Evaluation Board Decision on the Nomination for Appointment to Professor

Masaryk University	
Faculty	Faculty of Science
Procedure field	Biomolecular Chemistry and Structural Biology
Applicant	doc. RNDr. Karel Berka, Ph.D.
Applicant's home unit, institution	Department of Physical Chemistry, Faculty of Science, Palacký University Olomouc
Board members	
Chair	prof. RNDr. Michaela Wimmerová, Ph.D. *Faculty of Science, Masaryk University*
Members	prof. Mgr. Richard Štefl, Ph.D. *Faculty of Science, Masaryk University* prof. RNDr. Rudiger Ettrich, Ph.D. *Larkin University, USA* prof. Mgr. Daniel Svozil, Ph.D. *Laboratory of Informatics and Chemistry, University of Chemistry and Technology, Prague, UCT Prague* prof. Mgr. Lubomír Rulíšek, CSc., DSc. *Institute of Organic Chemistry and Biochemistry of the CAS*

Evaluation of the applicant's scholarly/artistic qualifications

Doc. RNDr. Karel Berka, Ph.D. has received his Master's degree in Physical Chemistry from Charles University Prague in 2006 followed with a small doctorate (RNDr.) in 2008. He received his Ph.D. in Modelling of Chemical Properties of Nano- and Biomaterials from Charles University Prague in 2010. He obtained Associate professorship in Physical Chemistry from Palacký University Olomouc in 2016.

His professional experience includes several technician positions at Czech Academy of Sciences (2002-2006), graduate student position at Institute of Organic Chemistry and Biochemistry, Czech Academy of Sciences (2006-2010). Then he moved to the Faculty of Science Palacký University Olomouc, where he held assistant professor at the Physical Chemistry department (2010-2018), and he is currently working as an associate professor since 2018. Since 2020, he has been a deputy head for Study Affairs. He also collaborates with computing groups at NCBR, Fac Sci and CEITEC MU in Brno, as evidenced by more than 20 joint publications.

He has spent more than one year abroad on long-term placements (Ecole Normale Superior de Cachan in France in 2004, Postech in South Korea in 2009 and Uppsala Universitet in 2018) and multiple shorter stays (European Bioinformatics Institute in the United Kingdom, Universite de Limoges in France and Procter and Gamble company, USA).

K. Berka leads the team of the Chemical Data lab at the Department of Physical Chemistry at Palacký University Olomouc. His scientific focus is broad, spanning from studies of the interaction of small molecules with proteins and membranes on the scale of available chemical data mixed with structural bioinformatics approaches and methods.

K. Berka has published over a hundred scientific publications (90 peer-reviewed original research articles according to WOS and 4 peer-reviewed articles in other venues, 1 scholarly book, 1 scholarly book chapter, 11 articles in proceedings). His works received over 4200 citations (including 5% share of self-citations) and his H-index is 35. He is also an experienced reviewer for journals in bioinformatics and chemical modelling fields and served as a panelist in the Czech Science Foundation P301 committee.

K. Berka has been very active in the Czech National Infrastructure for Biological Data (ELIXIR CZ) since its inception in 2012 and now serves as its Vice-head. He is also an associate member of the Royal Society of Chemistry since 2015. K. Berka has received or co-supervised a number of prestigious grants from the Czech Science Foundation (MolMeDB, cytochromes P450, liposomes) or Ministry of Education, Youth and Sports (ELIXIR CZ) or served as a workgroup leader on international projects (AURORA-RI and ELIXIR-CONVERGE). Apart from ERASMUS awards as a student and later as a lecturer, he has also received multiple awards for his scientific output (RCPTM award, Dean Awards) or mentorship (Supervisor's Dean Award).

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

Evaluation of the applicant's pedagogical experience

In addition to his research activities, the Evaluation Board was impressed by K. Berka extensive teaching experience for his age, which began in 2001 upon co-establishment of Correspondence Seminar Inspired by Chemical Thematic (KSICHT) for high school students, where he is active till this day. The focus on the inspiration on students of all ages continued upon the arrival to Palacký University Olomouc, where he has participated in outreaching activities including public lectures, YouTube videos and popularization texts for high schools and general public.

K. Berka has taught courses in Physical Chemistry, Drug design at both Charles University, Prague, and Palacký University, Olomouc. Nevertheless, his major impressive teaching load constitutes Palacký University, Olomouc, where he is teaching for more than a decade courses in Drug design, Structural bioinformatics of proteins, Physical chemistry, Scientific communication, and Bioinformatics. He has started a series of international Advanced in silico Drug design courses, which are also eagerly attended by students and faculty members from the

Masaryk University, Brno. He has been guarantor of the doctoral Physical Chemistry program at the Faculty of Science, Palacký University, Olomouc since 2020.

As a mentor, K. Berka has supervised 20 bachelor's and 15 master's theses and several high school students. He has also supervised 1 defended and 5 running doctoral theses and co-supervised additional 7 defended and 1 running doctoral theses. His students won several awards including the best thesis award at the Faculty of Science, Palacký University, Olomouc in 2024.

K. Berka also serves as a member at the Scientific Pedagogical Chemistry Council of the Faculty of Science, Palacký University, Olomouc and multiple state examination boards at Palacký University and Masaryk University, doctoral boards (Physical chemistry at Palacký University, Olomouc and Bioinformatics and Computational biology at Charles University, Prague), doctoral committees and TAC committees at Masaryk University, Brno.

Conclusion: The applicant's pedagogical capabilities **meet** the requirements expected of applicants participating in a professor appointment procedure in the field of Biomolecular Chemistry and Structural Biology.

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

Based on the documents submitted by Karel Berka, three letters of recommendation, publication records, and the public lecture, the Evaluation Board states that Karel Berka is a mature scientist who has a very good international reputation in the scientific community in the field of structural biology and biomolecular chemistry. His publication output in high-quality scientific journals received significant citations. His pedagogical activity is also excellent and reaching general public. There is no doubt that he meets the requirement as a professor in the field of Biomolecular Chemistry and Structural Biology.

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 Biomolecular Chemistry and Structural Biology.

In Brno on 18.11.2024

prof. RNDr. Michaela Wimmerová, Ph.D. .....