Evaluation Board Decision on the Nomination for Appointment to Professor

Masaryk University	
Faculty	Faculty of Science
Procedure field	Experimental animal biology
Applicant	doc. RNDr. Marcela Buchtová, Ph.D.
Applicant's home unit, institution	Faculty of Science, Masaryk University
Board members	
Chair	prof. Mgr. Vítězslav Bryja, Ph.D. *Faculty of Science, Masaryk University*
Members	prof. MUDr. Mgr. Zbyněk Tonar, Ph.D. *Institute of Histology and Embryology; Biomedical Center, Faculty of Medicine in Pilsen, Charles University* prof. MUDr. Karel Smetana, DrSc. *Institute of Anatomy First Faculty of Medicine, Charles University* prof. MUDr. Jaroslav Mokrý, Ph.D. *Department of Histology and Embryology, Faculty of Medicine in Hradec Králové, Charles University* Prof. Dr. Ann Huysseune *Evolutionary Developmental Biology Group, Department of Biology, Ghent University, Belgium*

Evaluation of the applicant's scholarly/artistic qualifications

M. Buchtova started her research career in 1999; thus the evaluation period covers 25 years. In this period, she has published 95 WoS listed papers (81 excluding abstracts), with almost half (45%) in Q1 journals. The output has steadily increased, and over the last nine years, she has an average publication output of 5 papers per year. It should be pointed out that the majority of her papers (47/81) carry M. Buchtova's name as first or corresponding author, indicating her prominent contribution in these papers. Moreover, the papers are increasingly published in high impact journals (only Q1 and Q2 journals since 2020), meaning not only stringent reviews but also high visibility. M. Buchtova's research is remarkably diverse. The committee expresses a great appreciation, one would even say, admiration, for the diversity of subjects that she masters. Looking exclusively at her publications where she is first or last author, three different fields of research emerge: craniofacial/ orofacial development, including a focus on ciliopathies, nanoparticle toxicology, and dentition and oral cancer, to which she recently also added eye development and organoids. Her favorite models are reptiles, but M. Buchtova also supervised papers on birds and various mammalian species. Combining such a variety of topics requires an efficient time management, an amazing work power and above all a high intelligence. Her publications feature many Czech names, indicating she provides guidance to an impressive number of (Master, PhD and postdoc) students and academic collaborators. However, she also publishes with prominent foreign collaborators, of renown institutions such as Harvard, Yale (USA), Karolinska Institute (Sweden) or King's college (London, UK). Her international connections have no doubt been boosted by her several years of postdoc stay at the University of British Columbia. Postdoctoral experience abroad is a crucial element in a successful career as an academic.

The committee has been impressed by the sheer number of grants that M. Buchtova has been able to procure so far. She is a regular recipient of prestigious grants (mostly from the Czech Science Foundation and the Czech Health Research Council). We can safely assume that this is only possible when the output of past projects is highly satisfactory and the quality of the new application is excellent.

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

Evaluation of the applicant's pedagogical experience

Even more than by the diversity and quality of M. Buchtova's research output, the committee has been impressed by Buchtova´s achievements at the level of teaching. The sheer number and diversity is impressive, and would qualify as a very high teaching load even at the top university abroad (judged by the committee member Prof. A. Huysseune from Ghent University, Belgium, Shanghai ranking place 84). Apart from the teaching itself, M. Buchtova has also produced several textbooks. Importantly, in addition to the teaching of regular courses, the committee has recognized M. Buchtova as the key person and the driving force responsible for the entirely new (for Masaryk University) specialization Developmental Biology that has been launched as a part of the MSc. Programme "Experimental Animal Biology"

So far, she has supervised 7 PhD students that have obtained their PhD (5 more ongoing), which meets the expectations for this stage of the career. Of notice, several of these students acquired prestigious positions as postdoc or other academic positions, showing the quality of training that they have received under M. Buchtova's supervision and guidance.

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

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

Regarding services to academics and society, M. Buchtova has served as a panel member and lately also as a panel chair in the prestigious funding institutions such as the Czech Science Foundation. On top of this fact, she is widely recognized as the founding member and the president of the V4 Society for Developmental Biology (V4SDB). V4SDB is the national contact point for the International Society for Developmental Biology (ISDB) in four V4 countries – Czech Republic, Poland, Slovakia and Hungary – and as such M. Buchtova currently represents these countries at ISDB. She successfully (co-)organized several meetings. The committee members were fortunate enough to be able to attend several of these meetings, where they witnessed the high quality of the science presented, and the exquisite organization led by M. Buchtova. Given all this recognition, is is therefore not surprising that she serves as the Vice-Director for Science at the Institute of Animal Physiology and Genetics (CAS) since 2021.

In addition to her dedication for academic life, she also has an eye for outreach, as has become prominent over the last years (Science night at MUNI, supervising and organizing a workshop for secondary school students). Finally, M. Buchtova is an amiable person, always ready for an in-depth scientific discussion or a warm word. Thus, the committee is not surprised to learn that M. Buchtová received an award as MUNI scientist for her publications and role in establishing the field of developmental biology at MUNI, but also the Director award for her significant contribution to the development of the Department of Experimental Biology at Faculty of Science MU.

Conclusion: The committee is, based on the experience from many committees assessing applications for promotion to full professor on multiple universities, that the output level of the work of M. Buchtova is excellent. This is true, both in terms of quality and quantity, in all three domains (research, education, service). Thus, the committee strongly recommends M. Buchtova to be promoted to the level of full Professor.

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 Science of Masaryk University to **appoint the applicant professor** of Experimental animal biology.

In Brno on 15.03.2024

prof. Mgr. Vítězslav Bryja, Ph.D. .....