STATEMENT

by Prof. Bistra Dimitrova Kostova, PhD
Department: "Technology of drugs with biopharmacy", Faculty of Pharmacy, Medical University-Sofia, member of a scientific jury assigned by order **№ P -109-229/26.07.2024** of the Rector of Medical University - Varna

Concerning: Competition for occupying the academic position "**Associate Professor**" in the field of higher education 7. "Health and sport", by professional direction 7.3. "Pharmacy" and scientific specialty "Pharmaceutical technology and biopharmacy", with candidate Ch. Assist. Prof. **Viliana Eduardova Gugleva, PhD**

At the announced competition for "**Associate Professor**" in "Pharmaceutical technology and biopharmacy ", at the Department of Pharmaceutical Technologies, Faculty of Pharmacy, Medical University - Varna, the documents of the only participant **Chief Assistant Professor Viliana Eduardova Gugleva, PhD** were presented. The competition was announced in due course and was published in the State Gazett, issue **45** of **28. 05. 2024.**

I. Brief curriculum vitae and activities of the candidate

Viliana Eduardova Gugleva was born on 02.10.1987 and in 2006 she graduated from the High School of Foreign Languages "Ioan Ekzarh" in Varna with a profile in German. Between 2006-2007 she studied at the State University of Medicine and Pharmacy "Nicolae Testemitianu". From 2007 to 2011 she was a pharmacy student at the Medical University – Sofia, Faculty of Pharmacy. In 2011 she received the educational and qualification degree "Master of Pharmacy" with specialization in Industrial Pharmacy. On 01.01.2017 she acquired a specialty in " Pharmaceutical technology and biopharmacy" at the Medical University "Prof. Dr. Paraskev Stoyanov" Varna, where from July 2012 until 2021 the candidate was an assistant professor. From 2021 until at present - Chief Assistant Professor. In 2021, she defended her doctoral dissertation in the scientific specialty " Pharmaceutical technology and biopharmacy ".

She is a member of the American Chemical Society (ACS); Academy of Pharmaceutical Sciences (APS); Bulgarian Scientific Society of Pharmacy (BNDF) and the Union of Scientists in Varna. She speaks English, German and Russian.

For the competition Ch. Assist. Prof. Viliana Gugleva, PhD submitted the necessary documents in accordance with the requirements of the Law on the Development of the Academic Staff and the rules of Medical University -Varna for its implementation.

- ✓ application to the Rector for admission to participate in the competition;
- ✓ academic reference of publications, citations and scientific profiles;
- ✓ creative curriculum vitae;
- ✓ a certified true copy of the diploma for the obtained master's degree;

- ✓ a certified true copy of the diploma for the obtained doctor's degree;
- ✓ a certified true copy of a document for an acquired specialty;
- ✓ certificate of internship in the specialty;
- ✓ certificate of teaching experience;
- ✓ study load report;
- ✓ medical certificate;
- ✓ criminal record certificate;
- ✓ statement of credibility;
- ✓ declaration of author's consent;
- ✓ reference to the original scientific contributions;
- ✓ summary of the monographic work;
- ✓ summaries of scientific works in bulgarian and in english;
- ✓ list of participations in national and international scientific events;
- ✓ other documents related to scientific and teaching activities - evidence of participation in projects; documents certifying acquired additional qualification; documents certifying participation in courses and webinars.

II. Evaluation of the candidate's scientific activity

Ch. Assist. Prof. Viliana Gugleva, PhD presents the following scientific works for the competition:

1. Scientific publications - **17**, of which **13** with an Impact Factor JCR - Clarivate;
2. Participation in international scientific forums – **10** and participation in national forums **12**;
3. Participation in scientific projects - **2** of which: **1** - at the National Institute of Scientific Research and **1** - from the University of Varna;
4. According to the information provided, the candidate participated in the competition with **6** citations which exceeds the minimum requirements. After a more detailed reference, on Scopus citation database, the presence of **269** citations was found, which is an important indicator of the serious importance of the works;
5. Monograph – **1**, reviewed by Prof. Margarita Kaserova-Trajkova, Ph.D. and Assoc. Prof. Velichka Yordanova Andonova, Ph.D.

