

REVIEW

**From Corresponding Member, Atanas Ivanov Pavlov, Ph.D., Professor at UFT-Plovdiv and
Institute of Microbiology at BAS**

of the materials attached for participation in the competition for the academic position of **‘Associate
Professor’ at Plovdiv University "Paisii Hilendarski"**

in the Field of Higher Education – 4. Natural Sciences, Mathematics and Computer Science,
Professional Area – 4.3. Biological Sciences (Molecular Biology)

In the competition for ‘associate professor’, announced in the State Gazette, issue 99 of 20. 11 2020 and on the website of Plovdiv University "Paisii Hilendarski" for the needs of the Department of Plant Physiology and Molecular Biology at the Faculty of Biology, as candidates participate Ch. Assistant Professor Elena Dimitrova Apostolova-Kuzova, PhD, from the Department of Plant Physiology and Molecular Biology at the Faculty of Biology at Plovdiv University “Paisii Hilendarski” and Ch. Assistant Professor Dr. Tihomir Iliev Vachev from the Department of Plant Physiology and Molecular Biology at the Faculty of Biology at Plovdiv University "Paisii Hilendarski".

1. General presentation of the received materials

Subject:

By order № P33-630 of 19 February 2021 of the Rector of the University of Plovdiv "Paisii Hilendarski" (PU) I was appointed as a member of the scientific jury of a competition for the academic position of **'associate professor'** in the field of higher education 4. Natural Sciences, Mathematics and Informatics, Professional Field 4.3 Biological Sciences (Molecular Biology), announced for the needs of the Department of Plant Physiology and Molecular Biology at the Faculty of Biology.

The following candidates have submitted documents for participation in the announced competition:

1. Ch. Assistant Professor Dr. Elena Dimitrova Apostolova-Kuzova from the Department of Plant Physiology and Molecular Biology at the Faculty of Biology at Plovdiv University "Paisii Hilendarski";
2. Ch. Assistant Professor Dr. Tihomir Iliev Vachev from the Department of Plant Physiology and Molecular Biology at the Faculty of Biology at Plovdiv University "Paisii Hilendarski"

Presented by Ch. Assistant Professor Elena Dimitrova Apostolova-Kuzova, PhD a set of paper materials is in accordance with the Regulations for the development of the academic staff of the University of Plovdiv and includes the following documents:

- Application to the Rector for admission to the competition;
- Curriculum vitae in European format;

- Diploma of higher education ACS "Master";
- Diploma for ONS "Doctor";
- List of scientific papers;
- Information on compliance with the minimum national and additional faculty requirements;
- Annotation on the materials under Art. 65 of PRASPU and self-assessment of contributions;
- Declaration of originality and authenticity of the attached documents;
- Certificate of work experience;
- Documents for educational work;
- Research documents.

The candidate Dr. Elena Apostolova-Kuzova has submitted a total of 34 scientific papers, 3 chapters of books, 2 manuals for practical classes and a list of 12 research projects, 1 document for an innovation. 27 scientific papers are accepted for review, which are outside the dissertation and are taken into account in the final evaluation, 2 manuals for practical classes and 1 research project and 12 research projects. 4 scientific papers on the dissertation and 5 related to previous competitions are not reviewed. The distribution of scientific papers by relevant sections, in the country and abroad, is as follows: 14 publications in journals with Impact factor, 8 publications in journals without Impact Factor, 5 of which with Impact Rank, 2 publications in conference proceedings and congresses and 3 book chapters. A document for a registered variety of beans is also presented. No data on possible economic effect were presented.

The documents presented by Ch. Assistant Professor Elena Dimitrova Apostolova-Kuzova, PhD, are in accordance with the current rules, duly arranged, the evidence materials are clear and accurate.

