

OPINION
by Prof. Iliya Nikolov Iliev, PhD,
University of Plovdiv “Paisii Hilendarski”

member of the scientific jury, according to the order of the rector of Plovdiv University
No. P33-630/19.02.2021.

regarding the materials submitted for participating in the competition for occupying the
academic position “Associated Professor” in University of Plovdiv “Paisii Hilendarski”,

in Area of higher education: 4. Natural Sciences, Mathematics and Informatics
Professional Field: 4. 3. Biological Sciences
scientific specialty Molecular biology,
for Department of Developmental Biology in
Plovdiv University

Senior Assist. Prof. Dr. Elena Dimitrova Apostolova - Kuzova from University of Plovdiv “Paisii Hilendarski” and Senior Assist. Prof. Dr. Tihomir Iliev Vachev participate as a candidate in the “Associated Professor” competition proclaimed both in State Gazette no. 99, dated 20 November 2020 and in the University of Plovdiv “Paisii Hilendarski” website.

1. General overview of the procedure and the candidate

The set of materials presented by Senior Assist. Prof. Dr. Elena Dimitrova Apostolova (in electronic form) is in accordance with the Law on the Development of the Academic Staff in the Republic of Bulgaria and the Development of Academic Staff Regulation in the University of Plovdiv “Paisii Hilendarski” and includes all necessary documents for participating in the competition.

The materials presented for participation in the competition for the academic position of ‘Associate Professor’ include 14 scientific publications in referenced scientific journals, which are not included the scientific publications for obtaining the educational and scientific degree ‘Doctor’. The materials for participation in the competition for the academic position of ‘Associate Professor’ also include 3 chapters of books and 2 guides for laboratory exercises, which are the result of the scientific activity of the candidate after the academic position ‘Senior Assistant Professor’. Senior Assistant Professor Apostolova is a leading author in 10 scientific papers. The total impact factor from the articles of Dr. Apostolova is 27.

Presented by Senior Assistant Professor Tihomir Vachev materials for participation in the competition for the academic position of "Associate Professor" include a habilitation thesis - a monograph, the status of which is to be reviewed by content and definition according to Law for development of the academic staff in the Republic of Bulgaria (ZRAS), a book based on defense dissertation and 18 scientific publications scientific journals that are not included in the scientific publications for obtaining the educational and scientific degree "Doctor". The submitted materials for participation in the competition for the academic position of "Associate Professor" include 7 chapters of books, the status of which is to be reviewed by content and definition according to ZRAS, as four of them are publications in conference proceedings, and their volume varies between 4 pages and 21 pages. There are also 3 teaching books, which are the result of the scientific activity of the candidate after taking the academic position of "chief assistant". Senior Assistant Professor Vachev is a leading author in 3 scientific papers. The total impact factor from Dr. Vachev's articles is 10.40.

In his documents, Dr. Vachev presents a copy of a dissertation for obtaining the scientific degree "Doctor of Science", which I use only as information to distinguish the published materials in obtaining different scientific degrees and titles. I consider that this material is not subject to review due to the defense after the deadline for submission of documents for this competition.

2. Brief biographical data of the applicants

Senior Assistant Professor Dr. Elena Apostolova was born on August 04, 1977. She graduated with honors in 2001. after a six-year period of study in Biology with a specialization in Plant Biotechnology at the University of Plovdiv "Paisii Hilendarski" (Master). In 2002 she obtained a professional master's degree in information technology and received a certificate from the Center for Specialization and Qualification at the University of Plovdiv "Paisii Hilendarski". In 2007 she successfully defended his dissertation on "Dependence between the characteristics of seeds and some characteristics of plants in *Phaseolus vulgaris L.*" and received a diploma of ONS "Doctor". The work experience of the candidate in the specialty with her doctoral studies exceeds 9 years and was acquired in the following positions - biologist and full-time doctoral student (2003-2007) at the Agricultural University, section "Breeding and seed production", assistant at PU "P. Hilendarski" (2011-2012) and chief assistant from 2012 to the present. She specialized for six months in a plant biotechnology laboratory at the University of the Algarve,

Portugal in 2004. and in 2009 in the Laboratory of Developmental Genetics and Biotechnology at the University of Vienna (UNIVIE).

