

# REPORT

*regarding competition for academic position “Associated Professor”*

Presented in front Scientific jury, assigned with the Sofia university  
Rector’s order № РД-38-612/15. 12. 2021

**ANNOUNCED COMPETITION:** academic position “*Associated Professor*” in the professional field **4.3. Biological sciences (Microbiology – *Обща Микробиология General microbiology and biology of extremophilic microorganisms*)**, announced in State Gazette, № 87/19.10.2021. for the needs of Department of General and Industrial Microbiology, Faculty of Biology, Sofia University.

**STATED BY:** **assoc. prof. Mihail Vladimirov Iliev, PhD**, of Department of General and Industrial Microbiology, Faculty of Biology, Sofia University

Only one set of documents were deposited for the current competition, submitted by assist. Prof **ANNA ATANASOVA TOMOVA**, PhD, Department of General and Industrial Microbiology, Faculty of Biology, Sofia University. Documents for participation in the competition are in full accordance with the requirements of the Act for Development of the Academic Staff in the republic of Bulgaria (ADASRB).

## **1. GENERAL INFORMATION FOR THE PROFESSIONAL CAREER OF THE CANDIDATE**

### **1.1. EDUCATION**

Dr. Anna Tomova was born on October 29, 1975 in the city of Sofia, where in 1993 she completed her secondary education at the NGNSM, Sofia. During the period 1994 - 1999 she studied the specialty Molecular Biology at the Faculty of Biology of Sofia University “St. Kliment Ohridski ”, where she obtained a Master's degree after defending her diploma thesis "Influence of two different nitrogen sources on pigmentation in fungi of the genus *Monascus*" at the Department of General and Industrial Microbiology. In 2011 she obtained the scientific and educational degree "PhD" in Microbiology at the Laboratory of Extremophilic Bacteria, Institute of Microbiology (IM), BAS. The topic of her dissertation was "Characteristics of thermophilic aerobic spore-forming bacteria with carbohydrate degrading activities isolated from Bulgarian thermal springs". Diploma of the Higher Attestation Commission, № 34838 / 17.01.2011.

## **1.2. PROFESSIONAL CAREER**

In 2000 Anna Tomova was appointed to the position of Biologist, NCP code 2211 in the Department of Extremophilic Bacteria at IM, where she remained until 2002. In the period 2002 - 2004 she successively held the positions of Research Associate III degree and Research Associate II degree in the Laboratory of Extremophilic Bacteria. From 2010 to 2011 she obtained the position of Research Associate I degree to the same unit. After defending her dissertation in 2011, Anna Tomova was appointed Assistant Professor at the IM, BAS

In connection with the participation of the candidate in the project "Multi-purpose center for adult education in a clean environment-ECO-Center", funded by the Erasmus + program of the EU, she was appointed as Assistant Professor to Scientific Research Center, Sofia University for the period 2015 - 2017. After a competition in 2017, Dr. Anna Tomova was appointed as Assistant Professor at the Department of General and Industrial Microbiology, FB, Sofia University, where she currently holds the position.

In the course of her educational and professional development Assistant Professor Anna Tomova has gained professional experience and skills in two main areas: research and teaching. The professional realization of the candidate is related to the topic of the competition and reflects current and promising areas of microbiology and in particular in the field of extremophilic microorganisms.

Assistant Professor Anna Tomova has developed as a scientist in well established institutions, such as IMB-BAS and Sofia University, where she actively participated in scientific life.

During her professional realization, she realized excellent opportunities to acquire additional qualifications, which she acquired during a three-month specialization in a foreign laboratory - Novozymes, Denmark (funded by FEMS), as well as a specialization in CNR, Italy. (Bilateral cooperation).

## **2. EVALUATION OF THE SUBMITTED DOCUMENTS**

### **2.1 ACCORDING TO THE REQUIREMENTS OF THE ACT FOR DEVELOPMENT OF THE ACADEMIC STAFF IN THE REPUBLIC OF BULGARIA.**

The general assessment is summarized in the table below.

