

Masaryk University	
Faculty	Faculty of Medicine
Procedure field	Surgery
Applicant	MUDr. Zdeněk Dvořák, Ph.D.
Applicant's home unit, institution	Faculty of Medicine, Masaryk University
Habilitation thesis	Functional and Aesthetic Reconstruction of the External Nose
Board members	
Chair	prof. MUDr. Pavel Brychta, CSc. <i>Faculty of Medicine, Masaryk University</i>
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Evaluation of the applicant's scholarly/artistic qualifications

Zdenek Dvorak, MD, Ph.D., graduated the Faculty of Medicine of Masaryk University in Brno, Czech Republic (study program: General Medicine) in 2010. After his graduation, he started his career at the Department of Plastic and Aesthetic Surgery, University Hospital at St. Anny in Brno where he is working until now, since 2020 as a Head of the Department. He successfully completed his specialization in Surgery I in 2005 and in Plastic Surgery in 2009. In 2010 he successfully defended her doctoral thesis focusing on the Functional Development of Middle-Face by Patients with Cleft Palate and obtained the PhD title.

Dr. Dvorak has an impressive publication record of more than 50 peer-reviewed articles, he is the main author or corresponding author of 22 of them. Among his relatively rich publishing activities, he is the author or co-author of 12 articles published in impacted journals (cumulative IF 18,239). He is listed 5 times as the first or corresponding author (2 times in journal with IF above the median of WoS category). He is the author of the chapter Phalloplasty in Female-to-Male Sex Reassignment Surgery as a part of monography Imaging for Plastic Surgery with international impact. His research carrier is supported by 71 citations in WoS (126 citations in total) and H-index 5. Dr. Dvorak was a member of research team of 5 national grant supported by IGA, 4 grants are running. Since 2019, he has been the Editor-in-chief of the international journal *Acta chirurgiae plasticae*, founded in 1959 by academician František Burian, which is published in English and publishes scientific articles on plastic, reconstructive, maxillofacial, burn and hand surgery.

From aforementioned, it is clear that Dr. Dvorak is experienced researcher with evidenced impact on science in the field of Plastic Surgery

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

Zdenek Dvorak, MD, Ph.D., started his teaching activity in 2005 as an assistant at the Department of Plastic and Aesthetic Surgery, Faculty of Medicine, Masaryk University and St. Anne's University Hospital in Brno. He regularly teaches class exercises in Plastic Surgery lectures both in Czech and in English. He is a supervisor of doctoral candidate Jan Menoušek M.D. In addition, his teaching activity is supported by 9 comprehensive textbooks, by a chapter in a popular science book, by two patient's handbooks and a number of compilations and presentations in both Czech and English languages.

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

Dr. Dvorak's habilitation thesis is entitled "Functional and Aesthetic Reconstruction of the External Nose".

The nose is one of the most challenging parts of the face to reconstruct. The attempt to summarize the current state of knowledge in this area and to supplement the existing knowledge with own research is a professional challenge.

The present thesis has 223 pages. It consists of a theoretical part of 85 pages and a clinical part of 81 pages. It is supplemented by two appendices - a questionnaire for subjective evaluation of the result of nasal reconstruction and an anthropometric questionnaire.

The aim of the clinical part is to establish an algorithm for optimal nasal reconstruction, to develop subjective and objective tools for the evaluation of the reconstructive results and to verify the accuracy of publicly available scanning systems against professional scanners in facial 3D scanning.

The developed questionnaire is very realistic, telling and applicable in clinical practice. Another aim of the study is to compare the accuracy of the measurement of each dimension of the reconstructed nose by conventional millimetre (digital) caliper measurement with the values measured on a virtual model obtained by 3D scanning technology with a mobile phone or a professional scanner Vectra H2, and to determine which method is the most accurate. Furthermore, the obtained data were compared with standard values from previous anthropometric studies of the nose of women, above average women and men. All the data were statistically detailed. On the basis of the knowledge gained from the literature search and clinical practice at the Department of Plastic and Aesthetic Surgery, University Hospital at St. Anny in Brno, algorithms for the management of loss of the skin cover of the nose and for complex loss of nasal part were developed. The literature contains 281 references and citations demonstrate the author's publication activity, from which a treasure for the habilitation thesis is based. The thesis is illustrated with 96 comprehensive figures and 30 tables.

The stated objectives of the thesis have been met and the thesis meets the requirements for a habilitation thesis in surgery. The thesis will be very useful for surgeons in the fields dealing with facial reconstruction and can be recommended for reworking into a monograph on the theme, which is lacking in the Czech literature.

The habilitation thesis was reviewed by three respected experts in the field of plastic surgery and rhinoplasty. All reviewers agreed that the habilitation thesis of Dr. Dvorak presents new knowledge in the field of nasal reconstruction and has a good scientific potential. The opponents also highly evaluated concise and precise formal and language level of the habilitation thesis. Based on all the three reviews, the presented habilitation thesis meets the standard requirements for habilitation theses in the field of Surgery at the Faculty of Medicine, Masaryk University.

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 24.04.2023

prof. MUDr. Pavel Brychta, CSc.

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