

OPPINION

By prof. Lubomir Evstatiev Makedonski, PhD

Medical University Prof. Dr P.Stoyanov – Varna, Chemistry Department, Member of the Scientific Jury, appointed by order of the Director of the Institute of Organic Chemistry with Center of Phytochemistry, BAS

concerning the competition for the occupation of the academic position "Professor" in the field of higher education 4. Natural sciences, mathematics and informatics, professional field 4.2. "Chemical Sciences", scientific specialty 01.05.10 "Bioorganic Chemistry, Chemistry of Natural and Physiologically Active Substances", announced for the needs of the Laboratory for Biologically Active Substances - Plovdiv.

In the competition for the academic position "Professor" announced in the State Gazette, 43/31.05.2019 and on the web site of the Institute of Organic Chemistry with Center of Phytochemistry, BAS as a candidate participates assoc. prof. Petko Denev, PhD from the Institute of Organic Chemistry with Center of Phytochemistry, BAS, and Laboratory for Biologically Active Substances - Plovdiv.

1. General presentation of the procedure and the applicant

At the first meeting of the Scientific Jury, it was decided me to submit an opinion on a competition for an academic position "Professor" in professional field 4.2. "Chemical Sciences", scientific specialty 01.05.10 "Bioorganic Chemistry, Chemistry of Natural and Physiologically Active Substances", announced for the needs of the Laboratory for Biologically Active Substances - Plovdiv.

Only one candidate has submitted the application for participation in the announced competition - assoc. prof. Petko Denev, PhD from Institute of Organic Chemistry with Center of Phytochemistry, BAS, Laboratory for Biologically Active Substances – Plovdiv.

The set of paper materials presented by assoc. prof. Petko Denev is in accordance with the Rules for the Development of Academic Staff of the Institute of Organic Chemistry with Center of Phytochemistry, BAS, and meets the criteria of the Institute of Organic Chemistry with Center of Phytochemistry, BAS for occupying the academic position "Professor"

The entire scientific output of assoc. prof. Petko Denev includes 88 publications, including 3 chapters from collective monographs, one utility model and one patent. For his participation in the competition for the academic position "professor", he applied a total of 31 publications distributed as follows:

- ✓ Publications equivalent to a habilitation work – 8. All publications submitted have an impact factor (Overall Impact Factor – 19.23). Distribution of publications in quartiles according SJR (www.scimagojr.com) is as follows :
 - ❖ Q1 - 3.
 - ❖ Q2 - 3.
 - ❖ Q3 - 0.
 - ❖ Q4 - 2.
- ✓ Publications beyond the equivalent of habilitation work – 23. Among them with impact factor are 14 (Overall Impact Factor – 33.16), without Impact Factor -5, utility model – 1, as well as a

participation as a co-author in chapters from collective monographs - 3. Distribution of publications in quartiles according SJR (www.scimagojr.com) is as follows:

- ❖ Q1 - 7.
- ❖ Q2 - 1.
- ❖ Q3 - 0.
- ❖ Q4 - 6.

Provided are also:

- ✓ list of participations in scientific conferences, accompanied by evidence materials;
- ✓ list of citations that are not presented in previous procedures;
- ✓ list of participations in research and applied projects, accompanied by evidence materials;
- ✓ Certificate of Grand Award for Young Scientist “Pitagor – 2013” - awarded by the Ministry of Education and Science;
- ✓ Certificate for receiving the Award “Prof. Marin Drinov ”- 2013, awarded by BAS, in the field “ Biomedicine and quality of life ”;
- ✓ Results of the interim evaluation of the associate professors in Institute of Organic Chemistry with Center of Phytochemistry, BAS for 2018.

Assoc. prof. Petko Denev graduated his Master’s Degree and received a PhD Degree in specialty 02.11.11 Technology of biologically active substances at the University of Food Technologies – Plovdiv. The work and research carrier of assoc. prof. Petko Denev continues in the Institute of Organic Chemistry with Center of Phytochemistry, BAS, Laboratory for Biologically Active Substances – Plovdiv, occupying successively the positions assistant professor, chief assistant professor and associated professor. Since 2014 he is a Head of the Laboratory for Biologically Active Substances – Plovdiv.

2. General characteristics of the applicant's activities

Assoc. prof. Petko Denev has submitted in *total*: 31 publications, distributed as follows:

- ✓ With Impact Factor - 22. (Overall Impact Factor – 52.39)
- ✓ Distribution of publications in quartiles according SJR (www.scimagojr.com) is as follows:
 - ❖ Q1 10.
 - ❖ Q2 4.
 - ❖ Q3 0.
 - ❖ Q4 8.
- ✓ Without Impact Factor - 5.
- ✓ Utility Model - 1.
- ✓ Chapters from collective monographs - 3.

