

OPINION

by Dr. Gana Minkova Gecheva, Assoc. Prof., University of Plovdiv “Paisii Hilendarski”

of the materials submitted for participation in the competition

for the academic position of ‘Associate Professor’

in University of Plovdiv “Paisii Hilendarski”

in the area of higher education 4. Natural Sciences, Mathematics and Informatics

professional field 4.3. Biological Sciences (Molecular Biology)

In the competition for ‘associate professor’, announced in the State Gazette, No. 99 from 20.11.2020 and in the University of Plovdiv “Paisii Hilendarski” website for the needs of the Department „Plant physiology and molecular biology” at the Faculty of Biology as candidates participate Assist. Prof. Dr. Elena Apostolova-Kuzova and Assist. Prof. Dr. Tihomir Vachev from University of Plovdiv “Paisii Hilendarski”.

1. General overview of the procedure and the candidates

By order № P33-630/19.02.2021 of the Rector of the University of Plovdiv “Paisii Hilendarski” (PU), I am appointed a member of the Scientific jury for the selection procedure for the academic position of ‘Associate Professor’ in the area of higher education 4. Natural Sciences, Mathematics and Informatics, professional field 4.3. Biological Sciences (Molecular Biology), announced for the needs of the Department „Plant physiology and molecular biology” at the Faculty of Biology. The following candidates have submitted documents for participation in the announced competition:

1. Assist. Prof. Dr. Elena Apostolova-Kuzova from PU;
2. Assist. Prof. Dr. Tihomir Vachev from PU.

1.1. The submitted from Assist. Prof. Dr. Elena Apostolova-Kuzova set of paper materials is in accordance with the Law on the Development of the Academic Staff in the Republic of Bulgaria (ZRASRB) and with the Regulation on the Development of the Academic Staff of the University of Plovdiv, and includes all necessary documents for participation in the competition.

Assist. Prof. Dr. Elena Apostolova-Kuzova has submitted 19 scientific publications published in journals referenced and indexed in world-famous databases of scientific information (Web

of Science and Scopus), which are not included in the scientific publications for obtaining the educational and scientific degree "Doctor".

The presented materials include 3 book chapters and 1 invention - a new variety of beans. Dr. Apostolova-Kuzova has attached a list of 153 citations in scientific journals, referenced and indexed in Web of Science and Scopus. She is a co-author of 2 textbooks in the specialty of the announced competition. She has led 5 successfully defended graduates. She has a work experience, including pedagogical experience of nearly 14 years, of which as a senior Assist. Prof. for over 8 years. She takes an active part in research projects by presenting documents for 12 projects, of which 5 are funded by the Research Fund of the Ministry of Education and Science, 2 international projects to the Seventh Framework Program and others.

The materials described in this way are in accordance with the ZRASRB and the Regulation on the Development of the Academic Staff of the University of Plovdiv, as well as with the additional requirements of the Faculty of Biology for holding the academic position of "Associate Professor".

1.2. Presented by Assist. Prof. Dr. Tihomir Vachev set of paper materials is in accordance with the ZRASRB and the Regulation on the Development of the Academic Staff of the University of Plovdiv, except for the lack of annotations, including self-assessment of contributions.

The candidate Dr. Vachev has applied 16 articles in referenced and indexed in world-famous databases with scientific information (Web of Science and Scopus). It is not correct to include two publications (under №7 and №8) - presented with official notes for acceptance without the full texts.

Dr. Vachev presents for a monograph a printed edition with one reviewer, which according to the preface includes part of the results of two research projects. Two books based on a defended dissertation are presented also.

According to indicator 8 of group G, a total of 7 published texts, presented as book chapters, do not correspond to the definition according to the ZRASRB. The candidate provided a list of 43 citations.

There is documentation for participation in 1 textbook and 3 manuals, of which 2 are recognized. Supervisor of 9 successfully defended graduates. He has a work experience of nearly 14 years, of which as a senior Assist. Prof. for over 7 years. He is a participant in 18 projects, 2 of which are funded by EU programs.

