

Masaryk University	
Faculty	Faculty of Medicine
Procedure field	Oncology
Applicant	doc. MUDr. Mgr. Marek Mráz, Ph.D.
Applicant's home unit, institution	CEITEC, Masaryk University
Board members	
Chair	prof. MUDr. Jaroslav Štěrba, Ph.D. <i>Faculty of Medicine, Masaryk University</i>
Members	prof. Francesco Forconi, MD PhD <i>University of Southampton, UK</i> prof. MUDr. Pavel Klener, Ph.D. <i>1.LF UK a VFN, Praha</i> prof. MUDr. Vít Procházka, Ph.D. <i>LF UP a FNOL, Olomouc</i> prof. MUDr. Tomáš Stopka, Ph.D. <i>1.LF UK a VFN, Praha</i>

Evaluation of the applicant's scholarly/artistic qualifications

Assoc. Prof. Marek Mráz, M.D., MSc., Ph. D. received an M.D. in General Medicine in 2009 and MSc. in Molecular Biology and Genetics in 2008, both from Masaryk University. Following graduating from these fields in parallel, he decided on an atypical career path and devoted exclusively to scientific activities and studied the molecular pathogenesis of tumors arising from immune cells, especially B cell leukemias and lymphomas. He finished his postgraduate doctoral studies in Oncology at Masaryk University in 2012 (title of the doctoral thesis "Analysis of microRNAs expression and function in hematological malignancies"). Marek Mráz participated in two long-term international internships as a post-doctoral fellow at prestigious foreign institutes in the USA, where he also successfully worked on the molecular biology of B malignancies (Mayo Clinic and the University of California). Subsequently, after returning from abroad in 2015, he habilitated as an associate professor of Oncology at the Faculty of Medicine MU (habilitation thesis Molecular pathogenesis of B cell malignancies and the role of microRNAs in their biology). Currently, he is a researcher and senior principal investigator at Dept. of Internal Medicine, Hematology, and Oncology (University Hospital Brno) and at CEITEC Masaryk University, where he leads a group of 11 researchers. To this date, he has published 46 publications with impact factor (26 as first or corresponding author), all listed in the Web of Science database, and additional 8 articles in peer-reviewed national journals without impact factor (altogether 54 publications, with 32 as first or corresponding author). His H-index is 24 in WoS, and the current number of citations in WoS is 2100 (1920 without self-citations). He has published 20 publications as the first or corresponding author in peer-reviewed journals with an impact factor above the median of the field, which illustrates that the majority of his publications are in high-profile journals (65% of publications in Q1) and highly referenced (see bibliometric analysis in Annex 6 to the application). Prof. Mráz has presented his research at multiple domestic and international congresses, including invited lectures at high-profile international congresses (see Annex 9).

His work fundamentally contributed to the understanding of the importance of aberrations in the TP53 gene in chronic lymphocytic leukemia, the description of the regulation and function of CD20, which is the target of anti-CD20 monoclonal antibody rituximab used in B cell malignancies, and his contribution to understanding the role of non-coding RNAs in the biology of B cell malignancies and interactions in the microenvironment of these tumors is very well recognized in the international community. His work has contributed to the development and design of several clinical trials (miR-155 inhibitor therapy, anti-CD20 and BCR inhibitor combinations). An important part of his work is also the study and implementation of biomarkers in B malignancies, which is illustrated by 2 obtained patents (patent 306080, 309489). His international reputation in the field of hematological malignancies is illustrated by publications in the most prestigious hematological journals (Leukemia and Blood), and for these works, he has been awarded several important awards, including by the European Hematology Association, Czech Society of Hematology, Czech Society for Oncology, Czech Science Foundation (GACR), Ministry of Health of Czech Rep., Neuron Foundation, Bone Marrow Transplant Foundation, League against Cancer, and repeatedly awards from the rector and vice-rector of Masaryk University.

