

## **STATEMENT**

**by Dr. Vesela Ilieva Mitkovska – Assoc. Prof. in University of Plovdiv “Paisii Hilendarski”,  
Faculty of Biology**

of the materials submitted for participation in a competition  
for occupying the academic position of "Associate Professor"  
in the field of higher education 4. "Natural Sciences, Mathematics and Informatics", Professional  
field 4.3. "Biological Sciences", scientific specialty “Genetics”

Regarding the competition for the academic position of "Associate Professor", announced in the State Gazette №25 of 10.03.2026 for the needs of the Section "Biomonitoring and environmental risk" of the Department "Ecosystem Research, Ecological Risk, and Conservation Biology" at the Institute of Biodiversity and Ecosystem Research (IBER) – BAS.

### **1. General presentation of the procedure and the candidate**

By Order №24 of 07.05.2026 of the Director of IBER-BAS, I have been appointed as a member of the scientific jury of the competition for the academic position of "Associate Professor" in professional field 4.3. "Biological Sciences", scientific specialty „Genetics“, announced for the needs of the Section "Biomonitoring and environmental risk" of the Department "Ecosystem Research, Ecological Risk, and Conservation Biology"

Under the competition, only one candidate has submitted documents – Chief Assistant Professor Tsvetelina Zhanova Gerasimova, PhD, IBER-BAS.

The submitted by Dr. Tsvetelina Gerasimova's set of materials is in accordance with the Law on the Development of the Academic Staff in the Republic of Bulgaria, its Implementation Regulations, the internal rules of the Bulgarian Academy of Sciences, and the specific regulations of the Institute of Biodiversity and Ecosystem Research, and includes all required documents.

The candidate Chief Assist. Prof. Dr. Tsvetelina Gerasimova has attached a total of 38 scientific publications, of which 37 are papers and one is a book chapter. According to the correspondence sheet submitted by the candidate, 22 scientific publications are accepted for review - 21 scientific papers and one book chapter. Three scientific papers on the dissertation and 13 scientific papers outside the scope of the competition, presented by the candidate as "other publications in journals and in conference proceedings", are not reviewed.

### **2. Brief biographical data of the candidate**

Dr. Tsvetelina Gerasimova graduated with a Master's degree from the Sofia University "St. Kliment Ohridski", Faculty of Biology, majoring in "Ecology and Environmental Protection" in 2002. She started working at the Bulgarian Academy of Sciences in 2003, and in 2010, she became an assistant at the IBER-BAS, where she obtained the "PhD" degree in 2012. Since 2015 she has been working as a Chief Assistant Professor in the section "Biomonitoring and Ecological Risk", Department of "Ecosystem Research, Ecological Risk and Conservation Biology".

### **3. General description of the applicant's activities**

Dr. Tsvetelina Gerasimova successfully meets the required scientometric indicators (national ones, as well as the additional requirements set out in the Regulations on the terms and conditions for acquiring scientific degrees and for occupying academic positions at IBER-BAS) in all categories, even exceeding them. The scientometric report includes 22 scientific publications – 21 scientific papers and one book chapter. They are distributed as follows: for indicator "B" – 6 issues, of which 4 in scientific journals with Q1, 1 in Q2 and 1 in a scientific journal with SCImago Journal Rank (SJR) on Scopus without "Impact Factor" (IF); for indicator "G" ("T") - 4 in Q1, 1 in Q2, 4 in Q3, 5 in Q4 and 1 in a scientific journal with SJR without IF. Thus, the indicators from indicator "B" are covered with 130 points (out of 100 required), and for indicator "G", with 250 points (out of 220 required). In summary, the candidate submits for review the largest number of publications, a total of 8, in scientific journals with Q1, 2 in Q2, 4 in Q3, and 7 in Q4, where 2 from the last-mentioned category are with SJR without IF. The total number of publications with IF is 19. All scientific papers submitted for participation in this competition are published in English in 12 different high-impact scientific journals in the country and abroad. Dr. Gerasimova is a co-author in the presented papers, which demonstrates her good teamwork skills. She is the first author in 4 of them, 3 of which are included in the "B" indicator – this shows her leadership qualities in a significant part of the research presented as a habilitation work, as well as excellent skills in leading a scientific team.

The indicators from group "D" are presented with 100 citations, out of the required 30, in scientific publications, referenced and indexed in world-renowned databases of scientific information (Web of Science and Scopus), which carry a total of 200 points, with which the candidate covers and exceeds the requirements under this indicator as well. Thus, for all indicators the candidate covers and even exceeds the required number of points according to the Law on the Development of the Academic Staff in the Republic of Bulgaria, its Implementation Regulations, the internal rules of the BAS, and the increased criteria of IBER-BAS.

