



## Stanovisko hodnotící komise k návrhu na jmenování profesorem

**Masarykova univerzita**

**Fakulta**

**Obor řízení**

**Uchazeč**

**Pracoviště uchazeče**

**Složení komise**

**Předseda**

**Členové**

Přírodovědecká fakulta

Botanika

doc. Mgr. Martin Lysák, Ph.D., DSc.

Přírodovědecká fakulta, Masarykova univerzita

prof. RNDr. Milan Chytrý, Ph.D.

*Přírodovědecká fakulta, Masarykova univerzita*

doc. RNDr. Petr Bureš, Ph.D.

*Přírodovědecká fakulta, Masarykova univerzita*

prof. RNDr. Pavol Mártonfi, Ph.D.

*UPJŠ Košice*

prof. RNDr. Boris Vyskot, DrSc.

*BFÚ AV ČR Brno*

doc. Hanna Weiss-Schneeweiss, PhD

*Univerzita Vídeň*

### Hodnocení vědecké / umělecké kvalifikace uchazeče

Doc. Martin Lysák got his Mgr. (1996) and Ph.D. (2000) degrees in Botany from Palacký University, Olomouc. After the Ph.D. graduation, he worked as a post-doctoral researcher in the Leibnitz Institute of Plant Genetics and Crop Plant Research in Gatersleben, Germany (2000-2004), and then as a Plant Cytogeneticist in the Royal Botanic Gardens in Kew, UK (2004-2007). From 2006 to 2011 he was a Junior Group Leader at the Department of Experimental Biology, Faculty of Science, Masaryk University. Since 2010 he has been an Associate Professor at the National Centre for Biomolecular Research at the same Faculty and since 2011 a Research Group Leader at CEITEC, Masaryk University. In 2017 he became Research Professor in Biological-Ecological Sciences (DSc.) at The Czech Academy of Sciences.

Based on the document *Individual portfolio analysis for Professor Appointment Procedure*, prepared by the Research Office of Masaryk University, M. Lysák is an author or co-author of 68 original research articles, 8 reviews and 6 proceedings papers in the journals listed in the WoS database, dealing with different aspects of plant evolution at the genomic level. Most of these journals (61%) are from the first quartile in WoS ranking, including leading journals such as *Nature Genetics*, *Nature Plants* and *PNAS*. Besides that he is an author or co-author of 10 chapters in international scholarly books. His papers were cited 4560 times (4255 times without self-citation) according to the WoS records. His h-index is 36 according to WoS.

His papers demonstrate extensive international collaboration with top groups in Germany, UK, the Netherlands, USA and elsewhere. Nevertheless, most of his publication production is centred around his own group in Brno.

He gave 32 invited lectures at different international conferences, universities and research institutions in different countries, and dozens regular conference presentations.

He is serving to a wider scientific community, e.g. as an Editor-in-Chief of *Plant Systematics and Evolution* and Editor of *Annals of Botany*.

**Závěr:** Vědecká / umělecká kvalifikace uchazeče **odpovídá** požadavkům standardně kladeným na uchazeče v rámci řízení na jmenování profesorem v oboru Botanika.

### Hodnocení pedagogické způsobilosti uchazeče

Doc. Martin Lysák has been teaching lectures Evolutionary and comparative plant genomics at Masaryk University (since 2006, 12 semesters) and Evolutionary plant cytogenomics at Charles University, Prague (since 2012, 6 semesters), and lab courses accompanying these lectures. Moreover, he is an organizer of the Mendel Centre Seminars in Bio-omics.

He supervised two successfully defended bachelor students, two successfully defended master students, and three successfully defended doctoral students. Currently he is supervising three more doctoral students.

He is a member of the doctoral committees in Genomics and Proteomics and Bio-omics at Masaryk University. He is an author of chapters in three international handbooks that are used in teaching.

The public lecture of M. Lysák took place on 3 May 2018 in a seminar of the Department of Botany and Zoology, Faculty of Science, Masaryk University. The lecture entitled *Dávná polyploidie a post-polyploidní evoluce rostlin (Ancient polyploidy and post-polyploid evolution of plants)* and subsequent discussion clearly demonstrated that the candidate is a charismatic lecturer who can clearly explain complex issues and put them in a context.

**Závěr:** Pedagogická způsobilost uchazeče **odpovídá** požadavkům standardně kladeným na uchazeče v rámci řízení na jmenování profesorem v oboru Botanika.



## Stanovisko hodnotící komise k návrhu na jmenování profesorem

### Hodnocení uchazeče jako význačné a uznávané vědecké / umělecké osobnosti v daném oboru

Doc. Martin Lysák is an internationally reputable plant scientist, whose main area of research is plant molecular cytogenetics and chromosome evolution, especially in the family Brassicaceae, in which he is a world leading authority.

He made several fundamental contributions to the field. First, he developed a new very powerful technique of comparative chromosome painting (CCP), in which he applied fluorescence in situ hybridization (FISH) to the model plant *Arabidopsis thaliana*. He then used the rich resources from the project of complete sequencing of the *A. thaliana* genome and applied the CCP technique to study genome and chromosomal structure of different species and genera in the Brassicaceae family. This family contains several economically important species, but their genetics has been much less studied than that of economically important grasses. The history of genomic and chromosomal evolution of this family is quite complex, but M. Lysák with his group made fundamental contribution to disentangling this history, using CCP combined with a range of other key analytical approaches such as next-generation genome sequencing, bioinformatics, Southern blotting, PCR etc. These results help us understand mechanisms of plant genome evolution, but they are also very interesting for applications in plant breeding, as they show how genomes can be changed. In addition to standard research, M. Lysák has also demonstrated deep knowledge of his field and its broader context in several review papers.

He has an outstanding publication record, extensive international collaboration, serves as an editor of international journals, is regularly invited as a speaker at international conferences, and has been successful in obtaining several competitive grants.

In summary, the scientific output of doc. Martin Lysák, his contributions to education and his service to broader academic community meet international standards for professorship in the field of Botany.

**Závěr:** Uchazeč je význačnou a uznávanou vědeckou osobností v daném oboru. Významně se zaslouhuje o profilování a rozvoj tohoto oboru. Představuje jednu z vůdčích osobností vědecké školy nebo výzkumného týmu v oboru.



## Stanovisko hodnotící komise k návrhu na jmenování profesorem

### Výsledek tajného hlasování komise

Hlasování se uskutečnilo:  prezenčně  
 elektronicky

Počet členů komise		5
Počet odevzdaných hlasů		5
z toho	kladných	5
	záporných	0

### Návrh komise

Na základě výsledku tajného hlasování následujícího po zhodnocení vědecké / umělecké kvalifikace, pedagogické způsobilosti a a profilu uchazeče jako význačné a uznávané vědecké osobnosti předkládá komise Vědecké radě Přírodovědecké fakulty Masarykovy univerzity návrh

jmenovat uchazeče profesorem v oboru Botanika  na zastavení řízení.

V Brně dne 11.09.2018

prof. RNDr. Milan Chytrý