Evaluation Board Decision on the Nomination for Appointment to Professor

Masaryk University	
Faculty	Faculty of Science
Procedure field	Molecular Biology and Genetics
Applicant	doc. Mgr. Petr Beneš, Ph.D.
Applicant's home unit, institution	Faculty of Science, Masaryk University
Board members	
Chair	prof. RNDr. Jiří Doškař, CSc. *Faculty of Science, Masaryk University*
Members	prof. RNDr. Ondřej Slabý, Ph.D. *Faculty of Medicine, Masaryk University* doc. Mgr. Jan Bouchal, Ph.D. *Department of Clinical and Molecular Pathology, Faculty of Medicine and Dentistry, Palacký University Olomouc* prof. RNDr. Ľubomír Tomáška, DrSc. *Department of Genetics, Faculty of Natural Sciences, Comenius University in Bratislava* Prof. Jon Frampton *Institute of Cancer and Genomic Sciences, University of Birmingham, UK*

Evaluation of the applicant's scholarly/artistic qualifications

Petr Beneš completed his master's degree in Molecular Biology and Genetics in 1996 and subsequently a PhD program in Genetics in 2001 at the Faculty of Science, Masaryk University (MU). In the years 1996–2001, he also worked as a researcher at the Department of Pathology at the Faculty of Medicine of MU. In the years 2001–2002 he was a post-doctoral research fellow at the Department of Pathology, University of Louisville, USA. Since 2002 he has been working at the Department of Experimental Biology, Faculty of Science as an Assistant Professor and from 2014 as an Associate Professor. Since 2011, he has also joined the International Clinical Research Center at the St. Anne's University Hospital Brno as a Senior researcher.

Petr Beneš is a recognized scientist focusing mainly on signaling pathways related to tumorigenesis, tumor progression and therapeutic resistance. One of the genes of his long-term interest is MYB. Although considered oncogene, his team contributed to understanding of dual function of the c-Myb protein in tumor progression and metastases formation by identification of c-Myb-deregulated inflammatory signaling within tumor microenvironment that reduces of the lung metastasis relapse in breast cancer patients. Recently, his team showed that immunomodulatory role of MYB affects tumor growth and metastasis in a subtype of colon tumors. His team also participated in the study that described mechanism of metastasis inhibiting/promoting effects of other proteins including Trop2, cathepsin D and others. He is also interested in exploring the mechanism of action of anti-cancer compounds and searching for effective drug combinations. For this purpose, together with colleagues of a multidisciplinary team, he recently co-developed methodological approaches to analyze efficiency of antineoplastic drugs and their combinations in 3D tumor tissue models (spheroids, organotypic cultures) and successfully used this approach in subsequent proof-of-concept studies.

Petr Beneš published the results of his research as a main author or co- in a total of 55 articles in renowned international journals with a total IF exceeding 200 which were cited 1223 times according to WOS (H index = 19). He is the first or corresponding author of 25 papers. The high quality and importance of his results is evidenced by the fact that 24 articles were published in Q1 and 26 in Q2 journals. He also presented the results of his work at numerous international and domestic conferences.

Since 2003 Petr Beneš has been the principal investigator of seven grant projects awarded by the Czech Science Foundation, the Grant Agency of the Academy of Sciences of the Czech Republic, the Technology Agency of the Czech Republic, and the Czech Health Research Council, mostly related to cancer research. He also joined International Clinical Research Center at the St. Anne's University Hospital Brno as a group leader in the project funded by European Regional Development Fund. Currently, he is also a group leader in the project National Institute for Cancer Research funded by the European Union.

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

Since 2002 Petr Beneš has been teaching students regularly in Molecular Biology and Genetics, Medical Genetics and Molecular Diagnostics and other biological study programs at the Faculty of Science. He provides lectures on Gene Engineering (since 2018), Methods of Molecular Biology (since 2015) and Cellular and Molecular Neurobiology (since 2008), as well as practical exercises in Molecular Biology (since 2002), Methods of Molecular Biology (since 2003) and Molecular Biology of Eukaryotes (since 2004). He is also involved in organizing/ teaching at the Diploma thesis and Laboratory seminars at the Department of Experimental Biology. He prepared comprehensive study materials and audio/video records for the courses, and he continuously innovates them. He was a PI of two projects for innovation of practical

courses of molecular biology methods financed by the Ministry of Education, Youth and Sports of the Czech Republic and the Masaryk University Development Fund.

For many years he has been a very successful supervisor of a number of students' projects. This is evidenced by the fact that 14 bachelor's theses, 12 master's theses and 4 doctoral theses (+2 in progress) were defended to date. Several of his students received grants from Masaryk University for their research projects and his PhD students have been awarded for their presentations (poster and oral) at various scientific conferences. Dr. Beneš acted also as a thesis committee member at the University of Zurich. This thesis was successfully defended in 2022.

Doc. Beneš is a member of several committees for the state final exams for bachelor's, master's and doctoral studies in the field of Molecular Biology and Genetics as well as Medical Genetics and Molecular Diagnostics. Since this year he is the chairman of the doctoral board for the PhD degree program of Molecular and Cell Biology and Genetics at Faculty of Science MU.

His pedagogical activities also include popularization of genetics and molecular biology by lectures and practical courses for high school students and teachers. He has also actively participated in the organization of student conferences focused on molecular biology and biochemistry at Masaryk University for many years.

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

The results of the scientific work and the expertise of doc. Beneš is reflected in numerous collaborations with foreign and domestic institutions (e.g., University of Zurich, Kazimier Wielki University in Bydgoszcz, University of Belgrade, University of Louisville, Masaryk University, Academy of Sciences of the Czech Republic, etc.) where he acted as a valued partner in the implementation of new methodological approaches and research ideas. The fact that he is a successful applicant of grant projects documents that he is a recognized scientist by the research community and became a respected expert in the field of tumor biology. He is a member of Metastasis Research Society, an international society dedicated to metastasis research and treatment. He also acts as an ad-hoc reviewer in various scientific journals, according to WOS he completed more than 45 reviews during his scientific carrier (14 for Cancer Letters journal). Activities that demonstrate the scientific qualification of doc. Beneš include also memberships in grant agency and expert committees at Masaryk University, habilitation committees at MU and Charles University and doctoral thesis committee at the Department of Physiology, University of Zurich.

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 Molecular Biology and Genetics.

In Brno on 01.11.2023

prof. RNDr. Jiří Doškař, CSc. .....