Assoc. Prof. Marek Mráz received several prestigious international grants as principal investigator, including the ERC Starting grant (2019-24), European Hematology Association Research Award (2014-16) and is a principal investigator of a number of national completed or ongoing grants (5x AZV grant, 2x GAČR grant, and a member of NÚVR)

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

Evaluation of the applicant's pedagogical experience

Assoc. Prof. Marek Mráz has been regularly involved in teaching undergraduate students of the Faculty of Medicine (and Faculty of Sciences) since 2011, including 9 courses and seminars: Theoretical Bases of Clinical Medicine II, Advanced Molecular Medicine, Modern technologies for genome analysis, Advances and Challenges in Modern Biology, Analysis of sequencing data, Microarrays, Internal Medicine - Pre-graduation Practice, Theoretical Bases of Clinical Medicine II – seminar, Life Sciences Seminar. One of the courses has been specifically

developed and fully led by him (Advanced Molecular Medicine). He is the co-author of 4 educational monographs, which can be used in pre-graduate and postgraduate teaching of medical and other biological disciplines.

He is a highly successful supervisor of PhD students (6 completed Ph.D. students, 5 as a supervisor and 1 as co-supervisor) whose doctoral theses and publications have been awarded many times. He is currently supervising seven PhD students. His PhD students have all graduated with Q1 first-author papers, and repeatedly obtained the „Brno Ph.D. Talent award" and awards from the Czech Hematology Society, League Against Cancer, Purkyne Foundation, vice-rector and rector of Masaryk University, and appreciated at international conferences such as the international workshop on CLL. The PhD students have also continued to later excel in their careers by obtaining positions at prestigious institutes, such the University of Rochester, US (Dr. S. Sharma) or the University of Philadelphia, US (Dr. J. Oppelt). He was also the supervisor of 9 successfully defended Bachelor and 13 successfully defended Master theses in biological disciplines and an opponent of several theses at Masaryk University.

Since 2019 he is a member of the doctoral boards for Biomedical sciences and Molecular medicine PhD programs at Masaryk University, and since 2024 he has been the chair of the PhD committee for Molecular Medicine at the Faculty of Medicine Masaryk University.

Besides these professional academic activities, he also gives talks for the general public about the biology and therapy of leukemias (Science Cafe talks).

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

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

Assoc. Prof. Marek Mráz is a leading expert in the molecular pathogenesis of B cell malignancies; he is well respected in the international community, which is reflected by the number of invited lectures at national and international symposia (see Annex 9). He is a member of many professional societies, such as the EHA Hematology Association, where he serves on the European Affairs committee as one of the only two Czech hematologists at this prestigious organization. He also serves the grant and fellowships committee of the Federation of European Biochemical Societies (FEBS). He is a member of international and national societies such as the EHA lymphoma Group (board member), European Research Initiative on CLL (ERIC), Czech Oncology Society, Czech Medical Association of J. E. Purkyně, Czech Haematology Society (member of CLL section, Lymphoma section, and Leukemic section), Czech-Slovak Biological society, Genetic Society of J.G. Mendel. He is also a member of the working group of the Slovak accreditation agency for university education. He is a member of the grant panel (P304, Tumor Biology, Experimental Oncology, Morphological Disciplines and Pathology) of Czech Science Foundation (GAČR), a member of the internal grant agency of Charles University, and regularly reviews grant applications for the Swiss National Science Foundation and Swiss Cancer League, Leukemia & Lymphoma Research (United Kingdom), The National Science Center Poland, Ministry of Health of Czech Rep., Slovak Academy of Sciences, Slovakia (IMPULZ grants). He is a member of CEITEC MU Scientific and CEITEC MU Strategic boards.

Dr. Mráz extensively collaborates and publishes with key experts in the research of B cell malignancies and ncRNAs such as Drs. M. Davids lab (Dana Farber Cancer Center, USA), J. Brown lab (Harvard, USA), U. Jaeger lab (University of Vienna, AU), R. Calogero lab (University of Torino, IT), V. Benes (EMBL).

He serves on the editorial board of the journal Leukemia Research, and regularly reviews for high-profile journals in the fields such as Blood, Leukemia, and Haematologica. He is also repeatedly asked to review abstracts submitted to international conferences and to (co)chair oral sessions, such as in 2022 at the annual meeting of the American Society of Hematology and in 2023 for the upcoming annual meeting of the European Hematology Association. He also served on the organizing committee of the Young Investigators meeting at the EHA congress (2021, 2022) and of Young Investigators Meeting at the International workshop on CLL (2023).

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 Medicine of Masaryk University to **appoint the applicant professor** of Oncology.

In Brno on 26.04.2023

prof. MUDr. Jaroslav Štěrba, Ph.D.

