

Masaryk University	
Faculty	Faculty of Science
Procedure field	Biochemistry
Applicant	doc. RNDr. Petr Skládal, CSc.
Applicant's home unit, institution	Faculty of Science, Masaryk University
Board members	
Chair	prof. RNDr. Zdeněk Glatz, CSc. <i>Faculty of Science, Masaryk University</i>
Members	prof. RNDr. Ivo Frébort, CSc., Ph.D. <i>CATRIN - CRH, Palacký University Olomouc</i> prof. Ing. Jiří Homola, CSc., DSc. <i>Institute of Photonics and Electronics of CAS, Charles University in Prague</i> Prof. Maria Minunni, PhD <i>Department of Analytical Chemistry, University of Florence, Italy</i> Prof. Dario Compagnone, PhD <i>Faculty of Bioscience, Agro-Food and Environmental Technology, University of Teramo, Italy</i>

Evaluation of the applicant's scholarly/artistic qualifications

Associate Prof. Petr Skládal, Head of the Department of Biochemistry, Faculty of Science, Masaryk University (FS MU), and Head of the Nanobiotechnology Research Group of Central European Institute of Technology (CEITEC) MU completed his MSc. studies of Biochemistry at the FS MU, graduating in 1988 with the subject of his thesis being "The Use of Detergents for Purification of Membrane Proteins from the Respiratory Chain of the Bacterium *Paracoccus denitrificans*". After finishing Military Service, he began his career at the Department of Biochemistry, FS MU, first as a Research Fellow completing his PhD Thesis "Biosensors for Determination of Toxic Compounds" and then as a Teaching Assistant and finally as an Associate Professor with the Habilitation Thesis "Immunobiosensors". As it can be seen from the subjects of the PhD and habilitation theses, Associate Prof. Petr Skládal is another representative and successor of the Czechoslovakian biosensor school established by prof. Lumír Macholán, moreover he initiated his new scientific orientation on the different types of biosensors and lately opened the field of nanobiotechnology at MU. He formed his own new research group in this progressive disciplines being well-recognized in the Czech Republic as well as abroad which can be documented by many excellent followers – Professor Miroslav Pohanka at Military University of Defence, Associate Prof. Jan Halamek, PhD working at the State University of New York at Albany and the University of Texas, Dr. Vladimír Kolar, Senior Researcher at BioVendor Laboratory Medicine, Inc., Assistant Prof. Zdenek Farka, PhD working at the Department of Biochemistry awarded by Dean and Rector of MU prizes and First prize in Jean-Marie Lehn Prize for Chemistry, Solvay and Embassy of France in Chemistry (just applying for associate professorship), Dr. Jan Přebyl and Dr. Karel Lacina, working at CEITEC MU, Dr. Jan Hlaváček working as a researcher at Institute of Analytical Chemistry AS CR, etc.

He has published over 184 papers, in most cases as the first or corresponding author typically in excellent journals in this field with 5494 citations without auto-citations and H-index 40 having many oral and poster presentations at a number of international conferences. Besides he is a Senior Associated Editor in the Springer-Nature journal *Microchimica Acta* (IF=5.705, 01) 2017–, and a Member of the Editorial boards of the MDPI journals *Sensors* (IF=3.031, 01) 2018, and *Bioprospect* 2017–. He has been/is also a principal investigator of many grant projects supported by the European Frame programs, Czech Science Foundation, Ministry of Education, Youth and Sport, Ministry of Defense, Ministry of Health and by the Internal Grant Agency of MU.

His research cooperation encompasses the Institute of Chemistry, Universidade Estadual Paulista, Brazil, Swedish Defense Research, University of Florence, Department of Environmental Analytical Chemistry, University of Dundee, School of Life Sciences, Lund University, Department of Analytical Chemistry, State University of New York, Department of Chemistry, Food Research Institute, UK, Norwich, University of Cork, Department of Chemistry, Technical University of Muenchen, School of Life Sciences, He completed long and several short-term research stays at these institutions and some of these collaborations resulted in original research articles and scientific reviews published in prestigious journals.

In 2021 he was involved in establishing the first Assistant Professor position for a foreign scientist at the Department of Biochemistry, Dr. rer. nat. Hans-Heiner Gorris (formerly University Regensburg) working in the field of the Design of Photon-upconversion Nanoparticles to Biomedical Applications, and he helped him to create his own research group at the Department of Biochemistry.

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

Evaluation of the applicant's pedagogical experience

Associate Prof. Petr Skládal was/is involved in all regular teaching activities at his home department starting with basic and advanced laboratory courses in Biochemistry, seminars (Enzymology – seminar, Applied enzymology – seminar, seminary to bachelor thesis, Diploma seminar I),

obligatory lectures (Biochemistry I and II Applied Enzymology for Bc. students) and the lectures offered by him as voluntary for MSc. and PhD students (Methods for labelling and immobilization of biomolecules, and Nanobiotechnology).

He has supervised 50 Bachelor's (1 in progress), 57 Master's (3 in progress) and 18 PhD theses (7 in progress).

He is a guarantor of all specializations of the MSc. Biochemistry program – Biochemistry, Biomolecular Chemistry, Genomics and Proteomics, Bioinformatics and Analytical Biochemistry, the reaccreditation of which he has just prepared. Besides, he was involved in the preparation and accreditation of a new PhD study program Bioanalytical Chemistry.

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

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

As it can be seen, Associate Prof. Petr Skládal is undoubtedly established as an international expert in the field of different types of biosensor and nanobiotechnology systems. He is able not only to come up with new ideas in these fields but also to construct the whole bioanalytical systems himself from the biosensing element, through transducer component, and electronic system connected with PC for data evaluation.

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 Science of Masaryk University to **appoint the applicant professor** of Biochemistry.

In Brno on 09.03.2022

prof. RNDr. Zdeněk Glatz, CSc.