

Masaryk University	
Faculty	Faculty of Medicine
Procedure field	Surgery
Applicant	MUDr. Andrej Mrlian, Ph.D.
Applicant's home unit, institution	Faculty of Medicine, Masaryk University
Habilitation thesis	New insights into some of the factors significantly influencing treatment outcome in patients after severe brain injury
<u>Board members</u>	
Chair	prof. MUDr. Radim Jančálek, Ph.D., MBA <i>Faculty of Medicine, Masaryk University</i>
Members	prof. MUDr. Radim Lipina, Ph.D. <i>Neurochirurgická klinika LF OU a FN Ostrava</i> prof. MUDr. Vladimír Přibáň, Ph.D. <i>Neurochirurgická klinika LF UK Plzeň a FN Plzeň</i> prof. MUDr. Martin Sameš, CSc. <i>Neurochirurgická klinika FZS UJEP v Ústí nad Labem a MNUL</i> Prof. Karl Schaller <i>Neurosurgery Division at Geneva University Medical Center and Faculty of Medicine, University of Geneva, Switzerland</i>

Evaluation of the applicant's scholarly/artistic qualifications

MUDr. Andrej Mrlian, Ph.D., is the author or co-author of a total of 25 peer-reviewed scientific publications. Of these, 18 were published in journals indexed in the Impact Factor (IF) database, with Dr. Mrlian serving as the first or corresponding author on 10. Notably, one first-authored publication appeared in a journal with an IF exceeding 0.5, classified within the Q2 quartile in the field of Clinical Neurology. According to the Web of Science (WoS) database, the applicant's publications have accumulated 40 citations, excluding self-citations. The current H-index, as recorded in WoS, stands at 3.

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

Evaluation of the applicant's pedagogical experience

MUDr. Andrej Mrlian, Ph.D., has been regularly involved in the teaching of students at the Faculty of Medicine, Masaryk University (LF MU) since 2016, holding the position of Assistant Professor. He is a member of the examination board for the State Rigorous Examination in Surgery at LF MU. To date, however, he has not served, nor does he currently serve, as a supervisor of doctoral students. With respect to pedagogical publication activity, Dr. Mrlian has contributed as the sole author of 2 chapters in academic textbooks and as a co-author of 1 electronic educational resource, constituting a publication record commensurate with his academic standing.

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

Habilitation thesis evaluation

The habilitation thesis of MUDr. Andrej Mrlian, Ph.D., entitled "New Findings on Selected Factors Significantly Influencing Treatment Outcomes in Patients with Severe Brain Injury", is conceived as a collection of commented scientific publications, spanning 101 pages in total, and comprises seven peer-reviewed articles published between 2005 and 2023, six of which appeared in journals indexed with an Impact Factor; the principal contribution, classified within the Q2 quartile, represents the most significant original authorial work. The thesis is thematically organised around two mutually complementary areas of inquiry: the first addresses disorders of the immune system in patients sustaining severe traumatic brain injury (TBI), with the key finding being a statistically significant suppression of the cellular immune compartment (CD3+, CD4+, CD8+, CD19+, CD20+) accompanied by a concurrent rise in NK cells and inadequately elevated IgE levels, all of which bear a direct relationship to clinical outcome and the incidence of infectious complications; the second area focuses on multimodal monitoring (ICP, PbtO#, microdialysis, CBF, PRx) as a tool for the early detection of secondary brain insults and the optimisation of therapy. The reviewers unanimously commend the long-term consistency of the research programme, the author's own clinical patient material, and the effort to integrate pathophysiological findings with practical bedside decision-making; minor criticisms include the incorporation of older and lower-impact publications and isolated formal shortcomings in the text, none of which, however, diminish the overall scientific and clinical significance of the submitted work.

Conclusion: The applicant's habilitation thesis **meets** the requirements expected of habilitation theses in the field of Surgery.

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 Medicine of Masaryk University to **appoint the applicant associate professor** of Surgery.

In Brno on 14.05.2026

prof. MUDr. Radim Jančálek, Ph.D., MBA

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