Indicator	Submitted documents	Actual points	Minimal requirement
<b>A</b>	PhD thesis and the enlisted articles	<b>50</b>	<b>50</b>
<b>B</b>	Scientific publications in editions that are referred and indexed in world-famous bases (Web of science or Scopus)	<b>100</b>	<b>100</b>
<b>C</b>	<b>C7</b> - Scientific publications in editions that are referred and indexed after the PhD (Scopus); <b>C8</b> Articles in editions with SJR without IF <b>C9</b> – Book chapters	<b>205</b>	<b>200</b>
<b>D</b>	121 citations of 17 scientific articles (SCOPUS), 206 citations of 15 articles (non in SCOPUS)	<b>448</b>	<b>50</b>

**Conclusion for. 2.1:** The presented by the candidate documentation **complies to the Requirements of the Act for Development of the Academic Staff in the republic of Bulgaria and the regulation of its application.**

## **2.2 ACCORDING TO THE REQUIREMENTS OF THE REGULATION FOR THE DEVELOPMENT OF THE ACADEMIC STAFF IN SOFIA UNIVERSITY**

A total of **23** scientific papers were presented, **8** of them in journals with Q2 and **9** with Q3. **20** of the submitted scientific publications are in journals with impact factor, as the total impact factor of the candidate is **26,055**. In 6 of these publications, the candidate is the first author. The number of citations (excluding self-citations and related citations) is **326**. The project commitment of the candidate is expressed in her participation as a member of the team of **19** projects. The analysis of educational activity of Assistant Professor Anna Tomova for the last five academic years, shows extremely high workload and commitment in the learning process of the department. Under her leadership, 7 graduates of the department have successfully defended their diploma theses. The scientific expertise of the candidate has been successfully

integrated in two courses in the Bachelor's degree and one course in the Master's degree - Microbiology and Microbiological Control.

**Conclusion for. 2.2:** The presented by the candidate documentation **complies to the Requirements of the Regulation for the development of the academic staff of Sofia University.**

### **3. ASSESSMENT OF THE SCIENTIFIC CONTRIBUTIONS OF THE CANDIDATE**

The scientific-theoretical and scientific-applied contributions of the scientific papers submitted for participation in the competition can be systematized in four main directions, respectively: **A.** Isolation and characterization of cultivated bacteria from extreme niches and description of new biological species; **B.** Microbial enzymes and exopolysaccharides of biotechnological importance; **C.** Biodiversity of microbial communities in extreme niches; **D.** *Saccharomyces cerevisiae* as a model system for studying the state of rest.

These areas are relevant and fully meet the broad-spectrum research profile of the Department of General and Industrial Microbiology. Studies on the species diversity of cultivated and non-cultivated microflora in different types of extreme habitats have their potential practical applications related to the unique metabolic characteristics of the respective microbial taxa. The emphasized scientific interest of the candidate Dr. Anna Tomova in extremophilic microorganisms should highly evaluated, in view of their unique adaptive mechanisms - an area in which currently scientific knowledge is still limited and limited.

### **4. ASSESMENT OF THE TEACHING ACTIVITY OF THE CANDITATE**

As an Assistant Professor at the Department of General and Industrial Microbiology, Dr. Anna Tomova demonstrates extremely high workload and commitment in the learning process at the Department. Her teaching activity is expressed in the implementation of 5 courses in Bachelor's and Master's degrees. At the same time, she realized practical training in 9 courses of both educational degrees. He actively participates in the administration of the educational process in her capacity as Secretary of the Master Program Microbiology and Microbiological Control and as a member of the working group Agrobiotechnology at the Council of Specialties.

## CONCLUSION

In terms of volume, content and quality of the presented scientific materials and the active teaching activity of the only candidate in the announced competition for the academic position "Associate Professor" Assistant Professor Anna Tomova **meets the requirements** of ADASRB, the Regulations to it and the additional requirements of Sofia University.

In conclusion of everything stated in this opinion, I can summarize that the complex assessment of the submitted materials, as well as the overall teaching activity of the candidate Assistant Professor Anna Tomova gives me reason to convincingly propose to the scientific jury to choose Assistant Professor Anna Tomova for ASSOCIATE PROFESSOR in the professional field 4.3. Biological Sciences (General Microbiology and Biology of Extreme Microorganisms), announced for the needs of the Department of General and Industrial Microbiology, FB, Sofia University.

Associated prof. Mihail Iliev

03. 02 2022