Presented by Ch. Assistant Professor Dr. Tihomir Iliev Vachev set of materials on paper is in accordance with the Regulations for the development of the academic staff of PU and includes the following documents:

- Application to the Rector for admission to the competition;
- Curriculum vitae in European format;
- Diploma of higher education ACS "Master";
- Diplomas for ONS "Doctor";
- List of scientific papers;
- Information on compliance with the minimum national and additional faculty requirements;
- Annotation on the materials under Art. 65 of PRASPU and self-assessment of contributions;
- Declaration of originality and authenticity of the attached documents;
- Certificate of work experience;

- Documents for educational work;
- Research documents.
- Dissertation for obtaining the scientific degree "Doctor of Science"

The candidate Ch. Assistant Professor Dr. Tihomir Iliev Vachev declares and applies a total of 36 scientific papers, 1 textbook, 3 manuals for practical classes and a list of 18 research projects. No innovation documents attached. 26 scientific papers that are outside the dissertation and are considered in the final evaluation, 1 textbook, 3 manuals for practical classes and 18 research projects are accepted for review. 5 scientific papers on the dissertations and 5 related to previous competitions are not reviewed. The distribution of scientific papers by relevant sections, in the country and abroad, is as follows: 1 monograph, 11 publications in journals with Impact Factor, 7 publications in journals referenced in world databases, but without Impact Factor, 7 chapters of books. The monograph and the seven chapters of books will be evaluated by content and definition, according to the Law on the Development of the Academic Staff in the Republic of Bulgaria.

Ch. Assistant Professor Dr. Tihomir Iliev Vachev has several, but significant omissions / inaccuracies in the description and presentation of the competition documents:

- A dissertation for the degree of "Doctor of Science" is presented, but no diploma for the degree of "Doctor of Science" is attached, which should be a consequence of successful defense of the presented dissertation. Therefore, the question arises: is the dissertation defended, when (before or after the deadline) for submission of documents for this competition? Without a diploma, this dissertation cannot be accepted as part of this procedure and will not be taken into account in the final evaluation.
- The presented CV is incomplete in the part for labor activities. The official note submitted by the PU partially compensates for this lack.

2. Brief biographical data of the applicants

Ch. Assistant Professor Dr. Elena Dimitrova Apostolova-Kuzova graduated with a Master's degree in Plant Biotechnology at the Faculty of Biology of the University of Plovdiv "Paisii Hilendarski" in 2001 and obtained an educational and scientific degree "Doctor" in 2007 at the Agricultural University, Plovdiv with the specialty "Selection and seed production" and the topic of the dissertation "Dependence between the characteristics of seeds and some characteristics of plants in *Phaseolus vulgaris* L.". Dr. Elena Apostolova-Kuzova began her career in 2011 at the Department of Plant Physiology and Molecular Biology as an Assistant Professor of molecular biology. In 2012 she was appointed to the academic position of "Chief Assistant" at the Department of Plant Physiology and Molecular Biology, Faculty of Biology at the University of Plovdiv "Paisii Hilendarski", a position she currently holds. In 2004 and

2009, Ch. Assistant Professor Apostolova-Kuzova worked as a visiting scientists the University of the Algarve, Portugal and the University of Vienna, Austria, respectively. According to the SCOPUS database (Author ID: 35782700000) Ch. Assistant Professor Apostolova-Kuzova has 20 referenced publications, 168 citations and H-index 7, without auto-citations.

Ch. Assistant Professor Dr. Tihomir Iliev Vachev graduated with a Master's degree in "Molecular Biology and Biotechnology" at the Faculty of Biology at the University of Plovdiv in 2008 and acquired the educational and scientific degree "Doctor" in 2012 at the University of Plovdiv "Paisii Hilendarski" with a degree in "Molecular Biology" and the topic of the dissertation "Interaction between viroid Potato Spindle Tuber Viroid (PSTVd), a parasitic plant - *Orobanche ramosas* and tomato as their host". He also obtained a second educational and scientific degree "Doctor" in 2016 at the Medical University, Plovdiv, majoring in "Genetics" and the topic of the dissertation "Genetics "and the topic of the dissertation" "Analysis of the expression profile of non-coding miRNA genes in patients with schizophrenia by means of large-scale miRNA macroarea analysis and highly specific quantitative RT-PCR". The labor activity Ch. Assistant Professor Dr. Tihomir Iliev Vachev is an affiliated department of Plant Physiology and Molecular Biology, Faculty of Biology at the University of Plovdiv "Paisii Hilendarski", where for more than 13 years he has held the academic positions of "Assistant" and "Chief Assistant". According to the SCOPUS database (Author ID: 35796393600) Ch. Assistant Professor Dr. Tihomir Iliev Vachev has 20 referenced publications, 133 citations and H-index 8, without auto-citations. It should be noted that in the SCOPUS database ch. Assistant Professor Dr. Tihomir Iliev Vachev is registered as an employee of the Institute of Molecular Biology and Biotechnology, Plovdiv. This fact is not mentioned in the CV of the applicant and, if this registration is incorrect, steps should be taken to correct the information in SCOPUS, at least because the data from SCOPUS are used ex officio for the purposes of accreditation and evaluation of quality indicators of PU .

