University (Prague), and the Masaryk University (Brno); however, he supervised some international student carrying out their Ph.D. programmes at Portugese universities as well.

The applicant has been quite effective in textbook writing. Among others, his co-authorship of the book Mycorrhizal Symbiosis (Gryndler et al. 2004) published by the Academia Publishing House (Prague) must be mentioned and emphasised. Apart of the above-specified textbook, he participated as co-author in writing other textbooks and teaching materials.

Last but not least, the membership of the applicant in Doctoral Committee of the Department of Experimental Plant Biology must be pointed out. Similarly, his membership in several Doctoral Boards must be mentioned.

Overall evaluation of the applicant’s teaching activities ranks him among these specialist who, in spite of their jobs out of Universities, perform impressive teaching at national and international universities.

Conclusion: The applicant's pedagogical capabilities **meet** the requirements expected of applicants participating in a professor appointment appointment procedure in the field of Plant Physiology.

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

The applicant is a Laboratory Head at the Institute of Botany, Czech Academy of Science Prague. Under his leadership, the laboratory has got a high international credit and is well recognised within professionals working in the field. Recently, the Laboratory is focused on several topics: (1) Relationship between the composition and function of arbuscular mycorrhizal fungal communities, (2) Plant-soil interactions, (3) Functioning of arbuscular mycorrhizal symbiosis under drought, (4) Arbuscular mycorrhizal fungi in arable soils, (5) Mutual interaction between

arbuscular mycorrhizal and ectomycorrhizal fungi and their host plants, (6) Molecular determination of fungi, (7) Valorization of plant biomass for nutraceutic and cosmetic products, and (8) Use of microbial inoculations for cultivation of plants in desert environment. The last one has a great potential because it is a part of presentation of the Czech Republic at EXPO2020 in Dubai. It combines production of irrigation water from desert air with the application of microbial inoculants in order to improve the fertility of desert sand (the latter one is guaranteed by M. Vosatka).

Within the professorship appointment, the applicant presented his public lecture on November 11, 2020. It was a comprehensive overview of *the state of art* in the field of mycorrhizal symbiosis with several examples of his most important findings. The lecture also showed a broad participation of the applicant in international scientific projects. Moreover, the applicant showed a great potential of his Laboratory in the emerging field of biotechnologies exploiting mycorrhiza as one of methodological approaches applied. Therefore, his public lecture has met great success and was positively evaluated by the Board members.

In the quickly developing field of mycorrhizal biotechnologies, the applicant has got international reputation as well. In his review paper (Gianazzi et Vosátka, 2004), he emphasized the importance of balance between biotechnological demands and legal, ethical, educational, and commercial requirements. He concludes that biotechnology when linked to industrial activity needs to be reinforced, particularly with regards to (1) the development of molecular probes for monitoring arbuscular mycorrhizal inoculation in the field, (2) increasing knowledge on the ecophysiology of AM fungi in anthropogenically disturbed ecosystems and on the interactions of AM fungi with other rhizosphere microbes, and (3) selection of new plant varieties with enhanced mycorrhizal traits. Since that time, many researchers all round the world have followed these directions and have increased their performance and establishment of commercial mycorrhizal inoculants.

Based on the publication activity of the applicant, research scope of his Laboratory and impressive international projects, and all the above-specified scientific and pedagogical activities of the applicant, it can be concluded that Assoc. Prof. Miroslav Vosátka is a well established and recognised person in the European science.

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/her field. The applicant **constitutes** a leading figure in his/her field of scholarship or research.

Evaluation Board Decision on the Nomination for Appointment to Professor

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 Faculty of Science of Masaryk University to **appoint the applicant professor** of Plant Physiology.

In Brno on 16.11.2020

prof. Ing. Miloš Barták, CSc. .....