

STATEMENT

on the competition for obtaining the academic position „Professor” in the professional field 4.1. Physical Sciences (Medical Physics), announced in the State Gazette, issue 103, December 10, 2021, for the needs of the Faculty of Medicine, Department of Physics, Biophysics and Radiology.

Candidate: Assoc. Prof. Genoveva Antonova Zlateva, PhD

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The statement was prepared on the basis of the Law for Development of the Academic Staff in the Republic of Bulgaria (LDASRB), the Regulations for implementation of the law and the Regulations on the terms and conditions for acquiring scientific degrees, for holding academic positions at Sofia University „St. Kliment Ohridski” and order № RD-38-102/08.02.2022 of the Rector of the Sofia University „St. Kliment Ohridski” for appointing the scientific jury for the competition.

Documents for participation in the competition, within the legally regulated term, are submitted electronically by the only candidate: **Assoc. Prof. Genoveva Antonova Zlateva, PhD.**

1. Biographical data

Assoc. Prof. Dr. Genoveva Antonova Zlateva was born on October 12, 1964. In 1987 she graduated in Physics with a specialization in Solid State Physics (5-year course of study, according to the current classification, Master's Degree after Secondary Education) at the Faculty of Physics of Sofia University „St. Kliment Ohridski”. She was awarded her doctoral degree in 1994 on the topic: „Study of the phonon structure and the effects of cation substitution in some superconducting and non-superconducting complex copper oxide systems” with supervisor Prof. Milko Iliev, DSc. In 1999 she received a diploma for specialty in „Biophysics” in the health care system, which is very necessary for teachers in medical schools.

For the period 1988-1989 Genoveva Zlateva worked at the Institute of Microelectronics as a technologist.

Since 1994, Assoc. Prof. Zlateva is a university lecturer, and for the period 1994-2007 she acquired consecutive academic positions „Assistant”, „Senior Assistant” and „Chief Assistant” in the Department of Physics and Biophysics at MU-Sofia. Since 2007 she is part of the academic staff of the Faculty of Medicine of Sofia University „St. Kliment Ohridski” as an „Associate Professor”.

From 2009 to 2012 and from 2019 until now Assoc. Prof. Zlateva is Vice-Dean of the

Faculty of Medicine of Sofia University „St. Kliment Ohridski“. For the period 2010-2019 she was the head of the Department of Physics, Biophysics and Radiology, and in 2019 and 2020 she was the Director of the University Center for Quality Management.

2. Lecturing activity

Assoc. Prof. Genoveva Zlateva is a lecturer with a long academic experience of nearly 29 years. She has led and continues to lead lectures and/or practical classes mainly in the disciplines of „Physics“, „Medical Equipment“ and „Biophysics“ for students majoring in „Medicine“, „Nurse“ (and „Dentistry“, „Pharmacy“ – for the period in which she worked at MU-Sofia). From the attached report on the workload for the last 5 years it is visible that she has an average of over 700 hours per year, which significantly exceeds the required hours at Sofia University (especially during management positions).

Assoc. Prof. Zlateva is a highly dedicated lecturer, who puts a lot of effort into preparing materials with actual content for educational work and devotes time and energy to the training of students, which is highly valued by them. During the whole period of her lecturing at the Faculty of Medicine of Sofia University (from 2007 until now), in addition to the lecture courses she prepares and leads, she also deals with the overall organization of practical classes in Physics – selection of exercises, creation of methodologies and protocol forms.

From my personal impressions I can say that over the years Assoc. Prof. Zlateva has helped all young colleagues who have been part of the department, both for their lecturing and research work.

3. Administrative, expert and organizational activities

The biography of Assoc. Prof. Zlateva demonstrates her extensive administrative and expert experience. For the period 2009-2012 and from 2019 until now she is Vice-Dean of the Faculty of Medicine and deals with the overall organization of the educational process in the Faculty. She is well acquainted with the legal framework related to higher education, as well as the specifics of medical education, which is the reason for punctual and accurate assessments and decisions, which she makes after an in-depth analysis. She was chairman of commissions for preparation of self-assessment reports on accreditation procedures for all specialties in which students are educated at the Faculty of Medicine.

Assoc. Prof. Zlateva is the author of reviews in scientific journals, as well as reviews of projects to the Research Funds of the Ministry of Education and Science and Sofia University. She is also a sought-after expert in the groups for accreditation of doctoral programs at National Evaluation and Accreditation Agency (chairman of three and member of one expert group), as well as a member of scientific juries for awarding educational and/or scientific degrees and for acquiring academic positions.

Assoc. Prof. Zlateva's serious and thorough approach to the preparation of materials in her administrative work is highly appreciated by her colleagues and is the reason why she participates as an expert in the preparation of materials at the institutional level. For the period 2019-2020 she was also the Head of the University Quality Center.