3. General characteristics of the activity of the candidates.

The presented documents characterize Ch. Assistant Professor Elena Dimitrova Apostolova-Kuzova, PhD, as an established lecturer in the field of Molecular Biology. At the beginning of her career she led exercises in Molecular Biology and Bioinformative Analysis of Bachelor's degree students in Biology, Molecular Biology, Bioinformatics and Medical Biology. Ch. Assistant Professor Elena Dimitrova Apostolova-Kuzova, PhD, has developed 5 lecture courses for students of Bachelor's and Master's degrees, all related to Molecular Biology. Dr. Elena Apostolova-Kuzova is a co-author of two manuals for practical classes in the field of her competencies - "Guide to Bioinformatics" and "Workshop on Genetic Engineering". The individual work of Ch. Assistant Professor Dr. Elena Dimitrova Apostolova-Kuzova with the students is impressive. She has supervised 5 successfully defended graduates, which meets the criteria of the Faculty of Biology at the University of Plovdiv for the academic

position of "Associate Professor" and has mentored 17 students in connection with their practical training - an activity funded by OP "Human Resources Management".

The presented documents also characterize Ch. Assistant Professor Dr. Tihomir Iliev Vachev as an established lecturer in the field of Molecular Biology. He has led and continues to lead exercises in Molecular Biology, Gene Regulation, Molecular Genetics, Experimental Principles and Approaches in Molecular Biology of Bachelor's degree students in Molecular Biology, Medical Biology, as well as exercises in Molecular Medical Diagnostics, Virology in Humans and Molecular Biological Methods in Medicine for students of the Master's degree in Applied Molecular Biology, Reproductive Biology and Medical Biology. Ch. Assistant Professor Dr. Tihomir Iliev Vachev has developed 5 lecture courses for students of Bachelor's and Master's degrees, all related to Molecular Biology and Virology. Ch. Assistant Professor Dr. Tihomir Iliev Vachev is the author of a textbook on Molecular Medical Diagnostics and is the author and co-author of three manuals for practical classes in the field of its competencies - Guide to Molecular Biology; Guide to Medical Molecular Genetics and Guide in Molecular Genetics. The individual authorship of the Handbook of Molecular Biology is puzzling insofar as exercises in this discipline are brought out also by other assistants (chief assistants), but this is a matter of methodological guidance in the department. Ch. Assistant Professor Dr. Tihomir Iliev Vachev also impresses the active individual work with students. He has supervised 9 successfully defended graduates, which meets the criteria of the Faculty of Biology at the University of Plovdiv for holding the academic position of "Associate Professor". He works actively with students on research projects, the results of which are presented at various scientific conferences.

In conclusion, the two candidates are established lecturers and have the necessary experience and qualifications to hold the academic position of "Associate Professor". It is obvious that they are fully charged with teaching work, which, however, is not an obstacle to actively work with students at the individual level. Evaluating the excellent activity of both candidates, I cannot distinguish one of the colleagues as better. In this regard, it would be useful to take into account the opinion of the habilitated colleagues from the department, as they have direct impressions of their work.

Evaluation of the scientific and scientific-applied activity of the candidate

In this competition, Ch. Assistant Professor Dr. Elena Dimitrova Apostolova-Kuzova participates with 27 scientific papers and one innovation. 14 of the presented publications are in journals with IF, as the total IF is 26,991 - a good value for this level of career development. It should be emphasized that the journals in which the candidate has published are among the leading in the field of the competition - 7 publications in journals from the first quartile, 4 from the second and 3 from the third. 8 of the presented publications are in refereed journals without IF, but it should be noted that 5 of them are in journals with