Senior Assistant Dr. Tihomir Iliev Vachev was born on January 9, 1981. He graduated with a bachelor's degree in Biology from Plovdiv University "Paisii Hilendarski" in 2005. and Master's degree in Molecular Biology and Biotechnology with excellent results in 2008. In 2012 he successfully defended his dissertation on "Interaction between viroids potato Spindle Tuber Viroid (PSTVd), parasitic plant *Orobanche ramosa* and tomato as their host" and received a diploma in ONS "Doctor". The work experience of the candidate in the specialty begins in 2007. as a biologist at the Department of Plant Physiology and Molecular Biology, where he is also studying for a doctorate. He is currently appointed Chief Assistant to the Department of Plant Physiology and Molecular Biology.

3. General characteristics of the activity of the candidates

For criterion A (min. 50 p.) - 50 points

Dr. Apostolova obtained a PhD in "Scientific selection and seed production of cultivated plants" in 2007. after defending a dissertation on "Dependence between the characteristics of seeds and some characteristics of plants in *Phaseolus vulgaris* L." and received a diploma of ONS "Doctor".

For criterion B (min. 100 p.) - 100 points

An equivalent number of publications covering the points for habilitation work are presented. They are 4 in number Q1 with a total impact factor of 10,822 and do not repeat the ones presented for acquiring the educational and scientific degree "Doctor", and for holding the academic position "Chief Assistant".

For criterion G (min. 200 p.) – 320 points

Indicator 7 includes 15 publications in publications that are referenced and indexed in world-famous databases with scientific information (Web of Science and Scopus), which are in categories Q1 - Q4 and with a total impact factor of 18,925. The point reduction follows from the three publications that are in journals without IF, but also lack SJR and carry 10 points each.

According to indicator 8, Dr. Apostolova presents three chapters from books - one in the Handbook of Plant and Crop Physiology (CRC Press Taylor & Francis Group), the second in Plant Epigenetics and the third in a collection of articles "Nanosciences and Nanotechnologies".

According to indicator 9, Dr. Apostolov presents a certificate for the creation of a new variety of beans, which is recognized as an invention.

For criterion D (min. 50 p.) – 306 points

Includes 153 citations in scientific journals, monographs, collective volumes and patents, referenced and indexed in world-famous databases of scientific information (Web of Science and Scopus).

For criterion E – 165 points

Criterion "E" is not mandatory for evaluation when holding the position of "Associate Professor", but from the point of view of correctness I have calculated how many points they bring to Dr. Apostolova to compare with the data submitted by Dr. Vachev.

Presented by Ch. Assistant Professor Vachev scientific activities comply with the minimum national requirements for PN 4. 3. Biological sciences.

For criterion A (min. 50 points) - 50 points.

He obtained a PhD in Molecular Biology in 2011. after defending a dissertation on "Interaction between viruses potato Spindle Tuber Viroid (PSTVd), parasitic plant Orobanche ramosa and tomato as their host" and received a diploma for ONS "Doctor".

In 2016 defended his second dissertation on "Analysis of the expression profile of non-coding MiRNA genes in patients with schizophrenia through large-scale microarray analysis and highly specific quantitative RT-PCR" in the doctoral program "Genetics" and received a second diploma ONS doctor.

Since the minimum and obligatory and sufficient requirement for passing to a higher scientific degree and scientific title is to have one defended dissertation for obtaining ONS "Doctor", I accept that the requirement is fulfilled in the presence of one defended dissertation. In order to comply with the principle of equality in the competition, I accept the award of 50 points. for awarding ONS "Doctor".

