### **STATEMENT**

By assoc. prof. Maria D. Zhelyazkova-Savova, MD, PhD

Member of the Scientific Jury, appointed by order of the Rector of MU-Varna

No. R-109-99/22.03.2024

### **About:**

Announced competition (SG No. 7 of 23.01.2024) for the academic position of "Associate professor" in "Pharmacology (incl. pharmacokinetics and chemotherapy)" in professional direction 7.1. Medicine, for the needs of the Department of Pharmacology and Clinical Pharmacology and Therapeutics, Faculty of Medicine at MU-Varna.

### Information about the procedure

By decision of a meeting of the Scientific Jury (Protocol No. 1 of 04/05/2024), I have been appointed to prepare an opinion on this competition.

The only candidate in the competition is chief assistant professor Antoaneta Borisova Georgieva, MD, PhD.

I have received from the "Career Development" department of the Medical University of Varna all the documents, references, and certificates necessary to prepare an opinion. The procedure is in accordance with the requirements of the Law on the Development of the Academic Staff in the Republic of Bulgaria (05.05.2018) and the Regulations of the University of Varna on the Development of the Academic Staff (15.09.2020)

## Brief biographical and professional data about the candidate

Antoineta Georgieva was born on 30.07.1985 in Ruse. She completed her medical education at MU-Varna in 2010. She briefly worked at a pharmacy, after which, in 2012, she joined the Department of preclinical and clinical pharmacology at MU-Varna as an assistant professor (2012-2017); thereafter, until now, she holds the position of a chief assistant professor. In the period 2015-2016, she was a doctoral student of independent training in the Department of Pharmacology and Clinical Pharmacology and Therapeutics with a successful defense of her thesis on the topic "Psychopharmacological effects of phenolic acids in experimental pharmacological studies".

She acquired her specialization in Pharmacology in 2021.

Antoineta Georgieva speaks excellent English.

Antoineta Georgieva is married and has two children.

## Evaluation of the candidate's qualitative and quantitative scientometric indicators

Antoaneta Georgieva participates in the present competition with:

- Habilitation thesis (100 points): monograph with a volume of 297 pages, entitled "Traditional Bulgarian spices lovage, savory, fenugreek/chimen – potential health benefits based on the content of polyphenols", published by MU-Varna in 2023 (ISBN 978-619-221-444-9)
- 2. Author's abstract of a doctoral dissertation (50 points)
- 3. 16 scientific publications/abstracts in scientific journals with SJR and/or IF (indexed in Scopus and/or Web of Science) (129.6 points), 12 of which have an impact factor. The total impact factor of these articles is 42.159.
- 4. 5 articles published in non-refereed peer-reviewed journals or conference proceedings without IF and SJR (not indexed) (72.5 points)
- 3 full-text publications in scientific journals and collections beyond the minimum scientometric requirements for holding the academic position "Associate professor" (12.48 points)

In 9 of the presented publications, A. Georgieva is the lead author; in other 9 she is the second or third author and subsequent in the others. This gives a clear idea of the candidate's significant participation and contribution in these scientific works. The summarizing scientometric indicator *h-index* is 3 according to SCOPUS and 4 according to Google Scholar.

Antoineta Georgieva has actively participated in 5 research projects, 2 of which at the Scientific Research Institute of the Ministry of Education and Science. She has taken part in 44 scientific forums. Her scientific output is visible to the international medical community. The academic reference, prepared by the Library of MU-Varna, mentions 7 citations in referenced and indexed world-famous databases, reflecting A. Georgieva's scientific activity in connection with her participation in the current competition. The author's own reference for her entire research career indicates 28 citations according to SCOPUS and 58 according to Google Scholar.

A. Georgieva's scientific interests are specified into several areas.

- The direction "Elucidation of the pharmacological effects of various plants and of isolated polyphenols (flavonoids and phenolic acids) in experimental models of diseases and conditions" is where the main scientific contributions of the candidate are achieved.
  - ✓ In a number of experimental models (of inflammation, organ damage, neuro psychiatric disorders, pain and estrogen-deficiency syndromes), protective effects of the flavonoid fustin isolated from sumac, Aronia melanocarpa fruit juice and chlorogenic acid have been demonstrated. These results are presented in the majority of the published articles.
  - ✓ The habilitation work of the candidate also belongs to this area of interest. The monograph dedicated to the potential health benefits of traditional Bulgarian

spices is of considerable interest. In an impressive volume of nearly 300 pages and based on a wide range of modern sources, the author reveals the well familiar lovage, savory and fenugreek - widely used in the Bulgarian national cuisine, not as spices, but as medicinal plants whose beneficial health properties have remained largely unknown until now. This is a large body of evidence on the possible protective effects against socially significant diseases demonstrated in suitable experimental settings (and in some cases also in clinical trials) using both extracts of the spices themselves and isolated polyphenols contained in them. Particularly valuable is the extensive information on the mechanisms underlying the numerous beneficial effects of the flavonoids and phenolic acids involved. With its high scientific and educational value, the monograph of A. Georgieva can serve as a mini-encyclopedia of Bulgarian spices, although presently limited to only a few. I would recommend that she continue and expand her work, which deserves admiration also in its current form. From the position of the role of this monograph as a habilitation work, it is important to note that it also reflects the author's own research.

- The strand "Behavioral effects of polyphenols (flavonoids and phenolic acids) in healthy rats" includes earlier works of A. Georgieva. Logical beginning in her scientific research is the administration of the investigated substances to intact animals. On the one hand, it is not surprising that some of the results show no change (pain threshold), but on the other hand, the improvement of some cognitive and psycho-emotional indicators by gallic acid and quercetin is promising and predetermines subsequent studies.
- An interesting direction from a methodological point of view is the one summarizing the characteristics of ovariectomy-induced estrogen deficiency in female rats as an appropriate experimental model of behavioral, metabolic, bone and other changes occurring in menopause.
- The last direction "Adverse drug reactions" is represented by a systematized overview dedicated to drugs with diabetogenic action, representing a valuable source of current information with important clinical significance.

# **Teaching activity**

Antoineta Georgieva has 12 years of teaching experience. Her study load is high, significantly exceeding the stipulated norm of 360 study hours — an average of 495 hours/year for the last 5 years, as can be seen from the attached report. She is involved in conducting seminars in pharmacology with students from the Medicine and Dentistry majors and in clinical pharmacology with medical students, including those from the English language program. She co-authored 4 study aids on pharmacology. With students, she is correct, demanding and fair.

### Conclusion

Antoaneta Borisova Georgieva is a built researcher with broad interests and excellent scientific-theoretical and practical training in the field of pharmacology and clinical pharmacology. With her scientific output, exceeding the requirements of the Law on the Development of the Academic Staff in the Republic of Bulgaria and the Regulations of the University of Varna in terms of quality and quantity, as well as with her many years of practice and accumulated teaching experience, she fully meets the criteria for occupying the academic position of "Associate Professor".

Knowing her work closely and based on my excellent impressions of her, I will confidently vote for Chief Assistant professor Antoaneta Georgieva, MD, PhD, to be elected as Associate Professor of "Pharmacology (incl. Pharmacokinetics and Chemotherapy)" in professional direction 7.1. Medicine, for the needs of the Department of Pharmacology and Clinical Pharmacology and Therapy, Faculty of Medicine at MU-Varna.

14.05.2024

Varna

Prepared the statement:

Заличено на основание чл. 5, §1, б. "В" от Регламент (ЕС) 2016/679

/ Assoc. Prof. M. Zhelyazkova-Savova, MD, PhD/