SJR. In addition, Dr. Apostolova-Kuzova presents 2 publications in conference proceedings and 3 book chapters. According to SCOPUS, the candidate's scientific all papers have been cited 168 times. In nine of the presented scientific works Ch. Assistant Professor Dr. Elena Dimitrova Apostolova-Kuzova is the first author, which represents 32.14%. I can unambiguously define the publishing activity of Dr. Apostolova - Kuzova as good, with a recommendation in the future to make efforts to be more often a leading author - first or correspondent. The presented scientific papers and especially the results included in them would not be possible without comfortable funding of research. Ch. Assistant Professor Dr. Elena Dimitrova Apostolova-Kuzova supervised 1 research project funded by the NSF and was a member of the research team in 11 projects - 2 international; 3 funded by the NSF; 3 financed by PU and 3 by the Agrarian University. The project "Building a system for genetic modification of plants" has unclear funding. Unfortunately, no data are provided on the volume of funding. Dr. Apostolova-Kuzova is Co-Editor of the Journal of Biosciences and Biotechnology. This fact clearly shows the assessment of the scientific board of the Faculty of Biology in terms of the scientific level of the candidate. Dr. Apostolova-Kuzova was a member of the organizing committees of 4 conferences. She applied 3 materials presented at conferences - 2 publications in proceedings of conferences and 1 abstract.

The main achievements, a consequence of the scientific activity of Ch. Assistant Professor Dr. Elena Dimitrova Apostolova-Kuzova can be summarized as follows:

- Scientific

= In *Haberlea rhodopensis*, several members of the miR156 / 157, miR166 and miR399 (microRNAs) families have been shown to respond to drought. Members of the miR156 / 157 family have increased expression in dehydration and decreased expression in rehydration, while members of the miR166 and miR399 families follow an inverse trend. The complete sequence of the probable target of the miR156 / 157 - the SPL gene - was reconstructed. An opposite expression profile was found between these microRNAs and their targets in the tissues of dried plants.

= Amino acid sequences have been identified that show a very high degree of similarity with cytosolic Cu, Zn-SODs (HrCSD2, HrCSD3), chloroplast Cu, Zn-SODs (HrCSD5), other Cu, Zn-SODs (HrCSD4), Mn-SODs (HrMSD) and Fe-SOD (HrFSD) in *Haberlea rhodopensis*, and one copy of DNA was identified as pseudogen (HrCSD1). All identified SOD genes have been shown to be expressed at the transcriptional level. HrCSD2, HrCSD5, HrMSD and HrFSD are constitutively expressed in all organs, while HrCSD3 and HrCSD4 are organ-specific.

= A variety-specific response to microRNAs associated with PSTVd (potato tuber spindle viroid) infection in pepper has been demonstrated. It was established that in two varieties of Bulgarian pepper (*Capsicum annuum* L.): Julian rosehip and Kurtovska kapia, conservative microRNAs, such as can-miR397, can-miR398, can-miR408 and can-miR482 show variety-specific expression in PSTVd

infection at 28 the day. The expression level of can-miR397a-5p was significantly reduced in PSTVd-infected Julian rosehip, in contrast to the Kurtovska Kapiya variety. The expression of the target can-miR397a-5p gene, Laccase-like 4, was proportionally increased at day 43 after inoculation, suggesting that this microRNA / mRNA dependence is largely responsible for the sensitivity of the Julian rosehip variety to PSTVd.

= The significance of a diverse set of small RNAs in response to temperature stress in *Arabidopsis thaliana* has been defined. It has been found that low and high temperatures lead to completely different profiles of small RNAs and affect the generation of small RNAs from certain groups of protein-encoding genes. Low-temperature stress causes the accumulation of small RNAs corresponding to the sense chain of a number of genes, and high temperature stimulates the production of small RNAs by both chains of genes encoding functionally different proteins.

- Applied:

= A copy DNA library was created for *Haberlea rhodopensis*. 374 clones were sequenced, of which 332 were associated with a specific function, and 42 were assigned to the group of sequences without homologues or orthologs.

= It has been proven that Bulgarian bean varieties are promising germplasm and are suitable for their introduction into hybridization propagation schemes, as well as for the application of mutagenesis and biotechnological approaches.

= Organic and inorganic pollution have been shown to lead to differences in the molecular, chemical and micromorphological markers of *Fontinalis antipyretica* spring moss. It has been suggested that *rbcL* gene expression be an indicator of biomonitoring.

