

S T A T E M E N T

REGARDING: Competition for the academic position "Associated Professor", Scientific field – 4.3. Biological Sciences (Microbiology), announced in the State Gazette issue 12 of 12.02.2021 year.

BY Prof. Svetla Trifonova Danova, PhD, DSc, Department of General microbiology, The Stefan Angeloff Institute of Microbiology , Bulgarian Academy of science

1. REGARDING THE COMPETITION:

The competition for Associate Professor in Professional Field 4.3. Biological Sciences (Microbiology) was announced in state gazete № 12 of 12.02.2021 for the needs of the Department of General Microbiology, Laboratory of Cellular Microbiology – The Stefan Angelov Institute of Microbiology, BAS.

The scientific jury was awarded by order I-30 / 29.03.2021 to the Director of the Institute of Microbiology "Stefan Angelov" - BAS (IMiKB-BAS), according to ZRASRB and its Regulations. All documents present correctly the required data for assessment of scientometric indicators and professional readiness for the position.

As a member of the Scientific Jury, I declare that I have no any form of conflict of interests according to the p.1, items 3 and 5 of the Law of the Development of the Academic Staff in the Republic of Bulgaria (ZRASRB) and the Regulations for its application with the candidate in the competition.

2. BRIEF INFORMATION ABOUT THE APPLICANT IN THE COMPETITION

The only candidate in the competition is Dr. Tsvetelina Paunova-Krasteva, currently Chief Assistant and Head of the Laboratory of Cellular Microbiology at the Department of General Microbiology, IMiCB - BAS. She graduated as a Bachelor; specialty "Biology" in 2003 year with a subsequent Master's degree in the Program "Microbiology and Microbiological Control" (2005 year), both at the Faculty of Biology of Sofia University "St. Kl. Ohridski". She successfully defended her PhD thesis in 2015 year to receive the educational and scientific degree "Doctor".

The scientific career of Dr. Paunova - Krasteva in The Stefan Angelov Institute of microbiology - BAS began as a biologist - specialist in 09/2005 year and continued successively as an assistant (from 01/2011 year) and chief assistant (from 10/2016 year), in the same department. The presented CV shows that the candidate has a serious theoretical and

experimental training, thanks to 11 trainings and specializations, with different duration in several world-research centers (in Italy, Poland, Germany, Netherlands and the Institut Pasteur Paris - France). The training programs abroad are in the thematic area of the laboratory, for the purposes of which the competition has been announced. The acquired knowledge she passed on to her 13 graduates in the Student Internship Program and to the students, as a part-time lecturer in the specialty "*Cell Biology and Pathology*" at Sofia University "St. Kliment Ohridski". This is an excellent certificate for the position in this competition.

3. IMPLEMENTATION OF THE REQUIREMENTS FOR THE ACADEMIC POSITION "ASSOCIATE PROFESSOR"

Dr. Tsvetelina Krasteva-Paunova has over 16 years of experience in the specialty Microbiology in the same Laboratory of IMicB, for the needs of which the competition was announced. The presented "*Information on the implementation of the minimal national requirements of the Law (ZRASRB)*", on the individual indicators and information on the *Implementation of the additional criteria* for holding the position of "Associate Professor", according to the Rules of ImicB-BAS correctly reflect the scientometric indicators for evaluation of the candidate.

3.1. Implementation of the minimum national requirements according to the Law (ZRASRB)

Dr. Paunova-Krasteva fulfills and exceeds the minimum national requirements, as follows:

According to the indicator A - 50 points. The candidate received the educational and scientific degree "Doctor" (01.06.12 Microbiology) in 2015 year, successfully defending a PhD thesis on the topic: "*Phenotypic variations related to polysaccharide antigens in Escherichia coli O157*", - the National Seminar of General Microbiology at The Stefan Angelov Institute of Microbiology, BAS.

Indicator 4 in the group B - presents a total of 7 publications published in the period 2010-2014, 6 of which in international journals with high IF and Q2 - SJR, which form 120 points of the required 100 points. Dr. Paunova-Krasteva is the first author in one of them and corresponding in four of them.

