

OPINION

in a competition for an academic position

"Professor"

in professional field 4.1 Physical sciences (Medical physics),

for the needs of Sofia University "St. Kliment Ohridski" (SU),

Faculty of Medicine (MF),

announced in SG no. 103 of 10.12.2021 and on the websites of the MF and SU

The opinion was prepared by: Prof. DSc Miroslav Vergilov Abrashev, Faculty of Physics, Sofia University, in my capacity as a member of the scientific jury on the competition according to Order № 22 / 04.20.2022 of the Rector of Sofia University.

The only candidate has submitted documents for participation in the announced competition: Assoc. Prof. Dr. Genoveva Antonova Zlateva, Faculty of Medicine, Sofia University

I. General description of the presented materials

1. Candidate data

The documents submitted for the competition by the candidate comply with the requirements of ZRASRB, PPZRASRB and the Regulations on the terms and conditions for obtaining scientific degrees and holding academic positions at Sofia University "St. Kliment Ohridski "(PURPNSZADSU).

For participation in the competition, the candidate Assoc. Prof. Dr. Genoveva Zlateva presented a list of 49 titles, of which 19 in publications, referenced and indexed in world-known databases of scientific information, 30 in non-refereed journals with scientific review or edited collective volumes.

54 participations in national and international scientific forums, as well as 21 participations in scientific and educational projects were presented.

Notes and comment on the documents: no.

2. Candidate details

Genoveva Zlateva was born in 1964 in the town of Nikopol, district Pleven. In 1987 she graduated in Physics (5 years of training, equivalent to the current Master's degree) with a specialization in Solid State Physics at the Faculty of Physics at Sofia University. After that he was a postgraduate / doctoral student in the same faculty, and in 1994 she defended dissertation and obtained the scientific degree "Candidate of Physical Sciences" (Doctor of Physics). In 1999 she acquired the specialty "Biophysics" (Postgraduate specialty in the health care system "Biophysics") from the Medical University - Sofia. Her work experience includes the following periods: 1988 - 1989, technologist at the Institute of Microelectronics, Sofia; 1994 - 2007, Assistant, Senior Assistant and Chief Assistant in the Department of Physics and Biophysics at the Medical University - Sofia; 2007 - present, Associate Professor in the Department of Physics, Biophysics and Radiology, Faculty of Medicine, Sofia University. She has also held the following administrative positions: 2010 - 2019, Head of the Department of Physics, Biophysics and Radiology, Faculty of Medicine, Sofia University; 2009 - 2012 and 2019 - until now, Deputy Dean of the Faculty of Medicine, Sofia University; 2019 - 2020, Director of the University Center for Quality Management, Sofia University.

3. General characteristics of the scientific works and achievements of the candidate

Initially, Genoveva Zlateva worked in the field of Solid state physics. Her dissertation, made in the group of Prof. Milko Iliev, is in the field of Raman spectroscopy of oxides, related materials of high-temperature superconductors. After that she continued to work with the group of Assoc. Prof. Mitra Baleva in the field of physics of dielectrics and semiconductors. However, after her transfer to the Faculty of Medicine (in 2007), she began to work entirely on problems of biophysics and the application of various optical and magnetic methods and techniques in medicine.

Reasonably and definitely it can be said that:

- a) the scientific works meet the minimum national requirements (under Art. 2b, para. 2 and 3 of the ZRASRB) and respectively the additional requirements of Sofia University "St. Kliment Ohridski" for holding the academic position of "professor" in the scientific field and professional area of the competition;
- b) the scientific papers submitted by the candidate do not repeat those of previous procedures for acquiring a previous scientific title and academic position;
- c) there is no legally proven plagiarism in the scientific papers submitted at the competition.

4. Characteristics and evaluation of the teaching activity of the candidate

The candidate has extensive 28 years of teaching experience. In the period 1994 - 2007, while working as an assistant, senior assistant and chief assistant at the Medical University of Sofia, she led the following courses: "Physics" - for specialties "medicine", "dentistry", "pharmacy" and "sanitary inspector", "Medical equipment in Nursing Practice" - for the specialties "Nurse" and "Maternity nurse" and "Electrical Engineering"- for the specialty "Sanitary Inspector". Since 2007, since she became an associate professor at the Medical Faculty of Sofia University, she has been leading the following courses: "Physics" - for the specialty "Medicine", "Biophysics" - for the specialty "Medicine", "Medical Equipment in Nursing Practice" - for the specialty "Medical nurse" and "Biomechanics"- for the specialty "Medical rehabilitation and occupational therapy ". For the last 5 academic years, an academic report has been presented, documenting over 700 hours of total academic employment per year, of which over 580 hours of classroom employment per year. This is much above the average workload of a lecturer at Sofia University.

5. Analysis of the scientific and scientific-applied achievements of the candidate contained in the materials for participation in the competition

The following types of research are presented in the publications of the competition: films of InN/AlN, as well as nanofilms and nano-inclusions of Mg₂Si and FeSi₂ in silicon matrix were studied; use of redox modulators as cytotoxic agents in tumor cells alone or as a means of increasing sensitivity to conventional chemotherapeutics, as well as reducing their side effects; optical imaging in the study of the teranostic potential of polymersomes; methods and techniques for visualization of pathologies associated with disorders of cellular redox status: contrast multimodal samples; contrast-enhanced magnetic resonance techniques; image processing algorithm for extracting contrast-enhanced MRT signals. Assoc. Prof. Zlateva presented a list of 240 citations (excluding auto-citations). According to SCOPUS, its h-index is 7.

6. Critical remarks and recommendations

No.

7. Personal impressions of the candidate

I have known Genoveva Zlateva since 1989, when in the same period we were graduate students (doctoral students) of Prof. Milko Iliev. I remember her as a talented and hard-working experimenter. Later, our relations were only administratively at Sofia University.

8. Conclusion on the application

After getting acquainted with the materials and scientific papers presented in the competition and based on the analysis of their importance and the scientific and scientific-applied contributions contained in them, I confirm that the scientific achievements meet the requirements of ZRASRB, Regulations for its application and relevant Regulations of Sofia University "St. Kliment Ohridski" for holding the candidate for the academic position "Professor" in the scientific field and professional direction of the competition. In particular, the candidate satisfies the minimum national requirements in the professional field and no plagiarism has been established in the scientific papers submitted at the competition.

I give my positive assessment of the candidacy.

II. OVERALL CONCLUSION

Based on the above, I recommend the scientific jury to propose to the competent body for the selection of the Faculty of Medicine at Sofia University "St. Kliment Ohridski" to elect Assoc. Prof. Dr. Genoveva Antonova Zlateva to take the academic position of "Professor" in the professional field 4.1 Physical Sciences (Medical Physics)

23.03 2022

Prepared the opinion

(Prof. DSc Miroslav Abrashev)