For criterion V (min. 100 p.) - 100 points

According to indicator 3 ch. Assistant Professor Vachev presents the monograph "Disorders of the authentic spectrum through a look at modern medicine, future therapeutic perspectives and molecular genetic aspects in research", 173 pages, 2021, IM "Paisii Hilendarski" with ISBN 978-619-202-637-0 . The book contains 3 pages of content, 124 pages of text and 43 pages of bibliography. It is noteworthy that when printing the BDS standard for the number of printed characters, the number of lines and the distance between the lines is not observed, which in turn lead to incorrect cancellation of the total volume. According to the definition of a monograph, given in ZRASRB, it is understood "item 10. (New, SG No. 30/2018, effective 05.05.2018) "Monography" is a published scientific publication which contains a complete and comprehensive study of a certain subject, problem or person, written by one or several Authors adhering to the same view A monograph is a scientific work that does not repeat or summarize existing knowledge, has a scientific editor and / or scientific reviewers, has an ISBN and is at least 100 standard pages with 1800 characters. It contains extensive content, a comprehensive bibliography, and references to other scientific papers in the text. "

The proposed work for a monography contains a reference on the topic, but does not represent a complete scientific work with its own hypothesis, does not indicate and cite own research that could be accepted and reviewed in the context of this competition and report the candidate's own contribution. to meet the requirement set by criterion B. Therefore, I consider that this criterion of the minimum requirements is not met by the candidate Dr. T. Vachev through the submitted material. In order to cover this indicator, I consider it appropriate to transfer 5 publications from indicator 7, which are with Q2.

For criterion G (min. 200 p.) – 320 points

According to indicator 6 ch. Assistant Professor Vachev presented two published books:

1. Interaction between viroids potato Spindle Tuber Viroid (PSTVd), parasitic plant Orobanche ramosa and tomato as their host, 2021, 89 pages UI "Paisii Hilendarski" with ISBN 978-619-202-640-0;

2. Analysis of the expression profile of non-coding microRNA genes in patients with schizophrenia. 2021, 190 pages, IM "Paisii Hilendarski" with ISBN 978-619-202-639-4.

Both books are essentially a reprint of the two dissertations defended by Tihomir Vachev for obtaining the ONS "Doctor" and in my opinion do not represent an upgrade of scientific research after receiving the relevant diplomas. In both books the members of the respective scientific juries are placed as reviewers, as well as the scientific articles are cited, in which the author has already published the results obtained by him. As the current ZRASRB and its Regulations do not provide specific definitions for this type of publication, the content of such books is more a matter of the author's interpretation than his understanding of morality in research.

Indicator 7 includes a total of 18 publications, ten of which are in publications that are referenced and indexed in world-famous databases of scientific information (Web of Science and Scopus). Publications under numbers 7 and 8 of the submitted list are submitted only by letter from the editorial board of the journal, but copies of the manuscripts are missing, so I could not evaluate them on the merits and therefore do not accept for review. I accept for review publications that are divided into categories Q1 - 2 issues, Q3 - 2 issues, Q4 - 2 issues and 5 publications that are in journals without IF and without SJR factor and carry 10 points each. The total impact factor of the peer-reviewed articles on indicator 7 is 8.95. It is noteworthy that in three of them Dr. Vachev is the last author, and in one - the first author. In six of them the candidate is a leading author. My general assessment of the submitted publications under indicator 7 is that the minimum requirements are met, but their scientific value significantly deviates from that of the submitted articles by the other candidate. In conclusion, I would add that I do not accept as credible the statement that the candidate Dr. Vachev after 9 years of experience in an educational and scientific institution does not know what exactly is a chapter of a book. In my opinion, the materials presented by him on indicator 8 show disrespect to the Institution in which he is applying for an "Associate Professor" and to the scientific jury, which he probably considers insufficiently competent to evaluate his achievements. I would recommend to Dr. Vachev in his future scientific appearances not to underestimate either his colleagues or the Institutions in Bulgaria.

For criterion D (min. 50 p.) – 386 points

Dr. Vachev presents a list of 43 citations in scientific journals, monographs, collective volumes and patents, referenced and indexed in world-famous databases of scientific information (Web of Science and Scopus), which covers the minimum number of points on this criterion.