Biographical data of the candidates

Dr. Apostolova-Kuzova has a defended master's degree at the University of Plovdiv and a doctorate at the Agricultural University - Plovdiv. She has been a lecturer at the University of Plovdiv since 2011. She has completed two specializations in Portugal and Austria. Fluent in English. She is extremely active in administrative work at the Faculty of Biology and is a member of three faculty committees, the organizing committees of 6 scientific forums and is deputy editor-in-chief of the faculty Journal of BioScience and Biotechnology. Member of the Faculty Council since 2018. My personal impressions are that Dr. Apostolova-Kuzova is an extremely correct and ethical colleague, a sought-after partner in administrative and research projects.

Dr. Vachev has a defended master's and doctoral degree at the University of Plovdiv. Later he defended his second doctorate in "Genetics" at the Medical University - Plovdiv. He speaks English and participates in the activities of the Faculty of Biology. Dr. Vachev is a proven promising scientist.

2. General characteristics of the candidates' activity

2.1. The scientific production of Assist. Prof. Apostolova-Kuzova is in the field of the announced competition and is significant both in terms of volume and quality. The candidate shows a clearly defined research focus with a total of 19 scientific publications and has a total impact factor of 26,991 and a total SJR of 11,867. Seven of the publications are in editions with Q1, respectively in seven she is the first author.

Educational and pedagogical activity

The pedagogical experience of Dr. Apostolova-Kuzova is nearly 14 years and she has held the position of senior Assist. Prof. for over 8 years. She is a holder of the compulsory bachelor's degrees "Molecular Ecology" and "Molecular Biological Design and Analysis". Her teaching skills are supported by the co-authorship of 2 textbooks in the specialty of the announced competition and in accordance with the curricula. She is the leader of 5 successfully defended graduates.

Scientific and scientific-applied activity and contributions

Scientific and scientific-applied contributions are outlined in the following three main directions:

- > gene expression and metagenomic analysis as biomarkers for changes in the environment;
- > the role of small RNAs in the adaptation of plant species to changes in environmental factors;
- > molecular analyzes of plant species to assess genetic diversity and genetic connectivity, as well as for the needs of plant taxonomy.

Given the fact that Dr. Apostolova-Kuzova is a leading author in 10 of the publications presented at the competition, I consider her personal contribution to be indisputable. I appreciate the contributions as original scientific and those with emphasized applied significance. The significance of the above contributions is evidenced by the significant number of citations - 153 in scientific journals, referenced and indexed in Web of Science and Scopus.

Dr. Apostolova-Kuzova is a co-author of 3 chapters of books. Recognition for her work is the inclusion in List B of the official variety list of the country under Art. 14, para. 3, volume 2 of ZPMM new variety of beans (*Phaseolus vulgaris* L.) - Plovdiv 6M.

She takes an active part in research projects by presenting documents for 12 projects, 5 of which are funded by the Research Fund of the Ministry of Education and Science, 2 international to the Seventh Framework Program and others. She is a project manager at the Research Fund at the Ministry of Education and Science.

2.2. The scientific production of Assist. Prof. Vachev for the needs of the competition includes 16 articles (2 in Q1, 5 in Q2, 2 in Q3, 7 in Q4), which are referenced and indexed in world-famous databases with scientific information (Web of Science and Scopus). For two publications (under №7 and 8) only official notes without full texts are presented, therefore their contributions cannot be the subject of this opinion. He is the first author in only one of the publications. Thirteen of the 16 articles are in Bulgarian-based journals (mainly Comptes rendus de l'Académie bulgare des Sciences and Akusherstvo and Ginekologiya) and five of the articles are in Bulgarian.

Educational and pedagogical activity

The total work experience of Chief Assistant Vachev has been around for almost 14 years, of which he has been a senior Assist. Prof. for over 7 years. He lectures on the compulsory bachelor's degree "Introduction to Molecular Biology". The candidate has submitted information for participation in 1 textbook and 3 manuals. The first manual in 2014 on "Molecular Virology" is co-authored with a holder in the discipline. The second guide from 2020 and the third from 2021 are not co-authored with the holders in the disciplines "Molecular Genetics" and "Molecular Biology" in the bachelor's degrees "Molecular Biology" and "Medical Biology". Although the preface to both manuals states that they are oriented towards the discipline of Molecular Genetics, I believe that the manual on Molecular Biology should focus on the discipline of the same name. In this regard, it should be noted that its content does not correspond to the curriculum. The textbook is not presented. According to the National Register of Published Books in Bulgaria, it has no ISBN and has not been published.

