# Evaluation Board Decision on the Nomination for Appointment to Professor

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| **Masaryk University** | |
| **Faculty** | Faculty of Science |
| **Procedure field** | Analytical Biochemistry |
| **Applicant** | Dr. rer. nat. habil. Hans-Heiner Gorris |
| **Applicant's home unit, institution** | Faculty of Science, Masaryk University |
| **Board members** | |
| **Chair** | prof. RNDr. Zdeněk Glatz, CSc.<br>*Faculty of Science, Masaryk University* |
| **Members** | prof. Mgr. Jan Preisler, Ph.D.<br>*Faculty of Science, Masaryk University*<br>prof. RNDr. Zuzana Bílková, Ph.D.<br>*Faculty of Chemical Technology, University of Pardubice*<br>Ing. František Foret, DSc.<br>*Institute of Analytical Chemistry of the Czech Academy of Sciences*<br>Prof. Dr. hab. Tomasz Grzyb<br>*Department of Rare Earths, Faculty of Chemistry, Adam Mickiewicz University in Poznań, Poland* |

**Evaluation of the applicant's scholarly/artistic qualifications**

Associate Professor Gorris completed his Master's degree in Biology at the University of Münster, Germany, with a thesis entitled "Analysis of the recognition of antigenic epitopes and epitope mimetics after immunisation with different adjuvants", where he then began his PhD studies "Development of a high-throughput proteolysis assay and analysis of the proteolysis resistance of peptide epitopes". The study was finished at the Research Center Borstel, Germany and the thesis was defended at the University of Lübeck, Germany. At the Research Center Borstel, he also spent a 6-month postdoctoral fellowship. Afterwards, he started a nearly 3year postdoctoral stay at Tufts University, Medford, USA. After his return, he took up an assistant professor position at the Institute of Analytical Chemistry, Chemo- und Biosensors, University of Regensburg, where he habilitated in Analytical Chemistry and obtained this position in 2015. Since then, his main focus has been photon-upconverting nanoparticles (UPNP), their synthesis, characterization and application to important biomedical systems. In this consequence, it must be also mentioned that from 2014 to 2018, he served as the principal investigator, grant recipient, and chair of the EU COST Action project entitled "The European Upconversion Network – From photon-upconverting nanoparticle design to biomedical applications." Based on this project, he also founded a new biannual conference series "UPCON" to sustain the network. The next one will be held in Brno. Furthermore, he was the recipient of a Heisenberg Fellowship for Young Scientists from the German Research Foundation (DFG) for the period of January 2016 to December 2020.

In 2021, Professor Skládal as a director of the Department of Biochemistry Faculty of Science at Masaryk University offered him a position at our department, and after a competitive selection process, he was hired into our department, first as an assistant professor and later in January 2022 as an associate professor after completing all the procedures for recognition of foreign qualifications.

Upon joining the Department of Biochemistry, he established his own research group, which focuses on Bioanalytical chemistry on the micro- and nanometer scale, which was also the subject of his previous research. For his research, he carried over from his former position in Regensburg a grant from the DFG, of which he was a principal investigator for the period 2016 - 2024. In addition, he managed to obtain a joint grant from the Czech Science Foundation and the Polish Academy of Sciences for the period 2023 - 2025.

His international cooperation includes, in addition to Poland and Germany, also Sweden and Finland, and, in the Czech Republic, mainly the Institute of Analytical Chemistry CAS, Dr. Hlaváček, besides his co-operation with colleagues from our Institute, Professor Skládal, Associate Professor Farka and Dr. Lacina.

His scientific performance is well documented by 65 publications (13 of them with MU affiliation) registered in the Web of Science database in journals mostly classified in the Q1 or Q2 quartile, of which he is the first author in 28 % cases and corresponding author in 56% of cases. These papers have been cited 2,554 times without self-citations with an h-index of 27 (WoS 28.10.2024).

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

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**Evaluation of the applicant's pedagogical experience**

Associate Professor Gorris has already been involved in regular teaching activities at the University of Regensburg, where he has been involved in lectures on Molecular Biology of the Cell, Nanobioanalytical Chemistry and Bioanalytical Chemistry. Additionally, he has conducted

seminars and laboratory exercises on these subjects. His pedagogical activities also included the preparation of textbook chapter, electronic teaching material and textbook manuals for the aforementioned seminars and laboratory exercises.

At the Department of Biochemistry, Faculty of Science, Masaryk University, he teaches lecture Immunochemical Techniques. Nowadays, his involvement in teaching can be expected to increase as the Department of Biochemistry has an accredited Bachelor's programme Biology and Biochemistry and a Master's programme Biochemical and Cellular Technologies, both in English.

He has supervised and guided students in their theses, specifically 7 Bachelor's students have concluded their work and 1 currently in progress, 17 Master's students have completed their work, mostly in Regensburg, and 3 PhD students in Regensburg, with 1 thesis currently awaiting defense. Additionally, he currently oversees the work of 3 PhD students at the Department of Biochemistry.

In addition, Associate Professor Gorris also demonstrated his pedagogical skills in his public lecture "Taking analytical biochemistry to the single molecule level by photon-upoconverting nanoparticles and femtoliter arrays". The lecture received a highly positive evaluation from the audience and from the members of the professorship Committee - selected evaluators: Ing. Foret, DSc. Director of the Institute of Analytical Chemistry of the CAS, Professor Preisler from the Department of Chemistry Faculty of Science of Masaryk University, Professor Glatz from the Department of Biochemistry Faculty of Science of Masaryk University; and I even foreigner expert Professor Tomasz Grzyb from Faculty of Chemistry, Adam Mickiewicz University in Poznan, Poland was present and served as an evaluator. Professor Grzyb left immediately after the lecture and was not able to sign the evaluation report but agreed with it, which was confirmed by his e-mail.

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

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

It is evident that Associate Professor Gorris, PhD has established himself as a leading international expert in the field of bioanalytical chemistry at the micro- and nanometre scale. He is not only capable of proposing novel concepts in these areas but also of constructing comprehensive bioanalytical systems based on UCNP and microarrays.

Furthermore, the letters from Professor Soukka of Turku University in Finland and Professor Walt of Harvard Medical School in Boston, USA, expressed strong support for the professorship.

Conclusion: The applicant is a respected and recognized scholarly figure in his field. The applicant has made a significant contribution to the development of his field. The applicant constitutes a leading figure in his field of scholarship or research.

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# Evaluation Board Decision on the Nomination for Appointment to Professor

**Secret vote results**

Voting took place: electronically

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| 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 Analytical Biochemistry.

In Brno on 25.10.2024

prof. RNDr. Zdeněk Glatz, CSc.