Habilitation Board Decision on the Nomination for Appointment to Associate Professor

Masaryk University	
Faculty	Faculty of Science
Procedure field	Physical Chemistry
Applicant	RNDr. Mgr. Jozef Hritz, PhD.
Applicant's home unit, institution	Faculty of Science, Masaryk University
Habilitation thesis	Dynamical features of biomolecular complexes
Board members	
Chair	prof. RNDr. Radek Marek, Ph.D. *CEITEC, Masaryk University*
Members	prof. RNDr. Ivana Kutá-Smatanová, Ph.D. *University of South Bohemia in České Budějovice* doc. Mgr. Lubomír Rulíšek, CSc., DSc. *Institute of Organic Chemistry and Biochemistry of the Czech Academy of Sciences* doc. RNDr. Petr Jurečka, Ph.D. *Palacký University Olomouc* Prof. Dr. Bojan Zagrovic, BA *Max Perutz Labs; University of Vienna, Austria*

Evaluation of the applicant's scholarly/artistic qualifications

Jozef Hritz was born in 1977 in Slovakia and graduated in Physics from P. J. Šafárik University in Košice. He received his Ph.D. degree in Biophysics from the same institute in 2005 for the work “Molecular modeling of interaction of hypericin and phorbol esters with biologically relevant protein”. As a postdoc, he joined the research group of Professor Chris Oostenbrink at the Vrije Universitait, Amsterdam (2005-2010). In 2010, he was awarded Marie-Curie fellowship in NMR laboratory of Professor Angela Gronenborn at the University of Pittsburgh (2010-2012). In 2013, as part of the return phase of the MC fellowship, he joined the research group of Professor Vladimír Sklenář at Masaryk University. Since 2014, he is a senior scientist in the research group of Professor Lukáš Žídek at the CEITEC MU and a lecturer in Biophysical Chemistry at Faculty of Science, Masaryk University.

His research has been focused on methods of molecular modelling and applications of NMR spectroscopy to study biomolecular complexes. Jozef Hritz contributed to the development of techniques based on the replica-exchange molecular dynamics for enhanced sampling and free-energy calculations. Further, he contributed to experimental NMR and computational studies of intrinsically disordered proteins. Currently, research in his group is focused on the analysis of various proteins and phosphorylation phenomena using an arsenal of biophysical techniques, experimental and theoretical.

Dr. Hritz is the author or co-author of 35 scientific papers (15 of which are associated with the Masaryk University) in highly ranked international journals (> 80% in Q1 or Q2 category). The applicant is the first author of nine and the corresponding (senior) author of eight papers. His publications have been cited (at the time of the submission of the application) more than 1000 times (with almost 50% of citations in Q1 journals).

It is clear from the above statements that Dr. Hritz is an internationally recognized scientist in the field of molecular simulations and applications of NMR spectroscopy in biomolecular studies.

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

Evaluation of the applicant's pedagogical experience

Dr. Jozef Hritz started his teaching activities shortly after joining Masaryk University in 2014. In collaboration with prof. Libuše Trnková, he established several classes in biophysical chemistry and continues teaching these classes at bachelor and master levels: Introduction to Biophysical Chemistry, Advanced Biophysical Chemistry, and Methods of Biophysical Chemistry.

He has supervised 18 bachelor and 12 master students. Currently, he is the supervisor or advisor of 5 Ph.D. students in biomolecular chemistry or structural biology.

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

Habilitation thesis evaluation

The habilitation thesis of Jozef Hritz “Dynamical Features of Biomolecular Complexes” summarizes 15 scientific papers addressing several questions in biomolecular studies using advanced molecular simulation techniques. The thesis has been reviewed by three external reviewers: Professor Martin Zacharias (Technical University, Munich, Germany), Professor Francisco Javier Luque (University of Barcelona, Barcelona, Spain), and Associate Professor Vojtěch Spiwok (University of Chemical Technology, Prague, Czechia). In their reports, all three reviewers

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greatly appreciated the scientific achievements of Dr. Hritz and concluded that the habilitation thesis fulfills the requirements expected of a habilitation thesis in the field of Physical Chemistry. Professor Zacharias summarized his opinion about the thesis as follows: “In summary, Dr. Hritz has made important and outstanding contributions to the field of biomolecular simulations ranging from improvements of biomolecular docking, advanced sampling H-REMD methods to new free energy simulation methods and systematic studies of intrinsically disordered proteins. His habilitation thesis is an impressive collection of very fine molecular simulation studies”.

In summary, the reviewers recommend his thesis to be accepted in the habilitation procedure and suggest awarding Dr. Hritz by the academic title Associate Professor of Physical Chemistry.

Conclusion: The applicant's habilitation thesis **meet** the requirements expected of habilitation theses in the field of Physical Chemistry.

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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 Science of Masaryk University to **appoint the applicant associate professor** of Physical Chemistry.

In Brno on 08.11.2021

prof. RNDr. Radek Marek, Ph.D. .....

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