He supervised 9 successfully defended graduates.

Scientific and scientific-applied activity and contributions

Articles №7 and №8 are not considered as they are not presented. Based on the available documents, two areas of contributions can be summarized:

>molecular and genetically based analyzes in plant species (*Phelipanche ramosa*, *Arabidopsis thaliana*, *Orobancha ramosa*);

>application of molecular and genetic markers in patients with various diseases (autism, schizophrenia, etc.) and for the needs of prenatal diagnosis.

A monograph with one reviewer is presented, which includes some of the results of two research projects. According to the additional provisions of ZRASRB “The monograph is a scientific work that **does not repeat or summarize the existing knowledge and that has a scientific editor and / or scientific reviewers.**”

Assist. Prof. Vachev also presented 2 books based on a defended dissertation.

According to indicator 8 of group G, a total of 7 published texts are presented as book chapters, although they do not correspond to the definition according to the ZRASRB. Five of them are conference proceedings between 7 and 21 pages. For the rest two (№4 and №5) with a volume of 4 and 13 pages, a complete reference is not presented.

43 citations are presented.

He is a participant in 18 projects, 2 of which are funded by EU programs.

2.3. Comparative analysis

Based on the materials submitted in the competition, summarized in Table. 1-3 below, it can be concluded that both candidates meet the minimum requirements and the additional requirements of the Faculty of Biology.

From the analysis of the indicators according to Decree № 26 of 13 February 2019 for amendment and supplementation of the Regulations for implementation of ZRASRB (Table 1) and if the monograph submitted by Dr. Vachev is accepted, the candidates have an equal number of points in group A and B. **Assist. Prof. Dr. Apostolova-Kuzova has a significant advantage in groups of indicators G (total number of points 387) and D (total number of points 306).**

The comparative analysis according to the additional requirements of Faculty of Biology (Table 2) shows that Dr. Apostolova-Kuzova and Dr. Vachev are equal in terms of teaching aids, graduates, work experience and participation in projects. In terms of administrative experience, Dr.

Apostolova-Kuzova has a significant advantage with her participation in a number of faculty committees, organizing committees of scientific forums and editorial work.

Dr. Apostolova has more than 2 times more security of teaching load, expressed in lecture courses (Table 3).

Table 1. Compliance of the materials with the national minimum requirements.

Group of indicators	Minimal number of points	Assist. Prof. Apostolova-Kuzova		Assist. Prof. Vachev	
		Presented material	points	Presented material	points
Group A	50	Dissertation (for awarding an educational and scientific degree "Doctor")	50	Dissertation (for awarding an educational and scientific degree "Doctor")	50
Group B	100	Indicator 4. Habilitation work - scientific publications in journals referenced and indexed in world-famous data base (Web of Science and Scopus) 4 publications with Q1	100	Indicator 3. Habilitation work - monograph	100
Group G	200	Indicator 7. Scientific publication in journals that are referenced and indexed in world-famous databases of scientific information (Web of Science and Scopus), out of habit. work	272	Indicator 6. Published book based on defended dissertation work	2x20 = 40
		15 publications (3 with Q1, 4 with Q2, 7 with Q3, 1 with Q4);		Indicator 7 - 16 publications (2 with Q1, 5 with Q2, 2 with Q3, 7 with Q4);	264
		Indicator 8. Published chapter of a book or collective monograph			
		3 book chapters	45		
Group D	50	Indicator 9. Invention, patent or utility model	25		
		1 invention - a plant variety			
Group D	50	153 citations	306	43 citations	86
Total	400		798		540

Table 2. Compliance with the additional requirements of the Faculty of Biology for the development of the academic staff (Adopted by a decision of the FC of the FB, protocol No. 246 / 12.07.2019).