For criterion E – 279 points

Criterion "E" is not mandatory for evaluation when holding the position of "Associate Professor", but from the point of view of correctness I have calculated how many points they bring to Dr. Vachev in order to compare them with the points of Dr. Apostolova.

Fulfillment of the additional criteria of the Faculty of Biology of Paisii Hilendarski University of Plovdiv

A. Author or co-author of at least two textbooks in the respective field and specialty of the announced competition:

Senior Assistant Professor Elena Apostolova presented two managements that fully cover this indicator:

1. "Guide to Bioinformatics"; Veselin Baev, Elena Apostolova, Evelina Daskalova, Georgi Minkov. PU Paisii Hilendarski; 2013, v1.03; ISBN: 978-954-423-835-3.

2. "Genetic Engineering Workshop"; Samir Naimov and Elena Apostolova; PU Paisii Hilendarski; 2020; ISBN: 978-619-202-598-4.

Senior Assistant Professor Tihomir Vachev presents a textbook in Molecular Medical Genetics and three manuals in Molecular Biology, Molecular Virology and Medical Molecular Genetics. In principle, it can be assumed that it fulfills this indicator. However, I have the following remarks: The presented textbook on Molecular Medical Diagnostics is not a discipline that is included in the current curriculum of the bachelor's degree specialties carried out at the Faculty of Biology, of which the author is a member. He is the author of a manual on the subject "Molecular Biology", whose holder at the Faculty of Biology is Prof. Galina Yahubyan, and the exercises are performed by at least two other colleagues. I consider as non-collegial attitude and disrespect to the Institution and colleagues the issuance of a manual in the main discipline without synchronizing with the current curriculum and taking into account the rules of the faculty of which the author is a member.

B. Management of at least 5 (five) successfully defended graduates in the respective field of the competition.

Ch. Assistant Professor E. Apostolova presents a list of five defended graduates.

Ch. Assistant Professor T. Vachev presents a list of 9 defended graduates.

C. At least 5 (five) years of teaching experience.

Both candidates present a document proving the implementation of this indicator.

D. The applicant has participated in at least 2 (two) research projects.

Ch. Assistant Professor E. Apostolova presents a list of 12 projects in which she has participated.

Ch. Assistant Professor T. Vachev presents a list of 18 projects in which he has participated.

E. The applicant must have administrative experience (for the last 5 years) in at least one of the following activities: Participation in preparation and accreditation procedures; Participation in activities to ensure the quality of training; Participation in the preparation of a candidate student campaign; Participation in administrative activities, such as attestation commission, ethics commission, etc .; Other activities.

Both candidates provide evidence of compliance with this indicator.

Scientific and scientific-applied results

Senior Assistant Professor Dr. Elena Apostolova has a very active and diverse activity, both in research and in the training of students.

The main scientific interests of the candidate are within the Molecular Biology of Plants, which can be grouped in several areas:

1. Regulation of gene expression;
2. DNA markers and genotyping;
3. Sequencing and annotation of chloroplast genomes;
4. Molecular ecology;

All quantitative indicators of the criteria for holding the academic position of "associate professor", both national and specific requirements of the Faculty of Biology are met. I completely agree with the contributions described by Dr. Apostolova. In my opinion, Dr. Apostolova shows very good publishing activity, as in a reference in SCOPUS her H index is 7. In over 30% of the presented publications Elena Apostolova is a leading author.

Dr. Apostolova is the leader of 1 research project funded by the NSF at the Ministry of Education and Science and has been a member of the research teams of 2 international, 3 - funded by the NSF of the MES and 3 - by the NSF of PU and the Agricultural University. He is a member of the editorial board of the Journal of Bioscience and Biotechnology, published by the Faculty of Biology of the University of Plovdiv "Paisii Hilendarski". Through her diverse activities (reviews of articles in international journals, participation in the preparation and holding of scientific conferences and events of the Faculty of Biology, in organizing committees of scientific forums, presenting reports at scientific forums, etc.) she actively works to raise the prestige of Faculty of Biology.