Innovations

There is a registered variety of beans. No data on possible economic effect were presented.

Quantitative indicators of Ch. Assistant Professor Dr. Elena Dimitrova Apostolova-Kuzova for holding the academic position of "Associate Professor"

Group of indicators	Content	Associate Professor requirements	Declared by the applicant	Revised by the reviewer
A	<u>Total „A“</u>	50	50	50
	Indicator 1			
B	<u>Total „B“</u>	-	-	.

	Indicator 2			
B	<u>Total „B“</u>	100	100	100
	Indicator 3 Indicator 4			100
Г	<u>Total „Г“</u>	200	342	320
	Indicator 5 Indicator 6 Indicator 7 Indicator 8 Indicator 9 Indicator 10			Indicator 7: $3 \times 25 = 75$ $4 \times 20 = 80$ $3 \times 15 = 45$ $5 \times 10 = 50$ Note: Publications without IF but with SJR carry 10 points and are not calculated by quartiles Indicator 8: $3 \times 15 = 45$ Indicator 9: $1 \times 25 = 25$
Д	<u>Total „Д“</u>	50	306	306
	Indicator 11			306
E	<u>Total „E“</u>	-	-	165
	Indicator 12 Indicator 13 Indicator 14 Indicator 15 Indicator 16 Indicator 17 Indicator 18 Indicator 19 Indicator 20			Indicator 14: $9 \times 10 = 90$ Indicator 15: $2 \times 20 = 40$ Indicator 16: $1 \times 20 = 20$ Indicator 20: $1 \times (20:4) = 5$ $1 \times (20:2) = 10$
Additional requirements of the Faculty			meets	meets
TOTAL				941

In this competition, Ch. Assistant Professor Dr. Tihomir Iliev Vachev participated with 26 scientific papers. The presented monograph to cover indicator B.3. does not meet the requirements of ZRASRB, where in the Additional Provisions, Paragraph 1, item 10, the legislator has clearly defined the requirements, namely “10. (New, SG No. 30/2018, effective 05.05.2018) A "monograph" is a published scientific text that contains a complete and comprehensive study of a particular subject, problem, or person, written by one or more authors adhering to the same view. **A monograph is a scientific**

work that does not repeat or summarize existing knowledge, who has a scientific editor and / or scientific reviewers, has an ISBN and is at least 100 standard pages with 1800 characters per page. It contains extensive content, a comprehensive bibliography, and the text contains references to other scientific papers. ". The presented material is an excellent summary of existing knowledge.

A reference in SCOPUS and WoS shows that 11 of the presented publications by Dr. Vachev are in journals with IF, as the total IF is 8,902 – value significantly lower than that of the other candidate. It should be emphasized that only two journals in which the candidate has published are among the leading in the field of competition – 2 publications in journals from the first quartile, 5 from the second, 2 from the third and 2 from the fourth. 5 of the submitted publications are in refereed journals without IF, but it should be noted that all five are in journals with SJR. In fact, only two of the presented publications have been published in foreign journals. In addition, publications below № 7 and № 8 in the list (Finger ridge count and fluctuating asymmetry in healthy and mentally diseased Bulgarians Petrova N, Sivkov S. Andreenko E, Dzhambov A, Vachev T, accepted for publishing in *Comptes Rendus de L'Academie Bulgare des Science* 2019; Palmar dermatoglyphic traits of schizophrenic patients and healthy controls Petrova N, Sivkov S. Andreenko E, Atanasov T. Mladenova T, Vachev T, accepted for publishing in *Comptes Rendus de L'Academie Bulgare des Science*) are not presented in full text content. I did not find such one on the website of the journal, which is why they cannot be referenced in essence, but only their numerical values are added to the calculation of the Impact factor. Two unreferred publications are also presented. In addition, Dr. Tihomir Iliev Vachev declared the publication of 7 chapters of books, but 2 of them are publications in conference proceedings – 1) Vaccines based on VLPs. M. Mazalovska, M. Gozmanova, T. Vachev, N. Varadinov, G. Zahmanova. Ninth scientific-technical conference Ecology and Health, 2012, ISSN 1314-1880, 453- 458 and 2). Study of the methylation profile in the promoter of dolicyl phosphate mannosyltransferase, polypeptide 3 (dpm3) gene in children with autism spectrum disorder (ASD) using EpiTect Methyl II PCR analysis Tihomir Vachev, Nikolay Popov, Hristo Ivanov, Vili Stoil Minchev ISSN: 1314-9490 Papers presented at the national scientific conference "Man and the Universe". The volume and content of the commented works also show that it is not possible to talk about book chapters. Two books based on the dissertations for obtaining the educational and scientific degree "Doctor" are also attached. In my opinion, these two "books" are simply republished dissertations, but the legislator has not explicitly defined this type of scientific work, which is why I take them into account when calculating the candidate's indicators. According to SCOPUS, scientific papers have been cited 133 times throughout the candidate's career. In three of the presented scientific works Ch. Assistant Professor Dr. Tihomir Iliev Vachev is a leading author, first or correspondent, which represents 17.64%. I can define the publication activity of Dr. Tihomir Iliev Vachev as reasonable, in view of the career development of the candidate. The recommendation for the future is to make efforts to be more often a leading author - first or correspondent, as well as to focus its publishing activity on publishing in more reputable journals, despite the more difficult and time-consuming procedure. Definitely a strength of Ch. Assistant Professor Dr. Tihomir Iliev Vachev is the active work on projects. He has participated in 15