For the period 2013-2015 Assoc. Prof. Zlateva is the leader of the project

BG051PO001-3.3.06-0040 „Building interdisciplinary teams of young researchers in the field of basic and applied research relevant to medical practice,, under the Operational Program „Human Development Resources”, under the ESF grant scheme „Support for the development of doctoral students, postdoctoral students, postgraduates and young scientists” – a two-year project for over BGN 700,000, in which 40 doctoral students, postdoctoral students and young scientists participated as a target group. During the project the participants from the target group were supported in their scientific development by providing an opportunity to present at international forums and include them in organized thematic trainings under the leadership of Assoc. Prof. Zlateva. Her collegial attitude and empathy for young professionals makes her a very respected colleague.

4. Research activity

4.1. Scient metric indicators and implementation of minimum national requirements

Assoc. Prof. Genoveva Zlateva has submitted for participation in the competition (apart from the publications for academic position „Associate Professor”) 19 publications in publications, referenced and indexed in the world-famous databases with scientific information Web of Science and Scopus, 30 publications in non-refereed journals with scientific review and 54 participations in scientific forums. Dr. Tsanova has worked on a large number of scientific educational projects at the Scientific Research Fund – MES, Scientific Research Fund – Sofia University „St. Kliment Ohridski” and Operational Programme „Human Resources Development”.

The reference, presented by Assoc. Prof. Zlateva for implementation of the minimum national requirements under Art. 2b of the Law on Scientific Research in the field of science 4. Natural sciences, mathematics and informatics, professional field 4.1. Physical Sciences on indicators, is prepared precisely, clearly and correctly. The report shows that the candidate fully meets and even exceeds in some groups of indicators, the minimum national requirements for Academic position „Professor”.

Group of indicators	Minimum national requirements	Candidate data
A	50	50
V	100	100
G	200	212
D	100	370
E	150	396

The total impact factor of the publications submitted for participation in the competition is 24.15, H-index: 7 (Scopus).

The total number of citations of the scientific works of Assoc. Prof. Zlateva is 285. 245 of the citations are after the acquisition of AP „Associate Professor”, 185 of them in journals referred to in Web of Science and Scopus.

4.2. Contributions to the scientific works of Assoc. Prof. Genoveva Antonova Zlateva, PhD

Based on the report presented by Assoc. Prof. Zlateva, her scientific contributions are grouped into the following main research areas:

- Study of the application of redox modulators as cytotoxic agents in tumor cells alone or for increasing sensitivity to conventional chemotherapeutics, as well as reducing their side effects in acute lymphoblastic leukemia and glioblastoma. In this part of the scientific work, natural materials have been used to treat cancer cells, which induce apoptosis without causing side effects on normal cells and tissues.
- Application of optical image in the study of the teranostic potential of polymersomes, based on the fluorescence of quantum dots, as well as the possibilities for their use as a nanosystem for the transfer of pharmaceuticals in vitro and in vivo.
- Description of methods and techniques for visualization of pathologies related to disorders in cellular redox status (contrast multimodal samples and contrast-enhanced magnetic resonance techniques).
- Investigation of surface and interface-phonon polaritons of optical phonons (SPP and IPP) in low-dimensional structures (in nanofilms and nanoinclusions from Mg₂Si and FeSi₂ in silicon matrix and nanofilms from InN/AlN). Different features in the spectra are interpreted on the basis of calculated dispersion ratios of SPP and IPP and the energies of the interband transitions in the studied energy range, are determined.
- Using surveys, questions concerning the education of students in medical specialties were studied. The results of different forms and methods in the teaching of Physics and other disciplines for students of medical specialties are analyzed. Methodical solutions for increasing the motivation of students are proposed.

5. Personal impression

I have known Assoc. Prof. Genoveva Zlateva from the moment I started working at Faculty of Medicine (since 2008). She impresses with her exceptional competence, both administratively and scientifically, which is evident from the results of her work. Assoc. Prof. Zlateva is a responsive colleague, listening to the problems of students and teachers and ready to help at any time. She is a team player, showing high tolerance and respect towards the ideas and opinions of other colleagues.

Assoc. Prof. Zlateva works for the development of the Faculty of Medicine with a great sense of responsibility and commitment.

6. Conclusion

The scientific papers and materials submitted for the competition comply and exceed the required scient metric indicators according to LDASRB, the Regulations for application of LDASRB and the Rules for the terms and conditions for acquiring scientific degrees and for holding academic positions at Sofia University „St. Kliment Ohridski”. The above analysis and my personal impression of the candidate as highly qualified lecturer and scientist are grounds

to confidently give my **positive assessment** and recommend to the Scientific Jury to prepare a report-proposal to the Faculty Council of the Faculty of Medicine at Sofia University „St. Kliment Ohridski” for awarding the academic position „Professor” in the professional field 4.1. Physical Sciences (Medical Physics) of Assoc. Prof. Genoveva Antonova Zlateva, PhD.

Assoc. Prof. Dessislava Anri Lazarova, PhD

March 27, 2022

Sofia