Senior Assistant Professor Dr. Tihomir Vachev also shows a very active and diverse activity both in research and in teaching students.

The main scientific interests of the candidate are in two areas; Molecular biology of plants and molecular biological diagnostics of autism, which are difficult to combine. Probably in the course of the development of his career Dr. Vachev has looked for a new topic, which is much closer to the medical sciences. This implies a change of staff and the use of specialized laboratories in the field of medicine. Dr. Vachev's scientific contributions can be grouped into two main areas:

1. Investigation of the specific profile of small RNA molecules in the parasitic plant *Pelipanche ramosa* to establish the mechanism of plant protection against viroid RNA infection.
2. Establishes the importance of the diversity of small RNA molecules in response to temperature stress in *Arabidopsis thaliana*.

The main quantitative indicators of the criteria for holding the academic position of "Associate Professor", both national and specific requirements of the Faculty of Biology are met. I accept the contributions described by Dr. Vachev. In my opinion, Dr. Vachev shows good publishing activity, and according to SCOPUS his H index is 8. In over 17% of the presented publications Tihomir Vachev is a leading author. It is noteworthy that the affiliation with which Mr. Vachev introduces himself in a reference in SKOPUS is the Institute of Molecular Biology and Biotechnology, Plovdiv, which personally bothers me a lot. Given that he joins the current competition as a lecturer at the University of Plovdiv, this fact made me ask many questions about the current ban on purely human norms of introduction such as "correctness", "dignity", "responsibility" and others.

Dr. T. Vachev successfully develops project activity, having participated in 15 national and 3 international projects. He actively works with students, as well as participates in the organized scientific and educational initiatives of the Faculty of Biology.

Teaching work and participation in funded contracts

Both candidates have many years of experience as lecturers at the Faculty of Biology of Plovdiv University. Their academic work is related to students from different specialties of the Faculty of Biology and includes lecture courses and laboratory exercises (practical exercises) for bachelor's and master's degrees. They have fulfilled the requirement to present at least two teaching aids.

CONCLUSION

The documents and materials submitted by Ch. Assistant Professor Dr. Elena Apostolova meet all the requirements of the Law on the Development of the Academic Staff of the Republic of Bulgaria and the Specific Additional Requirements of the University of Plovdiv.

When reviewing the submitted documents and materials on the competition from Ch. Assistant Professor Dr. Tihomir Vachev found that not all minimum requirements under the Law on the Protection of the Rights of Persons with Disabilities are met, which necessitated restructuring of the materials. The material presented as a monograph does not meet the definition given in the Additional Provisions, paragraph 1, item 10 of the Law on the Protection of the Rights of Persons with Disabilities. Two of the publications (№7 and 8 of the list) are presented only with a note for acceptance for printing, but the full text of the manuscripts is not attached. The two candidates have submitted a sufficient number of publications that prove their contributions of scientific and applied science. It is noteworthy that Dr. Apostolova participates in the competition with much more valuable publications, given the IF of the journals in which the total number of publications are published and the fact that he is a leading author in over 30% of them. Dr. Vachev participates in the competition with publications, the quality of which is inferior to the journals in which they are published. Probably the reason is the change of subject after 2013 and entering the depths of medical genetics. When comparing the total number of points of the two candidates, Dr. E. Apostolova collected 941 points, and Dr. T. Vachev - 754 points.

Based on an in-depth study of all materials submitted to the competition by the two candidates and evaluation of their scientific, scientific and applied contributions and achievements in the field of education, I give my positive assessment of Ch. Assistant Professor Dr. Elena

Dimitrova Apostolova-Kuzova and I recommend the Scientific Jury to prepare a report to the Faculty Council of the Department of Biology with a proposal Assistant Professor Elena Dimitrova Apostolova-Kuzova, PhD, to receive the academic position of “Associate Professor” at Plovdiv University “Paisii Hilendarski” in the field of higher education 4. Natural Sciences, Mathematics and Informatics, Professional field 4.3. Biological sciences, Scientific specialty - Molecular biology.

28.04.2021 г.

Plovdiv

Opinion issued by:

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