national and 3 international research projects. Ch. Assistant Professor Dr. Tihomir Iliev Vachev presented 18 materials related to participation in scientific forums - poster presentations.

The main achievements, a consequence of the scientific activity of Ch. Assistant Professor Dr. Tihomir Iliev Vachev can be summarized as follows:

-Scientific:

= Based on a study of the specific profile of small RNA molecules in the parasitic plant *Pelipanche ramosa* infected with PSTVd, the mechanism of plant protection against viral / viral RNA infection based on viral RNA degradation or translation inhibition was established. The participation of different classes of small RNAs in the response and protection of *Pelipanche ramosa* to PSTVd is defined.

= The significance of a diverse set of small RNAs in response to temperature stress in *Arabidopsis thaliana* has been defined. It has been found that low and high temperatures lead to completely different profiles of small RNAs and affect the generation of small RNAs from certain groups of protein-encoding genes. Low-temperature stress causes the accumulation of small RNAs corresponding to the sense chain of a number of genes, and high temperature stimulates the production of small RNAs by both chains of genes encoding functionally different proteins.

- Methodological

= A methodology for non-invasive identification of fetal sex by pregnant women with a registration age between 11 and 13 weeks has been developed.

- Applied

= Using ROS (receiver operating characteristic) analysis, it has been demonstrated that observed changes in the levels of HERV-P env and HERV-R env transcripts can discriminate patients with autism spectrum disorder from healthy controls with significant sensitivity and specificity.

Innovations

No document for innovation activity has been attached.

Quantitative indicators of Ch. Assistant Professor Dr. Tihomir Iliev Vachev for holding the academic position of "Associate Professor"

Group of indicators	Content	Associate Professor requirements	Declared by the applicant	Revised by the reviewer
A	<u>Total „A“</u> Indicator 1	50	100	100
B	<u>Total „B“</u> Indicator 2	-	-	.
B	<u>Total „B“</u> Indicator 3 Indicator 4	100	100	100 0 100 Note: Transferred 5 publications Q2 from Indicator 7
Г	<u>Total „Г“</u> Indicator 5 Indicator 6 Indicator 7 Indicator 8 Indicator 9 Indicator 10	200	409	264 Indicator 6: 2x20=40 Indicator 7: 2x25=50 2x15=30 2x12=24 5x10=50 Note: Publications without IF but with SJR carry 10 points and are not calculated by quartiles Indicator 8: 5x15=75
Д	<u>Total „Д“</u> Indicator 11	50	86	86
E	<u>Total „E“</u> Indicator 12 Indicator 13 Indicator 14 Indicator 15 Indicator 16 Indicator 17 Indicator 18 Indicator 19 Indicator 20	-	210	279 Indicator 14: 15x10=150 Indicator 15: 3x20=60 Indicator 19: 19:1x40=40 Indicator 20: 1x20=20 1x(20:4)=5 1x(20:5)=4

Additional requirements of the Faculty			meets	meets
Total				799

4. Assessment of the personal contribution of the candidates

Regarding the publications - Ch. Assistant Professor Elena Dimitrova Apostolova-Kuzova, PhD, is the leading author in 32.14% of the publications related to the competition; Ch. Assistant Professor Dr. Tihomir Iliev Vachev is the lead author in 17.64% of the publications related to this procedure.

