Habilitation Board Decision on the Nomination for Appointment to Associate Professor

Masaryk University	
Faculty	Faculty of Science
Procedure field	Molecular Biology and Genetics
Applicant	RNDr. Jan Škoda, Ph.D.
Applicant's home unit, institution	Faculty of Science, Masaryk University
Habilitation thesis	Novel molecular approaches to overcome therapy resistance in pediatric solid tumors

Board members

Chair	prof. Mgr. Vítězslav Bryja, Ph.D. *Faculty of Science, Masaryk University*
Members	prof. RNDr. Jan Šmarda, CSc. *Faculty of Science, Masaryk University* doc. MUDr. Eva Froňková, Ph.D. *Department of Paediatric Haematology and Oncology, Second Faculty of Medicine, Charles University* doc. RNDr. Daniel Rösel, Ph.D. *BIOCEV, Vestec, Czech Republic* Assoc. Prof. Dr. Frank Westermann *Division of Neuroblastoma Genomics, German Cancer Research Center (DKFZ), Heidelberg, Germany*

Evaluation of the applicant's scholarly/artistic qualifications

The scientific career of Jan Škoda began in 2016, when, after completing his doctoral studies, he took up a position as an assistant professor at the Department of Molecular Biology and Genetics at Masaryk University, and simultaneously as a postdoctoral researcher at the International Clinical Research Center of St. Anne's University Hospital, where he has been leading his own research team since 2022. His research focuses on the biology of pediatric tumors, particularly on their stemness and possibilities for new targeted therapies. Throughout his career, he has published nearly thirty scientific articles, which have been cited more than 300 times, resulting in an h-index of 11 in the WOS database. 70 % of these articles were published in highly impacted journals, ranking Q1 or Q2.

Jan collaborates with a number of both local and abroad institutions/specialists that also focus on pediatric tumors. Namely Michael D. Hogarty from Children ´s Hospital of Philadelphia, Igor Adameyko from Medical University of Vienna and Karolinska Institutet, Lucília Saraiva from The University of Porto or Patric Jan Jansson and Des Richardson from The University of Sydney.

For his projects, he has repeatedly received support as the principal investigator from the Czech Health Research Council and the Czech Science Foundation. Additionally, during a one-year internship in Sydney, he also received Early Career Researcher Kickstart Grant from the Sydney university.

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

Evaluation of the applicant's pedagogical experience

As an assistant professor at the Faculty of Science, Masaryk University, Jan is actively involved in teaching and supervising students' final theses. He has supervised four bachelor's, seven master's, and three doctoral theses, most of which received excellent grades. Three of his students have also been honored with the Dean's Award for the Best Students in the Bachelor's and Master's Degree Programs. Additionally, two of his students were awarded MU Excellent Diploma Thesis grants for their projects.

Jan has participated as one of the regular lecturers during 21 semesters of practical classes and seminars across six different courses, most notably "Buněčná biologie" [Cell Biology] and "Fluorescenční mikroskopie" [Fluorescent microscopy]. Currently, he as the single teacher provides all lectures and examines all students enrolled in the English course "Cell Biology." He is also the course guarantor for "Informační technologie v buněčné biologii" [IT in Cell Biology] where he conducts five seminars, assesses students' work, and provides detailed feedback. These two courses have been built by Jan "de novo". Moreover, he contributes to the teaching and examination of two other courses "Pokročilé mikroskopické metody" [Advanced Microscopic Methods] and "Architektura buňky" [Cell Architecture].

In addition to the full-semester courses, Jan has organized several popular lectures and student conferences as a leading person of the Biomania project. He is also a member of two state examination boards: one for the master's program "Molecular and Cell Biology" and the other for the bachelor's program "Experimentální a molekulární biologie" [Experimental and Molecular Biology].

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

Habilitation thesis evaluation

The submitted habilitation thesis is a compilation of 18 publications (15 original research articles and 3 review articles), with Jan Škoda as the first and/or corresponding author on 10 of them. Eight articles were published in journals ranked in the first quartile. The first part of the thesis focuses on the molecular markers of tumor stemness and their role in the development of treatment resistance. In the second part, the author addresses current approaches to overcoming resistance, such as using mitochondria or the tumor microenvironment. The thesis has been positively evaluated by all three opponents; this view is also shared by the committee members.

Conclusion: The applicant's habilitation thesis **meets** the requirements expected of habilitation theses in the field of Molecular Biology and Genetics.

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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 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 Molecular Biology and Genetics.

In Brno on 25.10.2024

prof. Mgr. Vítězslav Bryja, Ph.D.