The main part of the candidate's research results has scientific and applied contributions in the field of cytogenetics, genotoxicology and the assessment of the biological activity of natural and

synthetic compounds. Chief Assist. Prof. Dr. Tsvetelina Gerasimova has divided her scientific contributions into five thematic areas, which well reflect the main directions of her work. She refers most of her publications to the first three main areas: (1) *Cytogenetic screening and genoprotective potential of natural products and plant extracts (Rosa spp.)*; (2) *Cytogenetic screening of newly synthesized aminophosphonates and their derivatives*; (3) *Cytogenetic screening of industrial chemical agents and organic solvents*. The personal contribution of Dr. Gerasimova is clearly expressed in these three research areas, based on the consistent application of established classical cytogenetic methods, including analysis of chromosome aberrations, micronucleus test, and evaluation of mitotic activity in *in vitro* and *in vivo* test systems. The application of this multisystem approach in various experimental models provides an assessment of the studied effects and confirms the high level of scientific competence of the candidate in the field of cytogenetic analysis. The contributions related to the first direction are particularly valuable, given the wide application of plant products from *Rosa* spp. in the food, cosmetic and pharmaceutical industries. The results relating to the effect of aminophosphonates are also of significant importance, as they represent an experimental basis for the development of new antitumor agents and polymeric dosage forms.

Regarding the fourth scientific direction, formulated by the candidate as: (4) *Ecotoxicological studies and assessment of genetic risk in exposure to heavy metals in wild and laboratory small mammals*, only one publication has been referred to. It is related to the bioaccumulation of heavy metals in rodents from different geographical areas (Bulgaria and Slovakia). In view of the thematic proximity, within this direction, both publications (G6 and G15) that were not included in any contributions and concerning the assessment of the protective effect of clinoptilolite in relation to exposure to heavy metals, could be reasonably referred to, insofar as they consider the possibility of modulating their toxicity and complement the ecotoxicological focus of the research. In this way, the direction would acquire a broader and thematically complete character, covering both the accumulation of the genetic effects of heavy metals and the potential mechanisms for their neutralization by natural mineral agents.

The scientific contributions related to the last direction (5) *Karyological and comparative cytogenetic studies*, are original and contribute to expanding knowledge about the genetic characteristics of valuable animal breeds, such as the Bulgarian autochthonous breed Karakachan dog.

The high citation rate of the scientific papers presented by Dr. Gerasimova in high-impact scientific journals such as *Chemosphere*, *Macromolecules*, *Chemical Communications*, *Synthesis*, *Current Medicinal Chemistry*, *Current Organic Chemistry*, *European Journal of Medicinal Chemistry*, *Biomaterials Science*, *Journal of Molecular Liquids*, *Scientific Reports* is another proof

of the significance of her scientific research, as well as the relevance of the field in which she works.

Based on the obtained results and scientific contributions, it can be concluded that Dr. Gerasimova has a clearly outlined and consistently built scientific research profile in the field of genetics.

#### **4. Critical remarks and recommendations**

I found only a few technical inaccuracies in the presented materials, related to incorrectly indicated SJR and IF values for some scientific journals in which the papers were published. In most cases, the incorrect metrics were submitted with lower values than the actual ones, which supports the conclusion that these are unintentional technical errors. I would like to note that when reviewing, the journals' quartiles are of decisive importance, and they were indicated completely correctly by the candidate. As a technical remark, I can also note the lack of uniformity in the style of citation and formatting of the bibliographic sources. Their unification within the framework of a single bibliographic standard would contribute to a higher degree of academic precision in the submitted competition materials. The indicated remarks are entirely technical in nature and in no way diminish the candidate's work, nor the value of the publications.

#### **CONCLUSION**

After reviewing the materials submitted in the competition, highly appreciating the significance of the scientific works and the contributions related to them, I find it justified to give my positive assessment and to recommend to the Scientific Jury to prepare a report-proposal to the Scientific Council of IBER-BAS for the election of Chief Assistant Professor Dr. Tsvetelina Gerasimova to the academic position of "Associate Professor" at IBER-BAS in the field of higher education 4. Natural Sciences, Mathematics and Informatics, professional field 4.3. Biological Sciences, scientific specialty "Genetics".

22.06.2026

**Prepared by:**.....

/Assoc. Prof. Dr. Vesela Mitkovska/