Indicator	Assist. Prof. Apostolova-Kuzova	Assist. Prof. Vachev
1. The candidate must be the author or co-author of at least 2 (two) textbooks in the respective field and specialty of the announced competition	2	2
2. The candidate must have managed at least 5 (five) successfully defended graduates in the respective field of the competition	5	9
3. The candidate must submit a document for at least 5 (five) years of teaching experience	>13 год.	>13 год.
4. The candidate must have participated in at least 2 (two) research projects	12 (ръководител на 1 проект към ФНИ; 2 международни проекта; 5 проекта към ФНИ и т.н.)	18 проекта (2 международни)
5. The applicant must have administrative experience (for the last 5 years) in at least one of the following activities:		
5.1. Participation in preparation and accreditation procedures;	Institutional Accreditation Commission (FC, protocol № 230/21.11.2017); Professional Accreditation Commission 4.3 Biological Sciences (FC Decisions protocol № 240/04.12.2018 and protocol № 243/19.03.2019);	Commission for the preparation of CSC 2020/2021 г. (FC, protocol No 249/17.12.2019) and CSC 2018/2019 (protocol № 230/21.11.2017) Commission for attestation in Faculty of Biology (Order P33-3764/12.07.2019)
5.2. Participation in activities to ensure the quality of training;	Faculty Quality Committee (FC, protocol № 249/17.12.2019);	
5.3. Participation in the preparation of a candidate student campaign;		
5.4. Participation in administrative activities, such as attestation commission, ethics commission, etc .;		
5.5. Other activities.	Member of FC from 2018 Deputy editor of Journal of BioScience and Biotechnology Participation in Organizing Committees of: III, IV and V Balkan Scientific Conference on Biology; Second National Conference for Young Scientists; Resurrection plants: Hope for crop drought tolerance (ReHOPE); „A journey in biology” 2018, 2019 and 2020	

Table 3. Ensuring teaching load (according to ZRASRB, III, чл. 24) in lecture courses.

EQD/type of the discipline	Assist. Prof. Apostolova-Kuzova	Assist. Prof. Vachev
BSc, mandatory	60 hours. (2 x 30)	45 hours
BSc, eligible	90 hours (3 x 30)	0 hours
MSc, mandatory	25 hours	25 hours
MSc, eligible	30 hours	15 hours

3. Critical remarks and recommendations

In the materials presented by Dr. Vachev were identified a number of omissions and inconsistencies, mentioned above in item 1 and item 2 such as lack of publications, declaring an unpublished textbook, declaring chapters of books that do not comply with the definition, certification documents, etc.

CONCLUSION

The documents and materials submitted by the two candidates meet the requirements of the ZRASRB and the Regulations for its implementation.

With the presented materials the candidates demonstrate their skills of teachers and researchers. After getting acquainted with the materials and scientific papers presented in the competition by the two candidates, the analysis of their significance and the scientific and applied contributions contained in them, as well as on the basis of the comparative analysis in item 2.3 based on which Assist. Prof. Apostolova-Kuzova received significant advantage in terms of indicators, I give the following ranking of the candidates:

1. Assist. Prof. Elena Apostolova-Kuzova
2. Assist. Prof. Tihomir Vachev

I want to emphasize that Assist. Prof. Apostolova-Kuzova participates in the competition with scientific production, which in terms of scientometric indicators significantly exceeds the requirements of ZRASRB, the Regulations to it, as well as the additional requirements of Faculty of Biology-PU for holding the academic position of "Associate Professor". Therefore, I find it completely justified to give my positive assessment and to recommend to the members of the Scientific Jury to prepare a report-proposal to the Faculty Council of the Faculty of Biology for the election of Assist. Prof. Dr. Elena Apostolova-Kuzova for the academic position of "Associate

Professor" at the University of Plovdiv "Paisii Hilendarski" in the scientific specialty "Molecular Biology".

27.04.2021 г.

Prepared the opinion:

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Assoc. Prof. Dr. Gana Gecheva