

# Opinion

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*From Assoc. Prof. Dr. Biliana Nikolova,*

*Institute of Biophysics and Biomedical Engineering, BAS*

*Under the Competition for holding the academic position of "Associate Professor" professional field 4.1. Physical Sciences (Biophysics and Medical Physics), announced in SG no. 99 of November 20, 2020, for the needs of the Department of Physics, Biophysics and Radiology, Faculty of Medicine, Sofia University "St. Kl. Ohridski", Sofia,*

*With only one candidate submitting documents for participation: Dr. Desislava Anri Lazarova.*

I was appointed as a member of the scientific jury of said competition for the academic position of "Associate Professor" by an order of the Rector of Sofia University "St. Kl. Ohridski". At the first meeting of the jury, held on 25.01.2021 we got acquainted with the documents presented by Dr. Lazarova and unanimously found that they meet the requirements of the Act for the Development of the academic Staff of the Republic of Bulgaria.

Dr. Lazarova obtained her master's degree in "Molecular Biology - Biophysics" in 2006 at Sofia University "St. Kliment Ohridski". In April 2019 she acquired "Doctor" degree – in professional field 4.1 Physical Sciences, scientific specialty Biophysics, Faculty of Physics, Sofia University "St. Kliment Ohridski", and later in 2019 she specialized further into the healthcare system getting a degree in Biophysics at the Faculty of Medicine of Sofia University "St. Kliment Ohridski". The subject of Dr. Lazarova's dissertation is "Contrast-enhanced magnetic resonance techniques for visualization of pathologies associated with disorders of cellular redox status."

The documents submitted for the competition contain the point distribution of the scientific assets of Dr. Lazarova according to the minimum national requirements, set by the Act for the Development of the academic staff of the Republic of Bulgaria. It becomes clear that the candidate covers, and in some parameters exceeds the requirements.

In the case of group B indicators (publications with the character of habilitation work) 5 articles are presented with a total of 100 Q points. Said articles have been published in Q2 journals, three of them in the renowned journal Anticancer research Q2, IF 1.994.

In the case of group D indicators (publications outside habilitation work), 15 articles are presented, bearing a total of 261 points, the minimum national criteria being 200 points. 11 of these are IF papers, distributed by quartiles as follows: Q1 4 pieces, Q2 4 pieces, Q3 1 piece, Q4 2 pieces, articles with SJR 3 pieces.

In the case of group E indicators (number of observed citations), with the minimum national criteria being 50 points, Dr. Lazarova presented a list of 107 citations, bearing 216 points.

In the case of group E indicators (participation and management of scientific projects), criteria that is not required for the academic position of "Associate Professor" Dr. Lazarova has a total of 150 points, 130 of which come from participation in 13 projects, and 30 were received as she was the coordinator of the project BG051PO001-3.3.06-0040.

A list of 23 participations in oral and poster sessions of national and international scientific forums is presented.

As of 05.11.2008 Dr. Lazarova holds the academic position of assistant in the Department of Physics, Biophysics and Radiology of the Medical Faculty, of Sofia University. The presented reference for study employment of the candidate makes it clear that there is a total study employment of at least 650 hours per year, and in recent years it has increased to 735 hours.

Dr. Lazarova is Secretary of the Faculty Council, member of the General Assembly of Sofia University "St. Kl. Ohridski", an authorized person of the Medical Faculty for NACID.

The candidate's contributions are grouped as follows: I. contributions related to the dissertation, which I will not consider, as they were analyzed in detail in a previous procedure, namely the defense of a dissertation and II. Other contributions of scientific-applied and theoretical nature.

Seven groups of contributions are presented: 1. Modulation of redox status and increase of sensitivity of tumor cells to conventional chemotherapeutics, reflects works [2, 3, 4, 6, 8, 14]; 2. Nitrox-enhanced EPR for visualization and assessment of cellular redox status, reflects papers 5 and 12 and is a continuation of research related to the dissertation of Dr. Lazarova; 3. Optical image, reflects works 9, 10 and 13; 4. Contrasting multimodal samples - work 1; 5.

Algorithm for image processing for extraction of contrast-enhanced signals from MRT - work 7; 6. Abiotic stress in plants - works 11, 18, 19, 20; 7. Mechanisms of resistance to extreme drought of the resurrected plant *Haberlea rhodopensis*, papers 15, 16, 26, 29.

The scientific contributions presented by the candidate correctly reflect the achievements in the published works. They are original and of scientific interest both fundamentally and appliedly.

*In conclusion, I believe that the scientometric indicators and scientific contributions presented above fully cover, and by some criteria significantly exceed the requirements for acquiring the academic position of "Associate Professor" set by the Regulations of the Act for the Development of the academic Staff of the Republic of Bulgaria.*

*My personal impressions of the candidate, as well as the materials presented in the competition, are the reason to confidently recommend to the Scientific Jury to prepare a proposal to the Faculty Council of the Ministry of Finance at Sofia University "St. Kliment Ohridski" for the election of Desislava Anri Lazarova for the academic position of ASSOCIATE PROFESSOR in Scientific Field 4.1. Physical sciences (biophysics and medical physics).*

12.02.2021

Signature:

/Assoc. Prof. Biliانا Nikolova/  