According to the points 7 and 8 in the group G are indicated 18 scientific publications with impact factor / impact rank, and 6 works in full text in non-indexed journals with a total of 264 points with the required 200 points (according to indicator G). All scientific papers are co-authored and in 8 of them the candidate is the first author. This is a good certificate for her

personal participation. I can not fail to mention the presented 3 chapters of books that clearly prove high scientific competence and knowledge in the field of present competition.

I highly appreciate the outlined thematic focus in all submitted works, which corresponds to the professional knowledge and qualifications required for the laboratory of "*Cellular Microbiology*" – the units of the competition's position. In addition, the works are well- cited - 63 citations in the international databases Scopus and WoS (**126 points**). It would be an omission not to mention the 7 awards from various national and international competitions for her work (including projects, poster) and research (FEMS grant for young scientists-2007).

3.2. Fulfillment of the additional requirements of the Stefan Angelov Institute of Microbiology, BAS

The review of the documents on the competition showed that Tsvetelina Paunova successfully exceeds all the indicators provided by the Law on Academic Development (ZRASRB) and the additional criteria for academic growth according to the Rules of Imicb-BAS. This is reported in terms of **number of citations (111), Impact factor (22,091) and h-index (6)**. She participates in the competition with a total of 24 scientific papers, excluding those for obtaining ONS "Doctor". In 8 out of them, she is the 1st author, which exceeds the additional criteria. However, the most impressive is her project activity, with which the candidate forms **338 points according to indicator E** and many times exceeds the requirements of IMicb - BAS. Of great importance is the experience she has gained by leading 4 out of the 19 presented projects and participating in 4 International scientific and educational projects. She successfully partners with various national and foreign scientific organisations and has the qualities to prepare and manage projects. Thus, an important future for the development of research programs of the unit in which she works.

The research work of Tsv. Paunova-Krasteva, as can be seen from the publications and projects, is focused in many current thematic areas in the field of cell microbiology:

- (1) Phenotypic variations in microorganisms - antigenic, surface.*
- (2) Cellular interactions between pro- and eukaryotes, structural-functional studies.*
- (3) The formation of biofilm microbial communities and the factors of influence in direct connection with the problems of pathogenesis and drug sensitivity.*

From the scientific publications to each of these areas can be clearly seen the original scientific contributions and those of confirmatory and methodological nature, which prove that the candidate is a cellular morphologist and microbiologist with qualifications and experience for the development of research units.

I highly appreciate (i) the optimized and standardized procedure for the study of bacterial biofilms, through a complex methodology that can be successfully applied in a number of interdisciplinary studies; (ii) original scientific data on the effect of secretory metabolic products on biofilm formation in *E. coli* strains, with an impact on food chain safety and health; (iii) conducted for the first time in Bulgaria a comparative study on the phenotypic characteristics (growth, biofilm formation and motility) of *Pseudomonas aeruginosa* strains from Bulgarian patients with cystic fibrosis, (iv) as well as scientific data on the effects of newly synthesized polymer micelles as a new concept for overcoming the biofilm barrier, extracellular matrix.

Since I know the candidate personally, I want to note that she is the only specialist in electron microscopy at the Institute. Despite the serious scientific workload, she actively participates in the work of the National Seminar on General Microbiology, as a long-term secretary and in the organizing committees of 4 authoritative scientific forums.

CONCLUSION.

In conclusion, all above gives me the reason to believe that Dr. Tsvetelina Paunova-Krasteva is a highly qualified microbiologist who has proven his ability to conduct scientific and applied research at a high level and to seek solutions to current scientific problems in cell microbiology. This gives me the reason to recommend to the esteemed Scientific Jury to vote positively for the appointment of the candidate - Chief. Assistant Prof. Dr. Tsvetelina Paunova - Krasteva in the position of "*Associate Professor*" in the Professional field: 4.3 Natural Sciences in the Department of General Microbiology, in the Laboratory of Cellular Microbiology - Stefan Angelov Institute of Microbiology, BAS.

Sofia;

29.05:2021 year,

.....

/Prof. Svetla Danova. PhD, DSc/