Of the **17** scientific publications presented - **13** are in journals with an impact factor JCR - Clarivate, with an impressive, total Impact Factor of **41.95**, **2** in other international publications, **1** in a Bulgarian journal and **1** published chapter of a collective monograph. A large part of the publications are in very prestigious journals in the field of pharmaceutical science, namely: *RSC Advances IF-3.9, Pharmaceutics IF-4.9, Gels IF-5, ACS Omega IF-4.13*, etc., which shows the great scientific value of Dr. Viliana Gugleva's research.

After a detailed analysis of the **17** publications presented by Ch. Assist. Prof. Gugleva, the following generalizations should be made regarding the scientific contributions. Doctor Gugleva works with priority in two main directions, which are mainly in the field of nano-sized dosage forms and development of applied hybrid gel systems, as well as development and technological characterization of phytoproducts.

1. *Development and optimization of nanosized dosage forms and hybrid structures as platforms for targeted delivery of medicinal substances*

Works on nanosized dosage forms are very important for modern technological science, with a view of overcoming their problems in terms of their stability, loading efficiency and precise targeting. In this line of research, the candidate's original and applied contributions are very significant (publications 1, 2, 3 and 10).

On this matter, part of the research is related to the development of original and optimized pH-sensitive niosomes, with high efficiency of Curcumin loading and improved cytotoxic and apoptogenic activity, compared to the pure substance. The pH-dependent release of the drug from the obtained systems enables their application in clinical practice in the therapy of bladder carcinoma and cutaneous T-cell lymphoma.

Niosomes, with a high degree of incorporation of Cannabidiol, were also obtained as carriers suitable for systemic administration. Sterically stabilized niosomes have also been developed, with controlled release of Cannabidiol while preserving its antineoplastic activity, improving pharmacological efficiency and potential application in the treatment of oncological diseases.

Ethosomes and transferosomes were comparatively studied as drug delivery systems for dermal application of Curcumin, and it was found that ethosomes have more suitable properties and more pronounced antiproliferative activity compared to transfersomes. These results enable the resulting ethosomes to be considered as a technological approach to increase the effectiveness of cutaneous T-cell lymphoma therapy.

A very interesting practical contribution is the investigation of the possibility of using hybrid structures based on gels with nanostructured lipid carriers. The resulting systems were technologically characterized and an optimal option for dermal application was proposed (publications 5 and 9).

2. *Technological development and characterization of phytoproducts.*

In recent years, phytoproducts have been of great interest and all technological optimizations that would increase the quality and therapeutic effect of the final forms obtained are of great importance. In this direction, the contributions are related to two main problems (publications 8 and 13).

A method for lyophilization of different types of algae from the waters of the Black Sea and from bioreactors has been developed. It has been established which types of algae the lyophilization process leads to an increase in their protein content, which would make them suitable for use as physical stabilizers for different types of systems.

The other contribution is related to the determination of the influence of altitude and temperature on the antioxidant activity of extracts from the flowers of Sambucus nigra L, from different regions of Bulgaria.

III. Teaching and learning activity

Ch. Assist. Prof. Viliana Gugleva participates in the teaching of the specialty "Pharmaceutical technology and biopharmacy", in the department of "Pharmaceutical technologies" at the Faculty of Pharmacy of the University of Varna. For the period 2021-2023, she has a study load of 460 hours per year on average, which significantly exceeds the norm.

IV. Conclusion

*The analysis of the scientific and teaching assets of **Ch. Assist. Prof. Viliana Gugleva, PhD** shows that they fully meet the requirements according to the regulations of the of the Law on the Development of the Academic Staff and the qualitative and quantitative criteria for occupying the academic position "**ASSOCIATE PROFESSOR**", specified in the Regulations for the conditions and procedures for acquiring scientific degrees and occupying academic positions in Medical University-Varna.*

1. She has acquired the degree "DOCTOR" in pharmacy in 2021.

2. She has a prominent teaching activity.

3. Her scientometric indicators exceed the quantitative criteria laid down in the Law on the Development of the Academic Staff and the Regulations for its implementation at the Medical University-Varna (with a required minimum for the total number of points – 400, the candidate submitted documents for 476.22 points).

Due to the aforementioned, I confidently give my POSITIVE assessment and suggest to the members of the scientific jury to support the awarding of the academic position "ASSOCIATE PROFESSOR" to Ch. Assist. Prof. Viliana Gugleva, PhD in professional direction 7.3 "Pharmacy", scientific specialty "Pharmaceutical technology and biopharmacy".

08.10.2024
Sofia **Prof. Bistra Kostova, PhD**