Habilitation Board Decision on the Nomination for Appointment to Associate Professor

Masaryk University	
Faculty	Faculty of Science
Procedure field	Biomolecular Chemistry and Structural Biology
Applicant	Konstantinos Tripsianes, Ph.D.
Applicant's home unit, institution	CEITEC, Masaryk University
Habilitation thesis	Studying biomolecular structures, interactions, and molecular mechanisms using advanced NMR techniques
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. Ing. Richard Hrabal, CSc. *Vysoká škola chemicko - technologická Praha* Prof. Cyril Dominguez *Institute of Structural and Chemical Biology, University of Leicester, UK* Prof. Georgios Spyroulias *Department of Pharmacy, University of Patras, Greece*

Evaluation of the applicant's scholarly/artistic qualifications

Dr. Konstantinos Tripsianes is an internationally recognized scientist specializing in biomolecular NMR spectroscopy and its application to structural biology. His research combines advanced methodological developments with the investigation of protein structures, dynamics, interactions, and biologically relevant molecular mechanisms. His scientific career demonstrates a continuous development from fundamental structural studies to innovative methodological approaches and the investigation of complex biological systems.

His scientific achievements include important contributions to automated NMR resonance assignment and structure determination, the structural characterization of post-translationally modified proteins, and the investigation of the functional interplay between ordered and intrinsically disordered protein regions. Particularly noteworthy are his pioneering studies of farnesylated proteins and his recent research on the molecular mechanisms underlying protein interactions and conformational dynamics.

The applicant has established a strong and internationally recognized publication record, comprising 38 scientific publications, including 7 first-author and 8 corresponding-author papers, with more than 1,300 citations and an h-index of 21. His research has been published in prestigious international journals, including Nature Structural & Molecular Biology, Nature Communications, and Science Advances.

Since 2012, Dr. Tripsianes has led an independent research group at CEITEC Masaryk University. His scientific independence and leadership are demonstrated by his successful acquisition and coordination of competitive national and international research projects, extensive scientific collaborations, and supervision of young researchers. His recent publications, with members of his research group as first authors, further demonstrate his ability to establish and develop an independent research direction.

The applicant's scientific achievements reflect a high level of originality, methodological expertise, scientific maturity, and international recognition. These qualities are consistently emphasized in all three external reviewers' reports.

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

Evaluation of the applicant's pedagogical experience

Dr. Tripsianes has extensive pedagogical experience acquired at several European universities. His teaching activities include lectures in NMR Spectroscopy of Biomolecules and Molecular Cell Biology at Masaryk University, as well as practical courses in Organic Chemistry at Utrecht University and Biophysics at the Technical University of Munich. Altogether, his documented teaching activities cover 23 semesters, demonstrating sustained involvement in university education at both Bachelor's and Master's levels.

The applicant has also been actively involved in supervising students and training young scientists. He has supervised two successfully defended Bachelor's theses and two Master's theses, with two additional Master's theses currently in progress. Particularly noteworthy is his supervision of three successfully completed doctoral theses, defended between 2023 and 2025. The subsequent placement of these graduates at research institutions in Germany, the United States, and France further demonstrates the quality of his mentorship and his contribution to the development of young scientists.

His pedagogical competence was convincingly demonstrated during the habilitation lecture entitled "Studying biomolecular structures, interactions, and molecular mechanisms by NMR." The lecture was exceptionally well structured, clear, and pedagogically effective. Dr.

Tripsianes demonstrated an excellent ability to explain complex molecular mechanisms and advanced experimental approaches in a simple, accessible, and scientifically accurate manner. His presentation reflected not only profound expertise but also a strong ability to communicate challenging scientific concepts to a broader academic audience.

The combination of sustained teaching activities, successful student supervision, and the excellent quality of his habilitation lecture provides convincing evidence of his pedagogical qualifications.

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

Habilitation thesis evaluation

The habilitation thesis entitled "Studying biomolecular structures, interactions, and molecular mechanisms using advanced NMR techniques" comprises a commented collection of 21 peer-reviewed scientific publications, documenting the applicant's scientific development and contributions to modern structural biology. Its comprehensive introduction provides a clear and coherent framework for understanding the presented research and its relevance to structural biology.

The thesis covers four interconnected research areas: structure determination of proteins and protein complexes, automation of NMR structure determination, characterization of post-translational modifications, and the functional interplay between ordered and intrinsically disordered protein regions. These topics demonstrate the applicant's broad methodological expertise and his ability to apply advanced NMR approaches to important biological questions.

Among the most significant achievements are the development of innovative approaches to automated NMR structure determination, the structural characterization of a farnesylated protein revealing a novel allosteric regulatory mechanism, and recent studies of protein dynamics and molecular interactions involving intrinsically disordered regions. These findings highlight the continuing importance of experimental NMR spectroscopy, particularly for understanding dynamic molecular mechanisms that cannot be fully described by static structural models or computational predictions alone.

The thesis provides a coherent overview of the applicant's research achievements and clearly documents his personal contributions to individual publications, including experimental work, supervision, manuscript preparation, and scientific direction. It also demonstrates his progression towards independent scientific leadership and the establishment of a well-defined research programme.

All three external reviewers evaluated the thesis very positively, emphasizing its scientific originality, methodological rigor, and significance for structural biology. They also acknowledged the applicant's substantial personal contributions to the presented research and his development into an independent scientific leader. One reviewer explicitly stated that the thesis exceeds the expected standards in several aspects.

Overall, the habilitation thesis represents a substantial, scientifically valuable, and internationally relevant body of work, demonstrating the applicant's ability to formulate and address challenging biological questions through advanced experimental and integrative structural approaches.

Conclusion: The applicant's habilitation thesis **meets** the requirements expected of habilitation theses in the field of Biomolecular Chemistry and Structural Biology.

Habilitation Board Decision on the Nomination for Appointment to Associate 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 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 Biomolecular Chemistry and Structural Biology.

In Brno on 10.11.2026

prof. RNDr. Michaela Wimmerová, Ph.D.

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