

OPINION

from Dr. Petko Nedyalkov Denev, professor at the Institute of Organic Chemistry with Centre of Phytochemistry, Bulgarian Academy of Sciences

on the materials, presented in competition for acquisition of academic degree “associate professor” at the Institute of Organic Chemistry with Centre of Phytochemistry (IOCCP), Bulgarian Academy of Sciences (BAS)

in area of higher education: 4. “Natural sciences, mathematics and informatics”, professional field: 4.2. "Chemical sciences", scientific specialty: “Bioorganic chemistry, chemistry of natural and physiologically active substances” for the needs of the Laboratory „Chemistry of natural products“(CNP) at IOCCP.

In the competition for "associate professor" announced in the State Gazette, issue 102 from 08.12.2023 and on the website of IOCCP, there is only one candidate - chief assist. prof. Dr. Tsvetelina Doncheva from Laboratory „Chemistry of natural products“(CNP) at IOCCP.

1. General presentation of the procedure and the candidate

The presented by chief assist. prof. Dr Tsvetelina Doncheva set of materials is in accordance with the Regulations for the development of the academic staff at the IOCCP-BAS. For participation in the competition, Dr. Doncheva has provided a list of 19 scientific works, distributed as follows:

- 6 units, participating in the competition as an equivalent number of articles for a habilitation thesis, in which she is the first and/or corresponding author.
- 13 units, participating in the competition under group of indicators Γ (according to Appendix 1 of the Regulations for the development of the academic staff of IOCCP-BAS).

All 19 scientific papers are on the subject of the competition and were not used in the procedure for acquiring the PhD degree. Therefore, they are accepted for review and count towards the final grade. The distribution of scientific works by the respective quartiles (Q) is as follows:

Q1	- 2
Q2	- 7
Q3	- 7
Q4	- 2
Book chapter	- 1

In addition, Dr. Doncheva presents a list of 200 citations, 150 of which are in publications, referenced and indexed in world-renowned databases, which were not presented in other competitions for academic positions. She has an H-index of 7.

Tsvetelina Doncheva obtained her master's degree in "Biotechnologies" from the University of Chemical Technology and Metallurgy, Sofia in 1998, after which she worked as a chemist at IOCCP-BAS. In 2010, she defended a doctoral dissertation in "Bioorganic Chemistry, Chemistry

of Natural and Physiologically Active Substances", after which she was appointed to the position of "chief assistant professor" at the laboratory CNP at IOCCP-BAS, which she holds to this day.

The summarized points by groups of scientometric indicators, defined in the "Regulations of the IOCCP-BAS on the conditions and procedure for acquiring scientific degrees and for holding academic positions" for the academic position "associate professor" are as follows:

Indicator	Minimal requirements of IOCCP, BAS	Points of the candidate
A	50	50
Б	0	
B	100	100
Г	220	234
Д	70	300
Ж (H-index)	≥ 5	7

As can be seen from the analysis of the materials presented in the competition, the scientific production of Dr. Tsvetelina Doncheva meets the criteria laid down in the Law for the Development of the Academic Staff in Republic of Bulgaria, the Regulations for its implementation and the corresponding rules of IOCCP for acquisition the academic position "associate professor".

2. General characteristics of the applicant's activities

In general, the research work of Tsvetelina Doncheva can be attributed to the chemistry of natural substances area. The most numerous are the publications and contributions of Dr. Doncheva on the study of the alkaloid composition, the related biological activity and the possibilities for application in medical practice of medicinal plants that biosynthesize alkaloids. All publications in the competition are in the field of bioorganic chemistry, chemistry of natural and physiologically active substances, and could be divided into three main directions:

1. Study of the composition, structure and biological activity of secondary metabolites isolated from poorly studied, rare and/or endemic plant species and organisms.
2. Comparative analysis of the alkaloid composition of plants of the genus *Fumaria*, *Glaucium*, *Coridalis* and *Hypocoum* and derivation of taxonomic and chemotypic relationships.
3. Determination of the alkaloid composition of *in vitro* cultivated and *ex vitro* adapted endemic plants.

It makes a good impression that the habilitation reference is prepared briefly and concisely, but at the same time it is very meaningful and reflects very well the essence of Dr. Doncheva's scientific activities and contributions.

3. Critical comments and recommendations

I have no critical remarks, neither to the scientific activity of Dr. Doncheva, nor to the presented materials. The documents presented in the competition are well designed and arranged, which greatly facilitates their analysis.

CONCLUSION

The documents and materials presented by the only candidate in the competition - chief. assist. prof. Dr. Tsvetelina Doncheva meets all the requirements of the Law on the Development of the Academic Staff in the Republic of Bulgaria, the Regulations for its Implementation and the specific criteria of the Regulations of the IOCCP-BAS. She has presented a sufficient number of scientific works, different from those used in the procedure for acquiring a PhD degree, which are of a very high scientific quality. They contain original scientific and applied contributions, and in due time received international recognition, as evidenced by the significant number of citations of Dr. Doncheva's scientific works and her H-index.

After thoroughly familiarizing myself with the materials and scientific works presented in the competition, analyzing their significance and the contributions contained in them, with full conviction, I give my positive assessment and recommend the Scientific Jury to prepare a report-proposal to the Scientific Council of IOCCP-BAS for the selection of chief assist. prof. Dr. Tsvetelina Doncheva in the academic position "associate professor" in the field of higher education: 4. "Natural sciences, mathematics and informatics", professional direction: 4.2. "Chemical Sciences", scientific specialty "Bioorganic Chemistry, Chemistry of Natural and Physiologically Active Substances" for the needs of the Laboratory "Chemistry of Natural Substances" at IOCCP- BAS.

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Opinion written by:

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