

Masaryk University	
Faculty	Faculty of Science
Procedure field	Molecular Biology and Genetics
Applicant	doc. Mgr. Václav Brázda, Ph.D.
Applicant's home unit, institution	Faculty of Medicine, Masaryk University
Board members	
Chair	prof. RNDr. Renata Veselská, Ph.D., M.Sc. <i>Faculty of Science, Masaryk University</i>
Members	prof. RNDr. Ondřej Slabý, Ph.D. <i>Faculty of Medicine, Masaryk University</i> prof. Ing. Jan Vacek, Ph.D. <i>Palacký University Olomouc</i> prof. RNDr. Lubomír Tomáška, DrSc. <i>Comenius University in Bratislava</i> Prof. Dr. Thorsten Stiewe <i>University of Marburg, Germany</i>

Evaluation of the applicant's scholarly/artistic qualifications

Václav Brázda graduated in Molecular Biology and Genetics from the Faculty of Science, Masaryk University in 1995 and he started his scientific career as a research assistant in the Institute of Biophysics of the Czech Academy of Sciences. In 2000, he successfully defended his Ph.D. thesis in the same field and he reached the position of scientist /research scientist in the Institute of Biophysics of the Czech Academy of Sciences. From 2005 to 2006, he completed his post-doctoral research stay at the Ontario Cancer Institute (Toronto, Canada). From January 2010, he established his own team as a head of research group at the Department of Biophysical Chemistry and Molecular Oncology.

His research group is focused on the study of unusual DNA structures, especially G-quadruplexes and inverse repetitions, and the binding of proteins to these structures in various biological models (viruses, bacteria, yeasts, human tumor cells). For his research projects are typical multidisciplinary approaches including biophysical, molecular biology and bioinformatics methods. He developed two bioinformatics tools – G4Hunter and Palindrome analyser – for analyses of unusual DNA structures that are used by a wide community of researchers interested in this field.

To June 2021, his scientific qualification is documented () by 64 publications listed in WoS database, most of them in Q1 and Q2 scholarly journals. In majority of them, he has the role of first or corresponding author. These publications received 1377 citations in total and 1053 without self-citations. Furthermore, he published 5 methodological handbooks in Czech language. His h-index reaches 23 according to the WoS database. In the last 10 years, he successfully completed as a principal investigator 4 research projects (Czech Scientific Foundation, Grant Agency of the Czech Academy of Sciences).

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

Evaluation of the applicant's pedagogical experience

Václav Brázda was appointed Associate Professor in Molecular Biology and Genetics in 2016 (Faculty of Science, Masaryk University) and he became this position in the Institute of Food Science and Technology (Faculty of Chemistry, Brno University of Technology) in the same year. He has taught here regular courses (lectures) on Gene Technologies and Modern Biotechnological Methods for Bachelor's studies, regular course on Molecular Biotechnology for Master's studies, and course on Special Molecular Biotechnology for Doctoral studies. Furthermore, he has taught lectures on Gene Engineering at the University of Ostrava from 2011. He also participated in 2 seminars and 4 advanced laboratory courses on molecular biology both at Masaryk University and Brno University of Technology.

He has also frequently served as supervisor of student theses for undergraduate studies: this teaching activity includes 31 Bachelor's theses in total (27 of them successfully defended, 4 of them in progress) and 31 Master theses in total (27 of them successfully defended, 4 of them in progress). He also supervised 3 successfully defended Ph.D. theses.

From 2018, he served as a member of state examination boards, doctoral board and doctoral committee at the Faculty of Chemistry, Brno University of Technology. In addition to the methodological handbooks mentioned above, he also authored 3 e-learning courses for Brno University of Technology and presented several popularization activities.

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

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

Václav Brázda is undoubtedly established as an international expert in the field of unusual DNA structures and their influences on the binding of proteins. His research cooperations encompass the Ontario Cancer Institute in Toronto (Canada), University of Trento (Italy), Tohoku University (Japan) Philipps University of Marburg (Germany), University of East Anglia (UK) and University of Dundee (UK). He completed several short-term research stays at these institutions and some of these collaborations resulted in original research articles and scientific reviews published in prestigious journals. Václav Brázda is also frequently invited as a speaker on international scientific conferences and he served as a member of the programme committee at three scientific events. Furthermore, he was appointed as a member of committee 301 Genetics and experimental oncology of the Czech Grant Agency from 2015 to 2019. He received several competitive publication and travel awards including the prestigious Otto Wichterle Award of Czech Academy of Sciences for excellent results (2006).

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.

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 Molecular Biology and Genetics.

In Brno on 23.09.2021

prof. RNDr. Renata Veselská, Ph.D., M.Sc.