Regarding the research projects - Ch. Assistant Professor Elena Dimitrova Apostolova-Kuzova, PhD, supervised one; Ch. Assistant Professor Dr. Tihomir Iliev Vachev did not supervised a project.

5. Critical remarks and recommendations

My main criticism of the two candidates is in connection with the interpretation of the normative documents and the formulation of the documents under the procedure. This interpretation should be objective and not for personal gain. This is especially true for Ch. Assistant Professor Dr. Tihomir Iliev Vachev. It is not appropriate to submit published materials classified by category in violation of regulations.

6. Personal impressions

I have no personal impressions and contacts with the candidates in this competition.

CONCLUSION

The documents and materials attached by Ch. Assistant Professor Dr. Elena Dimitrova Apostolova-Kuzova **meet all the requirements** of the Law for the Development of the Academic Staff in the Republic of Bulgaria (ZRASRB), the Regulations for implementation of ZRASRB and the respective Rules of PU "Paisii Hilendarski".

Not all documents and materials submitted by Ch. Assistant Professor Dr. Tihomir Iliev Vachev **meet all the requirements** of the Law for the Development of the Academic Staff in the Republic of Bulgaria (ZRASRB), the Regulations for implementation of ZRASRB and the relevant Regulations of PU "Paisii Hilendarski". The submitted monograph does not comply with the Additional Provisions, Paragraph 1, Item 10 of the Law for the Development of the Academic Staff in the Republic of Bulgaria. Two

materials presented as book chapters are essentially publications in proceedings of scientific conferences. Two publications, in press, are not presented in full text. They were not found on the journals's website.

Candidates in the competition have attached a sufficient number of scientific papers published after the materials used in the defense of the ONS "Doctor" and the competition for the academic position of "Chief Assistant". In the works of both candidates there are original scientific and applied contributions that have received international recognition. The materials published by Ch. Assistant Professor Elena Dimitrova Apostolova-Kuzova, PhD, are predominantly in foreign reputed journal, while those published by Ch. Assistant Professor Dr. Tihomir Iliev Vachev are in journals with significantly lower scientometric indicators. The teaching qualification of Ch. Assistant Professor Dr. Elena Dimitrova Apostolova-Kuzova and Chief Assistant Professor Dr. Tihomir Iliev Vachev is undoubted. The scientific qualification of Ch. Assistant Professor Elena Dimitrova Apostolova-Kuzova is better - a comparison that is supported by objective indicators in my analysis.

Achieved by *Chief Assistant Professor Dr. Elena Dimitrova Apostolova-Kuzova and Chief Assistant Professor Dr. Tihomir Iliev Vachev* results in teaching and research, meet the specific requirements of the Faculty of Biology, developed in connection with the Regulations of the PU for application of Law for the Development of the Academic Staff in the Republic of Bulgaria, but there is an advantage in the various indicators assessed of *Ch. Assistant Professor Elena Dimitrova Apostolova-Kuzova, PhD*.

Based on the above conclusion, I rank the candidates in this competition as follows:

1. *Ch. Assistant Professor Elena Dimitrova Apostolova-Kuzova, PhD;*
2. *Ch. Assistant Professor Dr. Tihomir Iliev Vachev.*

After getting acquainted with the materials and scientific works presented in the competition, analysis of their significance and contained in them scientific, scientific-applied and applied contributions, I find it reasonable to give my **positive** assessment and recommend to the Scientific Jury to prepare a report-proposal to the Faculty Council of the Faculty of Biology for election of Ch. Assistant Professor Elena Dimitrova Apostolova-Kuzova, PhD, for the academic position of 'Associate Professor' at the University of Plovdiv "P. Hilendarski" by the Field of Higher Education – 4. Natural Sciences, Mathematics and Computer Science, Professional Area – 4.3. Biological Sciences (Molecular Biology).

26 04. 2021 г.

Reviewer:

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(Prof. Atanas Ivanov Pavlov)