The scientific works are focused mainly on the study of the chemical composition of medical and economically important plants, and the determination of their biological activity. The contributions from the scientific work of associate professor Petko Denev have a clearly emphasized fundamental and applied character.

The main scientific and applied contributions from these works can be summarized in the following directions:

1. Investigation of phytochemical composition and biological activity of medicinal and economically important plants:

- ✓ Investigation of phytochemical composition and biological activity of fruits and functional foods from Aronia (*Aronia melanocarpa*);
- ✓ Investigation of chemical composition and biological activity of other medicinal and economically important plants;

2. Utilization of waste from the essential oil industry to obtain new products;

3. Investigation of chemical composition and biological activity of pectic polysaccharides.

All these directions are priorities in several national strategic documents, such as the National Strategy for Development of Scientific Research in the Republic of Bulgaria 2017-2030, the Innovation Strategy for Smart Specialization and others.

Information about the total number of citations and h-factor from Scopus, which have not been presented in previous procedures, speaks about the exceptional citation of the scientific works of Associate Professor Petko Denev:

- ✓ Total number of citations for the period 2010-2019– 762
- ✓ Number of citations for the contest, including the period 2015 – 2019 - 531
- ✓ h-Factor – 12

Associate Professor Petko Denev is a participant and leader of a number of national projects, projects funded by Bulgarian private companies, EU Operational Programs and projects developed in international cooperation within the framework of inter-academic agreements and agreements.

Associate Professor Petko Denev's Expertise includes membership in Natural Sciences Assessment Panel in COST Program (The European Cooperation in Science and Technology) for the period 2019 – 2020, expert evaluator of project proposals under the program Eurostars, co-financed by EUREKA and Horizon 2020, expert evaluator of project proposals under the program Horizon 2020: Procedure TWINNING: remote and central evaluation in Brussels, as well as expert evaluator of project proposals under the Fund „Scientific Investigations in fund “Science” at the University of Food Technologies – Plovdiv, and in Fund „Scientific Investigations” at the University of Plovdiv “Paisii Hilendarski”

Associate professor Petko Denev's teaching and educational activities include co-director of 8 diploma papers and supervisor of 10 students in terms of student internships.

2. Recommendations and critical remarks:

I have no critical comments on the applicant's scientific topics and scientific output. I think the research presented is at a very high level, relevant, with great potential for future developments, which is also indicated by the high number of citations. I recommend that the rich experience material received should be summarized in a monographic work, which will give a fully completed view of the topic being developed and an opportunity to summarize the scientific activity on the specific scientific problems. Assoc. prof. Petko Denev proves that he is an experienced and valuable expert who has participated as an expert evaluator in many Bulgarian and international programs. His participation in projects is also impressive. I recommend the candidate to continue to develop in this field, but at the same time to attract more young professionals - such as PhD students - to doctoral programs.

Technical errors have been made in the submission of the applicant's CV.

CONCLUSION

The documents and materials submitted by assoc.prof. Pentko Denev meet all the requirements of Law on the Development of Academic Staff in the Republic of Bulgaria, the Regulations for implementation of the Law on the Development of Academic Staff in the Republic of Bulgaria and the Regulation of Institute of Organic Chemistry with Center of Phytochemistry, BAS.

The applicant has submitted a considerable number of scientific papers published after the materials used in the defense of the PhD Degree and the occupation of the academic position of associated professor. The applicant's works have original scientific and applied contributions that have received international recognition as a representative part of them have been published in journals and scientific books published by international academic publishers. Its theoretical developments have practical applicability.

Associate professor Petko Denev's results in research fully meet the specific requirements of the Regulation of Institute of Organic Chemistry with Center of Phytochemistry, BAS for implementation of the Law on the Development of Academic Staff in the Republic of Bulgaria.

After getting acquainted with the materials and scientific works presented in the competition, analysis of their importance and the scientific and applied contributions contained therein, I am fully convinced to give my positive opinion and recommend to the honorable members of the Scientific Jury to vote positively for awarding the academic position "professor" to associate professor Petko Nedyalkov Denev by professional field 4.2. "Chemical Sciences", scientific specialty 01.05.10 "Bioorganic chemistry, chemistry of natural and physiologically active substances" for the needs of the Laboratory for Biologically Active Substances - Plovdiv at Institute of Organic Chemistry with Center of Phytochemistry, BAS .

Opinion prepared by:

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Varna

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