

EXPERT OPINION

from Assoc. Professor Galina Dimitrova Nikolova, PhD

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member of the scientific jury for the academic position "Associate Professor" approved by order of the Rector № 1030/12.04.2022. field of higher education 4. Natural sciences, mathematics and informatics, professional field 4.2. Chemical sciences for the needs of Medical College, Trakia University, Stara Zagora, published in the State Gazette issue 13/15.02.2022.

Mag. Dr. Hristo Plamenov Varbanov is the only candidate for the announced position.

Biographical information and career profile of the candidate:

Hristo Varbanov was born in Sofia and graduated from the Medical University of Sofia in 2009. In 2013 he successfully defended his doctoral thesis in natural sciences at the University of Vienna. Since 2022, the candidate is a part-time lecturer in Analytical Chemistry, Medical College at Trakia University - Stara Zagora. From 2016 to 2021 he is a Senior Postdoc in the Institute of Inorganic Chemistry, University of Vienna, and at the Institute of Chemistry, University of Graz, Austria. From 2014 to 2016 he is a Postdoc at the Institute of Chemical Sciences, EPFL, Switzerland.

General description of the materials submitted for applying for the position

Hristo Varbanov has submitted a complete set of documents in accordance with the Regulations of Trakia University - Stara Zagora.

Evaluation of the scientific work of the candidate and his overall academic development

Hristo Varbanov has significant publication activity. In the group of indicators **C**, the candidate has included 8 articles with a total of 180 points; in 3 of the articles, he is the first author, while 5 of the articles are with Q1. The group of indicators **D** consists of 16 scientific articles with a total number of 345 points (with a required minimum of 200); in 3 of the articles, the candidate is the first author. Of the total number of included articles, 7 are with Q1. In the academic report, the candidate's points by groups of indicators that I recognize are:

Group of indicators	Content	Assoc. Professor	Hristo Varbanov
A	Indicator 1	50	50
B	Indicator 2	-	
C	Indicators 3 or 4	100	180
D	Sum of the indicators 5 to 9	200	345
E	Sum of the indicators 10 to 12	50	908

Table 1. Minimum required points by groups of indicators for the position of associate professor and the respective points of the candidate Hristo Varbanov.

Evaluation of the monography or equivalent publications, presented in the application for the academic position

The original scientific work of the candidate in the period after completing his doctoral dissertation (respectively after 2013) has been published in 15 scientific articles in international journals with IF referenced in world databases.

The candidate has grouped his research contributions into 4 main areas:

- I. Development of new approaches for improving the chemotherapy of cancers with poor prognosis. Design of multifunctional Pt(IV) prodrugs.
- II. Investigations on the impact of the coordination sphere on the physicochemical properties and biological activity of cytotoxic Pt(IV) complexes.
- III. Development of methods for determination and models for prediction of the lipophilicity of metal complexes with biological activity. Relationships between lipophilicity, cellular accumulation, and cytotoxicity.
- IV. Design and development of tungsten-based radiocontrast agents for advancing X-ray diagnostics of cancer and pulmonary diseases.

I accept the summary description of the contributions; the candidate has supported each contribution with a short description and a list of scientific publications.

Citing the candidate's publications

454 citations (908 points) have been presented, with which the candidate repeatedly meets the normative requirements for citing scientific papers.

Evaluation of the teaching activity

The candidate acquires his first teaching experience by teaching elective chemistry classes at NPMG "Acad. L. Chakalov" to prepare students for participation in Chemistry Olympiads. During his PhD studies (2009-2013) and time as a senior postdoc (2016-2018) at the University of Vienna (Austria), he has been teaching practical courses and tutorials in general and inorganic chemistry in addition to his research work. In the period from 2014 to 2016, the candidate has trained interns in laboratory practice and has been supervising master thesis in EPFL, Switzerland. He has also supervised students in the laboratory course "Organometallic chemistry" during his work as a postdoctoral research scientist at the University of Graz, Austria (2018-2021). Since 2022 he has been a part-time lecturer in Analytical chemistry for students from the "Assistant Pharmacists" degree program at the Medical College of Trakia University-Stara Zagora, Bulgaria.

Critical remarks and recommendations

I have no critical remarks toward the candidate.

Conclusion

My complex assessment of the teaching and research activities of **Hristo Varbanov** is positive. The candidate meets the mandatory and specific requirements and scientometric criteria based on the Law for the Development of the Academic Staff in the Republic of Bulgaria and the Regulations of Trakia University-Stara Zagora, for acquiring the academic position of "Associate Professor".

The materials presented by the candidate demonstrate that **Hristo Varbanov** meets the requirements for the academic position of "Associate Professor", according to the Law for the Development of the Academic Staff, the Rules for its implementation, and the Regulations of Trakia University-Stara Zagora. The presented scientific papers and evidence of scientific activity meet the quantitative and qualitative criteria and show a high

contribution. According to Ar. 81 (3) of the PRAS TrU, I give my positive assessment of the application of **Hristo Varbanov** and I suggest to the esteemed members of the Scientific Jury to award **Hristo Varbanov** the academic position "Associate Professor" in the field of higher education 4. Natural Sciences, Mathematics, and Informatics, professional field 4.2. Chemical sciences, direction "Bioorganic chemistry, chemistry of natural and physiologically active substances".

20.05.2022

Prepared:.....

/assoc. prof. G. Nikolova PhD/